

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK
 IN CUBIC YARDS

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.

Quantities are approximate only. The Resident Engineer will re-cross-section the work accurately when the project is staked out. These cross-section notes will be used in computing the final quantities for which the contractor will be paid.

STATION	STATION	LINE	UNCLASSIFIED	UNDERCUT	*EMBANK. +%	* BORROW	WASTE
PHASE 1 - STEP 1							
18+00.00	50+00.00	-L- (LT)	1,260		6,118	4,981	123
17+20.63	19+35.35	-Y3-	134		102		32
SUMMARY AREA 1 (18+00 to 50+00 LT):			SUBTOTAL		6,220	4,981	155
57+00.00	94+00.00	-L- (LT)	352		10,850	10,561	63
11+55.00	12+39.27	-Y6- (LT)			53	53	
10+50.00	11+59.02	-Y7-	1		82	81	
10+60.00	12+47.65	-Y8-	123		139	20	4
SUMMARY AREA 2 (57+00 to 94+00 LT):			SUBTOTAL		11,124	10,715	67
94+00.00	123+50.00	-L- (LT)	435		2,851	2,518	102
11+20.00	12+11.36	-Y9-	18		26	8	
11+70.00	12+65.99	-Y11-	14		70	56	
10+15.00	11+52.98	-Y12-	6		103	97	
SUMMARY AREA 3 (94+00 to 123+50 LT):			SUBTOTAL		3,050	2,679	102
166+50.00	173+00.00 (TEMP)	-L- (LT)	58		92	34	
SUMMARY AREA 4 (166+50 to 173+00 LT TEMP):			SUBTOTAL		92	34	
173+00.00	179+00.00	-L- (LT)	397		323		74
10+90.00	14+70.41	-Y16-	1,188	600	1,547	905	1,146
SUMMARY AREA 5 (173+00 to 179+00 LT):			SUBTOTAL	600	1,870	905	1,220
181+00.00	214+00.00 (TEMP)	-L- (LT)	730		538		192
SUMMARY AREA 6 (181+00 to 214+00 LT TEMP):			SUBTOTAL		538		192
288+50	304+90.86	-L- (LT)	55		659	604	
SUMMARY AREA 7 (288+50 to 304+90.86 LT):			SUBTOTAL		659	604	
13+25.00	18+00.00	-L- (RT)	456		2		454
SUMMARY AREA 8 (13+25 to 18+00 RT):			SUBTOTAL		2		454
18+00.00	37+00.00	-L- (RT)	122		5,650	5,528	
17+00.00	19+00.00	-Y1-	83				83
10+38.50	11+51.52	-DRW1-	25		62	37	
10+38.50	11+70.00	-Y2-	10		58	48	
10+39.77	11+82.35	-DRW4-	222		8		214
SUMMARY AREA 9 (18+00 to 37+00 RT):			SUBTOTAL		5,778	5,613	297
37+00.00	62+50.00	-L- (RT)	378		6,612	6,234	
10+38.50	16+40.00	-Y5-	56		467	467	56
SUMMARY AREA 10 (37+00 to 62+50 RT):			SUBTOTAL		7,079	6,701	56
74+00.00	94+00.00	-L- (RT)	595		4,470	3,875	
10+39.44	11+95.00	-DRW2-	3		215	212	
SUMMARY AREA 11 (74+00 to 94+00 RT):			SUBTOTAL		4,685	4,087	
94+00.00	123+50.00	-L- (RT)	600		2,101	1,650	149
SUMMARY AREA 12 (94+00 to 123+50 RT):			SUBTOTAL		2,101	1,650	149
123+50.00	169+00.00	-L- (RT)	1,647		22,721	21,074	
10+38.50	11+25.00	-DRW3-	42		12		30
10+38.50	12+15.00	-Y15-	44		806	762	
SUMMARY AREA 13 (123+50 to 169+00 RT):			SUBTOTAL		23,539	21,836	30
214+00.00	240+00.00	-L- (RT)	1,190		5,694	4,504	
SUMMARY AREA 14 (214+00 to 240+00 RT):			SUBTOTAL		5,694	4,504	
240+00.00	266+00.00	-L- (RT)	1,109		4,630	3,748	227
10+21.00	11+10.00	-Y18-	62		35		27
SUMMARY AREA 15 (240+00 to 266+00 RT):			SUBTOTAL		4,665	3,748	254
266+00.00	292+00.00	-L- (RT)	54		4,358	4,304	
SUMMARY AREA 16 (266+00 to 292+00 RT):			SUBTOTAL		4,358	4,304	
TOTAL FOR PHASE 1 - STEP 1			11,469	600	81,454	72,361	2,976
PHASE 1 - STEP 1A							
10+38.50	16+25.00	-Y13-	4		3,412	3,408	
SUMMARY AREA 17 (10+38.50 to 16+25.00 -Y13-):			SUBTOTAL		3,412	3,408	
TOTAL FOR PHASE 1 - STEP 1A			4		3,412	3,408	
PHASE 1 - STEP 2							
169+00.00	179+00.00	-L- (RT)	437		5,406	4,969	
SUMMARY AREA 18 (169+00 to 179+00 RT):			SUBTOTAL		5,406	4,969	
TOTAL FOR PHASE 1 - STEP 2			437		5,406	4,969	

STATION	STATION	LINE	UNCLASSIFIED	UNDERCUT	*EMBANK. +%	* BORROW	WASTE
PHASE 2 - STEP 1							
50+00.00	57+00.00	-L- (LT)	24		446	422	
11+55.00	12+39.27	-Y6- (RT)			43	43	
SUMMARY AREA 19 (50+00 to 57+00 LT):			SUBTOTAL		489	465	
123+50.00	165+00.00	-L- (LT)	242		6,254	6,012	
10+96.00	11+56.91	-Y14-	61		40	21	
SUMMARY AREA 20 (123+50 to 165+00 LT):			SUBTOTAL		303	6,294	6,012
165+00.00	173+00.00 (+ REM. TEMP)	-L- (LT)	20		1,309	1,289	
SUMMARY AREA 21 (165+00 to 173+00 LT +REM. TEMP):			SUBTOTAL		20	1,309	1,289
62+50.00	74+00.00	-L- (RT)	26		2,672	2,646	
SUMMARY AREA 22 (62+50 to 74+00 RT):			SUBTOTAL		26	2,672	2,646
179+00.00	214+00.00 (INCL. TEMP)	-L- (RT)	5,041		14,208	10,484	1,317
SUMMARY AREA 25 (181+00 to 214+00 RT INCL. TEMP):			SUBTOTAL		5,041	14,208	10,484
TOTAL FOR PHASE 2 - STEP 1			5,414		24,972	20,896	1,338
PHASE 3 - STEP 1							
18+00.00	29+00.00	-L- (MED)	35		770	735	
SUMMARY AREA 26 (18+00 to 29+00 MED):			SUBTOTAL		35	770	735
31+50.00	33+50.00	-L- (MED)	2		58	56	
SUMMARY AREA 27 (31+50 to 33+50 MED):			SUBTOTAL		2	58	56
34+00.00	41+00.00	-L- (MED)	5		746	741	
SUMMARY AREA 28 (34+00 to 41+00 MED):			SUBTOTAL		5	746	741
41+50.00	60+00.00	-L- (MED)	73		1,625	1,552	
SUMMARY AREA 29 (41+50 to 60+00 MED):			SUBTOTAL		73	1,625	1,552
61+50.00	76+50.00	-L- (MED)	9		2,321	2,312	
SUMMARY AREA 30 (61+50 to 76+50 MED):			SUBTOTAL		9	2,321	2,312
76+50.00	93+00.00	-L- (MED)	86		707	621	
SUMMARY AREA 23 (76+50 to 93+00 MED):			SUBTOTAL		86	707	621
113+00.00	119+00.00	-L- (MED)	44		210	207	41
SUMMARY AREA 24 (113+00 to 119+00 MED):			SUBTOTAL		44	210	207
179+00.00	207+00.00 (+ REM. TEMP)	-L- (LT)	2,472		6,090	4,057	439
SUMMARY AREA 31 (179+00 to 207+00 LT +REM. TEMP):			SUBTOTAL		2,472	6,090	4,057
207+00.00	235+00.00 (+ REM. TEMP)	-L- (LT)	2,701		2,473		228
11+60.00	12+51.74	-Y17-	7		36	29	
SUMMARY AREA 32 (207+00 to 235+00 LT +REM. TEMP):			SUBTOTAL		2,708	2,509	228
235+00.00	263+00.00	-L- (LT)	1,018		2,102	1,395	311
11+11.00	12+20.42	-Y19-	61		61	61	
SUMMARY AREA 33 (235+00 to 263+00 LT):			SUBTOTAL		1,018	2,163	1,456
263+00.00	288+50.00	-L- (LT)	152		2,471	2,319	
11+00.00	13+28.09	-Y20-	254		125	129	
10+70.00	11+56.86	-Y21-	4		41	37	
10+60.00	11+52.63	-Y22-	2		83	81	
SUMMARY AREA 34 (263+00 to 288+50 LT):			SUBTOTAL		412	2,720	2,437
179+00.00	214+00.00 (REM. TEMP)	-L- (RT)	1,594		240	1,354	
SUMMARY AREA 35 (181+00 to 214+00 RT REM. TEMP):			SUBTOTAL		1,594	240	1,354
TOTAL FOR PHASE 3 - STEP 1			8,458		20,159	14,203	2,502
PROJECT SUBTOTAL (ALL PHASES)			25,782	600	135,403	115,837	6,816
MATERIAL FOR SHOULDER CONSTRUCTION					2,748	2,748	
LOSS DUE TO CLEARING & GRUBBING					-2,400	2,400	
ADDITIONAL UNDERCUT				1,320	1,584	1,584	1,320
WASTE IN LIEU OF BORROW						-2,516	-2,516
PROJECT TOTAL					23,382	1,920	139,735
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT						6,003	
GRAND TOTAL					23,382	1,920	139,735
SAY					25,700	2,000	138,700

* INCLUDES BACKFILL FOR UNDERCUT
 EST. PAVEMENT STRUCTURE VOLUME: 7,090 CY (-L-); 230 CY (-Y3-, -Y5-, -Y8-, -Y12-, -Y13-, AND -Y16-) [PAVEMENT & SHOULDER MATERIAL QUANTITY IN EXCAVATED AREAS]
 EST. DRAINAGE DITCH EXCAVATION (DDE) = 680 CY
 PER GEOTECH RECOMMENDATIONS DATED MAY 12, 2017:
 SELECT GRANULAR MATERIAL = 600 CY + 1,200 (CONTINGENCY TO BE USED AT THE DISCRETION OF THE ENGINEER) = 1,800 CY
 SHALLOW UNDERCUT = 5,070 CY (BY STATION) + 1,000 CY (CONTINGENCY TO BE USED AT THE DISCRETION OF THE ENGINEER) = 6,070 CY
 SEE GEOTECHNICAL SUMMARIES ON SHEET 3G-1 FOR FURTHER INFORMATION

TOTAL UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN TOP 3' OF EMBANKMENT OR BACKFILL = 370 CY
 -L- STA 174+75 TO 176+25 (30' LT TO 45' LT)
 -L- STA 193+25 TO 193+75 (20' RT TO 50' RT)
 -L- STA 230+25 TO 234+25 (15' LT TO 25' LT)
 -L- STA 254+25 TO 256+75 (CL TO 10' RT)
 -L- STA 289+75 TO 272+25 (15' LT TO 20' LT)
 -Y3- STA 17+12 TO 19+08 (17' LT TO 23' LT; 17' RT TO 23' RT)
 -Y20- STA 11+87 TO 12+87 (27' RT TO 33' RT)