COMPUTED BY:	TDO	DATE:	8/25/2022
CHECKED BY:	AMH	DATE:	8/25/2022

RAL-TOVEI

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-2561CA	3D-7

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)

Table 1: Drainage pipe (RCP, CSP, CAAP, HDPE, or PVC)

STATION / SIZE / THICKNESS OR GAUGE	LOCATION (LT, RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	6"	12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC
22+85 -YDET-	LT	2B106			27.4	26.1					48'							X			
22+86 -YDET-	RT	2B101			29.0	28.9				28'								X			
24+00 -YDET-	CL	2B102			28.6	28.4															
26+82 -YDET-	RT	2B110			35.1	34.7				64'								X			
28+89 -YDET-	LT	2B104			33.5	33.1				32'								X			
30+65 -YDET-	CL	2B210			34.6	34.4															
33+00 -YDET-	CL	2B201			33.8	33.3															
36+66 -YDET-	CL	2B211			34.5	32.9															
41+50 -YDET-	CL	2B212			35.8	35.5															
47+50 -YDET-	CL	2B306			35.0	34.5															
48+29 -YDET-	CL	2B301																			
		2B301	2B303		34.4	34.2															
49+00 -YDET-	RT	2B302		37.1																	
		2B302	2B303		34.4	34.2				36'								X			
48+31 -YDET-	RT	2B303		38.5																	
		2B303	2B304		34.2	34.0															
49+00 -YDET-	LT	2B305			35.1	34.8					40'							X			
SHEET TOTALS										160'	88'										
PROJECT TOTALS										1844'	1096'	1564'	268'		40'						
SAY																					

Table 2: R.C. Pipe Class V, Class III, Class IV

STATION	STRUCTURE NO. FROM	TO	CL. V 15"	CL. V 18"	CL. V 24"	CL. V 30"	CL. V 36"	CL. V 42"	CL. V 48"	CL. III 12"	CL. III 15"	CL. III 18"	CL. III 24"	CL. III 30"	CL. III 36"	CL. III 42"	CL. III 48"	CL. IV 15"	CL. IV 18"	CL. IV 24"	CL. IV 30"	CL. IV 36"	CL. IV 42"	CL. IV 48"
24+00 -YDET-	2B102																		60'					
30+65 -YDET-	2B210		48'																					
33+00 -YDET-	2B201				64'																			
36+66 -YDET-	2B211										80'													
41+50 -YDET-	2B212										76'													
47+50 -YDET-	2B306			60'																				
	2B301	2B303			176'																			
SHEET TOTALS			48'	60'	240'						156'								60'					
PROJECT TOTALS			236'	244'	316'	244'	92'				796'	912'	1208'	1248'	1416'			952'	60'		64'	112'		100'
SAY																								

Table 3: Endwalls, quantities for drainage structures, frames and grates

STATION	STRUCTURE NO. FROM	TO	ENDWALLS STD. 838.01, 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS R.C.P.	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 (EACH) DROP INLET	CATCH BASIN
49+00 -YDET-	2B302				1								
48+31 -YDET-	2B303				1								
					4								
SHEET TOTALS					6								
PROJECT TOTALS			12.8		85	29.4		9	2	3	4	12	
SAY			13			30							

*TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B')

Table 4: Structures

STATION	STRUCTURE NO. FROM	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE 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. (N.S. SAG) FRAME WITH TWO GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME WITH TWO GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	T.B.D.I. STD. 840.35	M.H. FRAME AND COVER STD. 840.54	4" CONCRETE PAVED DITCH S.Y.	SPECIAL TEMPORARY T.B.J.B. (SEE DETAIL SHEET 2C-3)
49+00 -YDET-	2B302				1				1						
48+31 -YDET-	2B303												1		1
					4				4						
SHEET TOTALS					5				5				1		1
PROJECT TOTALS		11	11	22	32	1	9	30	8	15	2	7	3	22	1
SAY															

Table 5: Elbows, flowable fill, pipe removal and remarks

STATION	STRUCTURE NO. FROM	TO	15" DRAINAGE PIPE ELBOWS NO.	18" DRAINAGE PIPE ELBOWS NO.	FLOWABLE FILL C.Y.	PIPE REMOVAL LIN. FT.	REMARKS
22+85 -YDET-	2B106					48"	TEMPORARY PIPE TO BE REMOVED WITH DETOUR
22+86 -YDET-	2B101					28'	TEMPORARY PIPE TO BE REMOVED WITH DETOUR
24+00 -YDET-	2B102					60'	TEMPORARY PIPE TO BE REMOVED WITH DETOUR
26+82 -YDET-	2B110					64'	TEMPORARY PIPE TO BE REMOVED WITH DETOUR
28+89 -YDET-	2B104					32'	TEMPORARY PIPE TO BE REMOVED WITH DETOUR
30+65 -YDET-	2B210					48'	TEMPORARY PIPE TO BE REMOVED WITH DETOUR
33+00 -YDET-	2B201					64'	TEMPORARY PIPE TO BE REMOVED WITH DETOUR
36+66 -YDET-	2B211					80'	TEMPORARY PIPE TO BE REMOVED WITH DETOUR
41+50 -YDET-	2B212					76'	TEMPORARY PIPE TO BE REMOVED WITH DETOUR
47+50 -YDET-	2B306					60'	TEMPORARY PIPE TO BE REMOVED WITH DETOUR
	2B301	2B303				176'	TEMP. 2@24" RCP TO BE REMOVED WITH DETOUR
	2B302	2B303				36'	TEMPORARY PIPE TO BE REMOVED WITH DETOUR
	2B303	2B304					OUTLET PIPES QUANTIFIED AS STRUCTURE 1206
49+00 -YDET-	2B305					40'	TEMPORARY PIPE TO BE REMOVED WITH DETOUR
							TEMP. INLETS FOR DETOUR CONST. PHASING
SHEET TOTALS						812'	SHEET TOTALS
PROJECT TOTALS			30	6	4.82	1776'	PROJECT TOTALS
SAY					5.00		SAY

ABBREVIATIONS

C.B.	CATCH BASIN
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
J.B.	JUNCTION BOX
M.H.	MANHOLE
N.S.	NARROW SLOT
R.C.	REINFORCED CONCRETE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX
W.S.	WIDE SLOT