COMPUTED BY: <u>TLC</u>
 DATE: <u>10/26/22</u>

 CHECKED BY: <u>BCS</u>
 DATE: <u>10/26/22</u>

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PROJECT REFERENCE NO. SHEET NO. 1-25/3AA/AB 3B-2

"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 ATTNUATOR TYPE 350.

I–2513AA

GUARDRAIL SUMMARY

SURVEY	BEGIN STATION	END STATION	LOCATION	LENGTH ANCHOR UNITS)	(INCLUDES	WARRANT POINT		TOTAL	FLARE LENGTH		W				,	ANCHORS			TEMP. CRASH CUSHIONS	REMOVE - EXISTING	REMOVE AND	GUARDRAIL TRANSITION	REMARKS
LINE	BEGIN STATION		LOCATION	STRAIGHT SHOP CURVED	TEMPORARY APPROACH STRAIGHT END	TRAILING END		OULDER WIDTH	APPROACH TRAILING END END	APPROACH END	TRAILING END	GREU TL-3	GREU TL-2	B-77 T		TYPE III SHOP CURVE	CAT-1 TEMP. TL-3 TEMP. B-77 TEMP. CAT-1	EA	G NG	GUARDRAIL	STOCKPILE EXISTING GUARDRAIL	STANDARD 862.02 SHEET 4 OF 8	REIVIARES
			<u></u>																				
-Y_LT-	16+34.49	18+76.64	LT	246			14	17	50.00	1.00		1								246			Remove and replace existing guardrail to upgrade guardrail and accommodate traffic control
-Y_LT-	28+63.75	36+03.64 (-Y5RPB- 13+80.00)	LT	771.25		28+70.00	14	17									1			792		1	Tie to existing Guardrail on -Y5RPB-
-Y_LT-	42+88.14 (-Y5LPB- 12+56.25)	46+05.00 (BR)	LT	331.25	46+05.00 (BR)	-Y5LPB- 12+50.00	12.5	26									1			208			Tie to existing Bridge rail
-Y_LT-	48+16.00	53+93.74	LT																	580			
-Y_LT-	57+57.83 (-Y5RPA- 18+24.09)	-Y_WB- 18+70.00	LT	4335.375	-Y_WB- 11+25.00	-Y5RPA- 18+24.09 (BR)	14	17	50.00	1.00				1						4420		1	
-Y_RT-	18+75.00	35+85.12 (-Y5RPC- 15+65.00)	RT	1675	27+70.00	-Y5RPC- 15+65.00	14	17												1676		1	Tie to existing Guardrail.
-Y_RT-	35+60.50	45+22.14 (BR)	RT	950	37+50.00	45+22.14 (BR)	14	17												956.5			Tie to existing Bridge rail. Place Guardrail attenuator at end of guardrail between Y_RT & Y5RPC
-Y_RT-	47+21.00 (BR)	49+41.28	RT	218.75													1			220			
-Y5RPD- / - Y_RT-	49+59.19 (-Y5RPD- 12+77.06)	52+18.75 (BR)	RT	262.5	52+18.75 (BR)															262		1	Tie to existing Bridge rails.
-Y_RT-	54+77.72 (BR)	58+29.34	RT	362.5																			
-Y_RT-	77+80.27	89+66.00	RT	1185.75	89+33.00		15	20						2						1297			Extend guardrail to match existing conditions
-Y_EB- -V_EB-	13+66.36 15+08.00	15+08.00 23+81.52	RT	147.875 872.75										1						145 875			Remove and replace existing guardrail to upgrade guardrail. Tie to existing anchor unit on trailing end
-Y_EB- -Y_EB-	13+54.50	24+10.00	LT	1057.25										1						1057			Remove and replace existing guardrail to upgrade guardrail. Tie to existing anchor unit on trailing end
-Y_WB-	13+55.55	20+40.925	RT	685.375	13+55.55		14	17	50	1		1		1						690			Tie to existing Concrete Barrier
-YDET1-	15+00.00	24+86.26	RT	997.875										1						998			Remove and replace existing guardrail due to temporary crossover
-YDET1-	19+25.00	24+86.26	LT	560.375										1						560			Remove and replace existing guardrail due to temporary crossover
	ITS																						
I-40 EB	113		RT	262.5	DMS-18 Pole							1					1						See ITS plans: sheet ITS-20
I-40 EB			RT	262.5	DMS-20 Pole							1					1						See ITS plans: sheet ITS-22
	ARY GUARDRAIL																						
-YDET1-	15+00.00 19+70.50	19+76.75 19+76.75	LT IT		481.25												1						Temporary Guardrail (See TMP plans), Tie to existing guardrail
-YDET1- -YDET1-	24+86.26	24+86.26	LI RT		6.25												1	1					Temporary Guardrail (See TMP plans), Tie to existing guardrail
-YDET2-	16+57.00	16+50.75	LT		6.25												1						
-YDET2-	17+74.68	17+97.55	LT		22.875												1						Temporary Guardrail (See TMP plans), Tie to existing guardrail
-Y-	35+48.00	42+46.00	LT		718.75												1 1						Temporary Guardrail (See TMP plans),
-Y- / -Y5RPB-	28+24.81	15+44.40	LT		968.75												1						Temporary Guardrail (See TMP plans), Tie to existing guardrail
-Y- / -Y5RPC-	23+77.45	17+93.44	RT		1412.5																		Temporary Guardrail (See TMP Plans) Tie to existing guardrail
			SUBTOTAL =	15184.875 0	3616.625	+						4	0	8	0	0	5 1 1 5	1	0 0	14982.5	0	4	
		IFSS	ANCHOR DEDUCTIONS:												+	-							
		GREUTL-3	4	-200											+								
		GREU TL-2	0	0																			
		B-77	8	-183																			
		TYPE III	0	0																			
		CAT-1 TEMP. GREU TL-3	5	-31.25	-50																		
		TEMP. B-77	1		-22.875																		
		TEMP.CAT-1	5		-31.25																		
		ANCH	OR DEDUCTION TOTAL	-414.25	-104.125																		
			BB0155775	4.4770.605	2542.5															11000 =			
			PROJECT TOTAL = SAY =	14770.625 0 14925 0	3512.5 3550						-	1		Q	0	0	5 1 1 5	1		14982.5 15000	0	4	
			JA1 -	14925 0	3330	+						+ +		0	-	-	3 1 1 3	-	0 0	13000	0	'	+
		ADDITIONAL G	UARDRAIL POST	10																			
					•					•			•										

I–2513AB

SURVEY	BEGIN STATION	END STATION	LOCATION	LENGTH	(INCLUDES ANCHOR UNITS)		WARRANT POINT	"N" DISTANCE	TOTAL SHOULDER			w					Al	NCHORS	TEMP. CRASH CUSHIONS					REMOVE EXISTING	REMOVE AND STOCKPILE	GUARDRAIL TRANSITION	REMARKS
INE	BEGIN STATION	ENDSTATION	LUCATION	STRAIGHT	SHOP TEMPO CURVED STRA		TRAILING END	FROM E.O.L.	WIDTH	APPROACH END	FRAILING END	APPROACH END	TRAILING END		GREU TL-2	3-77 TY	YPE III	TYPE III SHOP CA' CURVE	AT-1 TEMP. 1	TL-3 TEMP. B-77	EMP. CAT- 1	G	NG	GUARDRAIL	EXISTING GUARDRAIL	STANDARD 862.02 SHEET 4 OF 8	NEIWANNS
RPA-	23+50.00	24+56.25	RT	104.125		23+50.00	24+50.00									1			1								
C-	10+48.34	18+13.15	RT	770.75		-RPC- 18+13.15		15	20							2											
C-	21+36.15	33+78.15	RT	1233.25		22+53.15	33+78.15	14	17							2								2077			
C-	39+95.15	47+60.00	RT	766.625		42+18.15	47+51.35	14	17 17							1			1					618			
C-	14+05.00	16+36.00	RT	225		15+00.00	15+75.00	4	7						2												Guardrail is along Sand Hill Lane. Guardrail Radius = 270'
B-	37+52.34	41+49.00	LT	400		39+00.00		14	17	50.00		1.00		1										275			Remove exisitng Guardrail end unit and tie to existing structure anchor unit
EB-	40+43.00	66+13.41	RT	2570		64+85.00		8	11	50.00		1.00		1		1								2560			Tie end to existing barrier
NB-	40+98.00	47+21.84	LT	625		40+98.00		14	17							1			1					800			Tie end to existing barrier
WB-	44+55.00	47+16.25	RT	268.75		46+00.00	47+10.00	14	17	50.00		1.00		1										202			
NB-	55+87.50	58+31.25	RT	243.75		58+00.00	58+00.00	14	17	50.00		1.00		1				-	1								
D-	14+67.50	16+96.30	RT	237.5		15+80.00		14	17	50.00		1.00		1										536		1	Tie to existing guardrail
В-	35+37.00	40+00.00	LT	459.5		37+00.00																		460		1	Remove and replace existing guardrail to upgrade guardrail. Tie to existing guardrail at both ends
											+																
			SUBTOTAL =	7904.25	0	0								5	2	0	0	0 5	F 0			0	0	7520		2	
			SUBTOTAL =	7904.25	0	0								3	2	0	0	0 3	5 0		- 0	0	U	7326		2	
		LECC	ANCHOR DEDUCTION	c.							+	-															
			ANCHOR DEDUCTION								-																
		GREUTL-3	2	-250							+	-														+	
		GREUTL-2	2	-50																							
		B-77	8	-183 0							-	+															
		TYPE III	U								-	+															
		CAT-1	5	-31.25																							
		AT-1	0	0																							
		ANCH	OR DEDUCTION TOTA	L: -514.25																						-	
					_	_																				-	
			PROJECT TOTAL =		<u> </u>	0													_		_				_		
			SAY =	7400	0	0								5	2	8	0	0 5	5 0	0	0 0	0	0	7530	0	2	

I-2513AA & I-2513AB

-2 dg -	SURVEY	BEGIN STATION	END STATION	LOCATION	LENGTH	LENGTH (INCLUDES ANCHOR UNITS)			WARRANT POINT	"N" TOTAL DISTANCE SHOULDER	FLARE LENGTH		w			ANCHORS								TEMP. CRASH CUSHIONS	REMOVE EXISTING		REMOVE AND STOCKPILE	GUARDRAIL TRANSITION	REMARKS	
sh_Ø3B	LINE	BEGIN STATION	ENDSTATION	LOCATION	STRAIGHT	SHOP CURVED	TEMPORARY STRAIGHT	APPROACH END	TRAILING END	FROM WIDTH	APPROACH END	TRAILING END	APPROACH END	TRAILING END	GREU TL-3	GREU TL-2	B-77 TY		PE III HOP CAT-1 JRVE	TEMP. TL-3	TEMP. B-77	TEMP. CAT-	EA	G	NG	GUARDRAIL	EXISTING GUARDRAIL	STANDARD 862.02 SHEET 4 OF 8	KLIVIANKS	
I-2	513AA TOTAL				14925	0	3550								4	0	8	0	0 5	1	1	5	1	0	0	15000	0	4		
4 7 1 1-2	513AB TOTAL				7400	0	0								5	2	8	0	0 5	0	0	0	0	0	0	7530	0	2		
13A		I-2513AA/ <i>I</i>	AB GRAND TOTALS =		22325	0	3550								9	2	16	0	0 10	1	1	5	1	0	0	22530	0	6		
125 125 125 125			ADDITIONAL G	JARDRAIL POSTS	20																									