

REFERENCE: I-2513AC

PROJECT: 34165

CONTENTS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	LEGEND (SOIL & ROCK)
3-4	SITE PLAN AND PROFILES
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY BUNCOMBE
PROJECT DESCRIPTION I-26I-40I-240 INTERCHANGE TO
SR 3548 (HAYWOOD RD)

SITE DESCRIPTION NOISEWALL 3, FROM -L- STA.
24 + 10.24, 81.00' LT TO -L- STA. 41 + 01.27, 169.57' LT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-2513AC	1	13

CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT, AT (919) 707-6850. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU (IN-PLACE) TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE, OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO PERFORM INDEPENDENT SUBSURFACE INVESTIGATIONS AND MAKE INTERPRETATIONS AS NECESSARY TO CONFIRM CONDITIONS ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

- NOTES:
- THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N.C. DEPARTMENT OF TRANSPORTATION AS ACCURATE NOR IS IT CONSIDERED PART OF THE PLANS, SPECIFICATIONS OR CONTRACT FOR THE PROJECT.
 - BY HAVING REQUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

PERSONNEL

GOODNIGHT, D.J.

TRIGON EXP.

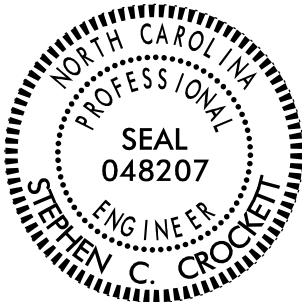
INVESTIGATED BY FALCON ENG.

DRAWN BY CROCKETT, S.C.

CHECKED BY HAMM, J.R.

SUBMITTED BY FALCON ENG.

DATE NOVEMBER 2025



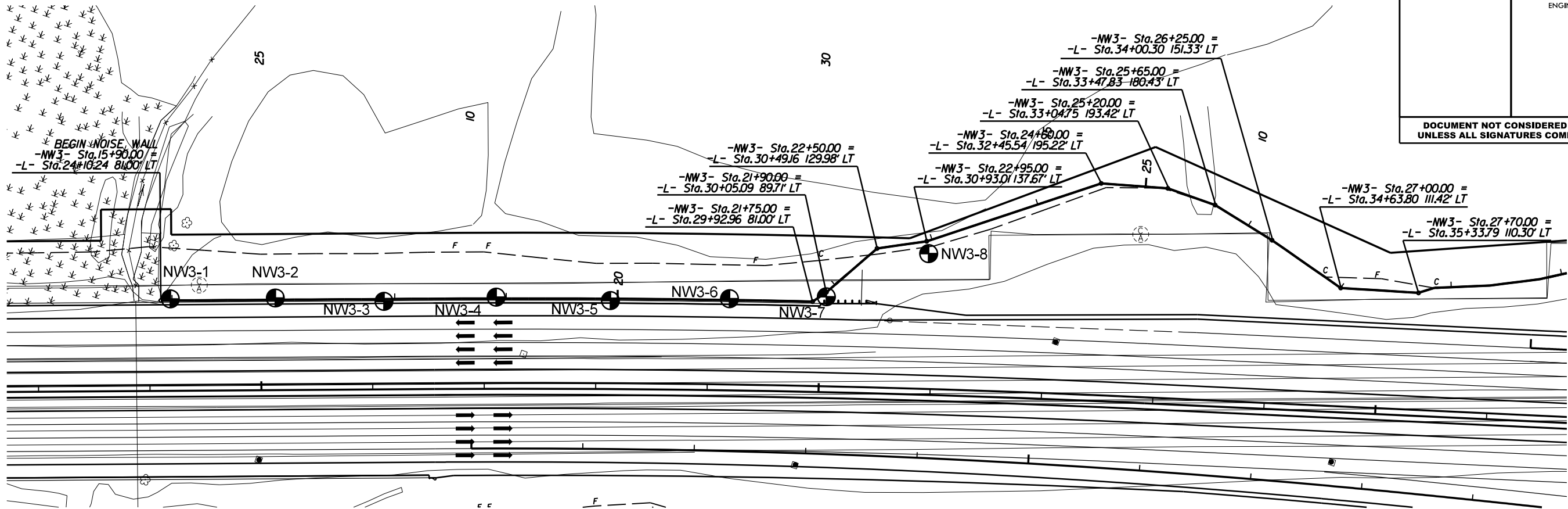
DocuSigned by:
Stephen Crockett 11/26/2025

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SIGNATURE DATE

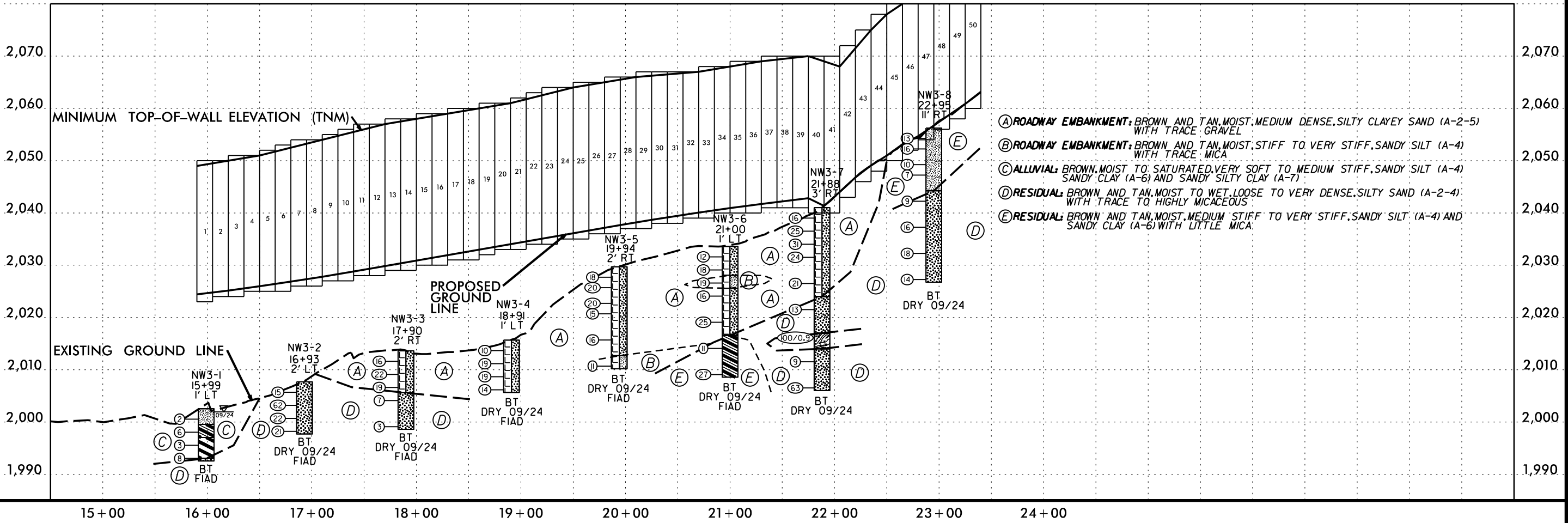
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

DATE: 8-15-14

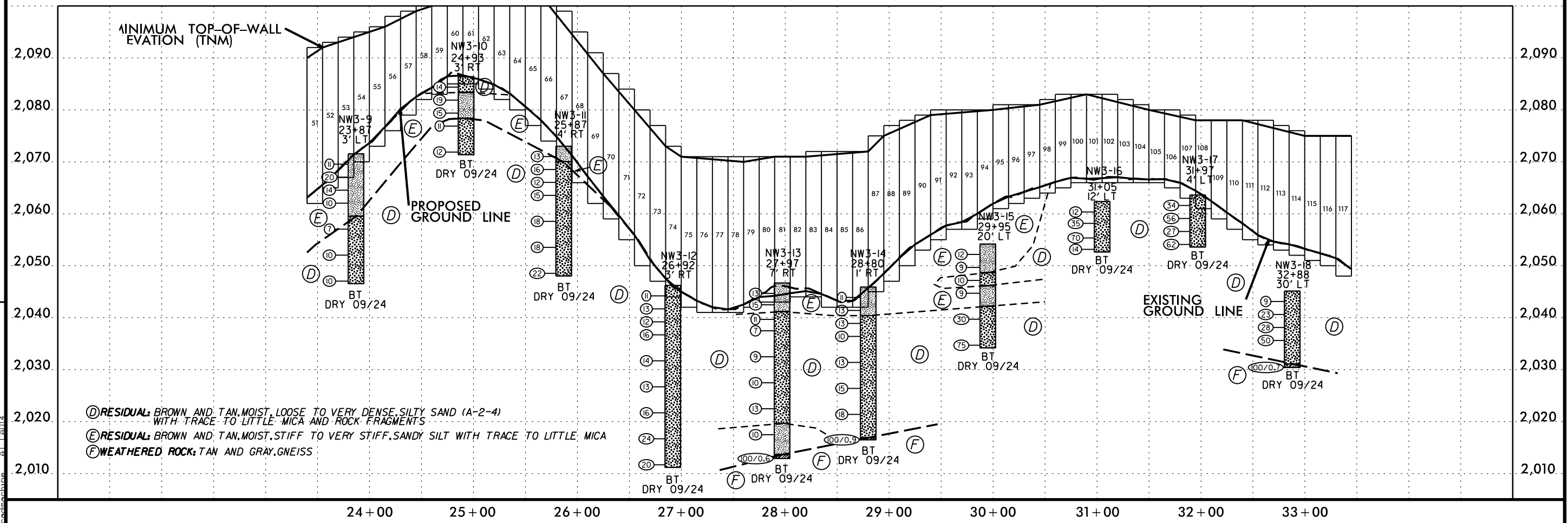
PROJECT REFERENCE NO.	SHEET NO.
1-2513AC	3
RW SHEET NO.	
TRAFFIC NOISE ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



NOISE WALL -NW3- STA 15 + 90.00 TO -NW3- STA 23 + 40.00



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

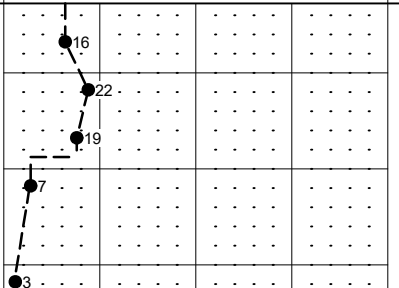
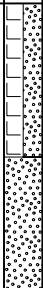
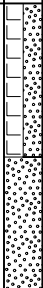


WBS 34165		TIP I-2513AC		COUNTY BUNCOMBE		GEOLOGIST GOODNIGHT, D.							
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT							GROUND WTR (ft)						
BORING NO. NW3-1		STATION 15+99		OFFSET 1 ft LT		ALIGNMENT -NW3-							
COLLAR ELEV. 2,002.6 ft		TOTAL DEPTH 10.0 ft		NORTHING 678,541		EASTING 928,309							
						0 HR. 0.6							
						24 HR. FIAD							
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024				DRILL METHOD H.S. Augers		HAMMER TYPE Automatic							
DRILLER TOOTHMAN, R.		START DATE 09/19/24		COMP. DATE 09/19/24		SURFACE WATER DEPTH N/A							
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT			SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)
			0.5ft	0.5ft	0.5ft	0	25	50	75	100			
2005													
	2,001.6	1.0											2,002.6 0.5' TOPSOIL 0.0
2000	1,999.1	3.5	1	WOH	2						W		1,999.6 BROWN, V. SOFT TO SOFT, SANDY SILT (A-4) 3.0
	1,996.6	6.0	2	4	2						M		1,997.1 BROWN, MED. STIFF, SANDY CLAY (A-6) 5.5
1995	1,994.1	8.5	WOH	1	2						Sat.		1,997.1 BROWN, SOFT, SANDY SILTY CLAY (A-7) 5.5
			WOH	2	6						W		1,993.1 9.5
													1,992.6 10.0
RESIDUAL BROWN AND TAN, LOOSE, SILTY SAND (A-2-4) Boring Terminated at Elevation 1,992.6 ft IN RESIDUAL: (A-2-4)													

WBS 34165		TIP I-2513AC		COUNTY BUNCOMBE		GEOLOGIST GOODNIGHT, D.							
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT							GROUND WTR (ft)						
BORING NO. NW3-2		STATION 16+93		OFFSET 2 ft LT		ALIGNMENT -NW3-		0 HR. Dry					
COLLAR ELEV. 2,007.7 ft		TOTAL DEPTH 10.0 ft		NORTHING 678,572		EASTING 928,398		24 HR. FIAD					
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024				DRILL METHOD H.S. Augers			HAMMER TYPE Automatic						
DRILLER TOOTHMAN, R.		START DATE 09/19/24		COMP. DATE 09/19/24		SURFACE WATER DEPTH N/A							
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT				SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
			0.5ft	0.5ft	0.5ft	0	25	50	75	100			
2010													
	2,006.7	1.0											2,007.7 0.3' TOPSOIL 0.0
2005	2,004.2	3.5	2	8	7						M		RESIDUAL TAN AND BROWN, MED. DENSE TO V. DENSE, SILTY SAND (A-2-4)
	2,001.7	6.0	10	26	36						M		
2000	1,999.2	8.5	31	12	10						W		
			7	13	8						M		
													1,997.7 10.0
Boring Terminated at Elevation 1,997.7 ft IN RESIDUAL: (A-2-4)													

NCDOT BORE DOUBLE I-1213AC_GEO_NOISEWALL_3.GPJ NC_DOT_GDT 11/21/25

GEOTECHNICAL BORING REPORT
BORE LOG

WBS 34165			TIP I-2513AC			COUNTY BUNCOMBE			GEOLOGIST GOODNIGHT, D.						
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT												GROUND WTR (ft)			
BORING NO. NW3-3			STATION 17+90			OFFSET 2 ft RT			ALIGNMENT -NW3-			0 HR. Dry			
COLLAR ELEV. 2,013.6 ft			TOTAL DEPTH 15.0 ft			NORTHING 678,601			EASTING 928,491			24 HR. FIAD			
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic						
DRILLER TOOTHMAN, R.			START DATE 09/19/24			COMP. DATE 09/19/24			SURFACE WATER DEPTH N/A						
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)
2015															
	2,012.6	1.0	4	8	8									2,013.6	0.3' TOPSOIL 0.0
2010	2,010.1	3.5	6	10	12							M		ROADWAY EMBANKMENT BROWN, MED. DENSE, SILTY CLAYEY SAND (A-2-5) WITH TRACE GRAVEL	
	2,007.6	6.0	11	11	8							M			
2005	2,005.1	8.5	3	4	3							M		2,005.6 8.0	
												W		RESIDUAL BROWN AND TAN, LOOSE TO V. LOOSE, SILTY SAND (A-2-4), HIGHLY MICACEOUS	
2000	2,000.1	13.5	1	1	2							Sat.		1,998.6	15.0
														Boring Terminated at Elevation 1,998.6 ft IN RESIDUAL: (A-2-4)	

NCDOT BORE DOUBLE I-1213AC_GEO_NOISEWALL_3.GPJ NC_DOT.GDT 11/21/25

WBS 34165			TIP I-2513AC			COUNTY BUNCOMBE			GEOLOGIST GOODNIGHT, D.					
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT											GROUND WTR (ft)			
BORING NO. NW3-4			STATION 18+91			OFFSET 1 ft LT			ALIGNMENT -NW3-			0 HR. Dry		
COLLAR ELEV. 2,015.7 ft			TOTAL DEPTH 10.0 ft			NORTHING 678,637			EASTING 928,585			24 HR. FIAD		
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic					
DRILLER TOOTHMAN, R.			START DATE 09/19/24			COMP. DATE 09/19/24			SURFACE WATER DEPTH N/A					
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				
2020														
2015	2,014.7	1.0	3	4	6									2,015.7 0.2' TOPSOIL 0.0
2010	2,012.2	3.5	5	10	9						M			ROADWAY EMBANKMENT BROWN TO TAN, LOOSE TO MED. DENSE, SILTY CLAYEY SAND (A-2-5) WITH TRACE GRAVEL
	2,009.7	6.0	5	10	9						M			
	2,007.2	8.5	4	6	8						M			
											M			
														Boring Terminated at Elevation 2,005.7 ft IN RESIDUAL: (A-2-5)

GEOTECHNICAL BORING REPORT
BORE LOG

WBS 34165			TIP I-2513AC			COUNTY BUNCOMBE			GEOLOGIST GOODNIGHT, D.						
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT										GROUND WTR (ft)					
BORING NO. NW3-5			STATION 19+94			OFFSET 2 ft RT			ALIGNMENT -NW3-			0 HR. Dry			
COLLAR ELEV. 2,029.7 ft			TOTAL DEPTH 19.5 ft			NORTHING 678,667			EASTING 928,683			24 HR. FIAD			
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024						DRILL METHOD H.S. Augers				HAMMER TYPE Automatic					
DRILLER TOOTHMAN, R.			START DATE 09/19/24			COMP. DATE 09/19/24			SURFACE WATER DEPTH N/A						
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)
2030														2,029.7	0.0
2025	2,028.7	1.0	5	7	11						M		ROADWAY EMBANKMENT BROWN, MED. DENSE, SILTY CLAYEY SAND (A-2-5)		
	2,026.7	3.0	5	10	10										
2020	2,023.7	6.0	6	10	10						M		TAN-BROWN, STIFF, SANDY SILT (A-4) WITH TRACE MICA		
	2,021.7	8.0	4	6	9										
2015	2,016.7	13.0	4	7	9						M		Boring Terminated at Elevation 2,010.2 ft IN RESIDUAL: (A-4)		
	2,011.7	18.0	3	5	6										

WBS 34165			TIP I-2513AC			COUNTY BUNCOMBE			GEOLOGIST GOODNIGHT, D.					
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT									GROUND WTR (ft)					
BORING NO. NW3-6			STATION 21+00			OFFSET 1 ft LT			ALIGNMENT -NW3-			0 HR. Dry		
COLLAR ELEV. 2,033.6 ft			TOTAL DEPTH 25.0 ft			NORTHING 678,704			EASTING 928,784			24 HR. FIAD		
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic					
DRILLER TOOTHMAN, R.			START DATE 09/19/24			COMP. DATE 09/19/24			SURFACE WATER DEPTH N/A					
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				
2035														
	2,032.6	1.0	5	6	6									2,033.6 0.3' TOPSOIL 0.0
2030	2,030.1	3.5	6	8	10						M		ROADWAY EMBANKMENT BROWN, MED. DENSE, SILTY CLAYEY SAND (A-2-5)	
	2,027.6	6.0	6	9	10						M		2,028.1 5.5	
2025	2,025.1	8.5	5	7	9						M		2,025.6 8.0	
2020	2,020.1	13.5	4	9	16						M			
														2,016.6 17.0
2015	2,015.1	18.5	4	5	6						M		RESIDUAL BROWN AND TAN, STIFF TO V. STIFF, SANDY CLAY (A-6)	
2010	2,010.1	23.5	7	12	15						M		2,008.6 25.0	
														Boring Terminated at Elevation 2,008.6 ft IN RESIDUAL: (A-6)

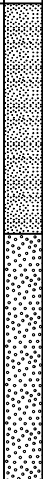
NCDOT BORE DOUBLE I-1213AC_GEO_NOISEWALL_3.GPJ NC_DOT.GDT 11/21/25

[illegible]

WBS 34165			TIP I-2513AC			COUNTY BUNCOMBE			GEOLOGIST GOODNIGHT, D.					
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT											GROUND WTR (ft)			
BORING NO. NW3-8			STATION 22+95			OFFSET 11 ft RT			ALIGNMENT -NW3-			0 HR.	Dry	
COLLAR ELEV. 2,056.3 ft			TOTAL DEPTH 29.5 ft			NORTHING 678,800			EASTING 928,940			24 HR.	Dry	
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic					
DRILLER TOOTHMAN, R.			START DATE 09/18/24			COMP. DATE 09/18/24			SURFACE WATER DEPTH N/A					
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				
2060														
2055	2,055.3	1.0												2,056.3 0.2' TOPSOIL 0.0
2050	2,053.3	3.0	3	6	7	13					M			RESIDUAL BROWN, MED. STIFF TO V. STIFF, SANDY SILT (A-4), WITH LITTLE MICA
	2,053.3		5	8	8	16					M			
2045	2,050.3	6.0	4	5	5	10					M			2,044.3 12.0 BROWN AND TAN, LOOSE TO MED. DENSE, SILTY SAND (A-2-4) WITH LITTLE QUARTZ FRAGS AND LITTLE MICA
	2,048.3	8.0	3	3	4	7					M			
2040	2,043.3	13.0	5	4	5	9					M			2,026.8 29.5 Boring Terminated at Elevation 2,026.8 ft IN RESIDUAL: (A-2-4)
	2,038.3	18.0	5	7	9	16					M			
2035	2,033.3	23.0	5	8	10	18					M			
2030	2,028.3	28.0	5	7	7	14					M			

NCDOT BORE DOUBLE I-1213AC_GEO_NOISEWALL_3.GPJ NC_DOT_GDT 11/21/25

GEOTECHNICAL BORING REPORT
BORE LOG

WBS 34165			TIP I-2513AC			COUNTY BUNCOMBE			GEOLOGIST GOODNIGHT, D.						
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT												GROUND WTR (ft)			
BORING NO. NW3-9			STATION 23+87			OFFSET 3 ft LT			ALIGNMENT -NW3-			0 HR.	Dry		
COLLAR ELEV. 2,071.5 ft			TOTAL DEPTH 25.0 ft			NORTHING 678,868			EASTING 929,006			24 HR.	Dry		
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic						
DRILLER TOOTHMAN, R.			START DATE 09/18/24			COMP. DATE 09/18/24			SURFACE WATER DEPTH N/A						
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)
2075															
2070	2,070.5	1.0												2,071.5	0.0
2065	2,068.0	3.5	3	5	6	11						M		0.2' TOPSOIL	RESIDUAL BROWN, STIFF TO V. STIFF, SANDY SILT (A-4) WITH TRACE TO LITTLE MICA
	2,065.5	6.0	6	9	11	20					M				
	2,063.0	8.5	4	7	7	14					M				
2060	2,058.0	13.5				10						M	2,059.5	12.0	
	2,053.0	18.5	3	3	4	7						M	TAN-BROWN, LOOSE TO MED. DENSE, SILTY SAND (A-2-4) WITH LITTLE MICA		
2050	2,048.0	23.5	4	4	6	10						M	2,046.5	25.0	
			4	5	5	10						M	Boring Terminated at Elevation 2,046.5 ft IN RESIDUAL: (A-2-4)		

NCDOT BORE DOUBLE I-1213AC_GEO_NOISEWALL_3.GPJ NC_DOT.GDT 11/21/25

WBS 34165			TIP I-2513AC			COUNTY BUNCOMBE			GEOLOGIST GOODNIGHT, D.							
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT												GROUND WTR (ft)				
BORING NO. NW3-10			STATION 24+93			OFFSET 3 ft RT			ALIGNMENT -NW3-			0 HR.	Dry			
COLLAR ELEV. 2,086.4 ft			TOTAL DEPTH 15.0 ft			NORTHING 678,915			EASTING 929,098			24 HR.	Dry			
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic							
DRILLER TOOTHMAN, R.			START DATE 09/18/24			COMP. DATE 09/18/24			SURFACE WATER DEPTH N/A							
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
2090																
2085	2,085.4	1.0												2,086.4	0.2' TOPSOIL	0.0
2080	2,082.9	3.5	4	6	8	14						M		2,083.4	RESIDUAL BROWN, MED. DENSE, SILTY CLAYEY SAND (A-2-5)	3.0
	2,080.4	6.0	5	9	10	19						M			BROWN, STIFF TO V. STIFF, SANDY SILT (A-4), WITH TRACE MICA	
	2,077.9	8.5	4	6	9	15						M		2,078.4	TAN-BROWN, MED. DENSE SILTY SAND (A-2-4) WITH LITTLE MICA	8.0
2075	2,072.9	13.5	3	5	6	11						M				
			4	5	7	12						M		2,071.4	Boring Terminated at Elevation 2,071.4 ft IN RESIDUAL: (A-2-4)	15.0

WBS		34165		TIP		I-2513AC		COUNTY		BUNCOMBE		GEOLOGIST		GOODNIGHT, D.																																	
SITE DESCRIPTION												NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT				GROUND WTR (ft)																															
BORING NO.				NW3-11				STATION				25+87		OFFSET		4 ft RT		ALIGNMENT		-NW3-		0 HR.		Dry																							
COLLAR ELEV.				2,073.0 ft				TOTAL DEPTH				25.0 ft		NORTHING		929,190		EASTING		678,915		24 HR.		Dry																							
DRILL RIG/HAMMER EFF./DATE										TRI0472 CME-850 90% 05/13/2024										DRILL METHOD				H.S. Augers				HAMMER TYPE				Automatic															
DRILLER						TOOTHMAN, R.						START DATE						09/18/24						COMP. DATE						09/18/24						SURFACE WATER DEPTH						N/A					
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	L O G	SOIL AND ROCK DESCRIPTION																																	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft) DEPTH (ft)																																	
2075																																															
	2,072.0	1.0																																													
2070	2,069.5	3.5	3	6	7							M		0.2' TOPSOIL 0.0																																	
	2,069.5	3.5	6	8	8							M		RESIDUAL BROWN, STIFF, SANDY SILT (A-4) WITH LITTLE MICA 3.0																																	
	2,067.0	6.0										M		TAN-BROWN, MED. DENSE, SILTY SAND (A-2-4) WITH TRACE TO LITTLE MICA																																	
2065	2,064.5	8.5	5	5	7							M																																			
	2,064.5	8.5	5	8	7							M																																			
2060	2,059.5	13.5	4	8	10							M																																			
	2,059.5	13.5										M																																			
2055	2,054.5	18.5	5	8	10							M																																			
	2,054.5	18.5										M																																			
2050	2,049.5	23.5	9	11	11							M																																			
	2,049.5	23.5										M		Boring Terminated at Elevation 2,048.0 ft IN RESIDUAL: (A-2-4) 25.0																																	

WBS 34165		TIP I-2513AC		COUNTY BUNCOMBE		GEOLOGIST GOODNIGHT, D.								
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT								GROUND WTR (ft)						
BORING NO. NW3-12		STATION 26+92		OFFSET 3 ft RT		ALIGNMENT -NW3-		0 HR.	Dry					
COLLAR ELEV. 2,046.2 ft		TOTAL DEPTH 35.0 ft		NORTHING 929,291		EASTING 678,890		24 HR.	Dry					
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024				DRILL METHOD H.S. Augers		HAMMER TYPE Automatic								
DRILLER TOOTHMAN, R.		START DATE 09/18/24		COMP. DATE 09/18/24		SURFACE WATER DEPTH N/A								
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				
2050														
2045	2,045.2	1.0												2,046.2 0.3' TOPSOIL 0.0
2040	2,042.7	3.5	3	6	5							M		RESIDUAL TAN-BROWN, MED. DENSE, SILTY SAND (A-2-4) WITH LITTLE MICA
	2,040.2	6.0	4	7	6							M		
2035	2,037.7	8.5	5	6	6							M		
	2,032.7	13.5	5	8	8							M		
2030	2,032.7	13.5	4	7	7							M		
	2,027.7	18.5										M		
2025	2,027.7	18.5	4	6	7							M		
	2,022.7	23.5	5	7	9							M		
2020	2,017.7	28.5	7	13	11							M		
	2,012.7	33.5	4	10	10							M		
2015												M	2,011.2 35.0	
														Boring Terminated at Elevation 2,011.2 ft IN RESIDUAL: (A-2-4)

NCDOT BORE DOUBLE I-1213AC_GEO_NOISEWALL_3.GPJ NC_DOT_GDT 11/21/25

WBS 34165		TIP I-2513AC		COUNTY BUNCOMBE		GEOLOGIST GOODNIGHT, D.								
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT							GROUND WTR (ft)							
BORING NO. NW3-13		STATION 27+97		OFFSET 7 ft RT		ALIGNMENT -NW3-		0 HR. Dry						
COLLAR ELEV. 2,046.7 ft		TOTAL DEPTH 33.8 ft		NORTHING 929,392		EASTING 678,915		24 HR. Dry						
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024				DRILL METHOD H.S. Augers			HAMMER TYPE Automatic							
DRILLER TOOTHMAN, R.		START DATE 09/16/24		COMP. DATE 09/16/24		SURFACE WATER DEPTH N/A								
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT				SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100			ELEV. (ft)	DEPTH (ft)
2050														
2045	2,045.7	1.0	6	6	7								2,046.7	0.0
	2,043.5	3.2	5	7	8						M		0.2' TOPSOIL	
2040	2,040.7	6.0	5	6	5						M		RESIDUAL	
	2,038.5	8.2	4	3	4						M		TAN-BROWN, STIFF TO V. STIFF, SANDY SILT (A-4), WITH LITTLE MICA	
2035	2,033.5	13.2	3	4	5						M		2,041.2	5.5
2030	2,028.5	18.2	3	5	5						M		TAN TO BROWN, LOOSE TO MED. DENSE SILTY SAND (A-2-4) WITH LITTLE TO SOME MICA	
2025	2,023.5	23.2	7	7	6						M			
2020	2,018.5	28.2	2	4	6						M		2,019.7	27.0
2015	2,013.5	33.2	40	60/0.1							W		TAN, STIFF, F. SANDY SILT (A-4)	
													2,013.7	33.0
													2,012.9	33.8
													WEATHERED ROCK	
													TAN, GNEISS	
													Boring Terminated at Elevation 2,012.9 ft IN PARTIALLY WEATHERED ROCK: GNEISS	

WBS 34165			TIP I-2513AC			COUNTY BUNCOMBE			GEOLOGIST GOODNIGHT, D.				
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT									GROUND WTR (ft)				
BORING NO. NW3-14			STATION 28+80			OFFSET 1 ft RT			ALIGNMENT -NW3-			0 HR.	Dry
COLLAR ELEV. 2,045.9 ft			TOTAL DEPTH 29.4 ft			NORTHING 929,466			EASTING 678,955			24 HR.	Dry
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic				
DRILLER TOOTHMAN, R.			START DATE 09/16/24			COMP. DATE 09/16/24			SURFACE WATER DEPTH N/A				
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION
			0.5ft	0.5ft	0.5ft	0	25	50	75	100			
2050													
2045	2,044.9	1.0	5	5	6								2,045.9 0.3' TOPSOIL 0.0
2040	2,042.4	3.5	5	5	8								RESIDUAL BROWN, STIFF, F. SANDY SILT (A-4) WITH SOME MICA
	2,039.9	6.0	4	6	7								
2035	2,037.4	8.5	3	5	5								TAN-BROWN, LOOSE TO MED. DENSE, SILTY SAND (A-2-4), WITH SOME MICA
	2,032.4	13.5	4	7	6								
2030													
2025	2,027.4	18.5	5	8	7								
	2,022.4	23.5	5	9	9								
2020	2,017.4	28.5	18	82/0.4									2,016.9 29.0
													2,016.5 29.4
													PARTIALLY WEATHERED ROCK TAN, GNEISS Boring Terminated at Elevation 2,016.5 ft IN PARTIALLY WEATHERED ROCK: GNEISS

NCDOT BORE DOUBLE I-1213AC_GEO_NOISEWALL_3.GPJ NC_DOT_GDT 11/21/25

WBS 34165		TIP I-2513AC		COUNTY BUNCOMBE		GEOLOGIST GOODNIGHT, D.									
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT							GROUND WTR (ft)								
BORING NO. NW3-15		STATION 29+95		OFFSET 20 ft LT		ALIGNMENT -NW3-		0 HR. Dry							
COLLAR ELEV. 2,054.2 ft		TOTAL DEPTH 20.0 ft		NORTHING 929,555		EASTING 679,031		24 HR. Dry							
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024				DRILL METHOD H.S. Augers			HAMMER TYPE Automatic								
DRILLER TOOTHMAN, R.		START DATE 09/16/24		COMP. DATE 09/16/24		SURFACE WATER DEPTH N/A									
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)
2055														2,054.2	0.0
2050	2,053.2	1.0	5	6	6									0.2' TOPSOIL	
	2,050.7	3.5	4	4	5									RESIDUAL BROWN, STIFF, SANDY SILT (A-4)	
	2,048.2	6.0	4	5	5									2,048.7	5.5
2045	2,045.7	8.5	3	5	4									2,046.2	8.0
														TAN, LOOSE TO MED. DENSE, SILTY SAND (A-2-4)	
2040	2,040.7	13.5	9	17	13									2,042.2	12.0
														TAN-BROWN, STIFF, SANDY SILT (A-4)	
2035	2,035.7	18.5	14	46	29									2,034.2	20.0
														TAN, MED. DENSE TO V. DENSE SILTY SAND (A-2-4)	
														Boring Terminated at Elevation 2,034.2 ft IN RESIDUAL: (A-2-4)	

WBS 34165			TIP I-2513AC			COUNTY BUNCOMBE			GEOLOGIST GOODNIGHT, D.				
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT									GROUND WTR (ft)				
BORING NO. NW3-16			STATION 31+05			OFFSET 12 ft LT			ALIGNMENT -NW3-				
COLLAR ELEV. 2,062.4 ft			TOTAL DEPTH 9.7 ft			NORTHING 929,658			EASTING 679,075				
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic				
DRILLER TOOTHMAN, R.			START DATE 09/16/24			COMP. DATE 09/16/24			SURFACE WATER DEPTH N/A				
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION
			0.5ft	0.5ft	0.5ft	0	25	50	75	100			
2065													
	2,061.4	1.0	6	5	7								2,062.4 0.3' TOPSOIL 0.0
2060	2,059.2	3.2	10	15	20								RESIDUAL TAN, MED. DENSE TO V. DENSE SILTY SAND (A-2-4)
	2,056.4	6.0	31	32	38								
2055	2,054.2	8.2	9	7	7								
Boring Terminated at Elevation 2,052.7 ft IN RESIDUAL: (A-2-4)													

WBS 34165			TIP I-2513AC			COUNTY BUNCOMBE			GEOLOGIST GOODNIGHT, D.							
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT									GROUND WTR (ft)							
BORING NO. NW3-17			STATION 31+97			OFFSET 4 ft LT			ALIGNMENT -NW3-			0 HR. Dry				
COLLAR ELEV. 2,063.6 ft			TOTAL DEPTH 10.0 ft			NORTHING 929,750			EASTING 679,097			24 HR. Dry				
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic							
DRILLER TOOTHMAN, R.			START DATE 09/13/24			COMP. DATE 09/13/24			SURFACE WATER DEPTH N/A							
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
2065																
	2,062.6	1.0												2,063.6	0.3' TOPSOIL	0.0
2060	2,060.1	3.5	12	16	18							M		RESIDUAL TAN, MED. DENSE TO V. DENSE. SILTY SAND (A-2-4)		
	2,057.6	6.0	26	34	22							M				
	2,055.1	8.5	9	12	15							M				
2055			14	25	37							M			2,053.6	10.0
Boring Terminated at Elevation 2,053.6 ft IN RESIDUAL: (A-2-4)																

WBS 34165		TIP I-2513AC		COUNTY BUNCOMBE		GEOLOGIST GOODNIGHT, D.								
SITE DESCRIPTION NOISEWALL 3, FROM -L- STA. 24+10.24, 81.00' LT TO -L- STA. 41+01.27, 169.57' LT							GROUND WTR (ft)							
BORING NO. NW3-18		STATION 32+88		OFFSET 30 ft LT		ALIGNMENT -NW3-		0 HR. Dry						
COLLAR ELEV. 2,045.1 ft		TOTAL DEPTH 14.7 ft		NORTHING 929,832		EASTING 679,139		24 HR. Dry						
DRILL RIG/HAMMER EFF./DATE TRI0472 CME-850 90% 05/13/2024				DRILL METHOD H.S. Augers			HAMMER TYPE Automatic							
DRILLER TOOTHMAN, R.		START DATE 09/12/24		COMP. DATE 09/12/24		SURFACE WATER DEPTH N/A								
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				
2050														
2045														2,045.1 0.3' TOPSOIL 0.0
2040	2,044.1	1.0												RESIDUAL TAN-BROWN, LOOSE TO DENSE, SILTY SAND (A-2-4), WITH TRACE ROCK FRAGS.
	2,041.6	3.5	3	5	4									
	2,039.1	6.0	12	12	11									
2035	2,036.6	8.5	10	14	14									
	2,031.6	13.5	11	21	29									
			39	34	66/0.2									2,031.1 14.0 2,030.4 14.7
														WEATHERED ROCK TAN AND GRAY, GNEISS Boring Terminated at Elevation 2,030.4 ft IN PARTILLAY WEATHERED ROCK: GNEISS

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