RAL-2UA2440BPJ

COMPUTED BY: CGM DATE: 3/06/14

CHECKED BY: JRR DATE:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
U-2579B	3D-20

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	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	C. S. PIPE (SE: SHOP ELONGATED) 15 .064	18 .064	24 .064	30 .064	36 .079	42 .109
-Y4- 104+80	RT	0397		876.4	EX																
-Y4- 111+00	LT	0399	OUT	886.3	883.3	883.1			48												
-Y4- 110+11	LT	IN	0400		882.3	EX															
-Y4RPB- 28+90	RT	IN	404A		885.5	881.6															
-Y4RPB- 28+90	RT	404A		884.6	881.6																
		404A	0404		881.6	878.4			64												
-Y4RPB- 28+45	RT	0404		882.6	877.9																
		0404	0402		877.9	850.7				200					X						
-Y4RPB- 26+81	RT	0401																			
		0401	0402		EX	851.2			48												
-Y4RPB- 26+43	RT	0402		864.7	850.2																
		0402	0403		850.2	847.6					76										
		403A	0403		870.0	847.6															
-Y4- 107+18	LT	0405																			
		0405	0403		865.5	847.6															
-Y4- 116+69	RT	0406							48												
-Y4- 118+44	LT	IN	0407		886.0	EX															
-Y4- 119+96	RT	0408	OUT		EX	866.0															
-Y4- 12+80	RT	0409	OUT	886.5	883.8	865.6										136					
-Y5A- 59+71	RT	0401	0402		893.0	EX				32											
-Y4- 136+84	CL	0426		841.2	EX																
-Y4- 137+20	RT	0427		838.2	835.2																
		0427	OUT		835.2	831.0			84												
-Y4- 137+33	RT	427A	0427		EX	835.9			12												
-Y4- 140+34	CL	0428		828.0	EX																
-Y4- 140+34	RT	0429			EX	811.0			16						X						
-Y6- 16+85	RT	0440						28													
-Y1DET- 26+31	LT	0445			896.5	887.5												128			
-Y1DET- 39+91	LT	0446			881.2	876.2													164		
-Y5DET- 15+01	LT	0447			934.0	920.0											116				
SHEET TOTALS								28	320	232	76					136	116	128	164		

LINE & STATION	FROM	TO	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
-Y4- 104+80	0397																											
-Y4- 111+00	0399	OUT																										
-Y4- 110+11	IN	0400		68																								
-Y4RPB- 28+90	IN	404A									72																	
-Y4RPB- 28+90	404A																											
	404A	0404																										
-Y4RPB- 28+45	0404																											
	0404	0402																										
-Y4RPB- 26+81	0401																											
	0401	0402																										
-Y4RPB- 26+43	0402																											
	0402	0403																										
	403A	0403																248												
-Y4- 107+18	0405																											3.800
	0405	0403																									420		
-Y4- 116+69	0406																											
-Y4- 118+44	IN	0407				32																						
-Y4- 119+96	0408	OUT															120											
-Y4- 12+80	0409	OUT																										
-Y5A- 59+71	0401	0402																										
-Y4- 136+84	0426																											
-Y4- 137+20	0427																											
	0427	OUT																										
-Y4- 137+33	427A	0427																										
-Y4- 140+34	0428																											
-Y4- 140+34	0429																											
-Y6- 16+85	0440																											
-Y1DET- 26+31	0445																											1.400
-Y1DET- 39+91	0446																											
-Y5DET- 15+01	0447																											
SHEET TOTALS				68		32					72						368									420		5.200

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	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G	CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	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
-Y4- 104+80	0397																		1							
-Y4- 111+00	0399	OUT	1													1			1							
-Y4- 110+11	IN	0400																								
-Y4RPB- 28+90	IN	404A																								
-Y4RPB- 28+90	404A		1													1			1							
	404A	0404																								
-Y4RPB- 28+45	0404		1												1				1							
	0404	0402																								
-Y4RPB- 26+81	0401																									
	0401	0402																								
-Y4RPB- 26+43	0402		1	5.0	4.5																	1				1
	0402	0403	1																			1				1
	403A	0403																								
-Y4- 107+18	0405																									
	0405	0403																								
-Y4- 116+69	0406																									
-Y4- 118+44	IN	0407																								
-Y4- 119+96	0408	OUT																								
-Y4- 12+80	0409	OUT	1													1			1							
-Y5A- 59+71	0401	0402																								
-Y4- 136+84	0426																		1							
-Y4- 137+20	0427		1													1			1							
	0427	OUT																								
-Y4- 137+33	427A	0427																								
-Y4- 140+34	0428																		1							
-Y4- 140+34	0429																									
-Y6- 16+85	0440																									
-Y1DET- 26+31	0445																									
-Y1DET- 39+91	0446																									
-Y5DET- 15+01	0447																									
SHEET TOTALS			7	5.0	4.5										1	4			8			2				2

LINE & STATION	FROM	TO	CONVERT EXISTING C.B. TO J.B.	CONVERT EXISTING O.T.C.B. TO 2GI	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
-Y4- 104+80	0397			1																		Special Detail, See Sheet 2D-4
-Y4- 111+00	0399	OUT																				
-Y4- 110+11	IN	0400																	0.4500			
-Y4RPB- 28+90	IN	404A																				OPEN END
-Y4RPB- 28+90	404A																				110	
	404A	0404																				
-Y4RPB- 28+45	0404																					
	0404	0402					2															
-Y4RPB- 26+81	0401																		0.5500			
	0401	0402																				
-Y4RPB- 26+43	0402																					
	0402	0403																				
	403A	0403																				
-Y4- 107+18	0405																					
	0405	0403																		0.362	80	(2 X 0.065, 2 X 0.116) WELDED STEEL
-Y4- 116+69	0406																				65	
-Y4- 118+44	IN	0407																	0.6600			
-Y4- 119+96	0408	OUT																	0.6600			
-Y4- 12+80	0409	OUT								2								4				
-Y5A- 59+71	0401	0402																	0.5500			
-Y4- 136+84	0426			1																		Special Detail, See Sheet 2D-4
-Y4- 137+20	0427																					
	0427	OUT																				
-Y4- 137+33	427A	0427																	0.4500			
-Y4- 140+34	0428			1																		Special Detail, See Sheet 2D-4
-Y4- 140+34	0429					1															8	
-Y6- 16+85	0440																					
-Y1DET- 26+31	0445																					
-Y1DET- 39+91	0446																					
-Y5DET- 15+01	0447																					
SHEET TOTALS				3		1	2			2								4	3.3200	0.362	263	

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