COMPUTED BY: MJJ DATE: 2-16-2016
CHECKED BY: SKR DATE: 3-7-2016

PROJECT REFERENCE NO.	SHEET NO.
B-4461	3B-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

STATION / SIZE / THICKNESS OR GAUGE	LOCATION (LT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12"	15"	18"	24"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	C.S. PIPE (UNLESS NOTED OTHRWISE) 12"	15"	18"	24"	30"	36"	42"	48"	CLASS III R.C. PIPE (UNLESS OTHERWISE NOTED) 12"	15"	18"	24"	30"	36"	42"	48"	ENDWALLS STD. 838.01, 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')	LIN. *FT. 5.0' THRU 10.0' A	LIN. *FT. 10.0' AND ABOVE B	* TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. "A" + (1.3 X COL. B)	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	T.B.D.I. STD. 840.35 OR 840.46	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.29	REMARKS
-L- 18+04.00	LT	0401		173.2																														1								1		1		TB 2GI
-L- 18+04.00	LT	0401	0400		169.0	169.0			16			X																																			
-L- 19+98.00	LT	0402		173.9																														1								1		1		TB 2GI
-L- 19+98.00	LT	0402	0403		169.3	167.5			16			X																																			
-LDET- 17+30.00	RT	0408							24																																						DETOUR PIPE TO BE RETAINED
TOTAL									56																									2								2		2		

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I. (N.S.)	GRATED 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 JUNCTION BOX

TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH STRAIGHT	LENGTH SHOP CURVED	LENGTH DOUBLE FACED	WARRANT POINT APPROACH END	WARRANT POINT TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH APPROACH END	FLARE LENGTH TRAILING END	W APPROACH END	W TRAILING END	ANCHORS GRAU 350 TL-3	ANCHORS TYPE III	IMPACT ATTENUATOR TYPE 350 EA	G	NG	SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS
-L-	17+71.48	18+52.73	RT	81.25'			BRIDGE		4.75'	9'	62.50'		1.25'		1	1							
-L-	17+52.14	18+33.39	LT	81.25'				BRIDGE	4.75'	9'		62.50'		1.25'	1	1							
-L-	19+90.61	20+71.86	RT	81.25'				BRIDGE	4.75'	9'		62.50'		1.25'	1	1							
-L-	19+71.22	20+52.47	LT	81.25'			BRIDGE		4.75'	9'	62.50'		1.25'		1	1							
		SUBTOTAL		325.00'											4	4							
		LESS DEDUCTIONS:																					
		GRAU 350 TL-3 4@50'		-200.00'																			
		TYPE III 4@18.75'		-75.00'																			
		TOTAL		50.00'											4	4							
		SAY		50.00'			ADDITIONAL GUARDRAIL POSTS = 5 EA								4	4							

TEMPORARY GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH STRAIGHT	LENGTH SHOP CURVED	LENGTH DOUBLE FACED	WARRANT POINT APPROACH END	WARRANT POINT TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH APPROACH END	FLARE LENGTH TRAILING END	W APPROACH END	W TRAILING END	ANCHORS GRAU 350 TL-3	ANCHORS TYPE III	IMPACT ATTENUATOR TYPE 350 EA	G	NG	SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS
-LDET-	13+71.49	14+52.74	RT	81.25'			BRIDGE		2'	8'	62.50'		1.25'		1	1							
-LDET-	13+66.01	14+47.26	LT	81.25'				BRIDGE	2'	8'		62.50'		1.25'	1	1							
-LDET-	15+32.74	16+13.99	RT	81.25'				BRIDGE	2'	8'		62.50'		1.25'	1	1							
-LDET-	15+27.26	16+08.51	LT	81.25'			BRIDGE		2'	8'	62.50'		1.25'		1	1							
		SUBTOTAL		325.00'											4	4							
		LESS DEDUCTIONS:																					
		GRAU 350 TL-3 4@50'		-200.00'																			
		TYPE III 4@18.75'		-75.00'																			
		TOTAL		50.00'											4	4							
		SAY		50.00'											4	4							

12/06/07
22-MAR-2016 09:26
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22-MAR-2016 09:26
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