

NOTE: SEE SHEET 2A FOR PLAN SHEET LAYOUT AT TIME OF INVESTIGATION

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5101	1	6
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
42223.1.1	BRZ-1149(5)	PE	
42223.2.1	BRZ-1149(5)	RW, UTL.	
42223.3.FD1	BRZ-1149(5)	CONST.	

CONTENTS

LINE	STATION	PLAN	PROFILE	XSECT
-L-	13+25 - 20+00	4	5	
SAMPLES		6		

ROADWAY
SUBSURFACE INVESTIGATION

PROJ. REFERENCE NO. 42223.1.1 (B-5101) F.A. PROJ. BRZ-1149(5)
COUNTY CATAWBA
PROJECT DESCRIPTION BRIDGE NO. 83 ON SR 1149 OVER CLARK CREEK

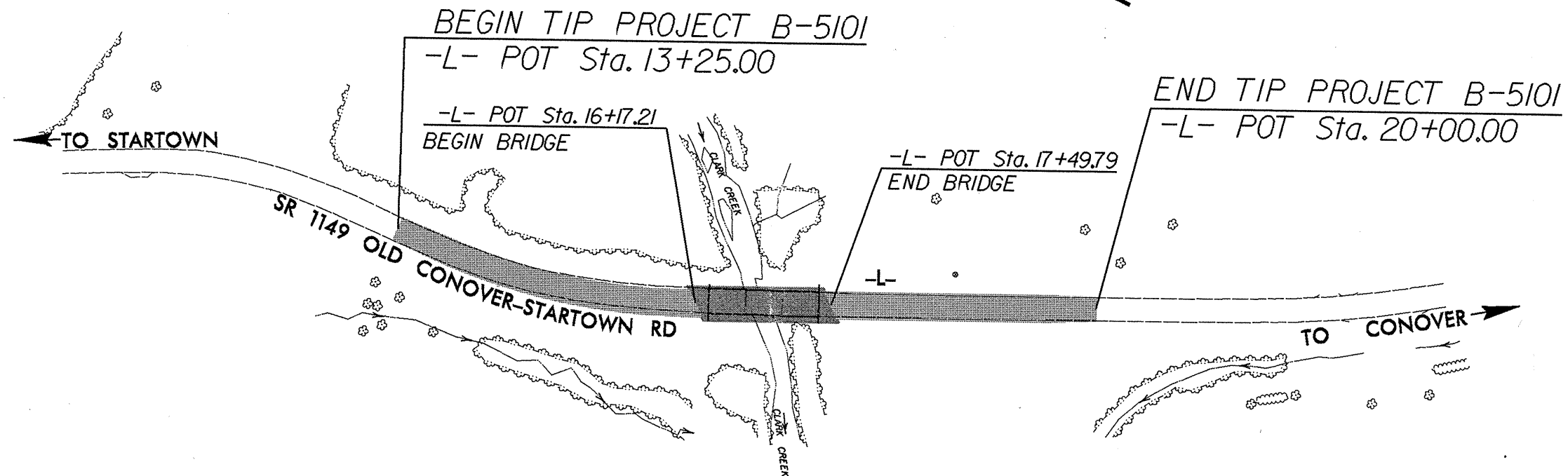
CAUTION NOTICE

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 RALPHIGH BY CONTACTING THE N. C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT 1919 250-4088. NEITHER THE SUBSURFACE PLANS AND REPORTS, NOR THE FIELD BORING LOGS, ROCK CORES, OR SOIL TEST DATA ARE 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 MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THIS 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.

INVENTORY



PERSONNEL
C. C. MURRAY
J. E. ESTEP
M. R. MOORE

INVESTIGATED BY **C. B. LITTLE**
CHECKED BY **C. B. LITTLE**
SUBMITTED BY **C. B. LITTLE**
DATE **AUGUST 2011**



DRAWN BY: **C. E. BURRIS / J.K. McCLURE**

NOTE - THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N. C. DEPARTMENT OF TRANSPORTATION AS BEING ACCURATE NOR IS IT CONSIDERED TO BE PART OF THE PLANS, SPECIFICATIONS, OR CONTRACT FOR THE PROJECT.

NOTE - 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.

CONTRACT: C203299 ID: B-5101

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

PROJECT REFERENCE NO.
42223.1.1 (B-5101) SHEET NO.
2

SUBSURFACE INVESTIGATION

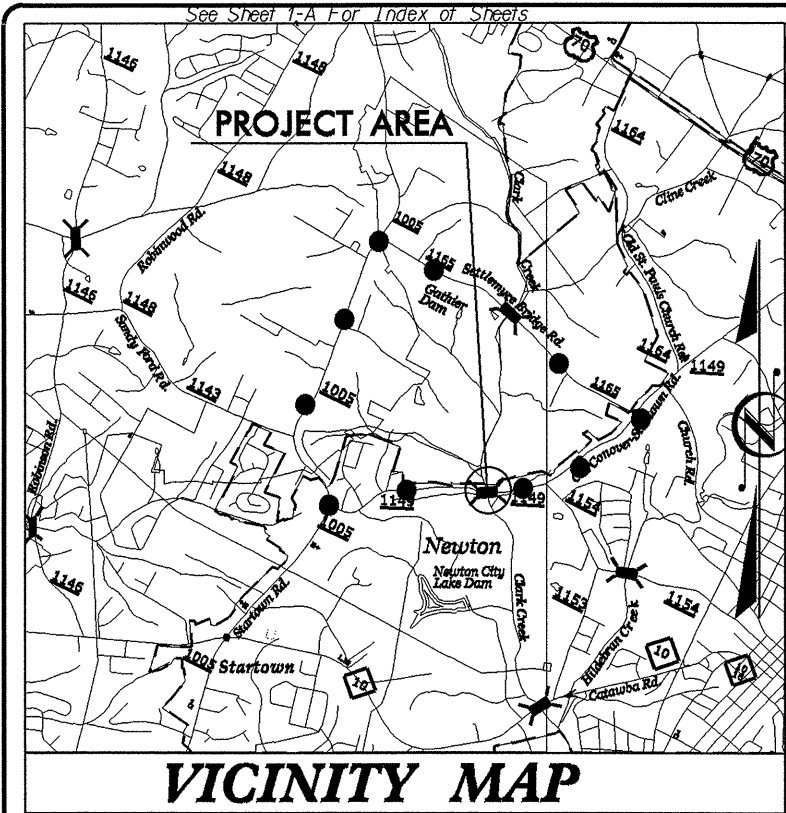
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION		GRADATION		ROCK DESCRIPTION		TERMS AND DEFINITIONS																																																																																																																																																																																																							
<p>SOIL IS CONSIDERED TO BE THE UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER, AND YIELD LESS THAN 100 BLOWS PER FOOT ACCORDING TO STANDARD PENETRATION TEST (ASTM D-1586). SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM. BASIC DESCRIPTIONS GENERALLY SHALL INCLUDE: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. EXAMPLE:</p> <p style="text-align: center;"><i>VERY STIFF, GRAY, SILTY CLAY, MOST WITH INTERBEDDED FINE SAND LAYERS, HIGH PLASTIC, A-7-6</i></p>		<p>WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE. UNIFORM - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE. (ALSO POORLY GRADED) GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLES OF TWO OR MORE SIZES.</p> <p style="text-align: center;">ANGULARITY OF GRAINS</p> <p>THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS: ANGULAR, SUBANGULAR, SUBROUNDED, OR ROUNDED.</p>		<p>HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT IF TESTED, WOULD YIELD SPT REFUSAL, AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH NON-COASTAL PLAIN MATERIAL WOULD YIELD SPT REFUSAL. SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS. IN NON-COASTAL PLAIN MATERIAL, THE TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF WEATHERED ROCK. ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS:</p>		<p>ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER. AQUIFER - A WATER BEARING FORMATION OR STRATA. ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND. ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, AS SHALE, SLATE, ETC. ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND SURFACE. CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE. COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE. CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK. DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL. DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH. FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE. FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES. FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM PARENT MATERIAL. FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. FORMATION (FM) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD. JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT. LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS, MOTTLING IN SOILS USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE. PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM. RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK. ROCK QUALITY DESIGNATION (RQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK. SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS. SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE. STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (N OR BPF) OF A 140 LB. HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF 1 FOOT INTO SOIL WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS. STRATA CORE RECOVERY (SREC) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE. STRATA ROCK QUALITY DESIGNATION (SRQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. TOPSOIL (TS) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.</p>																																																																																																																																																																																																							
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<input checked="" type="checkbox"/> CME-550	<input type="checkbox"/> HARD FACED FINGER BITS	<input type="checkbox"/> N																																																																																																																																																																																																											
<input type="checkbox"/> PORTABLE HOIST	<input checked="" type="checkbox"/> TUNG-CARBIDE INSERTS	<input type="checkbox"/> H																																																																																																																																																																																																											
	<input type="checkbox"/> CASING w/ ADVANCER	<input type="checkbox"/> HAND TOOLS:																																																																																																																																																																																																											
	<input type="checkbox"/> TRICONE STEEL TEETH	<input type="checkbox"/> POST HOLE DIGGER																																																																																																																																																																																																											
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		<input type="checkbox"/> VANE SHEAR TEST																																																																																																																																																																																																											
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VERY WIDE	MORE THAN 10 FEET	VERY THICKLY BEDDED	> 4 FEET																																																																																																																																																																																																										
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 imclosure AT GEH240347

TIP PROJECT: B-5101

CONTRACT:



VICINITY MAP

DETOUR

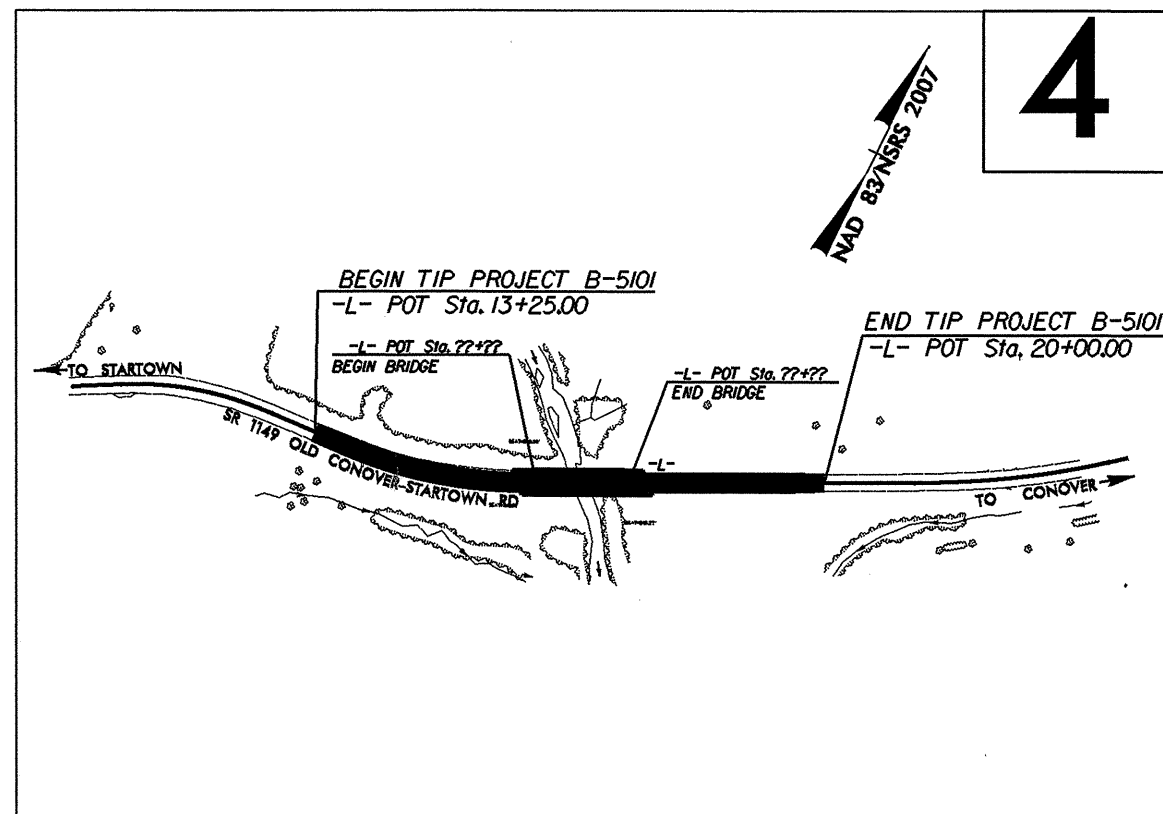
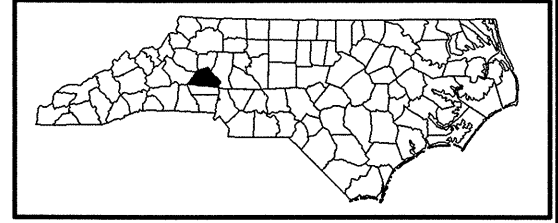
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CATAWBA COUNTY

**LOCATION: BRIDGE NO. 83 ON SR 1149
OVER CLARK CREEK**

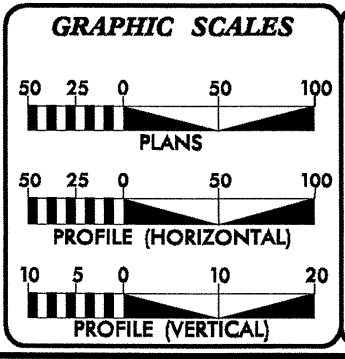
**TYPE OF WORK: GRADING, PAVING, DRAINAGE,
AND STRUCTURE**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5101	2A	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
42223.1.1	BRZ-1149(5)	PE	
42223.2.1	BRZ-1149(5)	RW, UTL.	
42223.3.1	BRZ-1149(5)	CONST.	



**THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF NEWTON.
CLEARING ON THIS PROJECT SHALL BE PERFORMED
BY THE LIMITS ESTABLISHED BY METHOD _____**

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



DESIGN DATA

ADT 2011 =	6260
ADT 2035 =	9400
DHV =	11%
D =	65%
T =	4% *
V =	50 MPH
Func Class:	URBAN MINOR ARTERIAL
	Subregional Tier
* TTST 1%	DUAL 3%

PROJECT LENGTH

Length Roadway TIP Project B-5101 =	
Length Structure TIP Project B-5101 =	
Total Length TIP Project B-5101 =	0.128 mi

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: DECEMBER 24, 2013	JASON MOORE, P.E. PROJECT ENGINEER
LETTING DATE: JANUARY 20, 2015	JEANIE TYSON PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

STATE HIGHWAY DESIGN ENGINEER

Earthwork Balance Sheet

Volumes in Cubic Yards

PROJECT: B-5101

COUNTY: Catawba

DATE: 9/19/2013

COMPILED BY: SEC

SHEET ___ OF ___ SHEETS

STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE			
		TOTAL UNCLASS.	ROCK	UNDERCUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. +20%		ROCK	SUITABLE	UNSUIT.	TOTAL
13+25.00	16+17.21	319				319	839		839	1,007	688				
SUBTOTAL		319				319	839		839	1,007	688				
17+49.79	19+50.00	177				177	418		418	502	325				
SUBTOTAL		177				177	418		418	502	325				
SUBTOTAL															
SUBTOTAL															
SUBTOTAL															
TOTAL		496				496	1,257		1,257	1,508	1,012				
LOSS DUE TO CLEARING & GRUBBING		-38				-38					38				
PROJECT TOTAL		458				458	1,257		1,257	1,508	1,050				
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT											53				
GRAND TOTAL		458				458	1,257		1,257	1,508	1,103				
SAY		470									1,200				

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.

TOTAL SHALLOW UNDERCUT	100	CY
CLASS IV SUBGRADE STABILIZATION	190	TON

PER GEOTECH RECOMMENDATION, ESTIMATED 50 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

August 25, 2011

STATE PROJECT: 42223.1.1 (B-5101)
FEDERAL PROJECT: BRZ-1149(5)
COUNTY: Catawba
DESCRIPTION: Bridge 83 on SR 1149 over Clark Creek
SUBJECT: Geotechnical Report – Inventory

Project Description

The project location is near the city of Newton, in central Catawba County. SR 1149 (Old Conover-Startown Road) is a rural, two-lane (22' BST) roadway. The existing bridge over Clark Creek is 106' long, 25.1' wide, and three spans, built in 1952. Proposed improvements will replace the existing bridge and improve the roadway approaches. Total length of the project is 775'.

This report addresses the roadway portion of the project. The approach roadway will be widened to provide two 12' travel lanes plus 8' shoulders (4' paved shoulder). Most of the widening is in embankment section, but there is a cut section from Station 13+25 to 15+00 –L-, left side. The cuts are for ditches and back slopes – typically 3-4' deep. Maximum embankment height is on the order of 8'.

The Geotechnical Engineering Unit conducted a total of three Standard Penetration Test borings. One boring was in the cut section to determine presence of rock. The other two borings were intended to characterize the alluvial soils under the proposed widened embankments.

Areas of Special Geotechnical Interest

There were no areas of special interest.

Physiography and Geology

The existing roadway grade elevation is between 850' and 860', 851'-852' on the bridge. The streambed elevation is about 835'. The floodplain surface is near 847'. Clark Creek flows

from northwest to southeast within the project area. The stream channel is about 30' wide; depth of water is one foot or less at normal flow. Geology at the site is Inner Piedmont Belt, biotite gneiss and amphibolite. Rock core samples were not obtained. Saprolite and weathered rock samples were consistent with biotite gneiss.

Soils

The boring in the cut section (Station 14+00, 40' Lt.) encountered four feet of residual soil (v. stiff, fine sandy silt, A-4), then 10' of weathered rock, but no rock (as defined by auger or SPT refusal). The floodplain borings found alluvial soils, soft sandy clay or loose clayey sand (A-7, A-6, A-2-6) to a maximum depth of 10'. Residual soils under the alluvial deposit were very stiff sandy silt, dense silty sand, and/or weathered rock.

Groundwater

The boring at Station 14+00 was dry. The floodplain borings drew water at depths of 7' and 8', near elevation 840'.

Respectfully Submitted,

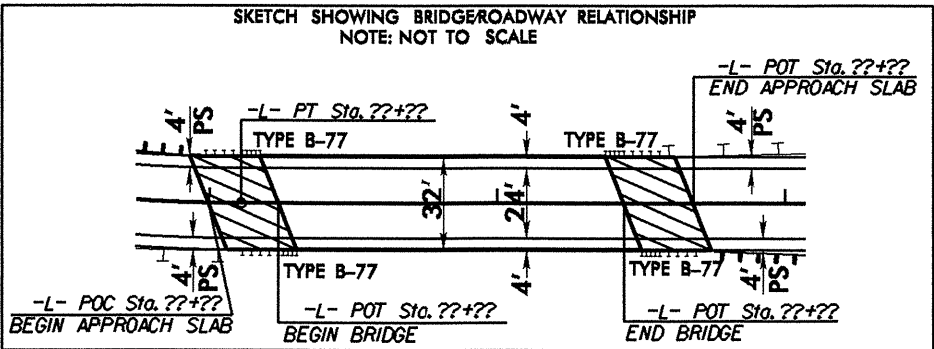
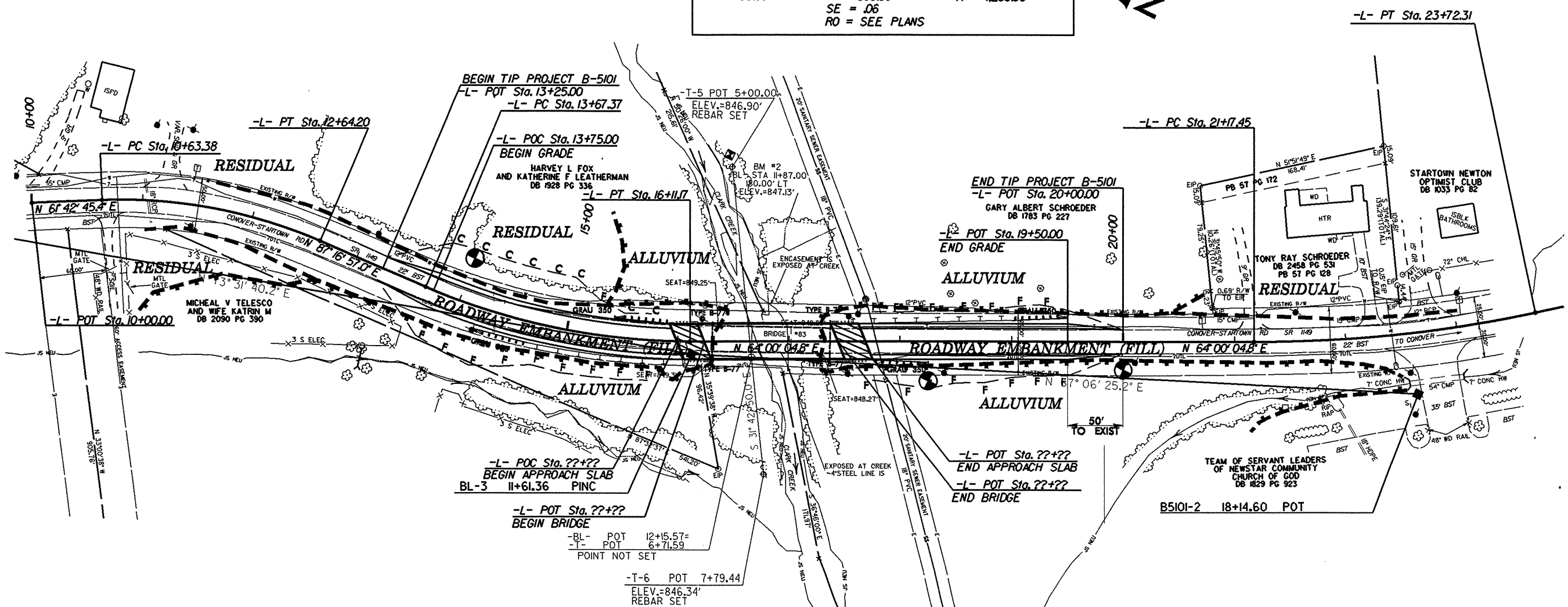
Clint Little
Project Geological Engineer

PROJECT REFERENCE NO.	SHEET NO.
B-5101	4
RAW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

NAD 83/NSRS 2007

-L-

PI Sta 11+65.49 Δ = 25° 34' 11.5" (RT) D = 12° 43' 56.6" L = 200.83' T = 102.11' R = 450.00'	PI Sta 14+90.98 Δ = 23° 16' 52.2" (LT) D = 9° 32' 57.5" L = 243.80' T = 123.61' R = 600.00' SE = .06 RO = SEE PLANS	PI Sta 22+45.36 Δ = 12° 10' 06.0" (LT) D = 4° 46' 28.7" L = 254.85' T = 127.91' R = 1,200.00'
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SEE SHEET 5 FOR -L- PROFILE

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SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC	Line or Boring ID
							C.SAND	F.SAND	SILT	CLAY	10	40	200			
SS-1	35 RT	18+25	0.0-1.5	A-7-5(28)	62	27	2.4	14.3	20.7	62.6	100	99	87	-	-	L
SS-2	35 RT	18+25	4.0-5.0	A-6(2)	39	18	36.1	27.6	10.0	26.2	96	74	38	-	-	L
SS-3	35 RT	18+25	9.0-10.5	A-2-6(0)	31	11	38.1	27.6	10.0	24.2	94	72	34	-	-	L
SS-4	35 RT	20+00	0.0-1.5	A-7-6(10)	47	27	23.4	27.9	6.4	42.4	99	86	52	-	-	L
SS-5	25 RT	20+00	4.0-5.5	A-2-6(1)	36	19	44.8	25.8	7.2	22.2	98	72	31	-	-	L
SS-6	40 LT	14+00	0.0-1.5	A-4(0)	32	NP	22.2	51.1	18.7	8.1	100	90	37	-	-	L
SS-7	40 LT	14+00	4.0-5.5	A-2-4(0)	31	NP	32.3	48.8	12.8	6.1	93	77	26	-	-	L
SS-8	40 LT	14+00	9.0-10.5	A-2-4(0)	34	NP	22.2	53.1	18.7	6.1	100	90	35	-	-	L

SHEET NO.

6