COMPUTED BY: JTJ	DATE: 8/11/04
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
B-3808	3-B

MULKEY ENGINEERS & CONSULTANTS
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LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

STATION	LOCATION (LT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL
13+45 -DET-	RT	1					
17+10 -DET-	LT	2					
17+06 -DET-	CL	3					
12+98 -L-	CL	6			3188.50	3185.92	
13+45 -L-	RT	7					
14+75 -L-	RT	8					
16+85 -L-	RT	9			3174.50	3171.00	
19+95 -L-	LT	10		3162.28			
19+95 -L-	LT	10	11		3158.86	3157.13	
TOTAL							

STATION	CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) 12"	15"	18"	24"	30"	36"	42"	48"	BITUMINOUS COATED C.S. PIPE TYPE B (UNLESS NOTED OTHRWISE) (NON COATED)* 12" .064	15" .064	18" .064	24" .064	24"	30" .079	30"	36" .079	36"	42" .109	42"	48" .109	48"
13+45 -DET-										28*											
17+10 -DET-										24*											
17+06 -DET-												60*									
12+98 -L-					56																
13+45 -L-																					
14+75 -L-																					
16+85 -L-														68							
19+95 -L-																					
19+95 -L-			36																		
TOTAL			36		56					52*		60*		68							

STATION	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 OR STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	* TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. *FT. A 5.0' THRU 10.0'	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	
13+45 -DET-													
17+10 -DET-													
17+06 -DET-													
12+98 -L-													
13+45 -L-	28												
14+75 -L-			44										
16+85 -L-					2.0								
19+95 -L-						1							
19+95 -L-													
TOTAL	28		44		2.0	1							

STATION	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME & GRATE STD. 840.16	M.D.I. TYPE "A" STD. 840.17 OR 840.26	M.D.I. TYPE "B" STD. 840.18 OR 840.27	M.D.I. TYPE "D" STD. 840.19 OR 840.28	M.D.I. FRAME WITH GRATE STD. 840.22	M.D.I. FRAME WITH TWO GRATES STD. 840.22	M.D.I. (N.S.) FRAME WITH GRATE STD. 840.24	M.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	M.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.29	J.B. STD. 840.31 OR 840.32	T.B.D.I. STD. 840.35	CORR. STEEL ELBOWS NO. & SIZE	CONC. COLLARS CL. "B" C.Y. STD 840.72	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	PIPE REMOVAL LIN.FT.	REMARKS
13+45 -DET-																28	TEMPORARY, NON COATED
17+10 -DET-																84	TEMPORARY, NON COATED
17+06 -DET-																60	TEMPORARY, NON COATED
12+98 -L-																40	
13+45 -L-																	
14+75 -L-																	
16+85 -L-																60	
19+95 -L-										1		1					
19+95 -L-																42	
TOTAL										1		1				314	

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
M.D.I.	MEDIAN DROP INLET
M.D.I. (N.S.)	MEDIAN DROP INLET (NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUCTION BOX

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 54" & OVER)

STATION	LOCATION (LT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) 54"	60"	66"	72"	78"	84"
17+85 -DET-	CL	4											
17+95 -DET-	CL	5											
TOTAL													

STATION	NON COATED C.S. PIPE 54" .109	54" .138	54" .168	54" SHOP ELON-GATED .138	54" SHOP ELON-GATED .168	60" .138	60" .168	66" .138	66" .168	72" .138	72" .168	STRUCTURAL PLATE PIPE 60" 12	60" 10	66" 12	66" 10	72" 12	72" 10
17+85 -DET-										108							
17+95 -DET-										104							
TOTAL										212							

STATION	REINFORCED ENDWALLS STD. 838.40 OR STD. 838.70 (UNLESS NOTED OTHERWISE) WITH R.C. - C.Y.	WITH C.S. - C.Y.	MASONARY DRAINAGE STRUCTURES CUBIC YARDS	TEMPORARY SANDBAG HEADWALL (SEE DETAIL SHEET 2-R)	REINF. CONC. FLARED END SECTIONS NO. & SIZE	CORR. STEEL FLARED END SECTIONS NO. & SIZE	REINF. CONC. ELBOWS NO. & SIZE	CORR. STEEL ELBOWS NO. & SIZE	CONC. COLLARS CL. "B" C.Y. STD 840.72	PIPE REMOVAL LIN.FT.	REMARKS
17+85 -DET-		10.6								108	TEMPORARY, NON COATED, ENDWALL RT
17+95 -DET-				402.34						104	TEMPORARY, NON COATED, HEADWALL LT (SEE DETAIL SHEET 2-R)
TOTAL		10.6		402.34						212	

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
M.D.I.	MEDIAN DROP INLET
M.D.I. (N.S.)	MEDIAN DROP INLET (NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUCTION BOX

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