BELAM-NEW

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PROJECT NO.	SHEET NO.
R-2707E	3D-1

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 %
L 857+00	70	LT	0401A		670.3			
			0401A	0401B		667.5	667.0	
L 855+00	70	LT	0401B		670.1			
			0401B	0401		667.0	666.2	
L 853+00	73	LT	0401		669.5			
			0401	0402		666.0	665.5	
L 852+00	76	LT	0402		669.6			
			0402	0403		665.5	665.0	0.3
L 851+10	78	LT	0403		669.8			
			0403	0404		665.0	664.7	0.4
L 851+10	17	LT	0404		670.7			
			0404	0409		664.7	663.4	0.5
L 859+00	0	CL	0405		671.6			
			0405	0406		668.9	666.6	
L 856+00	0	CL	0406		669.4			
			0406	0407		666.4	663.4	
L 853+00	0	CL	0407		667.7			
			0407	0408		662.9	662.5	
L 851+66	0	CL	0408		667.6			
			0408	0409		662.5	662.4	
L 851+10	0	CL	0409		667.7			
			0409	0410		661.9	661.8	
L 851+10	17	RT	0410		670.7			
			0410	0412		661.8	661.6	
L 851+25	80	RT	0411		669.8			
			0411	0412		667.0	666.8	
L 851+10	80	RT	0412		669.8			
			0412	0414		661.6	657.1	
L 852+00	101	RT	0413		667.0			
			0413	0414		664.3	658.3	
L 851+10	115	RT	0414		662.0			
			0414	0415		657.1	649.0	
L 862+60	0	CL	0416		680.8			
			0416	0418		678.0	673.8	
L 862+00	70	LT	0417		676.8			
			0417	0418		674.0	673.8	
L 862+60	70	LT	0418		678.7			
			0418	0419		673.8	662.1	2.4
L 866+18	0	CL	0501		696.7			
			0501	0503		694.0	692.2	
L 866+50	70	LT	0502		696.7			
			0502	0503		693.9	692.2	
L 866+18	70	LT	0503		694.9			
			0503	0504		692.2	673.2	3.3
L 871+35	89	RT	0506		720.2			
			0506	0507		717.4	717.1	
L 871+35	0	CL	0507		721.0			
			0507	0509		717.1	716.9	
L 871+80	70	LT	0508		724.7			
			0508	0509		722.0	720.0	

FROM	TO	Side Drain Pipe (RCP, CSP, CAAP, HDPE, PVC, or PP PIPE) 15	18	24	30	36	42	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE HDPE	DO NOT USE PVC	DO NOT USE PP PIPE	C. S. PIPE 15 .064	18 .064	24 .064	36 .079
0401A																
0401A	0401B															
0401B																
0401B	0401															
0401																
0401	0402															
0402																
0402	0403															
0403																
0403	0404															
0404																
0404	0409															
0405																
0405	0406															
0406																
0406	0407															
0407																
0407	0408															
0408																
0408	0409															
0409																
0409	0410															
0410																
0410	0412															
0411																
0411	0412															
0412																
0412	0414				36			X								
0413																
0413	0414	88														
0414																
0414	0415				64			X								
0416																
0416	0418															
0417																
0417	0418															
0418																
0418	0419	40						X								
0501																
0501	0503															
0502																
0502	0503															
0503																
0503	0504	48						X								
0506																
0506	0507															
0507																
0507	0509															
0508																
0508	0509															
SHEET TOTALS		176			100											

FROM	TO	R. C. PIPE CLASS III 15	18	24	30	36	42	48	R. C. PIPE CLASS IV 15	18	24	30	36	42	48	R. C. PIPE CLASS V 30	48
0401A																	
0401A	0401B								192								
0401B																	
0401B	0401								192								
0401																	
0401	0402									96							
0402																	
0402	0403									88							
0403																	
0403	0404									60							
0404																	
0404	0409		16														
0405																	
0405	0406	296															
0406																	
0406	0407		296														
0407																	
0407	0408			132													
0408																	
0408	0409			52													
0409																	
0409	0410				16												
0410																	
0410	0412				60												
0411																	
0411	0412	12															
0412																	
0412	0414																
0413																	
0413	0414																
0414																	
0414	0415																
0416																	
0416	0418																
0417																	
0417	0418								56								
0418																	
0418	0419																
0501																	
0501	0503																
0502																	
0502	0503	28															
0503																	
0503	0504																
0506																	
0506	0507																
0507																	
0507	0509																
0508																	
0508	0509	44															
SHEET TOTALS		380	312	184	76				440	244							

FROM	TO	42" R.C. PIPE CULVERTS, CONTRACTOR DESIGN	48" R.C. PIPE CULVERTS, CONTRACTOR DESIGN	16" WELDED STEEL PIPE 0.281" THICK, GRADE B (50% IN SOIL, 50% NOT IN SOIL)	18" WELDED STEEL PIPE 0.312" THICK, GRADE B (50% IN SOIL, 50% NOT IN SOIL)	30" WELDED STEEL PIPE 0.500" THICK, GRADE B (50% IN SOIL, 50% NOT IN SOIL)	42" WELDED STEEL PIPE 0.625" THICK, GRADE B (50% IN SOIL, 50% NOT IN SOIL)	48" WELDED STEEL PIPE 0.688" THICK, GRADE B (50% IN SOIL, 50% NOT IN SOIL)	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.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G	
0401A										1							
0401A	0401B																
0401B										1							
0401B	0401																
0401										1							
0401	0402																
0402										1							
0402	0403																
0403										1							
0403	0404																
0404										1	1.0						
0404	0409																
0405										1							
0405	0406																
0406										1							
0406	0407																
0407										1							
0407	0408																
0408										1	0.1						
0408	0409																
0409										1	0.8						
0409	0410																
0410										1	3.9						
0410	0412																
0411										1	0.5						
0411	0412																
0412										1	3.3						
0412	0414																
0413										1							
0413	0414																
0414										1							
0414	0415																
0416										1							
0416	0418			68													
0417										1							
0417	0418																
0418										1							
0418	0419																
0501										1							
0501	0503			68													
0502										1							
0502	0503																
0503										1							
0503	0504																
0506										1							
0506	0507				88												
0507										1							
0507	0509				68												
0508										1							
0508	0509																
SHEET TOTALS				136	156					25	9.6						

FROM	TO	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 WITH GRATE STD. 840.20	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.J.B. STD. 840.34	T.B.D.I. STD. 840.35	SPRING BOX STD. 840.41	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING D.I. TO J.B. w/ MH	ADJUST D.I.
0401A					1			1											
0401A	0401B																		
0401B					1			1											
0401B	0401																		
0401					1			1											
0401	0402																		
0402					1			1											
0402	0403																		
0403					1			1											
0403	0404																		
0404								1							1				
0404	0409																		
0405					1					1									
0405	0406																		
0406					1					1									
0406	0407																		
0407				1						1									
0407	0408																		
0408				1						1									
0408	0409																		
0409				1						1									
0409	0410																		
0410								1							1				
0410	0412																		
0411					1			1											
0411	0412																		
0412					1			1											
0412	0414																		
0413					1					1									
0413	0414																		
0414													1				1		
0414	0415																		
0416					1					1									
0416	0418																		
0417					1			1											
0417	0418																		
0418					1			1											
0418	0419																		
0501					1					1									
0501	0503																		
0502					1			1											
0502	0503																		
0503					1			1											
0503	0504																		
0506					1					1									
0506	0507																		
0507					1					1									
0507	0509																		
0508					1			1											
0508	0509																		
SHEET TOTALS				3	19			14		10			1		2		1		

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	18" SLUICE GATE (25" SIZE SLUICE GATE)	24" SLUICE GATE (32" SIZE SLUICE GATE)	30" SLUICE GATE (38.75" SIZE SLUICE GATE)	BERM DITCH OUTLET STD. 850.10	BERM DITCH OUTLET STD. 850.11	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
0401A																	
0401A	0401B																
0401B																	
0401B	0401																
0401																	
0401	0402																
0402																	
0402	0403																
0403																	
0403	0404																
0404																	
0404	0409																
0405																	
0405	0406																
0406																	
0406	0407																
0407																	
0407	0408																
0408																	
0408	0409																
0409																	
0409	0410																
0410																	
0410	0412																
0411																	
0411	0412																
0412																	
0412	0414																
0413																	
0413	0414																
0414																	
0414	0415																
0416																	
0416	0418																
0417																	
0417	0418																
0418																	
0418	0419	2															
0501																	
0501	0503																
0502																	
0502	0503																
0503																	
0503	0504	2															
0506																	
0506	0507																
0507																	
0507	0509																
0508																	
0508	0509																
SHEET TOTALS		4															

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