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**TITLE** 

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PLAN VIEW

PQ Lockamy

**STATION** 

-L- 19 + 83.00 - 21 + 90.79

<u>LINE</u>

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION **DIVISION OF HIGHWAYS** GEOTECHNICAL ENGINEERING UNIT

# **STRUCTURE** SUBSURFACE INVESTIGATION

PROJ. REFERENCE NO. U-5104 F.A. PROJ. <u>STP-064B(3)</u> COUNTY \_\_\_\_Transylvania PROJECT DESCRIPTION Caldwell Street from (Bus. 64) Rosman Highway (US 64) to Probart Street RETAINING WALL 2

## **INVENTORY**

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N.C.	1	U-5104	1	4	
STATI	PROJ. NO.	F. A. PROJ. NO.		DESCRIPT	ΓΙΟΝ
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### **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 YARROUS 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) 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 BORNOS OR BETWEEN SAMPLED STRATA WITHIN THE BORHOLE, THE LABORATORY SAMPLE DATA MNO THE IN SITU IN-PLACED 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. PREPIEDRATIONAL AND WIND AS WELL AS COTTER MANAGEMENT. TEMPERATURES, PRECIPITATION, AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

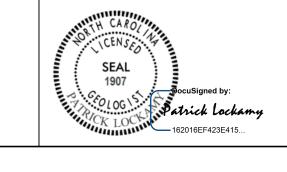
THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT, FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DETARTMENT 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. IT HE 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.

DE Elliott
DO CHEEK
C COFFEY

PERSONNEL

INVESTIGATED BY_	PQ Lockamy
CHECKED BY	
SUBMITTED BY	JC KUHNE

07-22-2014



NOTE - THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N. C. DEPARTMENT OF TRANSPORTATION AS BEING ACCURATE NOR IT IS 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.

# NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

### SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS								
SOIL DESCRIPTION	GRADATION		ROCK DESCRIPTION		TERMS AND DEFINITIONS			
SOIL IS CONSIDERED TO BE THE UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER, AND VIELD LESS THAN 180 BLOWS PER FOOT ACCORDING TO STANDARD PENETRATION TEST (AASHTO T286, ASTM D-1586). SOIL	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.		ROCK LINE INDICATES THE LEVEL AT SPT REFUSAL IS PENETRATION BY A S IN NON-COASTAL PLAIN MATERIAL. TH	TERIAL THAT IF TESTED, WOULD YIELD SPT REFUSAL. AN INFERRED WHICH NON-COASTAL PLAIN MATERIAL WOULD VIELD SPT REFUSAL. PLIT SPOON SAMPLER EQUAL TO OR LESS THAN Ø.1 FOOT PER 60 BLOWS. E TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZOI	ALLUVIUM (ALLUV) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER.  AQUIFER - A WATER BEARING FORMATION OR STRATA.  RENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND.			
CLASSIFICATION IS BASED ON THE AASHTO SYSTEM. BASIC DESCRIPTIONS GENERALLY SHALL INCLUDE: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH	ANGULARITY OF GRAINS		OF WEATHERED ROCK. ROCK MATERIALS ARE TYPICALLY DIVI	DED AS FOLLOWS:	ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS,			
AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. EXAMPLE:  VERY STIFF, GRAY, SULY CLAY, MOIST WITH INTERBEDDED FINE SAND LAVERS, HIGHLY PLASTIC, A-7-6	THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS: ANGULAR, SUBROUNDED, OR ROUNDED.		WEATHERED NON	-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT N VALUES > 100	OR HAVING A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, AS SHALE, SLATE, ETC.			
SOIL LEGEND AND AASHTO CLASSIFICATION	MINERALOGICAL COMPOSITION			WS PER FOOT IF TESTED.	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			
CENEDAL CRANIII AD MATERIAL C. CILIT-CLAY MATERIAL C.	MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS		CRYSTALLINE ROCK (CR)	TO COARSE GRAIN IGNEOUS AND METAMORPHIC ROCK THAT D YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES GRANITE,	GROUND SURFACE.			
CLASS. (≤ 35% PASSING *200) (> 35% PASSING *200) ORGANIC MATERIALS	WHENEVER THEY ARE CONSIDERED OF SIGNIFICANCE.		GNE CINE	SS, GABBRO, SCHIST, ETC. TO COARSE GRAIN METAMORPHIC AND NON-COASTAL PLAIN	CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE.			
GROUP A-1 A-3 A-2 A-4 A-5 A-6 A-7 A-1, A-2 A-4, A-5 CLASS. A-1-a A-1-b A-2-4 A-2-5 A-2-6 A-2-7 A-3 A-6, A-7	COMPRESSIBILITY		NUN-CRISTALLINE SED	MENTARY ROCK THAT WOULD YEILD SPT REFUSAL IF TESTED. ROCK TYPE	COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE.			
CLASS.   A-1-6   A-1-6   A-2-5   A-2-5   A-2-7   A-3   A-6, A-7   SYMBOL   800000000000000000000000000000000000	SLIGHTLY COMPRESSIBLE LIQUID LIMIT LESS  MODERATELY COMPRESSIBLE LIQUID LIMIT GOVA  HIGHLY COMPRESSIBLE LIQUID LIMIT GRA	AL TO 31-50	COASTAL PLAIN COA	UDES PHYLLITE, SLATE, SANDSTONE, ETC. ITAL PLAIN SEDIMENTS CEMENTED INTO ROCK, BUT MAY NOT YIELD REFUSAL. ROCK TYPE INCLUDES LIMESTONE, SANDSTONE, CEMENTED	CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL			
Z PASSING	PERCENTAGE OF MATERIAL	HIEN THAN 30	(CP) SHE	L BEDS, ETC.	LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.  DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT			
" 10 50 MX GRANULAR CLAY PEAT	ORGANIC MATERIAL GRANULAR SILT - CLAY SOILS SOILS OTHE	ER MATERIAL		WEATHERING	ROCKS OR CUTS MASSIVE ROCK.			
200 15 MX 25 MX 18 MX 35 MX 35 MX 35 MX 35 MX 36 MN 36 MN 36 MN 36 MN 36 MN	TRACE OF ORGANIC MATTER 2 - 3% 3 - 5% TRACE	1 - 10%	FRESH ROCK FRESH, CRYSTALS BR HAMMER IF CRYSTALLINE.	GHT, FEW JOINTS MAY SHOW SLIGHT STAINING, ROCK RINGS UNDER	<u>DIP</u> - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL.			
LIQUID LIMIT PLASTIC INDEX 6 MX NP 10 MX 10 MX 11 MN 10 MX 11 MN 11 MN 10 MX 10 MX 11 MN 11 MN SOILS WITH LITTLE OR HIGHL	LITTLE ORGANIC MATTER 3 - 5% 5 - 12% LITTLE	10 - 20% 20 - 35% 35% and above		DINTS STAINED, SOME JOINTS MAY SHOW THIN CLAY COATINGS IF OPEN, PECIMEN FACE SHINE BRIGHTLY. ROCK RINGS UNDER HAMMER BLOWS IF	DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.			
GROUP INDEX 0 0 0 4 MX 8 MX 12 MX 16 MX No MX MODERATE AMOUNTS OF SOILS				DINTS STAINED AND DISCOLORATION EXTENDS INTO ROCK UP TO	FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.			
OF MAJOR GRAVEL, AND GRAVEL AND GRAVEL AND SAND SOULS SOULS MATTER	▼ WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER DRILLI ▼ STATIC WATER LEVEL AFTER 24 HOURS	LING		CONTAIN CLAY. IN GRANITOID ROCKS SOME OCCASIONAL FELDSPAR DISCOLORED. CRYSTALLINE ROCKS RING UNDER HAMMER BLOWS.	FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES.			
MATERIALS SANU	——————————————————————————————————————		MODERATE SIGNIFICANT PORTIONS OF ROCK SHOW DISCOLORATION AND WEATHERING EFFECTS. IN		FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM			
AS A EXCELLENT TO GOOD FAIR TO POOR POOR UNSUITA	BLE PERCHED WATER, SATURATED ZONE, OR WATER BEARING ST	STRATA	DULL SOUND UNDER HAMME	R BLOWS AND SHOWS SIGNIFICANT LOSS OF STRENGTH AS COMPARED	PARENT MATERIAL.  FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY			
PI OF A-7-5 SUBGROUP IS ≤ LL - 30 ; PI OF A-7-6 SUBGROUP IS > LL - 30	SPRING OR SEEP		WITH FRESH ROCK.  MODERATELY ALL ROCK EXCEPT QUARTZ	DISCOLORED OR STAINED, IN GRANITOID ROCKS, ALL FELDSPARS DULL	THE STREAM.			
CONSISTENCY OR DENSENESS  RANGE OF STANDARD RANGE OF UNCONFINED	MISCELLANEOUS SYMBOLS		SEVERE AND DISCOLORED AND A M	JORITY SHOW KAOLINIZATION, ROCK SHOWS SEVERE LOSS OF STRENGTH TH A GEOLOGIST'S PICK, ROCK GIVES "CLUNK" SOUND WHEN STRUCK.	FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD.			
PRIMARY SOIL TYPE   COMPACTNESS OR   PENETRATION RESISTENCE   COMPRESSIVE STRENGTH	ROADWAY EMBANKMENT (RE)  WITH SOIL DESCRIPTION  WITH SOIL DESCRIPTION  WITH SOIL DESCRIPTION	TEST BORING W/ CORE	IF TESTED, WOULD YIELD S		JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.			
VERY LONGE	AUCED DODING	SPT N-VALUE		DISCOLORED OR STAINED. ROCK FABRIC CLEAR AND EVIDENT BUT REDUCE SOIL. IN GRANITOID ROCKS ALL FELDSPARS ARE KAOLINIZED TO SOME	LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO			
GRANULAR LOOSE 4 TO 10	J Soile Stribble	_	EXTENT, SOME FRAGMENTS	OF STRONG ROCK USUALLY REMAIN.	ITS LATERAL EXTENT.  LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS.			
MATERIAL DENSE 30 TO 50	ARTIFICIAL FILL (AF) OTHER  THAN ROADWAY EMBANKMENT  THAN ROADWAY EMBANKMENT  MW  MONITORING WELL		VERY SEVERE ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED, ROCK FABRIC ELEMENTS ARE DISCERNIBLE BUT		MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN			
VERY DENSE >50			(V SEV.) THE MASS IS EFFECTIVELY REDUCED TO SOIL STATUS, WITH ONLY FRAGMENTS OF STRONG ROCK REMAINING, SAPROLITE IS AN EXAMPLE OF ROCK WEATHERED TO A DEGREE SUCH THAT ONLY MINOR		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			
VERY SOFT         <2         <0.25           GENERALLY         SOFT         2 TO 4         0.25 TO 0.50	INFERRED ROCK LINE A PIEZOMETER			AN EXAMPLE OF ROCK WEATHERED TO A DEGREE SUCH THAT ONLY MINOR ROCK FABRIC REMAIN. <u>IF TESTED, YIELDS SPT N VALUES &lt; 100 BPF</u>	INTERVENING IMPERVIOUS STRATUM.			
SILT-CLAY   MEDIUM STIFF   4 TO 8   0.5 TO 1.0   MATERIAL   STIFF   8 TO 15   1 TO 2	INSTALLATION		COMPLETE ROCK REDUCED TO SOIL. ROCK FABRIC NOT DISCERNIBLE, OR DISCERNIBLE ONLY IN SMALL AND		RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.			
(COHESIVE) VERY STIFF 15 TO 30 2 TO 4	SLOPE INDICATOR INSTALLATION		SCATTERED CONCENTRATIONS. QUARTZ MAY BE PRESENT AS DIKES OR STRINGERS. SAPROLITE IS ALSO AN EXAMPLE.		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			
TEXTURE OR GRAIN SIZE	25/025 DIP & DIP DIRECTION OF ROCK STRUCTURES  CONE PENETROMETER TEST		ROCK HARDNESS		EXPRESSED AS A PERCENTAGE.			
U.S. STD. SIEVE SIZE 4 10 40 60 200 270	SOUNDING ROD			KNIFE OR SHARP PICK, BREAKING OF HAND SPECIMENS REQUIRES	SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK,			
OPENING (MM) 4.76 2.00 0.42 0.25 0.075 0.053	ABBREVIATIONS		SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK.  HARD CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY, HARD HAMMER BLOWS REQUIRED		SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND			
BOULDER COBBLE GRAVEL COARSE FINE SILT CLAY	AR - AUGER REFUSAL MED MEDIUM	VST - VANE SHEAR TEST	TO DETACH HAND SPECIMEN.		RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS.			
(BLDR.) (COB.) (GR.) (SE.SD.) (F SD.) (SL.) (CL.)	BT - BORING TERMINATED MICA, - MICACEOUS CL CLAY MOD MODERATELY	WEA WEATHERED		WIFE OR PICK, GOUGES OR GROOVES TO 0.25 INCHES DEEP CAN BE W OF A GEOLOGIST'S PICK, HAND SPECIMENS CAN BE DETACHED	SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE.			
GRAIN MM 305 75 2.0 0.25 0.005 0.005 SIZE IN. 12 3	CPT - CONE PENETRATION TEST NP - NON PLASTIC	7d- DRY UNIT WEIGHT	BY MODERATE BLOWS.  MEDIUM CAN BE GROOVED OR GOU	SED 0.05 INCHES DEEP BY FIRM PRESSURE OF KNIFE OR PICK POINT.	STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (N OR BPF) OF			
SOIL MOISTURE - CORRELATION OF TERMS	CSE COARSE ORG ORGANIC  DMT - DILATOMETER TEST PMT - PRESSUREMETER TEST	SAMPLE ABBREVIATIONS	HARD CAN BE EXCAVATED IN SMALL CHIPS TO PEICES 1 INCH MAXIMUM SIZE BY HARD BLOWS OF THE		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			
SOIL MOISTURE SCALE FIELD MOISTURE GUIDE FOR FIELD MOISTURE DESCRIPTION	DPT - DYNAMIC PENETRATION TEST SAP SAPROLITIC  N e - VOID RATIO SD SAND, SANDY	S - BULK SS - SPLIT SPOON	POINT OF A GEOLOGIST'S  SOFT CAN BE GROVED OR GOUG	PICK. ED READILY BY KNIFE OR PICK. CAN BE EXCAVATED IN FRAGMENTS	THAN 0.1 FOOT PER 60 BLOWS.			
(ATTERBERG LIMITS) DESCRIPTION	F - FINE SL SILT, SILTY	ST - SHELBY TUBE RS - ROCK		INCHES IN SIZE BY MODERATE BLOWS OF A PICK POINT, SMALL, THIN	STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE.			
- SATURATED - USUALLY LIQUID; VERY WET, USUALLY (SAT.) FROM BELOW THE GROUND WATER TABL	FOSS FOSSILIFEROUS SLI SLIGHTLY FRAC FRACTURED, FRACTURES TCR - TRICONE REFUSAL	RT - RECOMPACTED TRIAXIAL		FE. CAN BE EXCAVATED READILY WITH POINT OF PICK. PIECES 1 INCH	STRATA ROCK QUALITY DESIGNATION (SRQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY			
PLASTIC   LIQUID LIMIT	FRAGS FRAGMENTS	CBR - CALIFORNIA BEARING RATIO	SOFT OR MORE IN THICKNESS OF FINGERNAIL.	AN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCHED READILY 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.			
RANGE - WET - (W) SEMISULIU; REGUIRES DRIING TO ATTAIN OPTIMUM MOISTURE	EQUIPMENT USED ON SUBJECT PROJ	JECT	FRACTURE SPACING	BEDDING	TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.			
PLL + PLASTIC LIMIT -	DRILL UNITS: ADVANCING TOOLS:	HAMMER TYPE:	TERM SPACIN		BENCH MARK:			
OM OPTIMUM MOISTURE - MOIST - (M) SOLID; AT OR NEAR OPTIMUM MOISTUR	I ☐ I CLAV BITC I ☐	AUTOMATIC MANUAL	VERY WIDE MORE THAN 1 WIDE 3 TO 10 FEE	THICKLY BEDDED 1.5 - 4 FEET	ELEVATION: _ FT.			
SL _ SHRINKAGE LIMIT	→ □ MOBILE B- —   등	CORE SIZE:	MODERATELY CLOSE 1 TO 3 FEET CLOSE 0.16 TO 1 FE	VERY THINLY BEDDED 0.03 - 0.16 FEET				
- DRY - (D) REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE		B	VERY CLOSE LESS THAN @		NOTES:			
PLASTICITY		X]-N <u>XWL</u>		INDURATION				
PLASTICITY INDEX (PI) DRY STRENGTH	THE CAPPING MICEPIA		FOR SEDIMENTARY ROCKS, INDURATION IS	THE HARDENING OF THE MATERIAL BY CEMENTING, HEAT, PRESSURE, ETC.				
NONPLASTIC	CME-550 CASING DW/ ADVANCER	H	FRIABLE	RUBBING WITH FINGER FREES NUMEROUS GRAINS; GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE.				
MED. PLASTICITY 16-25 MEDIUM	PORTABLE HOIST TRICONE STEEL TEETH	HAND TOOLS: POST HOLE DIGGER	MODEDATE: V. INDUDATED	GRAINS CAN BE SEPARATED FROM SAMPLE WITH STEEL PROBE;				
HIGH PLASTICITY 26 OR MORE HIGH	TRICONE TUNGCARB.	_ HAND AUGER	MODERATELY INDURATED	BREAKS EASILY WHEN HIT WITH HAMMER.				
COLOR	CORE BIT	SOUNDING ROD	INDURATED	GRAINS ARE DIFFICULT TO SEPARATE WITH STEEL PROBE; DIFFICULT TO BREAK WITH HAMMER.				
DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YELLOW-BROWN, BLUE-GRAY), MODIFIERS SUCH AS LIGHT, DARK, STREAKED, ETC. ARE USED TO DESCRIBE APPEARANCE.	CORE BIT VANE SHEAR TEST		EXTREMELY INDURATED	DIFFICULT TO BREAK WITH HAMMER.  SHARP HAMMER BLOWS REQUIRED TO BREAK SAMPLE;				
South of Electric State of the South of the			EXTREMELT INDURATED	SAMPLE BREAKS ACROSS GRAINS.				

PROJECTO REFERENCE NO. SHESHEET

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SITE PLAN

0 100 200

FEET

NC GRID 83/NSRS 200:

PI Sta 17+72.40  $\triangle$  = 1°56' 14J" (RT) D = 1°25' 56.6' L = 135.25' T = 67.63' R = 4,000.00' W/LT 8 -Y- POT Sta. 10+00.00 PT Sta. 18+40.01 PROPOSED RETAINING WALL I PC Sta. 17+04.77 -L- STA.10+58.97 TO 13+38.41 -L- POT Sta. 10+00.00 10 MATTHEW S. BUCHANAN -Y- POT Sta. 12+26.20 BEGIN CONSTRUCTION -YI- STA, 10+54,34 HISTORIC PROPERTY -YI- Sta. 10+00.00 ALLEY R/W 20' ALLEY ALLEY R/W
PAUL B. WELCH 9 N 71 59 37.6 E -PAUL B. WELCH ARLENE J. FAUL (3) MARY D. LOVE TRUSTEE — PROPOSED SLOPE STAKE LINE N 5 04 36 2 W BEGIN CONSTRUCTION
-L- STAIO+28.80 (15) BEIPBEGIN 9"x12" CURB STA.11+52.63 END 9"x12" CURB STA.12+24.92 (8) BETTY LANDRETH, ET. ALS. RUTH FEASTER ET. AL. RUTH FEASTER ET. AL. REPLACE EXISTING CONC STEPS END C&G \_\_\_\_\_ ST A 19+48.91,RT BEGIN C&G — STA.19+87.68,RT PROPOSED SLOPE STAKE LINE 4 PROPOSED RETAINING WALL 2 -L- STA.19+83.00 TO 21+90.79 -Y- POT Sta. 14+13.27 -L- STA 14+12.98 -YI- Sta. II+49.22 TIE TO EXIST. SIDEWALK AND C&G -Y- STA.13+12.71

NOTE: REPLACEMENT OF CONCRETE STEPS -L- STA,17+66 LT -L- STA,15+56 RT -L- STA,16+65 RT

