RAL-2UA2440BPJ

COMPUTED BY: CGM DATE: 3/06/14

CHECKED BY: JRR DATE:

PROJECT NO.	SHEET NO.
U-2579B	3D-15

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	C. S. PIPE (SE: SHOP ELONGATED) 15 .064	18 .064	24 .064	30 .064	36 .079	42 .109
669+80 -L-	LT	276B		853.9	851.2																
		267B	276A		851.2	850.9		84													
668+99 -L-	LT	276A		853.7	850.9																
		276A	OUT		850.9	842.0		32							X						
685+50 -L-	LT	0298		877.6	873.6																
		0298	0299		873.6	868.6									X						28
685+71 -L-	LT	0299		874.9	868.6																
		0299	OUT		868.6	843.0															
687+90 -L-	LT	0300		880.1	877.4																
		0300	0301		877.4	876.7															
687+90 -L-	CL	0301		879.5	876.7																
		0301	0302		876.7	874.2															
686+50 -L-	RT	0303		877.4	874.6																
		0303	0302		874.6	874.2		140													
687+90 -L-	RT	0302		880.3	874.2																
		0302	OUT		874.2	850.0		84							X						
688+40 -L-	RT	0305		871.0	868.3																
		0305	OUT		868.3	857.0		92							X						
691+00 -L-	LT	0306		883.6	880.6																
		0306	0307		880.6	880.3															
691+00 -L-	CL	0307		886.0	880.3																
		0307	0308		880.3	879.9															
691+00 -L-	RT	0308		886.8	879.9																
		0308	OUT		879.9	865.0			52						X						
11+36 -Y1-	RT	309A		922.0	922.0																
		309A	0309		922.0	918.0				16					X						
11+36 -Y1-	RT	0309		922.8	918.0																
		0309	0310		918.0	916.3				80											
12+16 -Y1-	RT	0310		921.0	916.3																
		0310	0311		916.3	915.1				52											
12+68 -Y1-	RT	0311		919.9	915.7																
		0311	OUT		915.7	915.2	X														
14+41 -Y1-	RT	0312						28													
15+20 -Y1-	LT	0313						28													
17+88 -Y1-	RT	0314								32											
19+20 -Y1-	RT	0315								36											
21+83 -Y1-	RT	0316	OUT		893.7	887.0															
22+75 -Y1-	RT	0317		915.0	912.3																
		0317	0318		912.3	912.0															
22+75 -Y1-	LT	0318		915.0	912.0																
		0318	0319		912.0	908.5		276													
SHEET TOTALS								764	52	216											28

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
669+80 -L-	276B																											
	267B	276A																										
668+99 -L-	276A																											
	276A	OUT																										
685+50 -L-	0298																											
	0298	0299																										
685+71 -L-	0299																											
	0299	OUT												408														
687+90 -L-	0300																											
	0300	0301								88																		
687+90 -L-	0301																											
	0301	0302								84																		
686+50 -L-	0303																											
	0303	0302																										
687+90 -L-	0302																											
	0302	OUT																										
688+40 -L-	0305																											
	0305	OUT																										
691+00 -L-	0306																											
	0306	0307		108																								
691+00 -L-	0307																											
	0307	0308									84																	
691+00 -L-	0308																											
	0308	OUT																										
11+36 -Y1-	309A																											
	309A	0309																										
11+36 -Y1-	0309																											
	0309	0310																										
12+16 -Y1-	0310																											
	0310	0311																										
12+68 -Y1-	0311																											
	0311	OUT			112																							
14+41 -Y1-	0312																											
15+20 -Y1-	0313																											
17+88 -Y1-	0314																											
19+20 -Y1-	0315																											
21+83 -Y1-	0316	OUT					112																					3.400
22+75 -Y1-	0317																											
	0317	0318								96																		
22+75 -Y1-	0318																											
	0318	0319																										
SHEET TOTALS				108	112		112			268	84			408														3.400

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	CONVERT EXISTING C.B. TO J.B.	CONVERT EXISTING O.T.C.B. TO 2GI
669+80 -L-	276B		1													1	1											
	267B	276A																										
668+99 -L-	276A		1													1	1											
	276A	OUT																										
685+50 -L-	0298																											
	0298	0299																										
685+71 -L-	0299		1	1.3											1				1									
	0299	OUT																										
687+90 -L-	0300		1													1	1											
	0300	0301																										
687+90 -L-	0301		1													1			1									
	0301	0302																										
686+50 -L-	0303		1													1	1											
	0303	0302																										
687+90 -L-	0302		1	1.1												1	1											
	0302	OUT																										
688+40 -L-	0305		1													1			1									
	0305	OUT																										
691+00 -L-	0306		1													1			1									
	0306	0307																										
691+00 -L-	0307		1	0.7												1			1									
	0307	0308																										
691+00 -L-	0308		1	1.9												1	1											
	0308	OUT																										
11+36 -Y1-	309A																											
	309A	0309																										
11+36 -Y1-	0309		1												1					1								
	0309	0310																										
12+16 -Y1-	0310		1												1					1								
	0310	0311																										
12+68 -Y1-	0311		1												1					1								
	0311	OUT																										
14+41 -Y1-	0312																											
15+20 -Y1-	0313																											
17+88 -Y1-	0314																											
19+20 -Y1-	0315																											
21+83 -Y1-	0316	OUT																										
22+75 -Y1-	0317		1													1					1							
	0317	0318																										
22+75 -Y1-	0318		1													1					1							
	0318	0319																										
SHEET TOTALS			16	5.0											4	12	6		5	3	2							

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
669+80 -L-	276B																			
	267B	276A																		
668+99 -L-	276A																			
	276A	OUT	2																	
685+50 -L-	0298											1								BERM DITCH OUTLET
	0298	0299									1									
685+71 -L-	0299																			
	0299	OUT																		
687+90 -L-	0300																			
	0300	0301																		
687+90 -L-	0301																			
	0301	0302																		
686+50 -L-	0303																			
	0303	0302																		
687+90 -L-	0302																			
	0302	OUT	2											1						PREFORMED SCOUR HOLE
688+40 -L-	0305																			
	0305	OUT	2																	
691+00 -L-	0306																			
	0306	0307																		
691+00 -L-	0307																			
	0307	0308																		
691+00 -L-	0308																			
	0308	OUT		2																
11+36 -Y1-	309A											1								BERM DITCH OUTLET
	309A	0309			1															
11+36 -Y1-	0309																		24	
	0309	0310																		
12+16 -Y1-	0310																		52	
	0310	0311																		
12+68 -Y1-	0311																		48	
	0311	OUT																		
14+41 -Y1-	0312																		24	
15+20 -Y1-	0313																		20	
17+88 -Y1-	0314																		92	
19+20 -Y1-	0315																			
21+83 -Y1-	0316	OUT																	25	
22+75 -Y1-	0317																			
	0317	0318																	134	
22+75 -Y1-	0318																			
	0318	0319																		
SHEET TOTALS			6	2	1						1	2		1					419	

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