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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
A-0009CA	3B-2

GUARDRAIL SUMMARY

"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

SURVEY LINE	BEG. STA.	END STA.	LOC	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL WIDTH	FLARE LENGTH		W		ANCHORS									IMPACT ATTENUATOR		EXTRA LENGTH GUARDRAIL POSTS (8' STEEL)	REMOVE & RESET EXISTING GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	Type III	B-77	GREU, TL-3	GREU, TL-2	CAT-1	AT-1	Type III SC	B-77 SC		G	NG				
-L-	15+25.00	19+00.00	LT	375.00						8' BERM	50'	50'	1'	1'			2											204.2	GUARDRAIL ON FACE OF CURB
-L-	15+50.00	17+62.50	RT	212.50						8' BERM	50'	50'	1'	1'			2											140.3	GUARDRAIL ON FACE OF CURB
-L-	31+00.00	33+81.25	LT	281.25					10.3'	13.3'	50'	50'	1'	1'			2											302.8	SHOULDER BERM GUTTER INSTALLATION
-L-	34+20.00	37+42.00	LT	381.25	25				10.3	13.3'	25'	50'	0.5'	1'			1	1										413.3	SHOULDER BERM GUTTER INSTALLATION
-L-	41+50.00	47+50.00	LT	600.00					10.3'	13.3'	50'	50'	1'	1'			2											615.0	SHOULDER BERM GUTTER INSTALLATION
-L-	43+75.00	46+19.00	RT	243.75	50				10.3'	13.3'	50'	25'	1'	0.5'			1	1										264.1	SHOULDER BERM GUTTER INSTALLATION
-L-	46+60.00	48+75.00	RT	262.50	25				8'	11'	25'	50'	0.5'	1'			1	1										250.5	
-L-	53+50.00	59+00.00	RT	550.00					8'	11'	50'	50'	1'	1'			2											563.7	
-L-	56+98.00	60+77.00	LT	368.75	62.5				10.3'	13.3'	50'		1'				1			1								349.2	SHOULDER BERM GUTTER INSTALLATION
-L-	63+25.00	11+78 -Y6-	LT	318.75	87.5				10.3'	13.3'		50'		1'			1			1								309.7	SHOULDER BERM GUTTER INSTALLATION
-L-	64+15+/-	65+42+/-	RT																									131.8	
-L-	11+62 -Y6-	68+74.00	LT	237.50	81.25				10.3'	13.3'	50'	25'	1'	0.5'			1	1										287.0	SHOULDER BERM GUTTER INSTALLATION
-L-	70+75.00	73+00.00	RT	225.00					10.3'	13.3'	50'	50'	1'	1'			2											202.0	SHOULDER BERM GUTTER
-L	70+85.00	73+22.50	LT	237.50					10.3'	13.3'	50'	50'	1'	1'			2											227.5	SHOULDER BERM GUTTER INSTALLATION
-L-	76+00.00	82+00.00	LT	600.00					8'	11'	50'	50'	1'	1'			2											580.1	
-L-	78+50.00	82+00.00	RT	350.00					10.3'	13.3'	50'	50'	1'	1'			2											320.0	SHOULDER BERM GUTTER INSTALLATION
-L	86+00.00	94+94.00	RT	875.00	31.25				10.3'	13.3'	50'		1'				1			1								728.6	
-L-	88+51+/-	91+47+/-	LT																									300.1	
-L-	101+75.00	114+00.00	RT	1,225.00					8'	11'	50'	50'	1'	1'			2											1,017.3	
-L-	107+25.00	109+75.00	LT	250.00					8'	11'	50'	50'	1'	1'			2											214.2	
-L-	113+56.00	120+75.00	LT	750.00	31.25				8'	11'	25'	50'	0.5'	1'			1	1										707.2	
-L-	133+25.00	142+50.00	RT	925.00					10.3'	13.3'	50'	50'	1'	1'			2											923.2	SHOULDER BERM GUTTER INSTALLATION
-L-	133+25.00	143+25.00	LT	1,000.00					10.3'	13.3'	50'	50'	1'	1'			2											889.3	SHOULDER BERM GUTTER INSTALLATION
-L-	114+67+/-	145+19+/-	LT																									52.7	
-L-	145+60.00	151+74.00	LT	587.50	37.5				10.3'	13.3'		50'		1'			1			1								602.8	SHOULDER BERM GUTTER INSTALLATION
-L-	146+75.00	150+00.00	RT	325.00					10.3'	13.3'	50'	50'	1'	1'			2											314.4	SHOULDER BERM GUTTER INSTALLATION
-L-	155+98.75	158+80.00	LT	281.25					8'	11'	50'	50'	1'	1'			2											239.6	
-L-	159+20.00	164+32.50	LT	512.50					10.3'	13.3'	50'	50'	1'	1'			2											539.6	SHOULDER BERM GUTTER INSTALLATION
-L-	164+64.00	169+39.00	LT	475.00					10.3'	13.3'		50'		1'			2									26		489.0	SHOULDER BERM GUTTER INSTALLATION, DO NOT FLARE GREU TL-3 AT APPROACH, **USE EXTRA DEPTH GUARDRAIL POSTS: -L- 167+75 TO 169+39, LT @ 6.25 = 26.2; SAY 30 EA**
-L-	169+85.00	176+91.25	LT	706.25					10.3'	13.3'	50'			1'			2									46		589.5	SHOULDER BERM GUTTER INSTALLATION, DO NOT FLARE GREU TL-3 AT TRAILING END, **USE EXTRA DEPTH GUARDRAIL POSTS: -L- 168+85 TO 171+75 LT @ 6.25 = 46.4; SAY 50 EA**
-L-	169+00.00	171+50.00	RT	250.00					8'	11'	50'	50'	1'	1'			2												
-L-	174+53.75	175+35.00	RT	81.25					10.3'	13.3'						1	1												SHOULDER BERM GUTTER INSTALLATION, DO NOT FLARE GREU TL-3, TIE TO CONCRETE BARRIER
-L-	176+65.00	180+52.50	RT	387.50					10.3'	13.3'		50'		1'		1	1												SHOULDER BERM GUTTER INSTALLATION, TIE TO CONCRETE BARRIER
-L-	177+20.00	179+01.25	LT	181.25					8'	11'	50'	50'	1'	1'			2											154.9	
-L-	179+35.00	180+41.25	LT	106.25					8'	11'	50'	50'	1'	1'			2											114.5	
-L-	180+60.00	190+47.00	LT	956.25	56.25				8'	11'		50'		1'			1										262.5	1,009.4	TIE TO EXISTING GUARDRAIL, PLACE 262.5 FT OF PROP. GUARDRAIL DURING DET_S8 CONSTRUCTION, REMOVE AND RESET FOR FINAL ALIGNMENT
-L-	185+93.75	186+75.00	RT	81.25					14'	17'	50'		1'																TIE TO CONCRETE BARRIER
-L-	190+95.00	198+00.00	LT	650.00	75				8'	11'	50'		1'															617.9	TIE TO EXISTING GUARDRAIL
-L-	192+05.00	199+48.75	RT	743.75					10.3'	13.3'		50'		1'		1	1											363.3	SHOULDER BERM GUTTER INSTALLATION, TIE TO CONCRETE BARRIER
-L-																													
SUB-TOTALS				16,593.75	562.50											3	55	5		4						72	262.5	15,028.7	
LESS ANCHOR DEDUCTIONS																													
	TYPE B-77	3@22.875 FT		68.625																									
	TYPE TL-3	55 @ 50.00 FT		2,750.00																									
	TYPE TL-2	5@ 25.00 FT		125.00																									
	AT-1	4@ 6.25 FT			25.00																								
ANCHOR TOTAL				2,943.625	25.000																								
GRAND-TOTALS				13,650.13	537.50											3	55	5		4						72	262.50	15,028.70	
SAY				**13,675**	**550**											**3**	**55**	**5**		**4**						**80**	**262.5**	**15,030**	
ADDITIONAL GUARDRAIL POSTS =				**10 EA**																									
TEMPORARY GUARDRAIL																													
-DET_S5-	14+20.00	19+70.00	RT	550.00					4'	7'	50'	50'	1'	1'			2												TEMPORARY ANCHOR UNITS
-DET_S5-	16+95.00	19+70.00	LT	275.00					4'	7'	50'	50'	1'	1'			2												TEMPORARY ANCHOR UNITS
-DET_S5-	20+10.00		RT	50.00					4'	7'	50'		1'				1												TEMPORARY ANCHOR UNIT TIE TO PROP. GUARDRAIL
-DET_DR1A-	11+93.25	13+93.25	RT	62.50	175				4'	7'	25'		0.5'					1											TEMPORARY ANCHOR UNIT, TIE TO EXISTING GUARDRAIL
-DET_DR1A-	11+93.25	13+93.25	LT	68.75	125				4'	7'		25'		0.5'				1											TEMPORARY ANCHOR UNIT, TIE TO EXISTING GUARDRAIL
-DET_S8-	11+00.00	20+00.00	RT	900.00					4'	7'	50'	50'	1'	1'			2												TEMPORARY ANHOR UNITS
-DET_S8-	13+85.00	18+60.00	LT	475.00					4'	7'	50'	50'	1'	1'			2												TEMP0RARY ANCHOR UNITS
SUB-TOTALS				2,381.25	300.00												9	2											
LESS ANCHOR DEDUCTIONS																													
	TEMP. TYPE TL-3	9 @ 50.00 FT		450.00																									
	TEMP. TYPE TL-2	2@ 25.00 FT		50.00																									
ANCHOR TOTAL				500.00																									
GRAND-TOTALS				1,881.25	300.00												9	2											
SAY				**1,900**	**312.5**												**9**	**2**											