RALD071

COMPUTED BY:	BRC	DATE:	1/26/16
CHECKED BY:	BJH	DATE:	8/22/16

PROJECT NO.	SHEET NO.
R-2915C	3D-10

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)

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

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 (RCP, CSP, CAAP, or HDPE) 15	18	24	30	36	48	DO NOT USE RCP	DO NOT USE HDPE	DO NOT USE PVC	C. S. PIPE 15 .064	18 .064	24 .064	30 .079	42 .109	48 .109	R. C. PIPE CLASS III 12	15	18	24	30	36	42	48	R. C. PIPE CLASS IV 12	15	18	24	15" WELDED STEEL PIPE 0.28" THICK, GRADE B IN SOIL	15" WELDED STEEL PIPE 0.28" THICK, GRADE B NOT N SOIL	18" WELDED STEEL PIPE 0.31" THICK, GRADE B IN SOIL	18" WELDED STEEL PIPE 0.31" THICK, GRADE B NOT IN SOIL	24" WELDED STEEL PIPE 0.38" THICK, GRADE B IN SOIL	24" WELDED STEEL PIPE 0.38" THICK, GRADE B NOT IN SOIL	30" WELDED STEEL PIPE 0.47" THICK, GRADE B IN SOIL	30" WELDED STEEL PIPE 0.47" THICK, GRADE B NOT IN SOIL	36" WELDED STEEL PIPE 0.53" THICK, GRADE B IN SOIL	36" WELDED STEEL PIPE 0.53" THICK, GRADE B NOT IN SOIL	6" PVC PIPE (SPRING BOX)	6" DUCTILE IRON PIPE (SPRING BOX)	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	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.	CONCRETE TRANSITIONAL SECTION D.I. STD. 852.06	CONCRETE TRANSITIONAL SECTION G.D.I. (SEE DETAIL SHEET 2C-2)	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. TYPE "D" STD. 840.19 OR STD. 840.28	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. FLAT) FRAME W/ 2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34 OR STD. 840.46	T.B.D.I. STD. 840.35 OR STD. 840.46	T.B. 2GI SPECIAL DESIGN	T.B. 3GI SPECIAL DESIGN	SPRING BOX STD. 840.41	15" PARALLEL PIPE END SECTION STD. 310.02	CONVERT EXIST. DI TO 3GI SPECIAL DESIGN	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	CONVERT EXISTING T.B.J.B. TO 2GI	CONVERT TB2GI TO TBJB W/ SLAB LID	15" SIDE DRAIN PIPE ELBOW	18" SIDE DRAIN PIPE ELBOW	24" SIDE DRAIN PIPE ELBOW	36" SIDE DRAIN PIPE ELBOW	18" C.S. ELBOW	30" C.S. ELBOW	BERM DITCH OUTLET (PER EACH)	PREFORMED SCOUR HOLE (PER EACH)	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
L 287+26	64 LT																																																																																			8			8	REMOVE HW, REMOVE 18" RCP
L 407+56	42 RT																																																																																				3				
L 337+05	48 LT																																																																																				7				
L 361+23	40 LT																																																																																				8				
L 352+71	13 LT																																																																																				6			60	REMOVE DI, REMOVE 18" RCP
L 351+43	32 LT																																																																																				235				REMOVE 2 HW
L 356+15	28 LT																																																																																				3				
L 302+56	20 LT																																																																																				128				REMOVE 2 HW
L 339+67	18 LT																																																																																			3				
L 326+55	56 LT																																																																																				17			8	REMOVE PART OF 24" RCP
L 341+99	35 LT																																																																																				4				
L 367+84	36 LT																																																																																				12			4	REMOVE MH, REMOVE PART OF 24" RCP
L 393+82	31 RT																																																																																				3				
L 401+75	77 RT																																																																																				6				REMOVE HW
L 399+59	76 RT																																																																																				4				
L 263+97	30 RT																																																																																				5				REMOVE HW
L 443+19	34 RT																																																																																				3			8	REMOVE PART OF 18" RCP
L 419+75	52 RT																																																																																				4				
L 416+74	87 RT																																																																																				2				REMOVE HW
L 434+88	82 LT																																																																																							100	REMOVE PART OF 10" CMP
L 435+99	67 RT																																																																																						4	REMOVE HW, REMOVE PART OF 42" RCP
L 426+12	41 RT																																																																																						46	REMOVE SPRING BOX & HW, REMOVE 66" RCP
L 426+12	89 RT																																																																																						42	REMOVE DI, REMOVE 15" HDPE
Y15 13+72	17 RT																																																																																							21	REMOVE 18" CMP
Y15 12+65	8 RT																																																																																						97	REMOVE 36" CMP
Y15 12+32	14 LT																																																																																						21	REMOVE 15" CMP
L 446+36	107 LT																																																																																						35	REMOVE JB, REMOVE 18" RCP
L 446+29	93 LT																																																																																						116	REMOVE JB, REMOVE 12" HDPE
L 446+63	20 LT																																																																																						41	REMOVE 12" HDPE
L 446+39	26 RT																																																																																						50	REMOVE HW, REMOVE 54" RCP
L 446+34	127 RT																																																																																						49	REMOVE 18" RCP
L 293+71	5 LT																																																																																						8	REMOVE PART 24" RCP
L 290+22	73 LT																																																																																						45	REMOVE 18" RCP
L 308+95	70 LT																																																																																						50	REMOVE DI & HW, REMOVE 18" RCP
L 449+63	5 RT																																																																																						120	REMOVE 15" CMP
L 450+84	9 RT																																																																																						60	REMOVE 15" CMP
L 451+69	6 RT																																																																																						29	REMOVE 15" CMP
L 318+28	37 RT																																																																																						157	REMOVE 18" CMP
L 365+10	40 LT																																																																																						40	REMOVE 24" CMP
L 347+58	69 LT																																																																																							146	REMOVE DI, REMOVE 18" RCP
Y4 11+18	104 RT																																																																																						75	REMOVE DI, REMOVE 24" CMP
L 284+98	7 LT																																																																																						45	REMOVE HW, REMOVE 28" RCP
L 454+33	56 RT																																																																																						44	REMOVE 15" RCP
L 458+00	19 RT																																																																																					0.090		REMOVE DI
L 456+87	28 LT																																																																																							223	REMOVE DI, REMOVE 15" RCP
L 282+21	20 RT																																																																																						42	REMOVE 18" RCP
L 460+49	73 LT																																																																																							47	REMOVE BDO, REMOVE 15" CMP
Y4 14+28	60 RT																																																																																						39	REMOVE 18" CMP
Y1A 12+11	4 RT																																																																																						32	REMOVE 18" RCP
L 258+86	7 LT																																																																																							60	REMOVE 18" CMP
SHEET TOTALS																																																																																						461		0.090	1972	