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COMPUTED BY: JCH DATE: 5/3/2024
CHECKED BY: BAM DATE: 5/6/2024

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
HB-0004	3B-1

SUMMARY OF EARTHWORK IN CUBIC YARDS

BEGIN STATION	END STATION	TOTAL UNCLASS.	UNDERCUT	EMBANK. +%	BORROW	WASTE
-L- 234+06.00 LT	-L- 254+00.00 LT	1,269		19,823	18,554	
-L- 255+50.00 LT	-L- 277+00.00 LT	24,606		19,639		4,967
-Y1RPA- 10+00.00	-Y1RPA- 18+45.77	8,824		4,074		4,750
-Y1RPB- 10+00.00	-Y1RPB- 19+00.00	10,445		75		10,370
	SUBTOTAL	**45,144**		**43,611**	**18,554**	**20,087**
-L- 234+19.50 RT	-L- 254+00.00 RT	1,388		3,085	1,697	
-L- 255+50.00 RT	-L- 277+00.00 RT	5,533		196		5,337
-Y1RPC- 10+00.00	-Y1RPA- 16+57.18	2,285		91		2,194
-Y1RPD- 10+00.00	-Y1RPD- 16+00.00	1,612		145		1,467
	SUBTOTAL	10,818		**3,517**	**1,697**	**8,998**
-Y1- 15+50.00	-Y1- 18+60.00	724		294		430
	SUBTOTAL	**724**		**294**		**430**
	TOTAL	**56,686**		**47,422**	**20,251**	**29,515**
LOSS DUE TO CLEARING AND GRUBBING		-100				-100
WASTE IN LIEU OF BORROW					-20,251	-20,251
	PROJECT TOTAL	**56,586**		**47,422**		**9,164**
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT						
	GRAND TOTAL	**56,586**				**9,164**
	SAY	**60,000**				

NOTE: 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.

PAVEMENT STRUCTURE VOLUME = 23,892 CUBIC YARDS
EST. DDE = 800 CUBIC YARDS
SHOULDER BORROW = 3,500 CY
EST. SHALLOW UNDERCUT = 200 CUBIC YARDS
EST.SHALLOW UNDERCUT BY STATIONS = 0 CUBIC YARDS
TOTAL SHALLOW UNDERCUT = 200 CUBIC YARDS
CLASS IV SUBGRADE STABILIZATION = 400 TONS
PER GEOTECH RECOMMENDATION, EST. 900 CY OF UNDERCUT TO BE USED AT THE DISCRETION OF THE RESIDENT ENGINEER.

SUMMARY OF WOVEN WIRE FENCE. 47" FABRIC

$E = \frac{[A - (8B + 16C + 16D)]}{14} - (C + D + 1)$ $\qquad F = (2B + 3C + 3D)$

SURVEY LINE	BEGIN STATION	END STATION	LT. OR RT.	A FABRIC (LF)	B END BRACE	C CORNER BRACE	D LINE BRACE	E 4" POSTS	F 5" POSTS
-L-	239+30.00	239+64.00	LT	34.00	2			0	4
-L-	239+70.00	240+70.00	LT	111.26	2	2		2	10
-L-	238+90.00	240+30.00	RT	141.00	2			8	4
-Y1RPA-	14+70.00	11+40.77	RT	337.00	2	1	1	18	10
			TOTAL:	623.26				28	28
			SAY:	700				40	40

SUMMARY OF REMOVAL EXISTING ASPHALT PAVEMENT

LINE	STATION	STATION	LOCATION	LENGTH (FT) OR AREA (SF)	WIDTH (FT)	AREA (SY)
Y1RPC	11+00	15+50	RT	764.73		84.97
L	247+00	254+00	RT	11131.56		1236.84
Y1RPB	15+00	16+25	RT	171.30		19.03
L	255+50	264+50	RT	15449.75		1716.64
Y1RPA	14+75	16+75	LT	1034.99		115.00
L	234+06	240+50	LT	6088.28		676.48
L	246+90	248+00	LT	1242.05		138.01
L	260+00	263+80	LT	4201.45		466.83
L	267+04	277+00	LT	8859.22		984.36
L	234+20	Y1RPC 11+07	RT	9380.70		1042.30
Y1RPD	18+27	L 277+00	RT	14581.49		1620.17
					TOTAL:	8,100.61
					SAY:	8,200

SUMMARY OF CONCRETE BARRIER

LINE	BEGIN STATION	END STATION	LOCATION	VARIABLE HEIGHT SINGLE SLOPE CONCRETE BARRIER (2'-7" Max. Bifurcation) (LF)	VARIABLE HEIGHT SINGLE SLOPE CONCRETE BARRIER (2'-7" THRU 6'-0" Bifurcation) (LF)	PRECAST REINFORCED CONCRETE BARRIER (STD 857.01) (FT)	*CONC. BARRIER TRANSITION SECTION (EA)
L	238+50.00	254+10.00	MEDIAN	1,560.00			2*
L	255+40.00	273+00.00	MEDIAN	1,760.00			2*
Y1	16+23.45	17+71.64	LT			148.19	
Y1	16+40.30	17+88.53	RT			148.23	
			TOTAL:	3,320.00		296.42	4
			SAY:	3,350.00		300.00	4

* Transition from Existing Barrier to Single Slope Concrete Barrier, See Detail Sheet 2C-3
* Transition from Single Slope Concrete Barrier to Bridge Rail, See Detail Sheet 2C-4

SUMMARY OF SHOULDER BERM GUTTER

LINE	LOCATION	BEGIN STATION	END STATION	LENGTH (FT)
L	LT	239+50.00	243+26.00	376
L	RT	239+50.00	243+77.00	427
L	RT	253+42.00	253+93.00	51
L	RT	255+22.00	256+75.00	153
Y1RPA	RT	11+70.00	16+19.00	449
			TOTAL	1,456
			SAY	1,500

SUMMARY OF GUARDRAIL

SURVEY LINE	BEGIN STATION	END STATION	LOCATION	LENGTH: STRAIGHT	LENGTH: SHOP CURVED	LENGTH: TEMP	WARRANT POINT: APPROACH END	WARRANT POINT: TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHLD. WIDTH	FLARE LENGTH: APPROACH END	FLARE LENGTH: TRAILING END	W: APPROACH END	W: TRAILING END	ANCHORS: TEMP. B-77	ANCHORS: GREU TL-2	ANCHORS: GREU TL-3	ANCHORS: CAT-1	ANCHORS: Type B-77	IMPACT ATTENUATOR MASH, TL-3: NO.	PERMITTED: G	PERMITTED: NG	25' CLEAR SPAN GUARDRAIL SECTIONS (STD. 862.01) (SHT 10 OF 15)	REMOVE EXISTING GUARDRAIL	REMOVE & RESET EXISTING GUARDRAIL	REMARKS
-L-	234+06.00	243+80.00	LT	647.875'					14'	17'									1					961.00'		
-DET-Y1RPB-	7+53.08	10+83.00	LT	325.000'				9+00.00	14'	17'	50.000'		1.00'				1									
-L-	234+19.50	243+82.50	RT	966.625'				243+82.50	14'	17'	137.500'		2.75'					1	1					962.00'		
-L-	251+97.00	254+50.00	LT	254.125'			BRIDGE	254+50.00	24' *	27' **	100.000'		2.00'					1	1							* 63' LT FROM -L- CENTERLINE, ** 66' FROM -L- CENTERLINE
-L-	250+55.00	254+16.61	RT	360.375'			254+00.00	BRIDGE	24' *	27' **	50.000'	100.000'	1.00'	2.00'			1		1					300.00'		* 63' RT FROM -L- CENTERLINE, ** 66' FROM -L- CENTERLINE
-L-	255+30.00	259+00.00	LT	372.875'			258+50.00		24' *	27' **	50.000'	100.000'	1.00'	2.00'			1		1					376.00'		* 63' LT FROM -L- CENTERLINE, ** 66' FROM -L- CENTERLINE
-L-	254+98.00	257+28.00	RT	229.125'				257+28.00	24' *	27' **		100.000'	2.00'					1	1					313.00'		* 63' RT FROM -L- CENTERLINE, ** 66' FROM -L- CENTERLINE
-L-	273+83.00	277+00.00	LT	318.750'				273+81.25	EX. (10')	EX. (13')								1						312.50'		TIE TO EXISTING GUARDRAIL AT 277+00.00
-L-	273+48.64	277+00.00	RT	350.000'				277+00.00	EX. (10')	EX. (13')	50.000'		1.00'				1							337.50'		TIE TO EXISTING GUARDRAIL AT 277+00.00
-Y1RPA-	11+20.00	16+25.00	RT	506.250'			13+00.00	16+25.00	14'	17'	50.000'		1.00'				1	1						501.00'		
-Y1RPD-	12+35.00	17+82.73	LT	543.750'			16+00.00	12+35.00	14'	17'	50.000'		1.00'				1	1						552.00'		
-Y1-	15+38.00	16+23.45	LT	85.375'				16+23.45	6.50'	7.5' BERM		50.000'		1.00'			1		1					87.50'		
-Y1-	21+38.00 (-Y1RPB)	16+40.30	RT	54.125'	125.00'		16+40.30		6.50'	7.5' BERM	125.000'		3.50'					1	1					125.00'		SEE PLANS FOR FLARE
-Y1-	17+71.64	23+24.00 (-Y1RPD-)	LT	29.125'	137.50'		17+71.64		6.50'	7.5' BERM	137.500'		8.00'					1	1					87.50'		SEE PLANS FOR FLARE
-Y1-	17+88.50	18+88.50	RT	97.875'				17+88.50	6.50'	7.5' BERM		50.000'		1.00'			1		1					75.00'		
-DET-EBL-	253+65.71	254+36.60	RT			70.750'									2											TEMP. GUARDRAIL, SEE SHEET 2B-2 AND NCDOT STD. 862.03 (SHEET 9 OF 9)
			SUBTOTAL	5141.250'	262.50'	70.750'																				
	ANCHOR UNIT DEDUCTIONS																									
	Type	Quantity	Deduction																							
	TEMP B-77	2	22.875'	0.00'		45.750'																				
	B-77	10	22.875'	228.75'																						
	GREU-TL3	8	50.00'	400.00'																						
	GREU-TL2	0	25.00'	0.00'																						
	CAT-1	8	6.25'	50.00'																						
			TOTAL	4462.50'	262.50'	25.00'									2		8	8	10					4990		
			SAY	4500.00'	275.00		ADDITIONAL GUARDRAIL POSTS: SAY 10 EA								2		8	8	10					5000		

"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 MASH TL-3
NG = NON-GATING IMPACT ATTENUATOR MASH TL-3