COMPUTED BY: MRL	DATE: 6-29-2015
CHECKED BY: AKW	DATE: 8-14-2015

PROJECT REFERENCE NO.	SHEET NO.
B-5342	3B-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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	DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12"	15"	18"	24"	30"	36"	42"	48"	C.S. PIPE (UNLESS NOTED OTHRWISE) 12" .064	15" .064	18" .064	24" .064	30" .079	36" .079	42" .109	48" .109	CLASS III R.C. PIPE (UNLESS OTHERWISE NOTED) 12"	15"	18"	24"	30"	36"	42"	48"	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	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')	* 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	T.B.D.I. STD. 840.35	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.29	PIPE REMOVAL LIN. FT.	REMARKS
-L- Sta. 13+75.50	LT	401		524.5																																	1							1	1		
-L- Sta. 13+75.50		401	402		521.75	521			28																																						
-L- Sta. 13+75.50	RT	402		524.5																																	1							1	1		
-L- Sta. 13+75.50		402	403		521	517			20																																						
-L- Sta. 14+85.92	RT																																													24	
									48																												2							2	2	24	

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

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
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	SHOP CURVED	DOUBLE FACED	WARRANT POINT APPROACH END	TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH APPROACH END	TRAILING END	W APPROACH END	TRAILING END	ANCHORS GRAU 350 TL-3	TYPE III	IMPACT ATTENUATOR TYPE 350 EA	G	NG	SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS
-L-	STA. 13+21.79	STA. 14+01.88	LT	80.09				STA 14+01.88	4.25	7.5		62.5		1.25	1	1							
-L-	STA. 13+21.79	STA. 14+01.88	RT	80.09			STA 14+01.88		4.25	7.5	62.5		1.25		1	1							
-L-	STA. 14+74.13	STA. 15+42.88	LT	68.75			STA 14+74.13		4.25	7.25	50		1		1	1							
-L-	STA. 14+74.13	STA. 15+42.88	RT	68.75				STA 14+74.13	4.25	7.25		50		1	1	1							
			TOTAL	297.68											4	4							
		LESS DEDUCTION FOR ANCHOR UNIT																					
			TL-3 4@50.00	-200																			
			TYP III 4@18.75	-75																			
			GRAND TOTAL	22.68																			
			SAY	25											4	4							
	ADDITIONAL GUARDRAIL POST 5																						

SUMMARY OF EXISTING ASPHALT PAVEMENT REMOVAL

IN SQUARE YARDS

SURVEY LINE	STATION	STATION	LOCATION	ASPHALT REMOVAL (SY)
L	12+34.00	14+01.88	LT/RT	391.72
L	14+74.13	15+16.00	LT/RT	97.70
			TOTAL	489.42
			SAY	500

SUMMARY OF EARTHWORK

IN CUBIC YARDS

STATION	STATION	UNCL. EXCAV.	EMBANK. +%	BORROW	WASTE
-L- 12+00.00	-L- 14+01.88	198	140		58
-L- 14+74.13	-L- 16+00.00	57	7		50
SUBTOTALS:		255	147		108
PROJECT TOTALS:		255	147		108
GRAND TOTALS:		255	147		108
SAY:		290			

UNDERCUT CONTINGENCY = 50 CUBIC YARDS
SHALLOW UNDERCUT CONTINGENCY = 50 CUBIC YARDS
SELECT GRANULAR MATERIAL CONTINGENCY = 50 CUBIC YARDS

Note: Approximate quantities only. Unclassified Excavation, Fine Grading, Clearing and Grubbing, and Removal of Existing Pavement will be paid for at the contract lump sum price for "Grading."

Earthwork quantities are calculated by the Roadway Design Unit. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

SHOULDER BERM GUTTER SUMMARY

SURVEY LINE	STATION	STATION	LOCATION	LENGTH
-L-	13+72	13+90.88	LT	18.88
-L-	13+72	13+90.88	RT	18.88
SUBTOTAL				37.76
SAY				40.00

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