August 4, 2023

MEMORANDUM TO: Clark S. Morrison, PhD, PE
State Pavement Design Engineer
North Carolina Department of Transportation

FROM: Joshua D. Fregosi, PE
Program Manager
Kleinfelder, Inc

STATE PROJECT: 67015.1.1 (BR-0015)

COUNTY: Davidson

DESCRIPTION: Bridge No. 67 and No. 68 Replacements on US 29/US 70 NB & SB over SR 1192 (W. 5th Avenue)

SUBJECT: Pavement and Subgrade Investigation Report

Kleinfelder, Inc. has completed the evaluation of the pavement and subgrade investigation for this project and presents the following.

This project consists of the widening of US 29/US 70 (-L-) and replacement of Bridge No. 67 and No. 68 over SR 1192 (-Y1-). At the project location, US 29/US 70 is a four-lane highway consisting of two lanes in the northbound and southbound direction with a grass median dividing the highway. Additionally, the project consists of the widening of SR 1192 (-Y1-), Forest Rose Drive (-DRW1-), and US 29/US 70 northbound exit ramps (-RPD-,-RPD_RT-) to National Boulevard as well as a realignment of Murphy Drive (-Y2-), onramp to US 29/US70 southbound (-RPB-), and US 29/US 70 southbound exit ramp (-LPB-) to SR 1192.

The soils encountered beneath the existing roadway consisted of both roadway embankment and residual soils. Predominant soil types encountered consisted of silty clays (A-7) with lesser amounts of sandy silts (A-4).

Anticipated borrow will likely consist of soil types listed above that meet the Piedmont and Western Area criteria for Acceptance of Borrow Material, Table 1018-1 of the 2024 Standard Specification.

The existing pavement was observed to be in good condition on US 29/US 70 (-L-). Surface pavement distress was not observed on US 29/US 70. The existing pavement was observed to be in worse condition on West 5th Avenue (-Y1-) and Murphy Drive (-Y2-). Surface pavement distress on the West 5th Avenue is primarily characterized by low severity transverse and longitudinal cracking, moderate to high severity fatigue cracking, and rutting (with and without spalling). Transverse, longitudinal, and fatigue crack widths ranged from 3 to 10 mm. Rutting was encountered ranging from 3 to 6 mm deep. Surface pavement distress on Murphy Drive is primarily characterized by moderate to high severity fatigue cracking with spalling. Fatigue crack widths ranged from 6 to 13 mm. Rutting was encountered ranging from 3 to 6 mm deep.

The length of the mainline (US 29/US 70, -L-) is approximately 0.71 mile.

Areas of Special Geotechnical Interest

1. **Highly Plastic Soils Encountered Beneath the Existing Roadway and Grass Median**
   Highly plastic soils (PI > 25) were encountered at the following locations based on laboratory test results on the soils:

LINE	STATION AND OFFSET	PI
-L-	18+30 WB ISS	48
-L-	19+60 EB ISS	34
-L-	25+90 WB ISS	35
-L-	31+50 WB OSS	43
-L-	32+75 EB DECEL LN	33
-L-	38+70 WB ISS	39
-L-	42+80 EB ISL	37
-Y1-	15+70 RT LN	35
-Y2-	16+20 LT LN	34

2. **Groundwater:**
   Groundwater was not observed during this investigation.

3. **Samples Classified as Wet**
   The subgrade soils at the following locations were classified as wet based on the visual inspection and laboratory test results on the soils:

LINE	STATION AND OFFSET	MOISTURE (%)
-L-	31+50 WB OSS	35.0
-L-	38+70 WB ISS	25.9
-Y1-	15+70 RT LN	24.8
-Y2-	16+20 LT LN	32.8

Prepared by,
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Program Manager

Document Not Considered Final Unless All Signatures Are Completed

DHK/JDF:jrs

ATTACHMENT: Pavement and Subgrade Investigation
Pavement Core Evaluation

REFERENCE: BR-0015

PROJECT: 67015

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0015	1	

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

ROADWAY SUBSURFACE INVESTIGATION

COUNTY *DAVIDSON*

PROJECT DESCRIPTION *BRIDGE NO. 67 AND NO. 68 REPLACEMENTS ON US 29/US 70 NB & SB OVER SR 1192 (W. 5TH AVENUE)*

PAVEMENT AND SUBGRADE INVESTIGATION

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CAUTION NOTICE

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PERSONNEL

D. KUBINSKI

M. FOSTER

TRIGON EXPLORATION

INVESTIGATED BY *KLEINFELDER, INC*

DRAWN BY *D. KUBINSKI*

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SUBMITTED BY *KLEINFELDER, INC*

DATE *AUGUST 2023*

Prepared in the Office of:

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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
BR-0015	2

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION

SOIL IS CONSIDERED 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 THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM D1586). SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM. BASIC DESCRIPTIONS GENERALLY INCLUDE THE FOLLOWING: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE,

VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6

SOIL LEGEND AND AASHTO CLASSIFICATION

GENERAL CLASS.	GRANULAR MATERIALS (≤ 35% PASSING #200)							SILT-CLAY MATERIALS (> 35% PASSING #200)				ORGANIC MATERIALS		
GROUP CLASS.	A-1		A-3	A-2				A-4	A-5	A-6	A-7	A-1, A-2 A-3	A-4, A-5 A-6, A-7	
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				A-7-5, A-7-6			
SYMBOL														
% PASSING #10 #40 #200	50 MX 30 MX 15 MX		50 MX 25 MX	51 MN 10 MX	35 MX	35 MX	35 MX	35 MX	36 MN	36 MN	36 MN	36 MN	GRANULAR SOILS	SILT-CLAY SOILS	MUCK, PEAT
MATERIAL PASSING #40 LL PI	— 6 MX		— NP		40 MX 10 MX	41 MN 10 MX	40 MX 11 MN	41 MN 11 MN	40 MX 10 MX	41 MN 10 MX	40 MX 11 MN	41 MN 11 MN	SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER		HIGHLY ORGANIC SOILS
GROUP INDEX	0		0		0		4 MX		8 MX	12 MX	16 MX	NO MX			
USUAL TYPES OF MAJOR MATERIALS	STONE FRAGS. GRAVEL, AND SAND		FINE SAND		SILTY OR CLAYEY GRAVEL AND SAND				SILTY SOILS		CLAYEY SOILS				
GEN. RATING AS SUBGRADE	EXCELLENT TO GOOD								FAIR TO POOR				FAIR TO POOR	POOR	UNSUITABLE

PI OF A-7-5 SUBGROUP IS ≤ LL - 30 ; PI OF A-7-6 SUBGROUP IS > LL - 30

CONSISTENCY OR DENSENESS

PRIMARY SOIL TYPE	COMPACTNESS OR CONSISTENCY	RANGE OF STANDARD PENETRATION RESISTENCE (N-VALUE)	RANGE OF UNCONFINED COMPRESSIVE STRENGTH ($TONS/FT^2$)
GENERALLY GRANULAR MATERIAL (NON-COHESIVE)	VERY LOOSE	< 4	
	LOOSE	4 TO 10	
	MEDIUM DENSE	10 TO 30	N/A
	DENSE	30 TO 50	
	VERY DENSE	> 50	
GENERALLY SILT-CLAY MATERIAL (COHESIVE)	VERY SOFT	< 2	< 0.25
	SOFT	2 TO 4	0.25 TO 0.5
	MEDIUM STIFF	4 TO 8	0.5 TO 1.0
	STIFF	8 TO 15	1 TO 2
	VERY STIFF	15 TO 30	2 TO 4
	HARD	> 30	> 4

TEXTURE OR GRAIN SIZE

U.S. STD. SIEVE SIZE		4	10	40	60	200	270
OPENING (MM)		4.76	2.00	0.42	0.25	0.075	0.053

BOULDER (BLDR.)	COBBLE (COB.)	GRAVEL (GR.)	COARSE SAND (CSE. SD.)	FINE SAND (F SD.)	SILT (SL.)	CLAY (CL.)

GRAIN SIZE	MM	305	75	2.0	0.25	0.05	0.005
	IN.	12	3				

SOIL MOISTURE - CORRELATION OF TERMS

SOIL MOISTURE SCALE (ATTERBERG LIMITS)	FIELD MOISTURE DESCRIPTION	GUIDE FOR FIELD MOISTURE DESCRIPTION
	- SATURATED - (SAT.)	USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE
LL — LIQUID LIMIT		
PLASTIC RANGE (PI)	- WET - (W)	SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE
PL — PLASTIC LIMIT		
OM — OPTIMUM MOISTURE	- MOIST - (M)	SOLID; AT OR NEAR OPTIMUM MOISTURE
SL — SHRINKAGE LIMIT		
	- DRY - (D)	REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE

PLASTICITY

	PLASTICITY INDEX (PI)	DRY STRENGTH
NON PLASTIC	0-5	VERY LOW
SLIGHTLY PLASTIC	6-15	SLIGHT
MODERATELY PLASTIC	16-25	MEDIUM
HIGHLY PLASTIC	26 OR MORE	HIGH

COLOR

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.

GRADATION

WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE.
UNIFORMLY GRADED - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE.
GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLE SIZES OF TWO OR MORE SIZES.

ANGULARITY OF GRAINS

THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS: ANGULAR, SUBANGULAR, SUBROUNDED, OR ROUNDED.

MINERALOGICAL COMPOSITION

MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.

COMPRESSIBILITY

SLIGHTLY COMPRESSIBLE	LL < 31
MODERATELY COMPRESSIBLE	LL = 31 - 50
HIGHLY COMPRESSIBLE	LL > 50

PERCENTAGE OF MATERIAL

ORGANIC MATERIAL	GRANULAR SOILS	SILT - CLAY SOILS	OTHER MATERIAL	
TRACE OF ORGANIC MATTER	2 - 3%	3 - 5%	TRACE	1 - 10%
LITTLE ORGANIC MATTER	3 - 5%	5 - 12%	LITTLE	10 - 20%
MODERATELY ORGANIC	5 - 10%	12 - 20%	SOME	20 - 35%
HIGHLY ORGANIC	> 10%	> 20%	HIGHLY	35% AND ABOVE

GROUND WATER

- WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER DRILLING
- STATIC WATER LEVEL AFTER 24 HOURS
- PW — PERCHED WATER, SATURATED ZONE, OR WATER BEARING STRATA
- SPRING OR SEEP

MISCELLANEOUS SYMBOLS

- ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION
- SOIL SYMBOL
- ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT
- INFERRED SOIL BOUNDARY
- INFERRED ROCK LINE
- ALLUVIAL SOIL BOUNDARY
- 25/025 — DIP & DIP DIRECTION OF ROCK STRUCTURES
- SPT / DPT DMT / VST PMT — TEST BORING
- AUGER BORING
- CORE BORING
- MW — MONITORING WELL
- PIEZOMETER INSTALLATION
- SLOPE INDICATOR INSTALLATION
- CONE PENETROMETER TEST
- SOUNDING ROD
- TEST BORING WITH CORE
- SPT N-VALUE

RECOMMENDATION SYMBOLS

- UNDERCUT
- SHALLOW UNDERCUT
- UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE
- UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK
- UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3 FEET OF EMBANKMENT OR BACKFILL

ABBREVIATIONS

AR - AUGER REFUSAL
BT - BORING TERMINATED
CL. - CLAY
CPT - CONE PENETRATION TEST
CSE. - COARSE
DMT - DILATOMETER TEST
DPT - DYNAMIC PENETRATION TEST
e - VOID RATIO
F - FINE
FOSS. - FOSSILIFEROUS
FRAC. - FRACTURED, FRACTURES
FRAGS. - FRAGMENTS
HI. - HIGHLY
MED. - MEDIUM
MICA. - MICACEOUS
MOD. - MODERATELY
NP - NON PLASTIC
ORG. - ORGANIC
PMT - PRESSUREMETER TEST
SAP. - SAPROLITIC
SD. - SAND, SANDY
SL. - SILT, SILTY
SLI. - SLIGHTLY
TCR - TRICONE REFUSAL
w - MOISTURE CONTENT
V - VERY
VST - VANE SHEAR TEST
WEA. - WEATHERED
γ - UNIT WEIGHT
γ_d - DRY UNIT WEIGHT

SAMPLE ABBREVIATIONS

S - BULK
SS - SPLIT SPOON
ST - SHELBY TUBE
RS - ROCK
RT - RECOMPACTED TRIAXIAL
CBR - CALIFORNIA BEARING RATIO

EQUIPMENT USED ON SUBJECT PROJECT

DRILL UNITS:
- [ ] CME-45C
- [X] CME-55
- [ ] CME-550
- [ ] VANE SHEAR TEST
- [ ] PORTABLE HOIST
- [ ] _____
- [ ] _____

ADVANCING TOOLS:
- [ ] CLAY BITS
- [ ] 6" CONTINUOUS FLIGHT AUGER
- [X] 8" HOLLOW AUGERS
- [ ] HARD FACED FINGER BITS
- [ ] TUNG.-CARBIDE INSERTS
- [ ] CASING [ ] W/ ADVANCER
- [ ] TRICONE _____" STEEL TEETH
- [ ] TRICONE _____" TUNG.-CARB.
- [X] CORE BIT (4 INCH DIAMETER)
- [ ] _____

HAMMER TYPE:
- [ ] AUTOMATIC [ ] MANUAL

CORE SIZE:
- [ ] -B _____ [ ] -H _____
- [ ] -N _____

HAND TOOLS:
- [ ] POST HOLE DIGGER
- [X] HAND AUGER
- [ ] SOUNDING ROD
- [ ] VANE SHEAR TEST
- [X] KESSLER DUAL MASS DCP

ROCK DESCRIPTION

HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT REFUSAL IF TESTED. 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:

WEATHERED ROCK (WR)	NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT N VALUES > 100 BLOWS PER FOOT IF TESTED.
CRYSTALLINE ROCK (CR)	FINE TO COARSE GRAIN IGNEOUS AND METAMORPHIC ROCK THAT WOULD YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES GRANITE, GNEISS, GABBRO, SCHIST, ETC.
NON-CRYSTALLINE ROCK (NCR)	FINE TO COARSE GRAIN METAMORPHIC AND NON-COASTAL PLAIN SEDIMENTARY ROCK THAT WOULD YEILD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES PHYLLITE, SLATE, SANDSTONE, ETC.
COASTAL PLAIN SEDIMENTARY ROCK (CP)	COASTAL PLAIN SEDIMENTS CEMENTED INTO ROCK, BUT MAY NOT YIELD SPT REFUSAL. ROCK TYPE INCLUDES LIMESTONE, SANDSTONE, CEMENTED SHELL BEDS, ETC.

WEATHERING

FRESH	ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING. ROCK RINGS UNDER HAMMER IF CRYSTALLINE.
VERY SLIGHT (V SLI.)	ROCK GENERALLY FRESH, JOINTS STAINED, SOME JOINTS MAY SHOW THIN CLAY COATINGS IF OPEN, CRYSTALS ON A BROKEN SPECIMEN FACE SHINE BRIGHTLY. ROCK RINGS UNDER HAMMER BLOWS IF OF A CRYSTALLINE NATURE.
SLIGHT (SLI.)	ROCK GENERALLY FRESH, JOINTS STAINED AND DISCOLORATION EXTENDS INTO ROCK UP TO 1 INCH. OPEN JOINTS MAY CONTAIN CLAY. IN GRANITOID ROCKS SOME OCCASIONAL FELDSPAR CRYSTALS ARE DULL AND DISCOLORED. CRYSTALLINE ROCKS RING UNDER HAMMER BLOWS.
MODERATE (MOD.)	SIGNIFICANT PORTIONS OF ROCK SHOW DISCOLORATION AND WEATHERING EFFECTS. IN GRANITOID ROCKS, MOST FELDSPARS ARE DULL AND DISCOLORED, SOME SHOW CLAY. ROCK HAS DULL SOUND UNDER HAMMER BLOWS AND SHOWS SIGNIFICANT LOSS OF STRENGTH AS COMPARED WITH FRESH ROCK.
MODERATELY SEVERE (MOD. SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. IN GRANITOID ROCKS, ALL FELDSPARS DULL AND DISCOLORED AND A MAJORITY SHOW KAOLINIZATION. ROCK SHOWS SEVERE LOSS OF STRENGTH AND CAN BE EXCAVATED WITH A GEOLOGIST'S PICK. ROCK GIVES "CLUNK" SOUND WHEN STRUCK. *IF TESTED, WOULD YIELD SPT REFUSAL*
SEVERE (SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC CLEAR AND EVIDENT BUT REDUCED IN STRENGTH TO STRONG SOIL. IN GRANITOID ROCKS ALL FELDSPARS ARE KAOLINIZED TO SOME EXTENT. SOME FRAGMENTS OF STRONG ROCK USUALLY REMAIN. *IF TESTED, WOULD YIELD SPT N VALUES > 100 BPF*
VERY SEVERE (V SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC ELEMENTS ARE DISCERNIBLE BUT MASS IS EFFECTIVELY REDUCED TO SOIL STATUS, WITH ONLY FRAGMENTS OF STRONG ROCK REMAINING. SAPROLITE IS AN EXAMPLE OF ROCK WEATHERED TO A DEGREE THAT ONLY MINOR VESTIGES OF ORIGINAL ROCK FABRIC REMAIN. *IF TESTED, WOULD YIELD SPT N VALUES < 100 BPF*
COMPLETE	ROCK REDUCED TO SOIL. ROCK FABRIC NOT DISCERNIBLE, OR DISCERNIBLE ONLY IN SMALL AND SCATTERED CONCENTRATIONS. QUARTZ MAY BE PRESENT AS DIKES OR STRINGERS. SAPROLITE IS ALSO AN EXAMPLE.

ROCK HARDNESS

VERY HARD	CANNOT BE SCRATCHED BY KNIFE OR SHARP PICK. BREAKING OF HAND SPECIMENS REQUIRES SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK.
HARD	CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY. HARD HAMMER BLOWS REQUIRED TO DETACH HAND SPECIMEN.
MODERATELY HARD	CAN BE SCRATCHED BY KNIFE OR PICK. GOUGES OR GROOVES TO 0.25 INCHES DEEP CAN BE EXCAVATED BY HARD BLOW OF A GEOLOGIST'S PICK. HAND SPECIMENS CAN BE DETACHED BY MODERATE BLOWS.
MEDIUM HARD	CAN BE GROOVED OR GOUGED 0.05 INCHES DEEP BY FIRM PRESSURE OF KNIFE OR PICK POINT. CAN BE EXCAVATED IN SMALL CHIPS TO PEICES 1 INCH MAXIMUM SIZE BY HARD BLOWS OF THE POINT OF A GEOLOGIST'S PICK.
SOFT	CAN BE GROVED OR GOUGED READILY BY KNIFE OR PICK. CAN BE EXCAVATED IN FRAGMENTS FROM CHIPS TO SEVERAL INCHES IN SIZE BY MODERATE BLOWS OF A PICK POINT. SMALL, THIN PIECES CAN BE BROKEN BY FINGER PRESSURE.
VERY SOFT	CAN BE CARVED WITH KNIFE. CAN BE EXCAVATED READILY WITH POINT OF PICK. PIECES 1 INCH OR MORE IN THICKNESS CAN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCHED READILY BY FINGERNAIL.

FRACTURE SPACING

TERM	SPACING
VERY WIDE	MORE THAN 10 FEET
WIDE	3 TO 10 FEET
MODERATELY CLOSE	1 TO 3 FEET
CLOSE	0.16 TO 1 FOOT
VERY CLOSE	LESS THAN 0.16 FEET

BEDDING

TERM	THICKNESS
VERY THICKLY BEDDED	4 FEET
THICKLY BEDDED	1.5 - 4 FEET
THINLY BEDDED	0.16 - 1.5 FEET
VERY THINLY BEDDED	0.03 - 0.16 FEET
THICKLY LAMINATED	0.008 - 0.03 FEET
THINLY LAMINATED	< 0.008 FEET

INDURATION

FOR SEDIMENTARY ROCKS, INDURATION IS THE HARDENING OF MATERIAL BY CEMENTING, HEAT, PRESSURE, ETC.

FRIABLE	RUBBING WITH FINGER FREES NUMEROUS GRAINS; GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE.
MODERATELY INDURATED	GRAINS CAN BE SEPARATED FROM SAMPLE WITH STEEL PROBE; BREAKS EASILY WHEN HIT WITH HAMMER.
INDURATED	GRAINS ARE DIFFICULT TO SEPARATE WITH STEEL PROBE; DIFFICULT TO BREAK WITH HAMMER.
EXTREMELY INDURATED	SHARP HAMMER BLOWS REQUIRED TO BREAK SAMPLE; SAMPLE BREAKS ACROSS GRAINS.

TERMS AND DEFINITIONS

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, SUCH 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.

BENCH MARK: N/A

ELEVATION: N/A FEET

NOTES:

- PAVEMENT CORE WITH KESSLER DUAL MASS DCP TEST
- HAND AUGER WITH KESSLER DUAL MASS DCP TEST
- PAVEMENT CORE

DATE: 8-15-14

ABBREVIATIONS

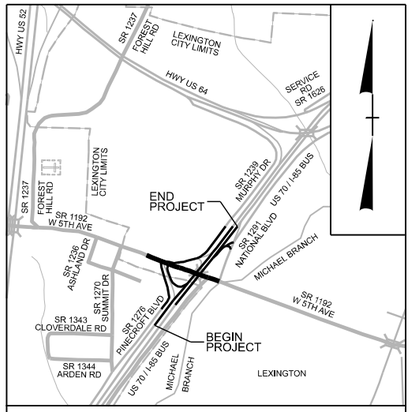
N/A - NOT APPLICABLE
NM - NOT MEASURED
KDCP - KESSLER DUAL MASS DCP
PS - PAVED SHOULDER
WB - WESTBOUND
EB - EASTBOUND
LT - LEFT
RT - RIGHT
OSS - OUTSIDE SHOULDER
ISS - INSIDE SHOULDER
OSL - OUTSIDE LANE
DECEL - DECELERATION
ACCEL - ACCELERATION
LN - LANE
WL - WHITE LINE
YL - YELLOW LINE
AG - AT GRADE
F - FILL
C - CUT
CR - CROWN
SU - SUPERELEVATION

09/08/99

PROJECT: BR-0015

CONTRACT: TBD

See Sheet 1A For Index of Sheets



VICINITY MAP (NTS)

NAD 83/2011

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

DAVIDSON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0015	3	

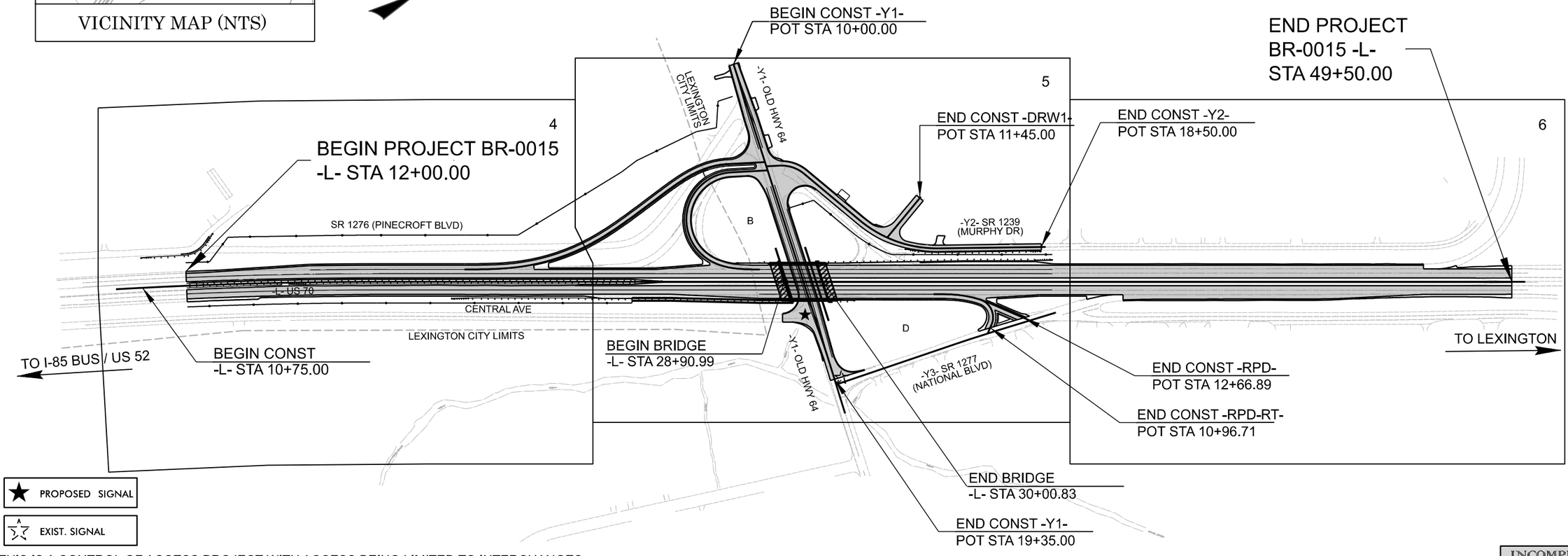
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
67015.1.1		PE
67015.2.1		R/W, UTIL
67015.3.1		CONST.

LOCATION: *BRIDGE 280067 AND 280068 REPLACEMENTS ON US 29/US 70. NB & SB OVER SR 1192 (W. 5TH AVE.)*

TYPE OF WORK: *GRADING, DRAINAGE, PAVING, WIDENING AND STRUCTURES*

STAGE 2 PLANS (2RD1)

Plans Developed with OpenRoads



THIS IS A CONTROL OF ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.
A PORTION OF THIS PROJECT IS LOCATED WITHIN THE LIMITS OF THE CITY OF LEXINGTON.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.
****A DESIGN EXCEPTION IS REQUIRED FOR -RPD- AND -RPD_RT- MAXIMUM GRADE.**

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2022 = 14500
ADT 2045 = 18700
K = 8 %
D = 55 %
T = 9 % *
V = 60 MPH
* TTST =5% DUAL 4%
FUNC CLASS =
PRINCIPAL ARTERIAL
STATEWIDE TIER

PROJECT LENGTH

PROJECT LENGTHS FOR PROJECT BR-0015:

LENGTH ROADWAY PROJECT BR-0015	=	0.689 MILES
LENGTH STRUCTURES PROJECT BR-0015	=	0.021 MILES
TOTAL LENGTH PROJECT BR-0015	=	0.710 MILES

NCDOT Contact: DAVID STUTTS, PE

Prepared in the Office of: KCA KISINGER CAMPO & ASSOCIATES
NC FIRM LICENSE No: C-1506
301 Fayetteville St., Suite 1500
Raleigh, NC 27601
(919)882-7839

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: 11/24/2023

LETTING DATE: 12/17/2024

JACOB H. DUKE, P.E.
PROJECT ENGINEER

ANDREA B. GORDON, E.I.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

5/26/20

BR-0015

1" = 100' | SHEET 4

CORE ID	L_1830_WB_ISS	L_1830_WB_OSL	L_1830_WB_OSS
ASPHALT	6.75"	7.25"	8.50"
CONCRETE	0.00"	9.25"	0.00"
ABC STONE	2.00"	4.50"	0.00"

CORE ID	L_1960_EB_ISS	L_1960_EB_OSL	L_1960_EB_OSS
ASPHALT	7.25"	8.25"	10.25"
CONCRETE	0.00"	9.25"	0.00"
ABC STONE	0.00"	4.75"	11.75"

5/26/20

BR-0015

1" = 100' | SHEET 5

CORE ID	Y1_1570_LT_PS	Y1_1570_LT_LN
ASPHALT	5.00"	6.00"
CONCRETE	0.00"	0.00"
ABC STONE	Not Measured	Not Measured

CORE ID	Y1_1570_RT_LN	Y1_1570_RT_PS
ASPHALT	7.00"	4.00"
CONCRETE	0.00"	0.00"
ABC STONE	0.00"	Not Measured

CORE ID	Y2_1620_LT_LN
ASPHALT	3.00"
CONCRETE	0.00"
ABC STONE	7.00"

CORE ID	L_3150_WB_OSS
ASPHALT	9.25"
CONCRETE	0.00"
ABC STONE	0.00"

CORE ID	L_2590_WB_ISS
ASPHALT	8.50"
CONCRETE	0.00"
ABC STONE	0.00"

CORE ID	L_3275_EB_DECEL_LN
ASPHALT	10.75"
CONCRETE	0.00"
ABC STONE	7.00"

NC GRID NAD 83 NA 2011

-RPB- END POT 19+28.28
-Y1- STA. POT 12+90.21
-Y2- START POT 10+00.00
-Y1- STA. POT 13+02.63
-LPB- END POT 15+91.10
-Y1- STA. POT 13+15.06
-Y2- PC 10+37.82
-RPB- PT 18+25.45
-RPB- SC 17+63.41
-RPB- TS 16+13.41
15+60.16
-Y2- PT 11+12.31
-DRW1- START POT 10+00.00
-Y2- STA. 14+09.40
-DRW1- END 11+50.00
-Y2- PC 13+18.73
-Y2- PT 15+59.76
-Y2- END POT 18+62.22
-LPB- PT 14+88.30
-LPB- POT START 10+00.00
-LPB- SC 11+48.00
Y1_1570_LT_PS
Y1_1570_LT_LN
Y1_1570_RT_LN
Y1_1570_RT_PS
Y2_1620_LT_LN
L_3150_WB_OSS
L_2590_WB_ISS
L_3275_EB_DECEL_LN
-RPD- START TS 10+00.00
-L- POT 33+13.65 (35.00' RT)
-RPD- SC 10+80.00
-Y1- PC 18+08.44
-Y1- PT 19+20.47
-Y1- PC 19+47.81
-Y1- END 20+35.82
-Y3- START PT 10+00.00
-Y2- POC 19+50.35
-Y3- PC 13+59.59
-RPD-RT- START 10+00.00
-RPD- STA. POC 11+34.33
-RPD- PT 11+61.70
-Y3- POT END 16+53.98
-RPD- POT 12+86.28
-Y3- POT 15+77.44
-Y3- PT 15+19.04
-RPD-RT- PT 10+86.46
-RPD-RT- END PT 11+14.18
-Y3- POT 14+52.60

5/26/20

BR-0015

1" = 100' | SHEET 6

CORE ID	L_3870_WB_ISS	L_3870_WB_DECEL_LN	L_3870_WB_OSS
ASPHALT	7.00"	11.00"	7.50"
CONCRETE	0.00"	0.00"	0.00"
ABC STONE	0.00"	7.00"	0.00"

CORE ID	L_4280_EB_ISL	L_4280_EB_ACCEL_LN	L_4280_EB_OSS
ASPHALT	8.50"	9.50"	7.00"
CONCRETE	9.50"	0.00"	0.00"
ABC STONE	5.00"	8.50"	0.00"

PAVEMENT INVESTIGATION DATA SHEET

TIP (WBS):	BR-0015 (67015.1.1)
County:	Davidson

Project:	Bridge No. 67 and No. 68 Replacements on US 29/US 70 NB & SB over SR 1192 (W. 5th Avenue)
Route:	I-85 Business, West 5th Avenue, Murphy Drive

Date:	May 2023
Notes By:	Dan Kubinski

		Width (ft)		(ft)		Pavement Section Thickness (in)							Subgrade									
Position (Sta.,Lane,Shldr.)	Cut/Fill	Lane(s)	Shoulder	Offset Distance	Crown or Superelevation	Gross to Top of Soil	Asphalt	Concrete	ABC Stone	PADL	Soil Stabilization	Sand	Moisture Sample No.	Sample No.	Description	AASHTO Classification	Soil Moisture (%)	Probe Depth (ft)	Asphalt Notes, Severity and Cracking Type	Northing	Easting
L_1830_WB_ISS	C	12.0	1.0 PS	0.0 YL		8.75	6.75	0.00	2.00	0.00	0.00	0.00	S-1		**RES:** Moist, Red, Highly Plastic, Silty CLAY (0.0 - 5.0')	A-7-5	27.1	5.0	No pavement distress observed	757,186	1,621,293
L_1830_WB_OSL	C	12.0	4.5 PS	3.0 WL	CR	21.00	7.25	9.25	4.50	0.00	0.00	0.00	N/A		**RES:** Moist, Red, Highly Plastic, Silty CLAY (0.0 - 5.0')	A-7	N/A	5.0	No pavement distress observed	757,198	1,621,278
L_1830_WB_OSS	C	12.0	4.5 PS	1.0 WL		8.50	8.50	0.00	0.00	0.00	0.00	0.00	N/A		**RES:** Moist, Red, Highly Plastic, Silty CLAY (0.0 - 5.0')	A-7	N/A	5.0	No pavement distress observed	757,201	1,621,274
L_1960_EB_ISS	C	12.0	1.5 PS	0.5 YL		7.25	7.25	0.00	0.00	0.00	0.00	0.00	S-2		**RES:** Moist, Red, Highly Plastic, Silty CLAY (0.0 - 5.0')	A-7-5	30.1	5.0	No pavement distress observed	757,274	1,621,392
L_1960_EB_OSL	C	12.0	4.0 PS	3.0 WL	CR	22.25	8.25	9.25	4.75	0.00	0.00	0.00	N/A		**RES:** Moist, Red, Highly Plastic, Silty CLAY (0.0 - 5.0')	A-7	N/A	5.0	No pavement distress observed	757,260	1,621,409
L_1960_EB_OSS	C	12.0	4.0 PS	2.0 WL		22.00	10.25	0.00	11.75	0.00	0.00	0.00	N/A		**RES:** Moist, Red, Highly Plastic, Silty CLAY (0.0 - 5.0')	A-7	N/A	5.0	No pavement distress observed	757,257	1,621,413
L_2590_WB_ISS	AG	12.0	1.0 PS	0.0 YL	CR	8.50	8.50	0.00	0.00	0.00	0.00	0.00	S-3		**RES:** Moist, Red, Highly Plastic, Silty CLAY (0.0 - 5.0')	A-7-5	28.4	5.0	No pavement distress observed	757,786	1,621,759
L_3150_WB_OSS	AG	12.0	7.0 PS	4.0 WL	CR	9.25	9.25	0.00	0.00	0.00	0.00	0.00	S-4		**RES:** Moist, Red, Highly Plastic, Silty CLAY (0.0 - 5.0')	A-7-5	35.0	5.0	No pavement distress observed	758,245	1,622,081
L_3275_EB_DECEL_LN	AG	12.0	3.5 PS	2.5 WL	CR	17.75	10.75	0.00	7.00	0.00	0.00	0.00	S-5		**RES:** Moist, Red, Highly Plastic, Silty CLAY (0.0 - 5.0')	A-7-5	26.7	5.0	No pavement distress observed	758,292	1,622,226
L_3870_WB_ISS	C	12.0	1.0 PS	0.5 YL		7.00	7.00	0.00	0.00	0.00	0.00	0.00	S-6		**RES:** Wet, Reddish Brown, Highly Plastic, Silty CLAY (0.0 - 5.0')	A-7-6	25.9	5.0	No pavement distress observed	758,798	1,622,544
L_3870_WB_DECEL_LN	C	12.0	2.0 PS	6.5 WL	CR	18.00	11.00	0.00	7.00	0.00	0.00	0.00	N/A		**RES:** Wet, Reddish Brown, Highly Plastic, Silty CLAY (0.0 - 5.0')	A-7	N/A	5.0	No pavement distress observed	758,817	1,622,519
L_3870_WB_OSS	C	12.0	2.0 PS	1.5 WL		7.50	7.50	0.00	0.00	0.00	0.00	0.00	N/A		**RES:** Wet, Reddish Brown, Highly Plastic, Silty CLAY (0.0 - 5.0')	A-7	N/A	5.0	No pavement distress observed	758,821	1,622,514
L_4000^	C	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S-18* N/A		**RES:** Moist, Olive Gray and Reddish Brown, Moderately Plastic, Silty CLAY (0.0 - 2.2'), Reddish Brown, Slightly Plastic to Non Plastic, Fine Sandy SILT, Trace Mica (2.2 - 6.8')	A-7-5 A-4	33.2 N/A	6.8	Hand auger boring performed for roadway investigation with KDCP test in center grass median	758,893	1,622,633
L_4280_EB_ISL	C	12.0	1.0 PS	1.0' YL		23.00	8.50	9.50	5.00	0.00	0.00	0.00	S-7		**RES:** Moist, Reddish Brown, Highly Plastic, Silty CLAY , Trace Mica (0.0 - 5.0')	A-7-5	38.4	5.0	No pavement distress observed	759,107	1,622,815
L_4280_EB_ACCEL_LN	C	12.0	4.0 PS	4.5 WL	CR	18.00	9.50	0.00	8.50	0.00	0.00	0.00	N/A		**RES:** Moist, Reddish Brown, Highly Plastic, Silty CLAY , Trace Mica (0.0 - 5.0')	A-7	N/A	5.0	No pavement distress observed	759,088	1,622,839
L_4280_EB_OSS	C	12.0	4.0 PS	2.0 WL		7.00	7.00	0.00	0.00	0.00	0.00	0.00	N/A		**RES:** Moist, Reddish Brown, Highly Plastic, Silty CLAY , Trace Mica (0.0 - 5.0')	A-7	N/A	5.0	No pavement distress observed	759,084	1,622,844
L_4600^	C	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S-20* N/A		**RES:** Moist, Reddish Brown, Moderately Plastic, Silty CLAY, Trace Mica (0.0 - 3.0'), Brown, Non Plastic, Coarse to Fine Sandy SILT, Trace Mica (3.0 - 6.5')	A-7-5 A-4	26.8	6.5	Hand auger boring performed for roadway investigation with KDCP test in center grass median	759,367	1,623,000
L_4800^	C	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A N/A		**RES:** Moist, Yellowish Brown and Reddish Brown, Moderately Plastic, Silty CLAY (0.0 - 1.0'), Brown, Non Plastic, Coarse to Fine Sandy SILT, Trace Mica (1.0 - 6.7')	A-7 A-4	N/A N/A	6.7	Hand auger boring performed for roadway investigation with KDCP test in center grass median	759,525	1,623,123
Y1_1570_LT_PS	F	12.5	4.5 PS	1.0 WL		5.00	5.00	0.00	NM	0.00	0.00	0.00	N/A		No auger probe + KDCP test performed; Utility Conflicts	N/A	N/A	N/A	No pavement distress observed	758,098	1,621,920
Y1_1570_LT_LN	F	12.5	4.5 PS	2.5 WL	CR	6.00	6.00	0.00	NM	0.00	0.00	0.00	N/A		No auger probe + KDCP test performed; Utility Conflicts	N/A	N/A	N/A	Low transverse and longitudinal cracking (3 - 6 mm crack width); Moderate to high fatigue cracking (3 - 6 mm crack width); Rutting (3 - 6 mm depth)	758,095	1,621,919
Y1_1570_RT_LN	F	12.5	4.0 PS	3.0 WL		7.00	7.00	0.00	0.00	0.00	0.00	0.00	S-8		**RE:** Wet, Red, Highly Plastic, Silty CLAY (0.0 - 5.0')	A-7-6	24.8	5.0	Low transverse and longitudinal cracking (3 - 6 mm crack width); Moderate to high fatigue cracking with spalling (3 - 10 mm crack width); Rutting (3 mm depth)	758,077	1,621,912
Y1_1570_RT_PS	F	12.5	4.0 PS	1.0 WL		4.00	4.00	0.00	NM	0.00	0.00	0.00	N/A		No auger probe + KDCP test performed; Utility Conflicts	N/A	N/A	N/A	No pavement distress observed	758,073	1,621,911
Y2_1620_LT_LN	C	9.0	0.5 PS	2.0 WL	CR	10.00	3.00	0.00	7.00	0.00	0.00	0.00	S-9		**RES:** Wet, Red, Highly Plastic, Silty CLAY (0.0 - 5.0')	A-7-5	32.8	5.0	Moderate to high fatigue cracking with spalling (6 - 13 mm crack width); Rutting (4 mm depth)	758,472	1,622,178

Note(s):

N/A - Not Applicable
NM - Not Measured
KDCP - Kessler Dual Mass DCP
PS - Paved Shoulder

WB - Westbound
EB - Eastbound
LT - Left
RT - Right

OSS - Outside Shoulder
ISS - Inside Shoulder
OSL - Outside Lane
DECEL - Deceleration

ACCEL - Acceleration
LN - Lane
WL - White Line
YL - Yellow Line

AG - At Grade
F - Fill
C - Cut
CR - Crown

SU - Superelevation
^Based on Roadway Investigation Boring Number
*Based on Roadway Investigation Sample Number

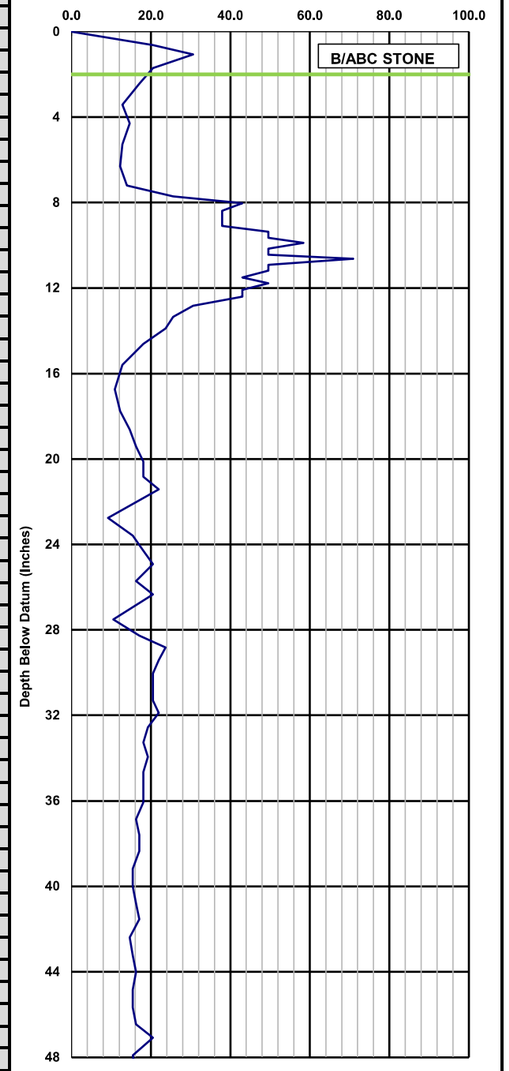
DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR	PROJECT NUMBER	TIP	ROUTE
	67015.1.1	BR-0015	US 29/US 70
	COUNTY	FIELD PROFESSIONAL	CREW
	Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION	DATE PERFORMED
L_1830_WB_ISS	5/3/23

DATUM	CUT/FILL	NORTHING	EASTING
T/ABC	C	757,186	1,621,293

CORRELATED CBR VALUES

CUMULATIVE PENETRATION IN CENTIMETERS					
1.6	79.5	0.0	0.0	0.0	0.0
2.7	81.0	0.0	0.0	0.0	0.0
4.3	82.7	0.0	0.0	0.0	0.0
6.2	84.5	0.0	0.0	0.0	0.0
8.7	86.2	0.0	0.0	0.0	0.0
10.9	88.0	0.0	0.0	0.0	0.0
13.4	89.8	0.0	0.0	0.0	0.0
16.0	91.6	0.0	0.0	0.0	0.0
18.3	93.6	0.0	0.0	0.0	0.0
19.6	95.5	0.0	0.0	0.0	0.0
20.4	97.4	0.0	0.0	0.0	0.0
21.3	99.5	0.0	0.0	0.0	0.0
22.2	101.6	0.0	0.0	0.0	0.0
23.1	103.6	0.0	0.0	0.0	0.0
23.8	105.5	0.0	0.0	0.0	0.0
24.5	107.7	0.0	0.0	0.0	0.0
25.1	109.8	0.0	0.0	0.0	0.0
25.8	111.8	0.0	0.0	0.0	0.0
26.5	113.9	0.0	0.0	0.0	0.0
27.0	116.0	0.0	0.0	0.0	0.0
27.7	118.0	0.0	0.0	0.0	0.0
28.4	119.6	0.0	0.0	0.0	0.0
29.2	121.7	0.0	0.0	0.0	0.0
29.9	123.7	0.0	0.0	0.0	0.0
30.7	125.3	0.0	0.0	0.0	0.0
31.5	126.7	0.0	0.0	0.0	0.0
32.6	0.0	0.0	0.0	0.0	0.0
33.9	0.0	0.0	0.0	0.0	0.0
35.3	0.0	0.0	0.0	0.0	0.0
37.1	0.0	0.0	0.0	0.0	0.0
39.6	0.0	0.0	0.0	0.0	0.0
42.5	0.0	0.0	0.0	0.0	0.0
45.1	0.0	0.0	0.0	0.0	0.0
47.3	0.0	0.0	0.0	0.0	0.0
49.3	0.0	0.0	0.0	0.0	0.0
51.1	0.0	0.0	0.0	0.0	0.0
52.9	0.0	0.0	0.0	0.0	0.0
54.4	0.0	0.0	0.0	0.0	0.0
57.8	0.0	0.0	0.0	0.0	0.0
59.9	0.0	0.0	0.0	0.0	0.0
61.7	0.0	0.0	0.0	0.0	0.0
63.3	0.0	0.0	0.0	0.0	0.0
65.3	0.0	0.0	0.0	0.0	0.0
66.9	0.0	0.0	0.0	0.0	0.0
69.9	0.0	0.0	0.0	0.0	0.0
71.8	0.0	0.0	0.0	0.0	0.0
73.2	0.0	0.0	0.0	0.0	0.0
74.7	0.0	0.0	0.0	0.0	0.0
76.3	0.0	0.0	0.0	0.0	0.0
77.9	0.0	0.0	0.0	0.0	0.0



Note(s):

WB - Westbound	DECEL - Deceleration	C - Cut
EB - Eastbound	ACCEL - Acceleration	SG - Subgrade
OSS - Outside Shoulder	LN - Lane	T/ABC - Top of ABC Stone
ISS - Inside Shoulder	AG - At Grade	B/ABC - Bottom of ABC Stone
OSL - Outside Lane	F - Fill	Ex. Gr. - Existing Grade

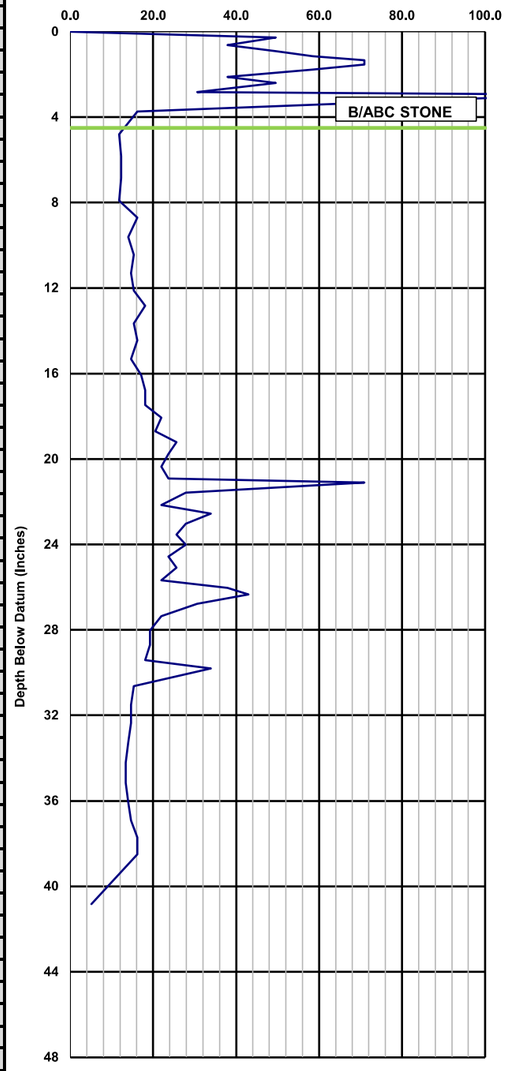
DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR	PROJECT NUMBER	TIP	ROUTE
	67015.1.1	BR-0015	US 29/US 70
	COUNTY	FIELD PROFESSIONAL	CREW
	Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION	DATE PERFORMED
L_1830_WB_OSL	5/3/23

DATUM	CUT/FILL	NORTHING	EASTING
T/ABC	C	757,198	1,621,278

CORRELATED CBR VALUES

CUMULATIVE PENETRATION IN CENTIMETERS					
0.7	74.7	0.0	0.0	0.0	0.0
1.6	75.7	0.0	0.0	0.0	0.0
2.3	77.8	0.0	0.0	0.0	0.0
2.9	80.0	0.0	0.0	0.0	0.0
3.4	82.2	0.0	0.0	0.0	0.0
3.9	84.5	0.0	0.0	0.0	0.0
4.5	86.9	0.0	0.0	0.0	0.0
5.4	89.3	0.0	0.0	0.0	0.0
6.1	91.6	0.0	0.0	0.0	0.0
7.2	93.8	0.0	0.0	0.0	0.0
7.5	95.8	0.0	0.0	0.0	0.0
9.5	97.8	0.0	0.0	0.0	0.0
12.2	103.7	0.0	0.0	0.0	0.0
14.8	0.0	0.0	0.0	0.0	0.0
17.4	0.0	0.0	0.0	0.0	0.0
20.1	0.0	0.0	0.0	0.0	0.0
22.1	0.0	0.0	0.0	0.0	0.0
24.4	0.0	0.0	0.0	0.0	0.0
26.5	0.0	0.0	0.0	0.0	0.0
28.7	0.0	0.0	0.0	0.0	0.0
30.8	0.0	0.0	0.0	0.0	0.0
32.6	0.0	0.0	0.0	0.0	0.0
34.7	0.0	0.0	0.0	0.0	0.0
36.7	0.0	0.0	0.0	0.0	0.0
38.9	0.0	0.0	0.0	0.0	0.0
40.8	0.0	0.0	0.0	0.0	0.0
42.6	0.0	0.0	0.0	0.0	0.0
44.4	0.0	0.0	0.0	0.0	0.0
45.9	0.0	0.0	0.0	0.0	0.0
47.5	0.0	0.0	0.0	0.0	0.0
48.8	0.0	0.0	0.0	0.0	0.0
50.2	0.0	0.0	0.0	0.0	0.0
51.7	0.0	0.0	0.0	0.0	0.0
53.1	0.0	0.0	0.0	0.0	0.0
53.6	0.0	0.0	0.0	0.0	0.0
54.8	0.0	0.0	0.0	0.0	0.0
56.3	0.0	0.0	0.0	0.0	0.0
57.3	0.0	0.0	0.0	0.0	0.0
58.5	0.0	0.0	0.0	0.0	0.0
59.8	0.0	0.0	0.0	0.0	0.0
61.0	0.0	0.0	0.0	0.0	0.0
62.4	0.0	0.0	0.0	0.0	0.0
63.7	0.0	0.0	0.0	0.0	0.0
65.2	0.0	0.0	0.0	0.0	0.0
66.1	0.0	0.0	0.0	0.0	0.0
66.9	0.0	0.0	0.0	0.0	0.0
68.0	0.0	0.0	0.0	0.0	0.0
69.5	0.0	0.0	0.0	0.0	0.0
71.2	0.0	0.0	0.0	0.0	0.0
72.9	0.0	0.0	0.0	0.0	0.0



Note(s):

WB - Westbound	DECEL - Deceleration	C - Cut
EB - Eastbound	ACCEL - Acceleration	SG - Subgrade
OSS - Outside Shoulder	LN - Lane	T/ABC - Top of ABC Stone
ISS - Inside Shoulder	AG - At Grade	B/ABC - Bottom of ABC Stone
OSL - Outside Lane	F - Fill	Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR

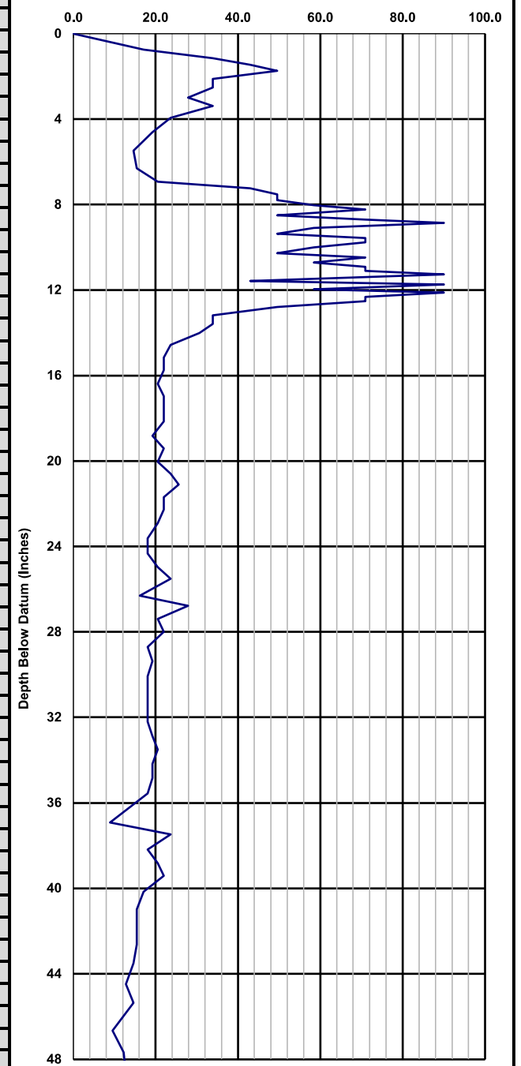
PROJECT NUMBER	TIP	ROUTE
67015.1.1	BR-0015	US 29/US 70
COUNTY	**FIELD PROFESSIONAL**	**CREW**
Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION			DATE PERFORMED
L_1830_WB_OSS			5/3/23
DATUM	**CUT/FILL**	**NORTHING**	**EASTING**
SG	C	757,201	1,621,274

CORRELATED CBR VALUES

CUMULATIVE PENETRATION IN CENTIMETERS

1.9	49.3	0.0	0.0	0.0	0.0
2.9	50.9	0.0	0.0	0.0	0.0
3.7	52.3	0.0	0.0	0.0	0.0
4.4	53.6	0.0	0.0	0.0	0.0
5.4	55.1	0.0	0.0	0.0	0.0
6.4	56.6	0.0	0.0	0.0	0.0
7.6	58.2	0.0	0.0	0.0	0.0
8.6	60.0	0.0	0.0	0.0	0.0
10.0	61.8	0.0	0.0	0.0	0.0
11.7	63.4	0.0	0.0	0.0	0.0
13.9	64.8	0.0	0.0	0.0	0.0
16.0	66.8	0.0	0.0	0.0	0.0
17.6	68.0	0.0	0.0	0.0	0.0
18.4	69.6	0.0	0.0	0.0	0.0
19.1	71.1	0.0	0.0	0.0	0.0
19.8	72.9	0.0	0.0	0.0	0.0
20.4	74.6	0.0	0.0	0.0	0.0
20.9	76.4	0.0	0.0	0.0	0.0
21.6	78.2	0.0	0.0	0.0	0.0
22.1	80.0	0.0	0.0	0.0	0.0
22.5	81.8	0.0	0.0	0.0	0.0
23.1	83.5	0.0	0.0	0.0	0.0
23.8	85.1	0.0	0.0	0.0	0.0
24.3	86.8	0.0	0.0	0.0	0.0
24.8	88.5	0.0	0.0	0.0	0.0
25.4	90.3	0.0	0.0	0.0	0.0
26.1	93.8	0.0	0.0	0.0	0.0
26.6	95.2	0.0	0.0	0.0	0.0
27.2	97.0	0.0	0.0	0.0	0.0
27.7	98.6	0.0	0.0	0.0	0.0
28.2	100.1	0.0	0.0	0.0	0.0
28.6	102.0	0.0	0.0	0.0	0.0
29.4	104.1	0.0	0.0	0.0	0.0
29.8	106.2	0.0	0.0	0.0	0.0
30.4	108.3	0.0	0.0	0.0	0.0
30.8	110.5	0.0	0.0	0.0	0.0
31.3	113.0	0.0	0.0	0.0	0.0
31.8	115.2	0.0	0.0	0.0	0.0
32.5	118.5	0.0	0.0	0.0	0.0
33.5	121.1	0.0	0.0	0.0	0.0
34.5	123.6	0.0	0.0	0.0	0.0
35.6	126.2	0.0	0.0	0.0	0.0
37.0	0.0	0.0	0.0	0.0	0.0
38.5	0.0	0.0	0.0	0.0	0.0
40.0	0.0	0.0	0.0	0.0	0.0
41.6	0.0	0.0	0.0	0.0	0.0
43.1	0.0	0.0	0.0	0.0	0.0
44.6	0.0	0.0	0.0	0.0	0.0
46.1	0.0	0.0	0.0	0.0	0.0
47.8	0.0	0.0	0.0	0.0	0.0



Note(s):

WB - Westbound	DECEL - Deceleration	C - Cut
EB - Eastbound	ACCEL - Acceleration	SG - Subgrade
OSS - Outside Shoulder	LN - Lane	T/ABC - Top of ABC Stone
ISS - Inside Shoulder	AG - At Grade	B/ABC - Bottom of ABC Stone
OSL - Outside Lane	F - Fill	Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR

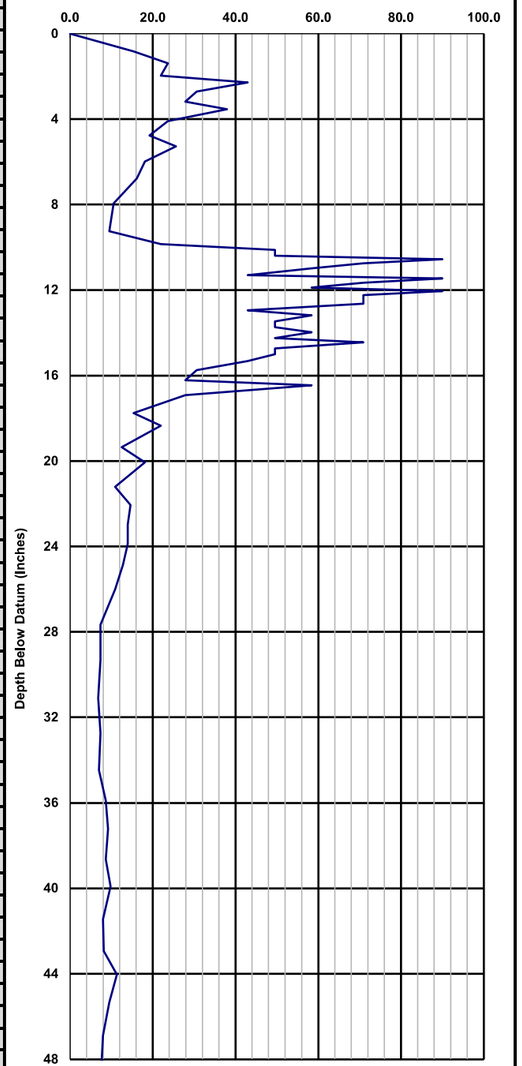
PROJECT NUMBER	TIP	ROUTE
67015.1.1	BR-0015	US 29/US 70
COUNTY	**FIELD PROFESSIONAL**	**CREW**
Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION			DATE PERFORMED
L_1960_EB_ISS			5/2/23
DATUM	**CUT/FILL**	**NORTHING**	**EASTING**
SG	C	757,274	1,621,392

CORRELATED CBR VALUES

CUMULATIVE PENETRATION IN CENTIMETERS

2.1	63.2	0.0	0.0	0.0	0.0
3.5	66.1	0.0	0.0	0.0	0.0
5.0	70.3	0.0	0.0	0.0	0.0
5.8	74.5	0.0	0.0	0.0	0.0
6.9	79.0	0.0	0.0	0.0	0.0
8.1	83.2	0.0	0.0	0.0	0.0
9.0	87.6	0.0	0.0	0.0	0.0
10.4	91.2	0.0	0.0	0.0	0.0
12.1	94.6	0.0	0.0	0.0	0.0
13.4	98.2	0.0	0.0	0.0	0.0
15.2	101.4	0.0	0.0	0.0	0.0
17.2	105.3	0.0	0.0	0.0	0.0
20.2	109.1	0.0	0.0	0.0	0.0
23.5	111.9	0.0	0.0	0.0	0.0
25.0	115.2	0.0	0.0	0.0	0.0
25.7	119.1	0.0	0.0	0.0	0.0
26.4	123.2	0.0	0.0	0.0	0.0
26.8	126.7	0.0	0.0	0.0	0.0
27.3	0.0	0.0	0.0	0.0	0.0
27.9	0.0	0.0	0.0	0.0	0.0
28.7	0.0	0.0	0.0	0.0	0.0
29.1	0.0	0.0	0.0	0.0	0.0
29.6	0.0	0.0	0.0	0.0	0.0
30.2	0.0	0.0	0.0	0.0	0.0
30.6	0.0	0.0	0.0	0.0	0.0
31.1	0.0	0.0	0.0	0.0	0.0
31.6	0.0	0.0	0.0	0.0	0.0
32.1	0.0	0.0	0.0	0.0	0.0
32.9	0.0	0.0	0.0	0.0	0.0
33.5	0.0	0.0	0.0	0.0	0.0
34.2	0.0	0.0	0.0	0.0	0.0
34.9	0.0	0.0	0.0	0.0	0.0
35.5	0.0	0.0	0.0	0.0	0.0
36.2	0.0	0.0	0.0	0.0	0.0
36.7	0.0	0.0	0.0	0.0	0.0
37.4	0.0	0.0	0.0	0.0	0.0
38.1	0.0	0.0	0.0	0.0	0.0
38.9	0.0	0.0	0.0	0.0	0.0
40.0	0.0	0.0	0.0	0.0	0.0
41.2	0.0	0.0	0.0	0.0	0.0
41.8	0.0	0.0	0.0	0.0	0.0
43.0	0.0	0.0	0.0	0.0	0.0
45.1	0.0	0.0	0.0	0.0	0.0
46.6	0.0	0.0	0.0	0.0	0.0
49.2	0.0	0.0	0.0	0.0	0.0
51.0	0.0	0.0	0.0	0.0	0.0
53.9	0.0	0.0	0.0	0.0	0.0
56.1	0.0	0.0	0.0	0.0	0.0
58.4	0.0	0.0	0.0	0.0	0.0
60.7	0.0	0.0	0.0	0.0	0.0

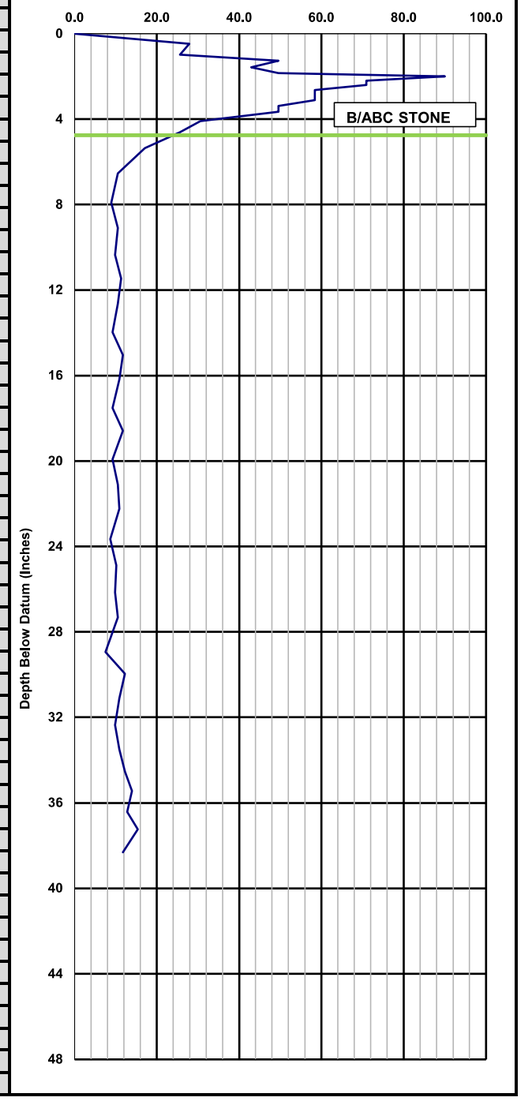


Note(s):

WB - Westbound	DECEL - Deceleration	C - Cut
EB - Eastbound	ACCEL - Acceleration	SG - Subgrade
OSS - Outside Shoulder	LN - Lane	T/ABC - Top of ABC Stone
ISS - Inside Shoulder	AG - At Grade	B/ABC - Bottom of ABC Stone
OSL - Outside Lane	F - Fill	Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR			PROJECT NUMBER	TIP	ROUTE
			67015.1.1	BR-0015	US 29/US 70
			COUNTY	FIELD PROFESSIONAL	CREW
			Davidson	Dan Kubinski	Trigon Exploration
TEST LOCATION DESCRIPTION			DATE PERFORMED	CORRELATED CBR VALUES	
L_1960_EB_OSL			5/2/23		
DATUM	CUT/FILL	NORTHING	EASTING		
T/ABC	C	757,260	1,621,409		

CUMULATIVE PENETRATION IN CENTIMETERS					
1.2	0.0	0.0	0.0	0.0	0.0
2.5	0.0	0.0	0.0	0.0	0.0
3.2	0.0	0.0	0.0	0.0	0.0
4.0	0.0	0.0	0.0	0.0	0.0
4.7	0.0	0.0	0.0	0.0	0.0
5.1	0.0	0.0	0.0	0.0	0.0
5.6	0.0	0.0	0.0	0.0	0.0
6.1	0.0	0.0	0.0	0.0	0.0
6.7	0.0	0.0	0.0	0.0	0.0
7.3	0.0	0.0	0.0	0.0	0.0
7.9	0.0	0.0	0.0	0.0	0.0
8.6	0.0	0.0	0.0	0.0	0.0
9.3	0.0	0.0	0.0	0.0	0.0
10.4	0.0	0.0	0.0	0.0	0.0
11.7	0.0	0.0	0.0	0.0	0.0
13.6	0.0	0.0	0.0	0.0	0.0
16.6	0.0	0.0	0.0	0.0	0.0
20.1	0.0	0.0	0.0	0.0	0.0
23.1	0.0	0.0	0.0	0.0	0.0
26.3	0.0	0.0	0.0	0.0	0.0
29.1	0.0	0.0	0.0	0.0	0.0
32.1	0.0	0.0	0.0	0.0	0.0
35.5	0.0	0.0	0.0	0.0	0.0
38.2	0.0	0.0	0.0	0.0	0.0
41.1	0.0	0.0	0.0	0.0	0.0
44.5	0.0	0.0	0.0	0.0	0.0
47.2	0.0	0.0	0.0	0.0	0.0
50.6	0.0	0.0	0.0	0.0	0.0
53.6	0.0	0.0	0.0	0.0	0.0
56.5	0.0	0.0	0.0	0.0	0.0
60.1	0.0	0.0	0.0	0.0	0.0
63.2	0.0	0.0	0.0	0.0	0.0
66.4	0.0	0.0	0.0	0.0	0.0
69.4	0.0	0.0	0.0	0.0	0.0
73.5	0.0	0.0	0.0	0.0	0.0
76.1	0.0	0.0	0.0	0.0	0.0
79.0	0.0	0.0	0.0	0.0	0.0
82.2	0.0	0.0	0.0	0.0	0.0
85.1	0.0	0.0	0.0	0.0	0.0
87.7	0.0	0.0	0.0	0.0	0.0
90.0	0.0	0.0	0.0	0.0	0.0
92.5	0.0	0.0	0.0	0.0	0.0
94.6	0.0	0.0	0.0	0.0	0.0
97.3	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0



Note(s):

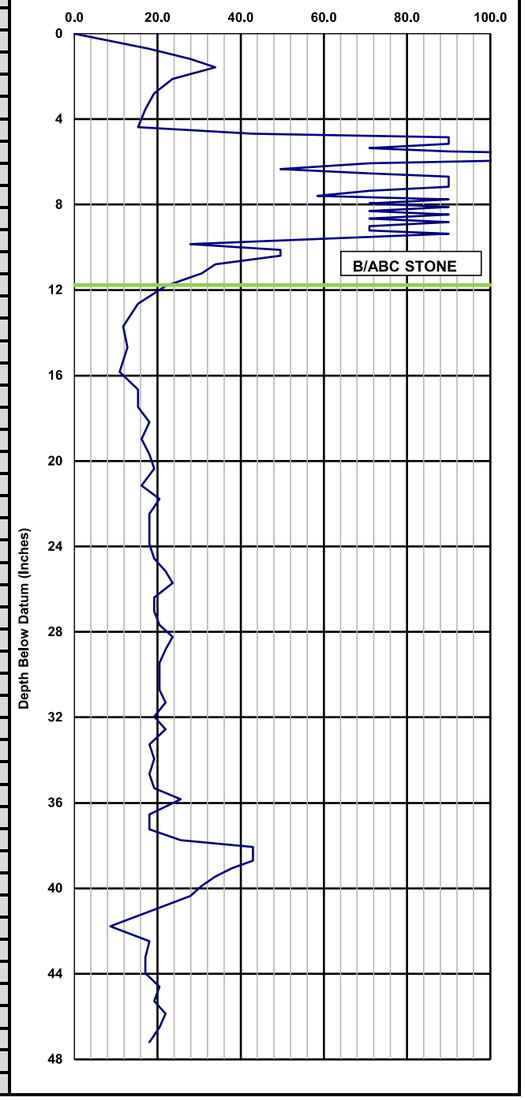
WB - Westbound
EB - Eastbound
OSS - Outside Shoulder
ISS - Inside Shoulder
OSL - Outside Lane

DECEL - Deceleration
ACCEL - Acceleration
LN - Lane
AG - At Grade
F - Fill

C - Cut
SG - Subgrade
T/ABC - Top of ABC Stone
B/ABC - Bottom of ABC Stone
Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR			PROJECT NUMBER	TIP	ROUTE
			67015.1.1	BR-0015	US 29/US 70
			COUNTY	FIELD PROFESSIONAL	CREW
			Davidson	Dan Kubinski	Trigon Exploration
TEST LOCATION DESCRIPTION			DATE PERFORMED	CORRELATED CBR VALUES	
L_1960_EB_OSS			5/2/23		
DATUM	CUT/FILL	NORTHING	EASTING		
T/ABC	C	757,257	1,621,413		

CUMULATIVE PENETRATION IN CENTIMETERS					
1.8	51.7	0.0	0.0	0.0	0.0
3.0	53.7	0.0	0.0	0.0	0.0
4.0	55.3	0.0	0.0	0.0	0.0
5.4	57.1	0.0	0.0	0.0	0.0
7.1	58.9	0.0	0.0	0.0	0.0
9.0	60.7	0.0	0.0	0.0	0.0
11.1	62.4	0.0	0.0	0.0	0.0
11.9	63.9	0.0	0.0	0.0	0.0
12.3	65.3	0.0	0.0	0.0	0.0
12.7	67.0	0.0	0.0	0.0	0.0
13.1	68.7	0.0	0.0	0.0	0.0
13.6	70.3	0.0	0.0	0.0	0.0
14.0	71.7	0.0	0.0	0.0	0.0
14.3	73.2	0.0	0.0	0.0	0.0
14.6	74.8	0.0	0.0	0.0	0.0
14.9	76.4	0.0	0.0	0.0	0.0
15.4	78.0	0.0	0.0	0.0	0.0
16.1	79.5	0.0	0.0	0.0	0.0
16.6	81.2	0.0	0.0	0.0	0.0
17.0	82.7	0.0	0.0	0.0	0.0
17.4	84.5	0.0	0.0	0.0	0.0
17.8	86.2	0.0	0.0	0.0	0.0
18.2	88.0	0.0	0.0	0.0	0.0
18.7	89.7	0.0	0.0	0.0	0.0
19.3	91.0	0.0	0.0	0.0	0.0
19.7	92.8	0.0	0.0	0.0	0.0
20.2	94.6	0.0	0.0	0.0	0.0
20.6	95.9	0.0	0.0	0.0	0.0
21.1	96.7	0.0	0.0	0.0	0.0
21.5	97.5	0.0	0.0	0.0	0.0
22.0	98.3	0.0	0.0	0.0	0.0
22.4	99.2	0.0	0.0	0.0	0.0
22.9	100.2	0.0	0.0	0.0	0.0
23.4	101.3	0.0	0.0	0.0	0.0
23.8	102.5	0.0	0.0	0.0	0.0
25.0	106.1	0.0	0.0	0.0	0.0
25.7	107.9	0.0	0.0	0.0	0.0
26.4	109.8	0.0	0.0	0.0	0.0
27.4	111.7	0.0	0.0	0.0	0.0
28.5	113.3	0.0	0.0	0.0	0.0
30.0	115.0	0.0	0.0	0.0	0.0
32.1	116.5	0.0	0.0	0.0	0.0
34.8	118.1	0.0	0.0	0.0	0.0
37.3	119.9	0.0	0.0	0.0	0.0
40.2	0.0	0.0	0.0	0.0	0.0
42.3	0.0	0.0	0.0	0.0	0.0
44.4	0.0	0.0	0.0	0.0	0.0
46.2	0.0	0.0	0.0	0.0	0.0
48.2	0.0	0.0	0.0	0.0	0.0
50.0	0.0	0.0	0.0	0.0	0.0



Note(s):

WB - Westbound
EB - Eastbound
OSS - Outside Shoulder
ISS - Inside Shoulder
OSL - Outside Lane

DECEL - Deceleration
ACCEL - Acceleration
LN - Lane
AG - At Grade
F - Fill

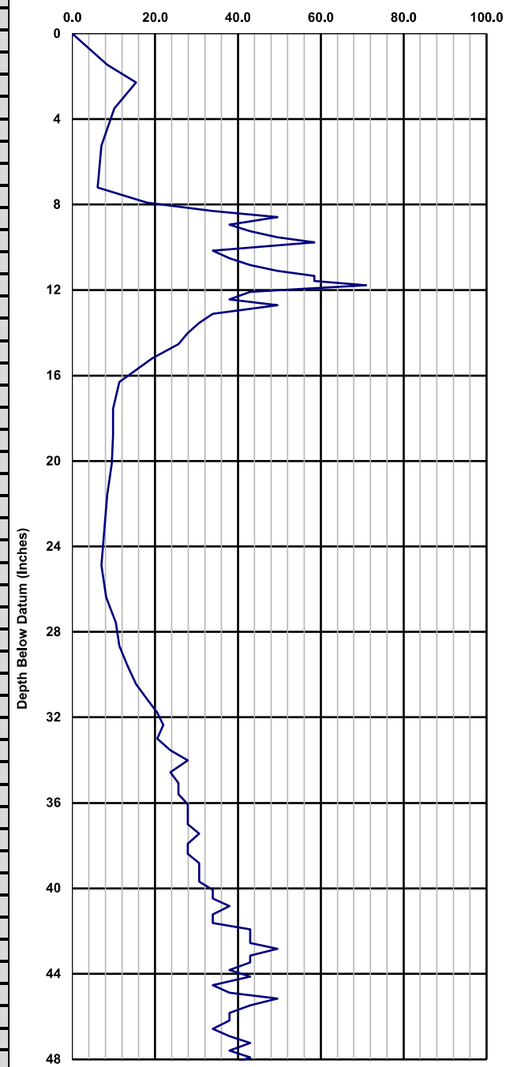
C - Cut
SG - Subgrade
T/ABC - Top of ABC Stone
B/ABC - Bottom of ABC Stone
Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR	PROJECT NUMBER	TIP	ROUTE
	67015.1.1	BR-0015	US 29/US 70
	COUNTY	FIELD PROFESSIONAL	CREW
	Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION			DATE PERFORMED	
L_2590_WB_ISS			5/3/23	
DATUM	CUT/FILL	NORTHING	EASTING	
SG	AG	757,786	1,621,759	

CORRELATED CBR VALUES

CUMULATIVE PENETRATION IN CENTIMETERS					
3.7	94.0	0.0	0.0	0.0	0.0
5.8	95.1	0.0	0.0	0.0	0.0
8.9	96.3	0.0	0.0	0.0	0.0
13.3	97.5	0.0	0.0	0.0	0.0
18.3	98.6	0.0	0.0	0.0	0.0
20.1	99.7	0.0	0.0	0.0	0.0
21.1	100.8	0.0	0.0	0.0	0.0
21.8	101.8	0.0	0.0	0.0	0.0
22.7	102.8	0.0	0.0	0.0	0.0
23.5	103.7	0.0	0.0	0.0	0.0
24.2	104.7	0.0	0.0	0.0	0.0
24.8	105.7	0.0	0.0	0.0	0.0
25.8	106.5	0.0	0.0	0.0	0.0
26.7	107.3	0.0	0.0	0.0	0.0
27.5	108.1	0.0	0.0	0.0	0.0
28.2	108.8	0.0	0.0	0.0	0.0
28.8	109.6	0.0	0.0	0.0	0.0
29.4	110.4	0.0	0.0	0.0	0.0
29.9	111.3	0.0	0.0	0.0	0.0
30.7	112.1	0.0	0.0	0.0	0.0
31.6	113.1	0.0	0.0	0.0	0.0
32.3	114.0	0.0	0.0	0.0	0.0
33.3	114.7	0.0	0.0	0.0	0.0
34.4	115.5	0.0	0.0	0.0	0.0
35.6	116.4	0.0	0.0	0.0	0.0
36.9	117.3	0.0	0.0	0.0	0.0
38.6	118.3	0.0	0.0	0.0	0.0
41.4	119.2	0.0	0.0	0.0	0.0
44.6	120.0	0.0	0.0	0.0	0.0
47.8	120.9	0.0	0.0	0.0	0.0
51.1	121.7	0.0	0.0	0.0	0.0
54.8	122.6	0.0	0.0	0.0	0.0
58.8	123.3	0.0	0.0	0.0	0.0
63.2	124.2	0.0	0.0	0.0	0.0
67.0	125.1	0.0	0.0	0.0	0.0
70.0	126.2	0.0	0.0	0.0	0.0
72.8	0.0	0.0	0.0	0.0	0.0
75.2	0.0	0.0	0.0	0.0	0.0
77.3	0.0	0.0	0.0	0.0	0.0
79.1	0.0	0.0	0.0	0.0	0.0
80.7	0.0	0.0	0.0	0.0	0.0
82.2	0.0	0.0	0.0	0.0	0.0
83.8	0.0	0.0	0.0	0.0	0.0
85.2	0.0	0.0	0.0	0.0	0.0
86.4	0.0	0.0	0.0	0.0	0.0
87.8	0.0	0.0	0.0	0.0	0.0
89.1	0.0	0.0	0.0	0.0	0.0
90.4	0.0	0.0	0.0	0.0	0.0
91.6	0.0	0.0	0.0	0.0	0.0
92.8	0.0	0.0	0.0	0.0	0.0



Note(s):

WB - Westbound
EB - Eastbound
OSS - Outside Shoulder
ISS - Inside Shoulder
OSL - Outside Lane

DECEL - Deceleration
ACCEL - Acceleration
LN - Lane
AG - At Grade
F - Fill

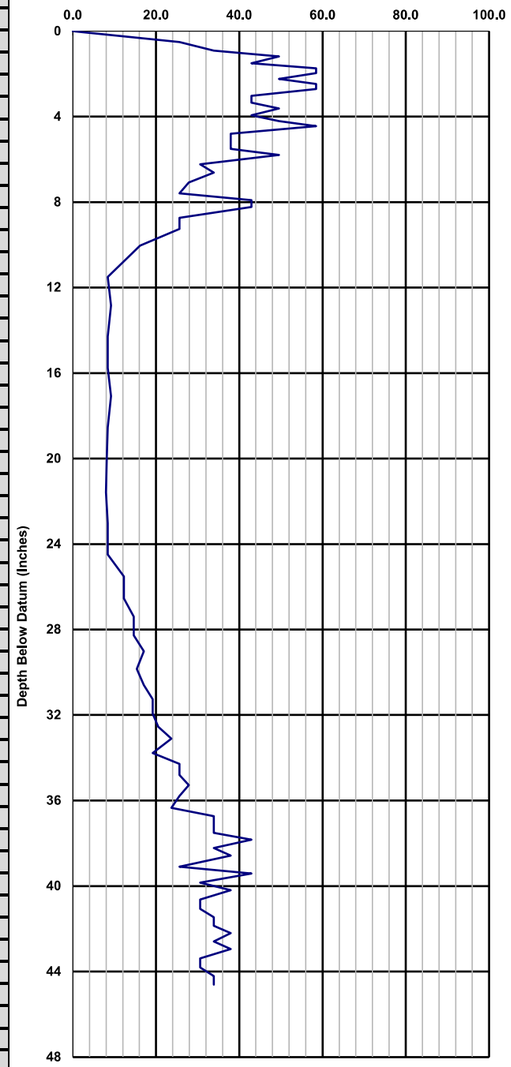
C - Cut
SG - Subgrade
T/ABC - Top of ABC Stone
B/ABC - Bottom of ABC Stone
Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR	PROJECT NUMBER	TIP	ROUTE
	67015.1.1	BR-0015	US 29/US 70
	COUNTY	FIELD PROFESSIONAL	CREW
	Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION			DATE PERFORMED	
L_3150_WB_OSS			5/3/23	
DATUM	CUT/FILL	NORTHING	EASTING	
SG	AG	758,245	1,622,081	

CORRELATED CBR VALUES

CUMULATIVE PENETRATION IN CENTIMETERS					
1.3	87.1	0.0	0.0	0.0	0.0
2.3	88.4	0.0	0.0	0.0	0.0
3.0	89.6	0.0	0.0	0.0	0.0
3.8	90.9	0.0	0.0	0.0	0.0
4.4	92.3	0.0	0.0	0.0	0.0
5.0	93.3	0.0	0.0	0.0	0.0
5.7	94.3	0.0	0.0	0.0	0.0
6.3	95.3	0.0	0.0	0.0	0.0
6.9	96.1	0.0	0.0	0.0	0.0
7.7	97.1	0.0	0.0	0.0	0.0
8.5	98.0	0.0	0.0	0.0	0.0
9.2	99.3	0.0	0.0	0.0	0.0
10.0	100.1	0.0	0.0	0.0	0.0
10.7	101.2	0.0	0.0	0.0	0.0
11.3	102.1	0.0	0.0	0.0	0.0
12.2	103.2	0.0	0.0	0.0	0.0
13.1	104.3	0.0	0.0	0.0	0.0
14.0	105.3	0.0	0.0	0.0	0.0
14.7	106.3	0.0	0.0	0.0	0.0
15.8	107.2	0.0	0.0	0.0	0.0
16.8	108.2	0.0	0.0	0.0	0.0
18.0	109.1	0.0	0.0	0.0	0.0
19.3	110.2	0.0	0.0	0.0	0.0
20.1	111.3	0.0	0.0	0.0	0.0
20.9	112.3	0.0	0.0	0.0	0.0
22.2	113.3	0.0	0.0	0.0	0.0
23.5	0.0	0.0	0.0	0.0	0.0
25.5	0.0	0.0	0.0	0.0	0.0
29.2	0.0	0.0	0.0	0.0	0.0
32.6	0.0	0.0	0.0	0.0	0.0
36.3	0.0	0.0	0.0	0.0	0.0
40.0	0.0	0.0	0.0	0.0	0.0
43.4	0.0	0.0	0.0	0.0	0.0
47.1	0.0	0.0	0.0	0.0	0.0
50.9	0.0	0.0	0.0	0.0	0.0
54.8	0.0	0.0	0.0	0.0	0.0
58.5	0.0	0.0	0.0	0.0	0.0
62.2	0.0	0.0	0.0	0.0	0.0
64.8	0.0	0.0	0.0	0.0	0.0
67.4	0.0	0.0	0.0	0.0	0.0
69.6	0.0	0.0	0.0	0.0	0.0
71.8	0.0	0.0	0.0	0.0	0.0
73.7	0.0	0.0	0.0	0.0	0.0
75.8	0.0	0.0	0.0	0.0	0.0
77.7	0.0	0.0	0.0	0.0	0.0
79.4	0.0	0.0	0.0	0.0	0.0
81.1	0.0	0.0	0.0	0.0	0.0
82.7	0.0	0.0	0.0	0.0	0.0
84.1	0.0	0.0	0.0	0.0	0.0
85.8	0.0	0.0	0.0	0.0	0.0



Note(s):

WB - Westbound
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OSS - Outside Shoulder
ISS - Inside Shoulder
OSL - Outside Lane

DECEL - Deceleration
ACCEL - Acceleration
LN - Lane
AG - At Grade
F - Fill

C - Cut
SG - Subgrade
T/ABC - Top of ABC Stone
B/ABC - Bottom of ABC Stone
Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR

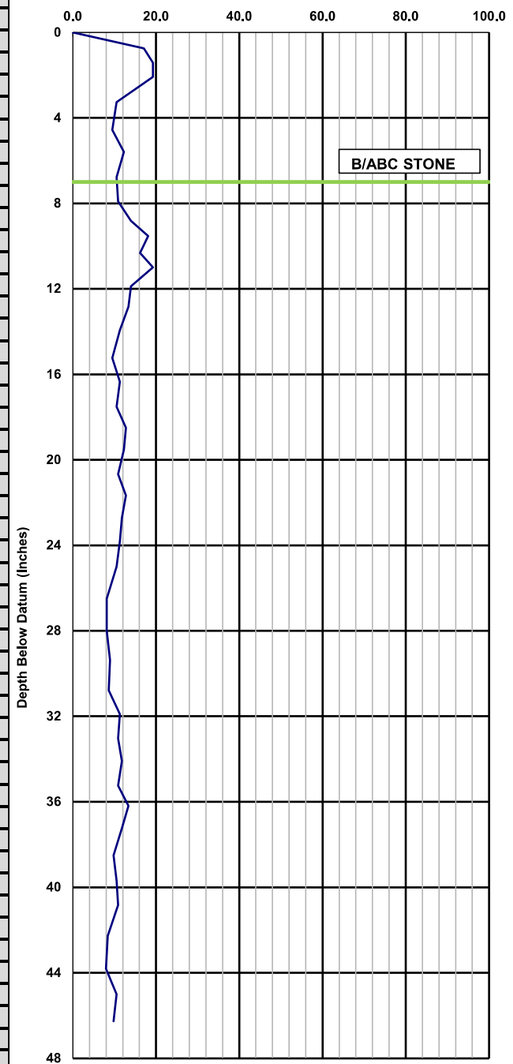
PROJECT NUMBER	TIP	ROUTE
67015.1.1	BR-0015	US 29/US 70
COUNTY	**FIELD PROFESSIONAL**	**CREW**
Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION			DATE PERFORMED
L_3275_EB_DECEL_LN			5/2/23
DATUM	**CUT/FILL**	**NORTHING**	**EASTING**
T/ABC	AG	758,292	1,622,226

CUMULATIVE PENETRATION IN CENTIMETERS

1.9	0.0	0.0	0.0	0.0	0.0
3.6	0.0	0.0	0.0	0.0	0.0
5.3	0.0	0.0	0.0	0.0	0.0
8.3	0.0	0.0	0.0	0.0	0.0
11.6	0.0	0.0	0.0	0.0	0.0
14.2	0.0	0.0	0.0	0.0	0.0
17.2	0.0	0.0	0.0	0.0	0.0
20.1	0.0	0.0	0.0	0.0	0.0
22.4	0.0	0.0	0.0	0.0	0.0
24.2	0.0	0.0	0.0	0.0	0.0
26.2	0.0	0.0	0.0	0.0	0.0
27.9	0.0	0.0	0.0	0.0	0.0
30.2	0.0	0.0	0.0	0.0	0.0
32.6	0.0	0.0	0.0	0.0	0.0
35.4	0.0	0.0	0.0	0.0	0.0
38.7	0.0	0.0	0.0	0.0	0.0
41.5	0.0	0.0	0.0	0.0	0.0
44.5	0.0	0.0	0.0	0.0	0.0
47.0	0.0	0.0	0.0	0.0	0.0
49.6	0.0	0.0	0.0	0.0	0.0
52.5	0.0	0.0	0.0	0.0	0.0
55.0	0.0	0.0	0.0	0.0	0.0
57.7	0.0	0.0	0.0	0.0	0.0
60.5	0.0	0.0	0.0	0.0	0.0
63.5	0.0	0.0	0.0	0.0	0.0
67.3	0.0	0.0	0.0	0.0	0.0
71.1	0.0	0.0	0.0	0.0	0.0
74.6	0.0	0.0	0.0	0.0	0.0
78.2	0.0	0.0	0.0	0.0	0.0
81.0	0.0	0.0	0.0	0.0	0.0
83.9	0.0	0.0	0.0	0.0	0.0
86.6	0.0	0.0	0.0	0.0	0.0
89.5	0.0	0.0	0.0	0.0	0.0
91.9	0.0	0.0	0.0	0.0	0.0
94.6	0.0	0.0	0.0	0.0	0.0
97.8	0.0	0.0	0.0	0.0	0.0
100.8	0.0	0.0	0.0	0.0	0.0
103.7	0.0	0.0	0.0	0.0	0.0
107.4	0.0	0.0	0.0	0.0	0.0
111.3	0.0	0.0	0.0	0.0	0.0
114.3	0.0	0.0	0.0	0.0	0.0
117.5	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0

CORRELATED CBR VALUES



Note(s):

WB - Westbound
EB - Eastbound
OSS - Outside Shoulder
ISS - Inside Shoulder
OSL - Outside Lane

DECEL - Deceleration
ACCEL - Acceleration
LN - Lane
AG - At Grade
F - Fill

C - Cut
SG - Subgrade
T/ABC - Top of ABC Stone
B/ABC - Bottom of ABC Stone
Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR

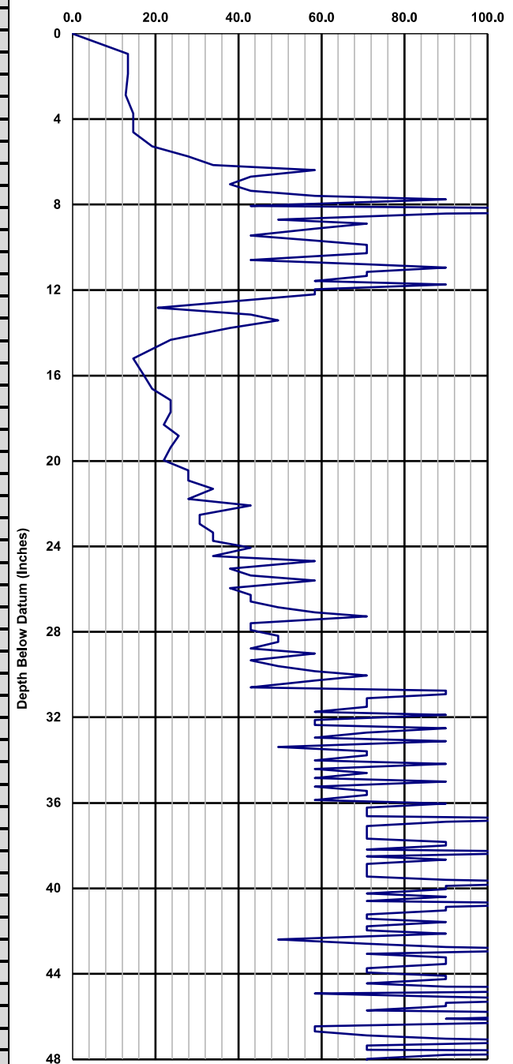
PROJECT NUMBER	TIP	ROUTE
67015.1.1	BR-0015	US 29/US 70
COUNTY	**FIELD PROFESSIONAL**	**CREW**
Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION			DATE PERFORMED
L_3870_WB_ISS			5/3/23
DATUM	**CUT/FILL**	**NORTHING**	**EASTING**
SG	C	758,798	1,622,544

CUMULATIVE PENETRATION IN CENTIMETERS

2.4	53.1	87.4	110.2	0.0	0.0
4.8	54.1	87.9	110.6	0.0	0.0
7.3	55.3	88.5	111.1	0.0	0.0
9.5	56.1	88.9	111.6	0.0	0.0
11.7	57.2	89.5	112.0	0.0	0.0
13.4	58.3	90.0	112.4	0.0	0.0
14.6	59.3	90.5	112.9	0.0	0.0
15.6	60.3	91.1	113.3	0.0	0.0
16.2	61.1	91.5	113.5	0.0	0.0
17.0	62.1	92.0	114.1	0.0	0.0
17.9	62.7	92.5	114.5	0.0	0.0
18.7	63.6	93.0	114.8	0.0	0.0
19.3	64.4	93.3	115.2	0.0	0.0
19.7	65.0	93.7	115.6	0.0	0.0
20.5	65.9	94.2	116.1	0.0	0.0
20.8	66.7	94.7	116.4	0.0	0.0
21.0	67.5	95.2	116.7	0.0	0.0
21.4	68.2	95.7	117.1	0.0	0.0
22.1	68.8	96.1	117.4	0.0	0.0
22.6	69.3	96.5	118.0	0.0	0.0
23.2	70.1	97.0	118.6	0.0	0.0
24.0	70.9	97.3	119.1	0.0	0.0
24.6	71.6	97.8	119.5	0.0	0.0
25.1	72.3	98.2	119.8	0.0	0.0
25.6	73.1	98.7	120.3	0.0	0.0
26.1	73.7	99.2	120.8	0.0	0.0
26.9	74.5	99.7	121.0	0.0	0.0
27.4	75.2	100.2	121.4	0.0	0.0
27.8	75.8	100.6	121.9	0.0	0.0
28.3	76.3	100.9	122.4	0.0	0.0
28.8	76.9	101.3	122.7	0.0	0.0
29.4	77.7	101.7	123.0	0.0	0.0
29.8	78.1	102.2	123.6	0.0	0.0
30.4	78.5	102.6	123.9	0.0	0.0
31.0	79.0	103.1	124.3	0.0	0.0
32.6	79.5	103.4	124.6	0.0	0.0
33.4	80.0	103.8	125.5	0.0	0.0
34.1	80.6	104.2	125.9	0.0	0.0
35.0	81.0	104.7	126.3	0.0	0.0
36.4	81.6	105.2	126.6	0.0	0.0
38.6	82.2	105.6	126.9	0.0	0.0
40.5	82.6	106.1	127.3	0.0	0.0
42.2	83.1	106.6	127.7	0.0	0.0
43.6	83.7	107.0	0.0	0.0	0.0
45.0	84.1	107.7	0.0	0.0	0.0
46.5	84.8	108.2	0.0	0.0	0.0
47.8	85.3	108.6	0.0	0.0	0.0
49.2	85.8	108.9	0.0	0.0	0.0
50.7	86.4	109.4	0.0	0.0	0.0
51.9	86.8	109.8	0.0	0.0	0.0

CORRELATED CBR VALUES



Note(s):

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EB - Eastbound
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ISS - Inside Shoulder
OSL - Outside Lane

DECEL - Deceleration
ACCEL - Acceleration
LN - Lane
AG - At Grade
F - Fill

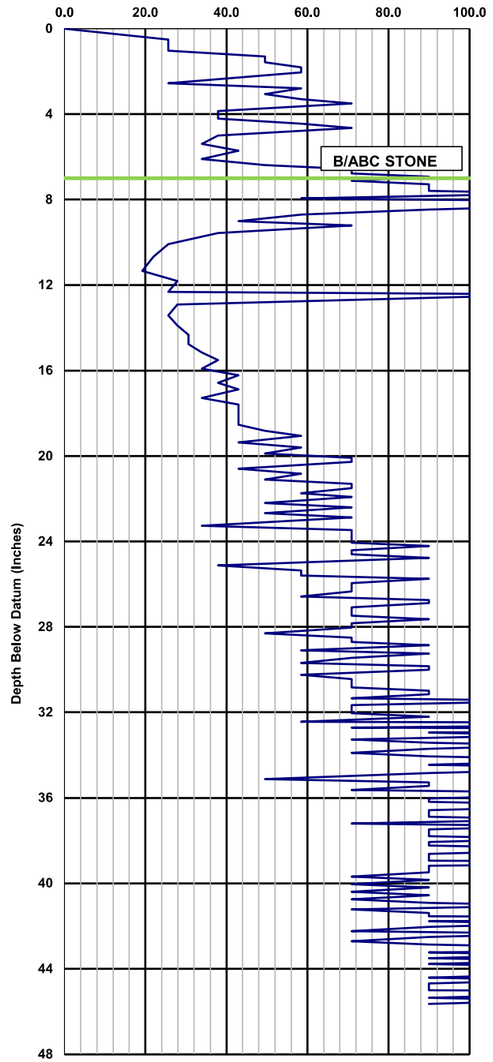
C - Cut
SG - Subgrade
T/ABC - Top of ABC Stone
B/ABC - Bottom of ABC Stone
Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR	PROJECT NUMBER	TIP	ROUTE
	67015.1.1	BR-0015	US 29/US 70
	COUNTY	FIELD PROFESSIONAL	CREW
	Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION			DATE PERFORMED
L_3870_WB_DECEL_LN			5/3/23
DATUM	CUT/FILL	NORTHING	EASTING
T/ABC	C	758,817	1,622,519

CORRELATED CBR VALUES

CUMULATIVE PENETRATION IN CENTIMETERS					
1.3	40.4	70.7	92.2	111.2	0.0
2.6	41.2	71.2	92.5	111.5	0.0
3.3	42.1	71.9	92.9	111.8	0.0
4.0	42.9	72.4	93.3	112.1	0.0
4.6	43.9	72.9	93.7	112.4	0.0
5.2	44.7	73.3	94.0	112.8	0.0
6.5	45.5	73.9	94.5	113.1	0.0
7.1	46.3	74.3	94.8	113.5	0.0
7.8	47.1	74.8	95.2	113.9	0.0
8.4	47.8	75.4	95.6	114.3	0.0
8.9	48.4	75.8	96.0	114.5	0.0
9.8	49.2	76.2	96.3	114.8	0.0
10.7	49.8	76.8	96.7	115.2	0.0
11.3	50.5	77.3	97.1	115.5	0.0
11.8	51.0	77.8	97.4	115.9	0.0
12.7	51.5	78.3	97.7	0.0	0.0
13.7	52.3	78.7	98.1	0.0	0.0
14.5	52.9	79.1	98.5	0.0	0.0
15.5	53.6	79.6	98.9	0.0	0.0
16.2	54.1	79.9	99.1	0.0	0.0
16.7	54.6	80.4	99.5	0.0	0.0
17.2	55.2	80.9	99.9	0.0	0.0
17.6	55.7	81.4	100.3	0.0	0.0
18.1	56.4	81.8	100.8	0.0	0.0
18.5	56.9	82.4	101.2	0.0	0.0
18.9	57.6	82.6	101.7	0.0	0.0
19.3	58.1	83.1	102.1	0.0	0.0
19.6	59.1	83.3	102.6	0.0	0.0
20.2	59.6	83.7	103.0	0.0	0.0
20.5	60.1	84.0	103.5	0.0	0.0
20.8	60.6	84.5	103.9	0.0	0.0
21.1	61.1	84.9	104.2	0.0	0.0
21.5	61.5	85.2	104.7	0.0	0.0
22.1	62.0	85.6	105.1	0.0	0.0
22.9	62.5	86.1	105.5	0.0	0.0
23.4	62.9	86.5	105.7	0.0	0.0
24.3	63.8	86.8	106.1	0.0	0.0
25.6	64.4	87.1	106.4	0.0	0.0
27.1	65.0	87.5	106.8	0.0	0.0
28.8	65.4	87.8	107.3	0.0	0.0
30.0	65.9	88.1	107.6	0.0	0.0
31.3	66.4	88.5	108.0	0.0	0.0
31.6	66.9	89.2	108.5	0.0	0.0
32.8	67.5	89.6	108.9	0.0	0.0
34.1	67.9	90.0	109.2	0.0	0.0
35.3	68.3	90.5	109.4	0.0	0.0
36.4	68.8	90.8	109.8	0.0	0.0
37.5	69.3	91.1	110.1	0.0	0.0
38.5	69.8	91.5	110.5	0.0	0.0
39.4	70.2	91.9	110.8	0.0	0.0



Note(s):

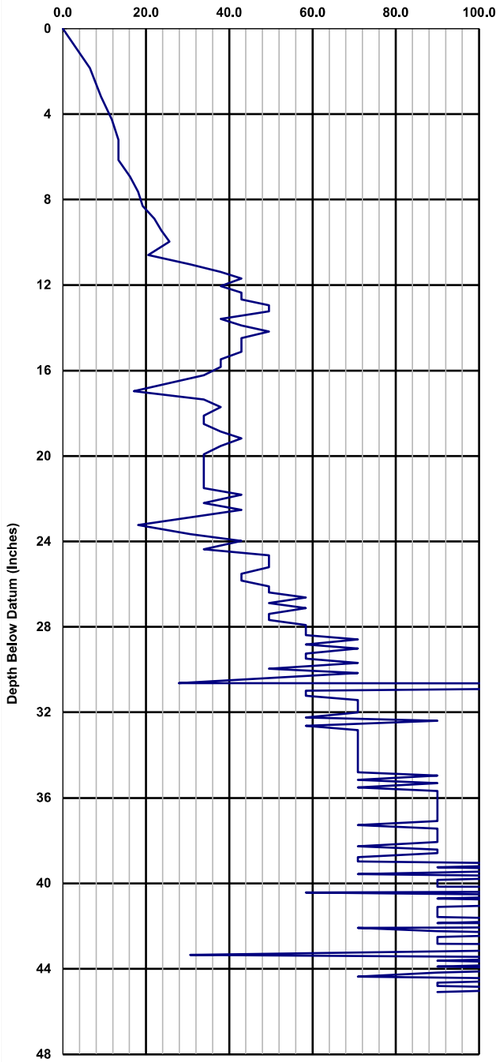
WB - Westbound	DECEL - Deceleration	C - Cut
EB - Eastbound	ACCEL - Acceleration	SG - Subgrade
OSS - Outside Shoulder	LN - Lane	T/ABC - Top of ABC Stone
ISS - Inside Shoulder	AG - At Grade	B/ABC - Bottom of ABC Stone
OSL - Outside Lane	F - Fill	Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR	PROJECT NUMBER	TIP	ROUTE
	67015.1.1	BR-0015	US 29/US 70
	COUNTY	FIELD PROFESSIONAL	CREW
	Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION			DATE PERFORMED
L_3870_WB_OSS			5/4/23
DATUM	CUT/FILL	NORTHING	EASTING
SG	C	758,821	1,622,514

CORRELATED CBR VALUES

CUMULATIVE PENETRATION IN CENTIMETERS					
4.7	63.3	91.0	110.8	0.0	0.0
8.1	64.0	91.4	111.1	0.0	0.0
10.8	64.8	91.8	111.5	0.0	0.0
13.2	65.6	92.2	111.8	0.0	0.0
15.6	66.3	92.6	112.2	0.0	0.0
17.6	67.0	93.0	112.7	0.0	0.0
19.4	67.6	93.4	113.0	0.0	0.0
21.1	68.3	93.8	113.4	0.0	0.0
22.6	68.9	94.2	113.8	0.0	0.0
24.0	69.6	94.7	114.1	0.0	0.0
25.3	70.3	95.1	114.5	0.0	0.0
26.9	70.9	95.5	0.0	0.0	0.0
28.0	71.5	95.9	0.0	0.0	0.0
28.9	72.1	96.3	0.0	0.0	0.0
29.7	72.6	96.7	0.0	0.0	0.0
30.6	73.2	97.2	0.0	0.0	0.0
31.4	73.7	97.6	0.0	0.0	0.0
32.2	74.3	98.0	0.0	0.0	0.0
32.9	74.9	98.5	0.0	0.0	0.0
33.6	75.4	99.0	0.0	0.0	0.0
34.5	76.1	99.3	0.0	0.0	0.0
35.3	76.6	99.7	0.0	0.0	0.0
36.0	77.8	100.0	0.0	0.0	0.0
36.8	77.9	100.5	0.0	0.0	0.0
37.6	78.1	100.8	0.0	0.0	0.0
38.4	78.7	101.2	0.0	0.0	0.0
39.3	79.3	101.6	0.0	0.0	0.0
40.2	79.8	102.0	0.0	0.0	0.0
41.2	80.3	102.1	0.0	0.0	0.0
43.1	80.8	102.7	0.0	0.0	0.0
44.1	81.3	103.0	0.0	0.0	0.0
45.0	81.9	103.4	0.0	0.0	0.0
46.0	82.3	103.7	0.0	0.0	0.0
47.0	82.9	104.0	0.0	0.0	0.0
47.9	83.4	104.4	0.0	0.0	0.0
48.7	83.9	104.8	0.0	0.0	0.0
49.6	84.4	105.2	0.0	0.0	0.0
50.6	84.9	105.6	0.0	0.0	0.0
51.6	85.4	105.9	0.0	0.0	0.0
52.6	85.9	106.3	0.0	0.0	0.0
53.6	86.4	106.4	0.0	0.0	0.0
54.6	86.9	106.9	0.0	0.0	0.0
55.4	87.4	107.3	0.0	0.0	0.0
56.4	87.9	107.6	0.0	0.0	0.0
57.2	88.4	108.0	0.0	0.0	0.0
59.0	88.8	108.4	0.0	0.0	0.0
60.1	89.3	108.8	0.0	0.0	0.0
60.9	89.7	109.0	0.0	0.0	0.0
61.9	90.2	110.1	0.0	0.0	0.0
62.6	90.6	110.4	0.0	0.0	0.0



Note(s):

WB - Westbound	DECEL - Deceleration	C - Cut
EB - Eastbound	ACCEL - Acceleration	SG - Subgrade
OSS - Outside Shoulder	LN - Lane	T/ABC - Top of ABC Stone
ISS - Inside Shoulder	AG - At Grade	B/ABC - Bottom of ABC Stone
OSL - Outside Lane	F - Fill	Ex. Gr. - Existing Grade

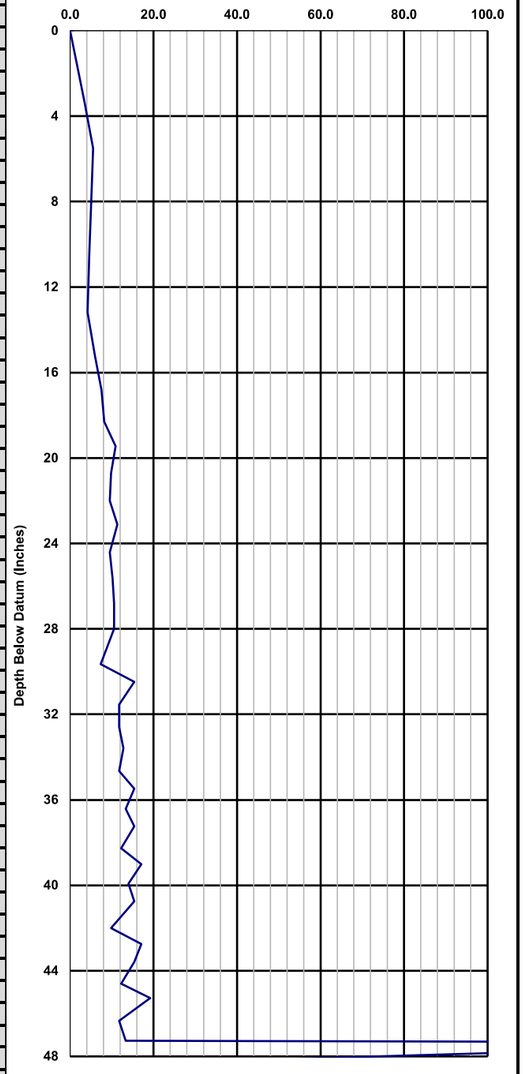
DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR	PROJECT NUMBER	TIP	ROUTE
	67015.1.1	BR-0015	US 29/US 70
	COUNTY	FIELD PROFESSIONAL	CREW
	Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION			DATE PERFORMED
L_4000			5/4/23
DATUM	CUT/FILL	NORTHING	EASTING
Ex. Gr.	C	758,893	1,622,633

CORRELATED CBR VALUES

CUMULATIVE PENETRATION IN CENTIMETERS

8.5	0.0	0.0	0.0	0.0	0.0
14.0	0.0	0.0	0.0	0.0	0.0
19.9	0.0	0.0	0.0	0.0	0.0
26.4	0.0	0.0	0.0	0.0	0.0
33.5	0.0	0.0	0.0	0.0	0.0
38.6	0.0	0.0	0.0	0.0	0.0
42.7	0.0	0.0	0.0	0.0	0.0
46.5	0.0	0.0	0.0	0.0	0.0
49.4	0.0	0.0	0.0	0.0	0.0
52.6	0.0	0.0	0.0	0.0	0.0
55.9	0.0	0.0	0.0	0.0	0.0
58.7	0.0	0.0	0.0	0.0	0.0
62.0	0.0	0.0	0.0	0.0	0.0
65.1	0.0	0.0	0.0	0.0	0.0
68.1	0.0	0.0	0.0	0.0	0.0
71.1	0.0	0.0	0.0	0.0	0.0
75.3	0.0	0.0	0.0	0.0	0.0
77.4	0.0	0.0	0.0	0.0	0.0
80.1	0.0	0.0	0.0	0.0	0.0
82.8	0.0	0.0	0.0	0.0	0.0
85.3	0.0	0.0	0.0	0.0	0.0
88.0	0.0	0.0	0.0	0.0	0.0
90.1	0.0	0.0	0.0	0.0	0.0
92.5	0.0	0.0	0.0	0.0	0.0
94.6	0.0	0.0	0.0	0.0	0.0
97.2	0.0	0.0	0.0	0.0	0.0
99.1	0.0	0.0	0.0	0.0	0.0
101.4	0.0	0.0	0.0	0.0	0.0
103.5	0.0	0.0	0.0	0.0	0.0
106.7	0.0	0.0	0.0	0.0	0.0
108.6	0.0	0.0	0.0	0.0	0.0
110.7	0.0	0.0	0.0	0.0	0.0
113.3	0.0	0.0	0.0	0.0	0.0
115.0	0.0	0.0	0.0	0.0	0.0
117.7	0.0	0.0	0.0	0.0	0.0
120.1	0.0	0.0	0.0	0.0	0.0
120.3	0.0	0.0	0.0	0.0	0.0
122.8	0.0	0.0	0.0	0.0	0.0
125.4	0.0	0.0	0.0	0.0	0.0
127.7	0.0	0.0	0.0	0.0	0.0
130.4	0.0	0.0	0.0	0.0	0.0
132.8	0.0	0.0	0.0	0.0	0.0
135.6	0.0	0.0	0.0	0.0	0.0
138.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0



Note(s):

WB - Westbound
EB - Eastbound
OSS - Outside Shoulder
ISS - Inside Shoulder
OSL - Outside Lane

DECEL - Deceleration
ACCEL - Acceleration
LN - Lane
AG - At Grade
F - Fill

C - Cut
SG - Subgrade
T/ABC - Top of ABC Stone
B/ABC - Bottom of ABC Stone
Ex. Gr. - Existing Grade

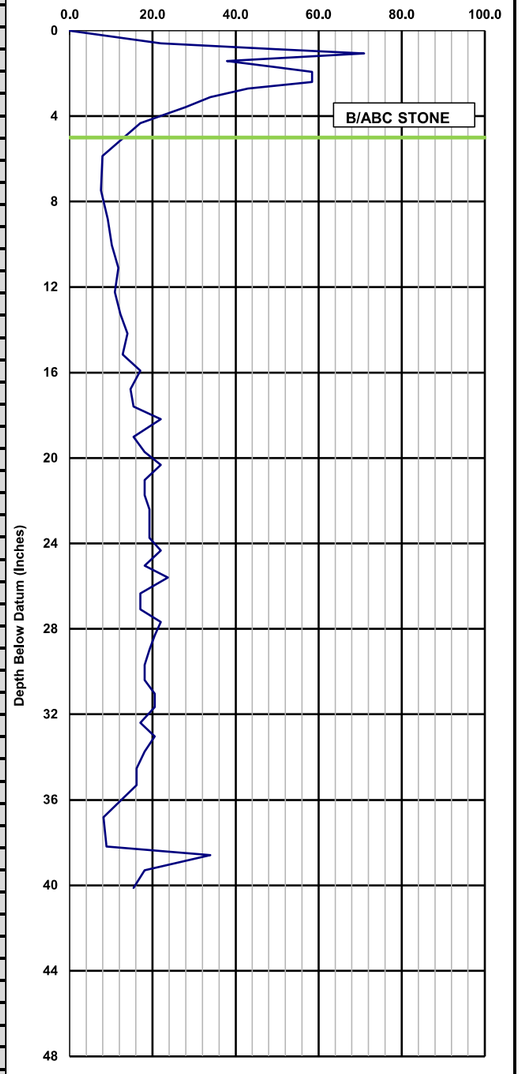
DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR	PROJECT NUMBER	TIP	ROUTE
	67015.1.1	BR-0015	US 29/US 70
	COUNTY	FIELD PROFESSIONAL	CREW
	Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION			DATE PERFORMED
L_4280_EB_ISL			5/2/23
DATUM	CUT/FILL	NORTHING	EASTING
T/ABC	C	759,107	1,622,815

CORRELATED CBR VALUES

CUMULATIVE PENETRATION IN CENTIMETERS

1.5	93.5	0.0	0.0	0.0	0.0
2.2	97.0	0.0	0.0	0.0	0.0
2.7	98.0	0.0	0.0	0.0	0.0
3.6	99.8	0.0	0.0	0.0	0.0
4.3	101.9	0.0	0.0	0.0	0.0
4.9	0.0	0.0	0.0	0.0	0.0
5.5	0.0	0.0	0.0	0.0	0.0
6.1	0.0	0.0	0.0	0.0	0.0
6.9	0.0	0.0	0.0	0.0	0.0
7.9	0.0	0.0	0.0	0.0	0.0
9.1	0.0	0.0	0.0	0.0	0.0
11.0	0.0	0.0	0.0	0.0	0.0
14.9	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0
22.4	0.0	0.0	0.0	0.0	0.0
25.5	0.0	0.0	0.0	0.0	0.0
28.2	0.0	0.0	0.0	0.0	0.0
31.1	0.0	0.0	0.0	0.0	0.0
33.7	0.0	0.0	0.0	0.0	0.0
36.0	0.0	0.0	0.0	0.0	0.0
38.5	0.0	0.0	0.0	0.0	0.0
40.4	0.0	0.0	0.0	0.0	0.0
42.6	0.0	0.0	0.0	0.0	0.0
44.7	0.0	0.0	0.0	0.0	0.0
46.2	0.0	0.0	0.0	0.0	0.0
48.3	0.0	0.0	0.0	0.0	0.0
50.1	0.0	0.0	0.0	0.0	0.0
51.6	0.0	0.0	0.0	0.0	0.0
53.4	0.0	0.0	0.0	0.0	0.0
55.2	0.0	0.0	0.0	0.0	0.0
56.9	0.0	0.0	0.0	0.0	0.0
58.6	0.0	0.0	0.0	0.0	0.0
60.3	0.0	0.0	0.0	0.0	0.0
61.8	0.0	0.0	0.0	0.0	0.0
63.6	0.0	0.0	0.0	0.0	0.0
65.0	0.0	0.0	0.0	0.0	0.0
66.9	0.0	0.0	0.0	0.0	0.0
68.8	0.0	0.0	0.0	0.0	0.0
70.3	0.0	0.0	0.0	0.0	0.0
71.9	0.0	0.0	0.0	0.0	0.0
73.6	0.0	0.0	0.0	0.0	0.0
75.4	0.0	0.0	0.0	0.0	0.0
77.2	0.0	0.0	0.0	0.0	0.0
78.8	0.0	0.0	0.0	0.0	0.0
80.4	0.0	0.0	0.0	0.0	0.0
82.3	0.0	0.0	0.0	0.0	0.0
83.9	0.0	0.0	0.0	0.0	0.0
85.7	0.0	0.0	0.0	0.0	0.0
87.7	0.0	0.0	0.0	0.0	0.0
89.7	0.0	0.0	0.0	0.0	0.0



Note(s):

WB - Westbound
EB - Eastbound
OSS - Outside Shoulder
ISS - Inside Shoulder
OSL - Outside Lane

DECEL - Deceleration
ACCEL - Acceleration
LN - Lane
AG - At Grade
F - Fill

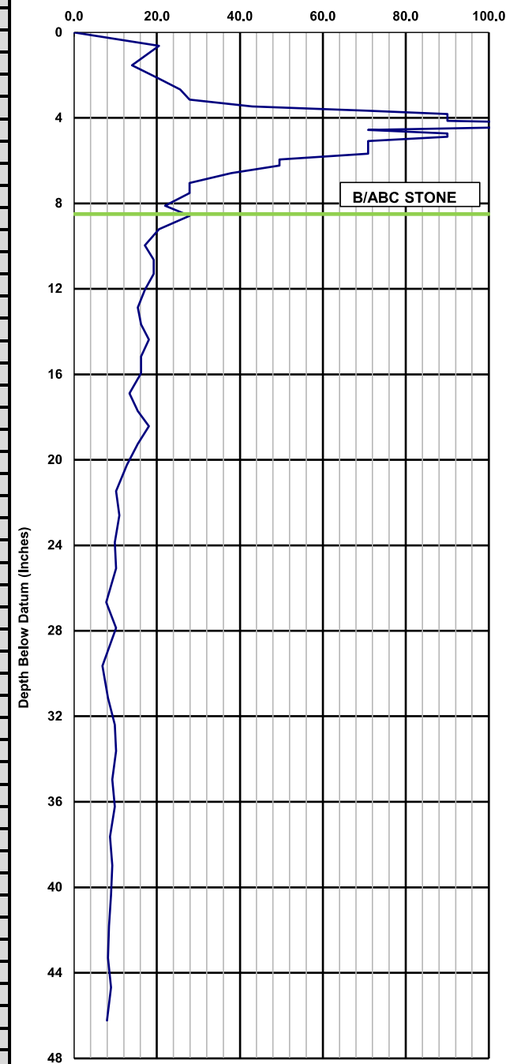
C - Cut
SG - Subgrade
T/ABC - Top of ABC Stone
B/ABC - Bottom of ABC Stone
Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR	PROJECT NUMBER	TIP	ROUTE
	67015.1.1	BR-0015	US 29/US 70
	COUNTY	FIELD PROFESSIONAL	CREW
	Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION			DATE PERFORMED
L_4280_EB_ACCEL_LN			5/2/23
DATUM	CUT/FILL	NORTHING	EASTING
T/ABC	C	759,088	1,622,839

CORRELATED CBR VALUES

CUMULATIVE PENETRATION IN CENTIMETERS					
1.6	85.4	0.0	0.0	0.0	0.0
3.9	88.8	0.0	0.0	0.0	0.0
5.5	92.0	0.0	0.0	0.0	0.0
6.8	95.6	0.0	0.0	0.0	0.0
8.0	99.0	0.0	0.0	0.0	0.0
8.8	102.5	0.0	0.0	0.0	0.0
9.3	106.2	0.0	0.0	0.0	0.0
9.7	110.0	0.0	0.0	0.0	0.0
10.1	113.5	0.0	0.0	0.0	0.0
10.5	117.4	0.0	0.0	0.0	0.0
10.8	0.0	0.0	0.0	0.0	0.0
11.1	0.0	0.0	0.0	0.0	0.0
11.6	0.0	0.0	0.0	0.0	0.0
12.0	0.0	0.0	0.0	0.0	0.0
12.4	0.0	0.0	0.0	0.0	0.0
12.9	0.0	0.0	0.0	0.0	0.0
13.4	0.0	0.0	0.0	0.0	0.0
13.9	0.0	0.0	0.0	0.0	0.0
14.4	0.0	0.0	0.0	0.0	0.0
15.1	0.0	0.0	0.0	0.0	0.0
15.8	0.0	0.0	0.0	0.0	0.0
16.7	0.0	0.0	0.0	0.0	0.0
17.9	0.0	0.0	0.0	0.0	0.0
19.1	0.0	0.0	0.0	0.0	0.0
20.6	0.0	0.0	0.0	0.0	0.0
21.8	0.0	0.0	0.0	0.0	0.0
23.4	0.0	0.0	0.0	0.0	0.0
25.3	0.0	0.0	0.0	0.0	0.0
27.0	0.0	0.0	0.0	0.0	0.0
28.7	0.0	0.0	0.0	0.0	0.0
30.6	0.0	0.0	0.0	0.0	0.0
32.7	0.0	0.0	0.0	0.0	0.0
34.7	0.0	0.0	0.0	0.0	0.0
36.5	0.0	0.0	0.0	0.0	0.0
38.5	0.0	0.0	0.0	0.0	0.0
40.5	0.0	0.0	0.0	0.0	0.0
42.9	0.0	0.0	0.0	0.0	0.0
45.0	0.0	0.0	0.0	0.0	0.0
46.8	0.0	0.0	0.0	0.0	0.0
48.9	0.0	0.0	0.0	0.0	0.0
51.4	0.0	0.0	0.0	0.0	0.0
54.5	0.0	0.0	0.0	0.0	0.0
57.4	0.0	0.0	0.0	0.0	0.0
60.6	0.0	0.0	0.0	0.0	0.0
63.7	0.0	0.0	0.0	0.0	0.0
67.7	0.0	0.0	0.0	0.0	0.0
70.8	0.0	0.0	0.0	0.0	0.0
75.3	0.0	0.0	0.0	0.0	0.0
79.1	0.0	0.0	0.0	0.0	0.0
82.3	0.0	0.0	0.0	0.0	0.0



Note(s):

WB - Westbound
EB - Eastbound
OSS - Outside Shoulder
ISS - Inside Shoulder
OSL - Outside Lane

DECEL - Deceleration
ACCEL - Acceleration
LN - Lane
AG - At Grade
F - Fill

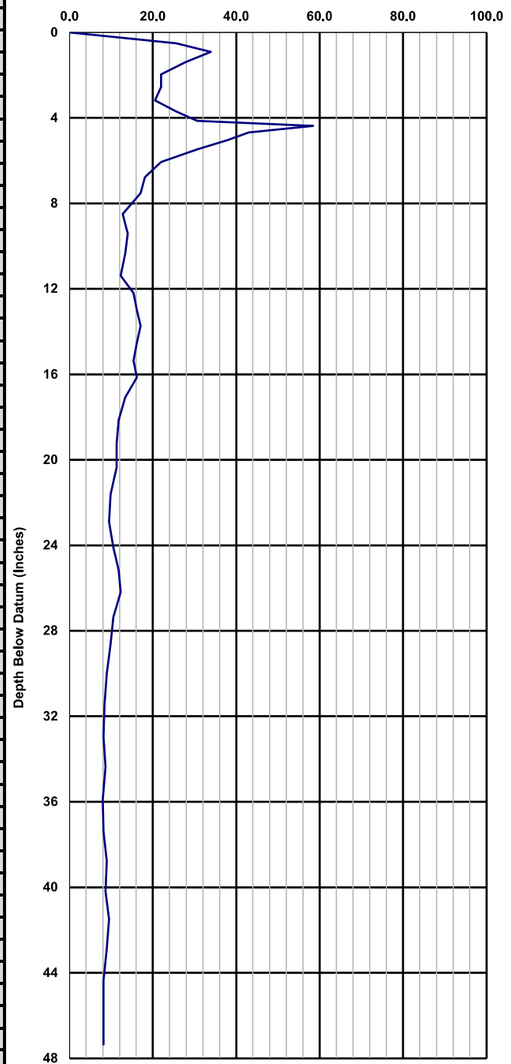
C - Cut
SG - Subgrade
T/ABC - Top of ABC Stone
B/ABC - Bottom of ABC Stone
Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR	PROJECT NUMBER	TIP	ROUTE
	67015.1.1	BR-0015	US 29/US 70
	COUNTY	FIELD PROFESSIONAL	CREW
	Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION			DATE PERFORMED
L_4280_EB_OSS			5/2/23
DATUM	CUT/FILL	NORTHING	EASTING
SG	C	759,084	1,622,844

CORRELATED CBR VALUES

CUMULATIVE PENETRATION IN CENTIMETERS					
1.3	0.0	0.0	0.0	0.0	0.0
2.3	0.0	0.0	0.0	0.0	0.0
3.5	0.0	0.0	0.0	0.0	0.0
5.0	0.0	0.0	0.0	0.0	0.0
6.5	0.0	0.0	0.0	0.0	0.0
8.1	0.0	0.0	0.0	0.0	0.0
9.4	0.0	0.0	0.0	0.0	0.0
10.5	0.0	0.0	0.0	0.0	0.0
11.1	0.0	0.0	0.0	0.0	0.0
11.9	0.0	0.0	0.0	0.0	0.0
12.8	0.0	0.0	0.0	0.0	0.0
13.9	0.0	0.0	0.0	0.0	0.0
15.4	0.0	0.0	0.0	0.0	0.0
17.2	0.0	0.0	0.0	0.0	0.0
19.1	0.0	0.0	0.0	0.0	0.0
21.6	0.0	0.0	0.0	0.0	0.0
23.9	0.0	0.0	0.0	0.0	0.0
26.3	0.0	0.0	0.0	0.0	0.0
28.9	0.0	0.0	0.0	0.0	0.0
31.0	0.0	0.0	0.0	0.0	0.0
33.0	0.0	0.0	0.0	0.0	0.0
34.9	0.0	0.0	0.0	0.0	0.0
36.9	0.0	0.0	0.0	0.0	0.0
39.0	0.0	0.0	0.0	0.0	0.0
41.0	0.0	0.0	0.0	0.0	0.0
43.4	0.0	0.0	0.0	0.0	0.0
46.1	0.0	0.0	0.0	0.0	0.0
48.9	0.0	0.0	0.0	0.0	0.0
51.7	0.0	0.0	0.0	0.0	0.0
54.9	0.0	0.0	0.0	0.0	0.0
58.2	0.0	0.0	0.0	0.0	0.0
61.2	0.0	0.0	0.0	0.0	0.0
63.9	0.0	0.0	0.0	0.0	0.0
66.5	0.0	0.0	0.0	0.0	0.0
69.5	0.0	0.0	0.0	0.0	0.0
72.7	0.0	0.0	0.0	0.0	0.0
76.2	0.0	0.0	0.0	0.0	0.0
79.9	0.0	0.0	0.0	0.0	0.0
83.7	0.0	0.0	0.0	0.0	0.0
87.3	0.0	0.0	0.0	0.0	0.0
91.2	0.0	0.0	0.0	0.0	0.0
95.0	0.0	0.0	0.0	0.0	0.0
98.5	0.0	0.0	0.0	0.0	0.0
102.1	0.0	0.0	0.0	0.0	0.0
105.4	0.0	0.0	0.0	0.0	0.0
108.9	0.0	0.0	0.0	0.0	0.0
112.7	0.0	0.0	0.0	0.0	0.0
116.5	0.0	0.0	0.0	0.0	0.0
120.3	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0



Note(s):

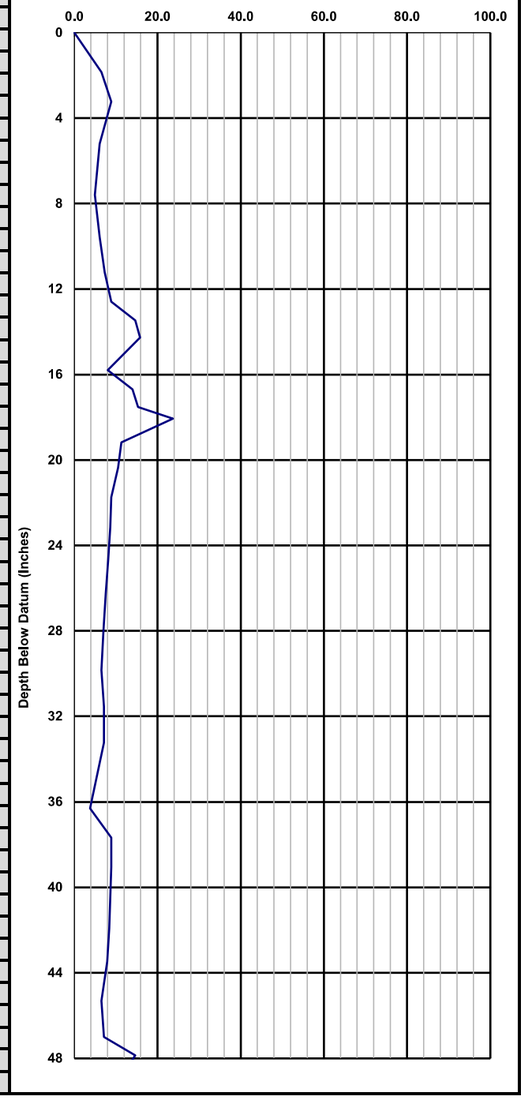
WB - Westbound
EB - Eastbound
OSS - Outside Shoulder
ISS - Inside Shoulder
OSL - Outside Lane

DECEL - Deceleration
ACCEL - Acceleration
LN - Lane
AG - At Grade
F - Fill

C - Cut
SG - Subgrade
T/ABC - Top of ABC Stone
B/ABC - Bottom of ABC Stone
Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR			PROJECT NUMBER	TIP	ROUTE
			67015.1.1	BR-0015	US 29/US 70
			COUNTY	FIELD PROFESSIONAL	CREW
			Davidson	Dan Kubinski	Trigon Exploration
TEST LOCATION DESCRIPTION			DATE PERFORMED	CORRELATED CBR VALUES	
L_4600			5/4/23		
DATUM	CUT/FILL	NORTHING	EASTING		
Ex. Gr.	C	759,367	1,623,000		

CUMULATIVE PENETRATION IN CENTIMETERS					
4.7	0.0	0.0	0.0	0.0	0.0
8.2	0.0	0.0	0.0	0.0	0.0
13.2	0.0	0.0	0.0	0.0	0.0
19.3	0.0	0.0	0.0	0.0	0.0
24.3	0.0	0.0	0.0	0.0	0.0
28.5	0.0	0.0	0.0	0.0	0.0
32.0	0.0	0.0	0.0	0.0	0.0
34.2	0.0	0.0	0.0	0.0	0.0
36.2	0.0	0.0	0.0	0.0	0.0
40.1	0.0	0.0	0.0	0.0	0.0
42.4	0.0	0.0	0.0	0.0	0.0
44.5	0.0	0.0	0.0	0.0	0.0
45.9	0.0	0.0	0.0	0.0	0.0
48.7	0.0	0.0	0.0	0.0	0.0
51.7	0.0	0.0	0.0	0.0	0.0
55.2	0.0	0.0	0.0	0.0	0.0
58.8	0.0	0.0	0.0	0.0	0.0
62.6	0.0	0.0	0.0	0.0	0.0
66.7	0.0	0.0	0.0	0.0	0.0
71.1	0.0	0.0	0.0	0.0	0.0
75.8	0.0	0.0	0.0	0.0	0.0
80.1	0.0	0.0	0.0	0.0	0.0
84.4	0.0	0.0	0.0	0.0	0.0
92.2	0.0	0.0	0.0	0.0	0.0
95.7	0.0	0.0	0.0	0.0	0.0
99.2	0.0	0.0	0.0	0.0	0.0
102.8	0.0	0.0	0.0	0.0	0.0
106.5	0.0	0.0	0.0	0.0	0.0
110.4	0.0	0.0	0.0	0.0	0.0
115.1	0.0	0.0	0.0	0.0	0.0
119.4	0.0	0.0	0.0	0.0	0.0
121.6	0.0	0.0	0.0	0.0	0.0
124.6	0.0	0.0	0.0	0.0	0.0
126.4	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0

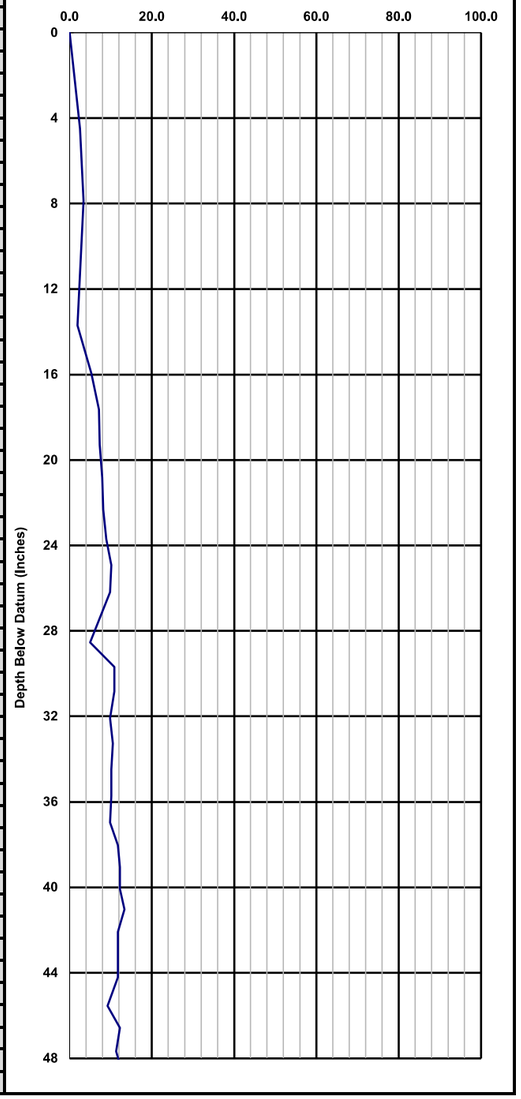


Note(s):

WB - Westbound	DECEL - Deceleration	C - Cut
EB - Eastbound	ACCEL - Acceleration	SG - Subgrade
OSS - Outside Shoulder	LN - Lane	T/ABC - Top of ABC Stone
ISS - Inside Shoulder	AG - At Grade	B/ABC - Bottom of ABC Stone
OSL - Outside Lane	F - Fill	Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR			PROJECT NUMBER	TIP	ROUTE
			67015.1.1	BR-0015	US 29/US 70
			COUNTY	FIELD PROFESSIONAL	CREW
			Davidson	Dan Kubinski	Trigon Exploration
TEST LOCATION DESCRIPTION			DATE PERFORMED	CORRELATED CBR VALUES	
L_4800			5/4/23		
DATUM	CUT/FILL	NORTHING	EASTING		
Ex. Gr.	C	759,525	1,623,123		

CUMULATIVE PENETRATION IN CENTIMETERS					
11.4	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0
34.8	0.0	0.0	0.0	0.0	0.0
40.5	0.0	0.0	0.0	0.0	0.0
44.8	0.0	0.0	0.0	0.0	0.0
49.0	0.0	0.0	0.0	0.0	0.0
52.9	0.0	0.0	0.0	0.0	0.0
56.7	0.0	0.0	0.0	0.0	0.0
60.2	0.0	0.0	0.0	0.0	0.0
63.3	0.0	0.0	0.0	0.0	0.0
66.5	0.0	0.0	0.0	0.0	0.0
72.5	0.0	0.0	0.0	0.0	0.0
75.4	0.0	0.0	0.0	0.0	0.0
78.3	0.0	0.0	0.0	0.0	0.0
81.5	0.0	0.0	0.0	0.0	0.0
84.5	0.0	0.0	0.0	0.0	0.0
87.6	0.0	0.0	0.0	0.0	0.0
90.7	0.0	0.0	0.0	0.0	0.0
93.9	0.0	0.0	0.0	0.0	0.0
96.6	0.0	0.0	0.0	0.0	0.0
99.2	0.0	0.0	0.0	0.0	0.0
101.8	0.0	0.0	0.0	0.0	0.0
104.2	0.0	0.0	0.0	0.0	0.0
106.9	0.0	0.0	0.0	0.0	0.0
109.6	0.0	0.0	0.0	0.0	0.0
112.3	0.0	0.0	0.0	0.0	0.0
115.7	0.0	0.0	0.0	0.0	0.0
118.3	0.0	0.0	0.0	0.0	0.0
121.1	0.0	0.0	0.0	0.0	0.0
123.6	0.0	0.0	0.0	0.0	0.0
125.9	0.0	0.0	0.0	0.0	0.0
128.6	0.0	0.0	0.0	0.0	0.0
131.0	0.0	0.0	0.0	0.0	0.0
133.2	0.0	0.0	0.0	0.0	0.0
135.7	0.0	0.0	0.0	0.0	0.0
138.0	0.0	0.0	0.0	0.0	0.0
140.5	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0



Note(s):

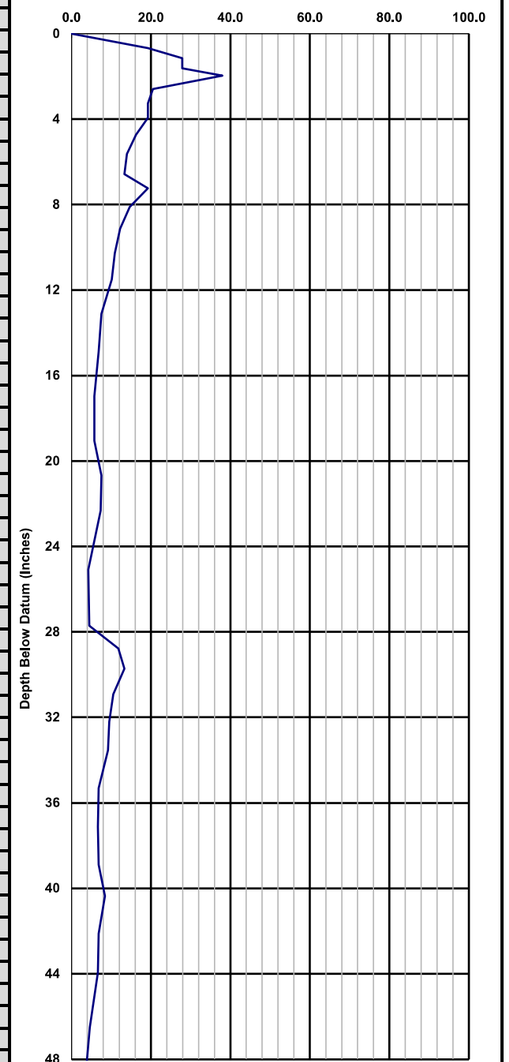
WB - Westbound	DECEL - Deceleration	C - Cut
EB - Eastbound	ACCEL - Acceleration	SG - Subgrade
OSS - Outside Shoulder	LN - Lane	T/ABC - Top of ABC Stone
ISS - Inside Shoulder	AG - At Grade	B/ABC - Bottom of ABC Stone
OSL - Outside Lane	F - Fill	Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR	PROJECT NUMBER	TIP	ROUTE
	67015.1.1	BR-0015	West 5th Avenue
	COUNTY	FIELD PROFESSIONAL	CREW
	Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION			DATE PERFORMED
Y1_1570_RT_LN			5/4/23
DATUM	CUT/FILL	NORTHING	EASTING
SG	F	758,077	1,621,912

CORRELATED CBR VALUES

CUMULATIVE PENETRATION IN CENTIMETERS					
1.7	0.0	0.0	0.0	0.0	0.0
2.9	0.0	0.0	0.0	0.0	0.0
4.1	0.0	0.0	0.0	0.0	0.0
5.0	0.0	0.0	0.0	0.0	0.0
6.6	0.0	0.0	0.0	0.0	0.0
8.3	0.0	0.0	0.0	0.0	0.0
10.0	0.0	0.0	0.0	0.0	0.0
12.0	0.0	0.0	0.0	0.0	0.0
14.3	0.0	0.0	0.0	0.0	0.0
16.7	0.0	0.0	0.0	0.0	0.0
18.4	0.0	0.0	0.0	0.0	0.0
20.6	0.0	0.0	0.0	0.0	0.0
23.2	0.0	0.0	0.0	0.0	0.0
26.1	0.0	0.0	0.0	0.0	0.0
29.2	0.0	0.0	0.0	0.0	0.0
33.3	0.0	0.0	0.0	0.0	0.0
37.8	0.0	0.0	0.0	0.0	0.0
43.1	0.0	0.0	0.0	0.0	0.0
48.4	0.0	0.0	0.0	0.0	0.0
52.5	0.0	0.0	0.0	0.0	0.0
56.7	0.0	0.0	0.0	0.0	0.0
63.7	0.0	0.0	0.0	0.0	0.0
70.4	0.0	0.0	0.0	0.0	0.0
73.1	0.0	0.0	0.0	0.0	0.0
75.5	0.0	0.0	0.0	0.0	0.0
78.5	0.0	0.0	0.0	0.0	0.0
81.8	0.0	0.0	0.0	0.0	0.0
85.2	0.0	0.0	0.0	0.0	0.0
89.7	0.0	0.0	0.0	0.0	0.0
94.3	0.0	0.0	0.0	0.0	0.0
98.8	0.0	0.0	0.0	0.0	0.0
102.5	0.0	0.0	0.0	0.0	0.0
107.0	0.0	0.0	0.0	0.0	0.0
111.6	0.0	0.0	0.0	0.0	0.0
118.1	0.0	0.0	0.0	0.0	0.0
131.5	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0



Note(s):

RT - Right
LN - Lane
AG - At Grade
F - Fill
C - Cut

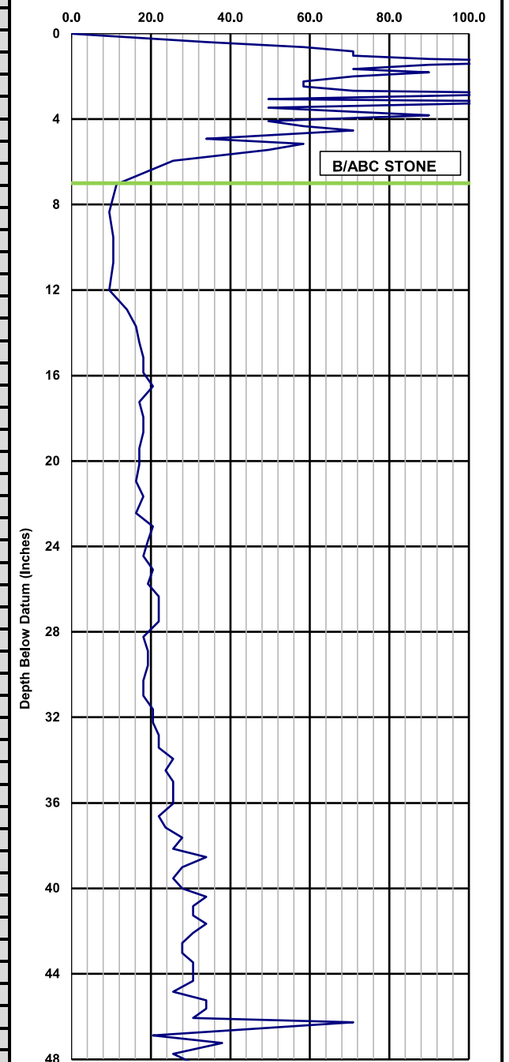
PS - Paved Shoulder
SG - Subgrade
T/ABC - Top of ABC Stone
B/ABC - Bottom of ABC Stone
Ex. Gr. - Existing Grade

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR	PROJECT NUMBER	TIP	ROUTE
	67015.1.1	BR-0015	Murphy Drive
	COUNTY	FIELD PROFESSIONAL	CREW
	Davidson	Dan Kubinski	Trigon Exploration

TEST LOCATION DESCRIPTION			DATE PERFORMED
Y2_1620_LT_LN			5/4/23
DATUM	CUT/FILL	NORTHING	EASTING
T/ABC	C	758,472	1,622,178

CORRELATED CBR VALUES

CUMULATIVE PENETRATION IN CENTIMETERS					
1.0	66.9	0.0	0.0	0.0	0.0
1.6	68.4	0.0	0.0	0.0	0.0
2.1	69.9	0.0	0.0	0.0	0.0
2.6	71.7	0.0	0.0	0.0	0.0
3.0	73.4	0.0	0.0	0.0	0.0
3.3	75.1	0.0	0.0	0.0	0.0
3.7	76.9	0.0	0.0	0.0	0.0
4.2	78.7	0.0	0.0	0.0	0.0
4.6	80.3	0.0	0.0	0.0	0.0
5.1	81.9	0.0	0.0	0.0	0.0
5.7	83.4	0.0	0.0	0.0	0.0
6.3	84.9	0.0	0.0	0.0	0.0
6.8	86.2	0.0	0.0	0.0	0.0
7.1	87.6	0.0	0.0	0.0	0.0
7.8	88.9	0.0	0.0	0.0	0.0
8.1	90.2	0.0	0.0	0.0	0.0
8.8	91.5	0.0	0.0	0.0	0.0
9.3	93.0	0.0	0.0	0.0	0.0
9.7	94.4	0.0	0.0	0.0	0.0
10.4	95.6	0.0	0.0	0.0	0.0
11.0	96.9	0.0	0.0	0.0	0.0
11.5	97.9	0.0	0.0	0.0	0.0
12.5	99.1	0.0	0.0	0.0	0.0
13.1	100.4	0.0	0.0	0.0	0.0
13.8	101.6	0.0	0.0	0.0	0.0
15.1	102.6	0.0	0.0	0.0	0.0
17.9	103.7	0.0	0.0	0.0	0.0
21.2	104.8	0.0	0.0	0.0	0.0
24.2	105.8	0.0	0.0	0.0	0.0
27.2	106.9	0.0	0.0	0.0	0.0
30.5	108.1	0.0	0.0	0.0	0.0
32.8	109.3	0.0	0.0	0.0	0.0
34.8	110.4	0.0	0.0	0.0	0.0
36.7	111.5	0.0	0.0	0.0	0.0
38.5	112.6	0.0	0.0	0.0	0.0
40.3	113.9	0.0	0.0	0.0	0.0
41.9	114.9	0.0	0.0	0.0	0.0
43.8	115.9	0.0	0.0	0.0	0.0
45.6	117.0	0.0	0.0	0.0	0.0
47.4	117.5	0.0	0.0	0.0	0.0
49.3	119.1	0.0	0.0	0.0	0.0
51.2	120.0	0.0	0.0	0.0	0.0
53.2	121.3	0.0	0.0	0.0	0.0
55.0	122.4	0.0	0.0	0.0	0.0
57.0	123.4	0.0	0.0	0.0	0.0
58.6	124.4	0.0	0.0	0.0	0.0
60.3	125.6	0.0	0.0	0.0	0.0
62.1	0.0	0.0	0.0	0.0	0.0
63.7	0.0	0.0	0.0	0.0	0.0
65.4	0.0	0.0	0.0	0.0	0.0



Note(s):

RT - Right
LN - Lane
AG - At Grade
F - Fill
C - Cut

PS - Paved Shoulder
SG - Subgrade
T/ABC - Top of ABC Stone
B/ABC - Bottom of ABC Stone
Ex. Gr. - Existing Grade

PAVEMENT CORE PHOTOGRAPHS

BR-0015 (67015.1.1)

Bridge No. 67 and No. 68 Replacements on US 29/US 70 NB & SB over SR 1192 (W. 5th Avenue)

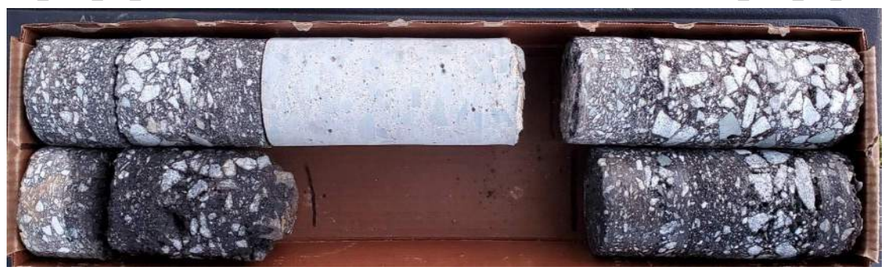
BOX 1

L_1830_WB_ISS L_1830_WB_OSL

L_1830_WB_OSS L_1960_EB_ISS

BOX 2

L_1960_EB_OSL L_1960_EB_OSS



L_2590_WB_ISS L_3150_WB_OSS

BOX 3

L_3275_EB_DECEL_LN L_3870_WB_ISS

L_3870_WB_DECEL_LN L_3870_WB_OSS

BOX 4

L_4280_EB_ISL L_4280_EB_ACCEL_LN

L_4280_EB_OSS Y1_1570_LT_PS

PAVEMENT CORE PHOTOGRAPHS

BR-0015 (67015.1.1)

Bridge No. 67 and No. 68 Replacements on US 29/US 70 NB & SB over SR 1192 (W. 5th Avenue)

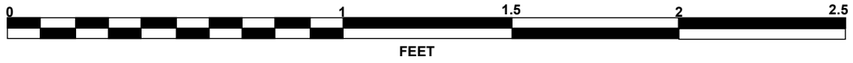
BOX 5

Y1_1570_LT_LN

Y1_1570_RT_LN

Y1_1570_RT_PS

Y2_1620_LT_LN



LABORATORY SUMMARY SHEET FOR SOIL SAMPLES

WBS NO. (TIP NO.): 67015.1.1 (BR-0015)
PROJECT ID: 41620
COUNTY: DAVIDSON
DESCRIPTION: BRIDGE NO. 67 AND NO. 68 REPLACEMENTS ON US 29/US 70 NB & SB OVER SR 1192 (W. 5TH AVENUE)

									Atterberg Limits			Gradation Results							
Sample No.	Boring Number	Alignment	Station	Offset	Sample Depth (ft.)	Natural Moisture Content (%)	AASHTO Class.	N-Value (blows/ft)	L.L.	P.L.	P.I.	Retained #4 Sieve	Pass #10 Sieve	Pass #40 Sieve	Pass #200 Sieve	Coarse Sand (%)	Fine Sand (%)	Silt (%)	Clay (%)
S-1	L_1830_WB_ISS	-L-	18+30	12' LT	0.0 - 5.0	27.1	A-7-5	-	82	34	48	3.0	95.0	84.0	59.0	18.7	22.2	18.6	40.5
S-2	L_1960_EB_ISS	-L-	19+60	12' RT	0.0 - 5.0	30.1	A-7-5	--	68	34	34	0.0	99.0	93.0	64.0	13.6	26.7	29.1	30.6
S-3	L_2590_WB_ISS	-L-	25+90	12' LT	0.0 - 5.0	28.4	A-7-5	--	69	34	35	1.0	98.0	92.0	66.0	11.3	26.7	21.6	40.4
S-4	L_3150_WB_OSS	-L-	31+50	39' LT	0.0 - 5.0	35.0	A-7-5	--	76	33	43	1.0	98.0	94.0	76.0	6.1	23.4	21.6	48.9
S-5	L_3275_EB_DECEL_LN	-L-	32+75	47' RT	0.0 - 5.0	26.7	A-7-5	--	64	31	33	1.0	99.0	96.0	75.0	5.8	26.0	31.9	36.3
S-6	L_3870_WB_ISS	-L-	38+70	12' LT	0.0 - 5.0	25.9	A-7-6	--	59	20	39	2.0	96.0	89.0	72.0	12.8	15.7	15.0	56.5
S-18*	L_4000^	-L-	40+00	0' CL	1.0 - 1.5	33.2	A-7-5	--	65	40	25	0.0	99.1	94.7	73.2	10.1	20.9	23.9	45.1
S-7	L_4280_EB_ISL	-L-	42+80	13' RT	0.0 - 5.0	38.4	A-7-5	--	79	42	37	0.0	100.0	98.0	73.0	5.2	26.5	15.6	52.7
S-20*	L_4600^	-L-	46+00	0' CL	1.0 - 2.0	26.8	A-7-5	--	51	33	18	0.0	99.0	96.0	51.0	13.0	41.3	13.6	32.1
S-8	Y1_1570_RT_LN	-Y1-	15+70	10' RT	0.0 - 5.0	24.8	A-7-6	--	59	24	35	1.0	99.0	93.0	69.0	13.2	21.2	19.4	46.2
S-9	Y2_1620_LT_LN	-Y2-	16+20	6' LT	0.0 - 5.0	32.8	A-7-5	--	65	31	34	1.0	99.0	97.0	80.0	5.1	19.5	20.3	55.1
CBR-1*	L_1450^	-L-	14+50	88' LT	8.5 - 18.5	27.0	A-7-5	--	60	44	16	0.0	100.0	93.1	56.6	14.7	35.3	23.4	26.6
CBR-2*	L_1850^	-L-	18+50	89' LT	0.0 - 10.0	30.6	A-7-5	--	60	35	25	0.0	100.0	95.2	75.9	9.9	19.4	26.1	44.7
CBR-3*	L_4200^	-L-	42+00	0' CL	0.0 - 2.5	37.3	A-7-5	--	73	37	36	8.0	91.0	96.6	78.4	7.2	18.6	28.9	45.2

*Based on Roadway Investigation sample number

^Based on Roadway Investigation boring number

Michelle Stadel, P.E.
Lab Manager, NCDOT Certification No.: 111-02-1203

Victoria Siebert
Lab Technician, NCDOT Certification No.: 109-02-1003

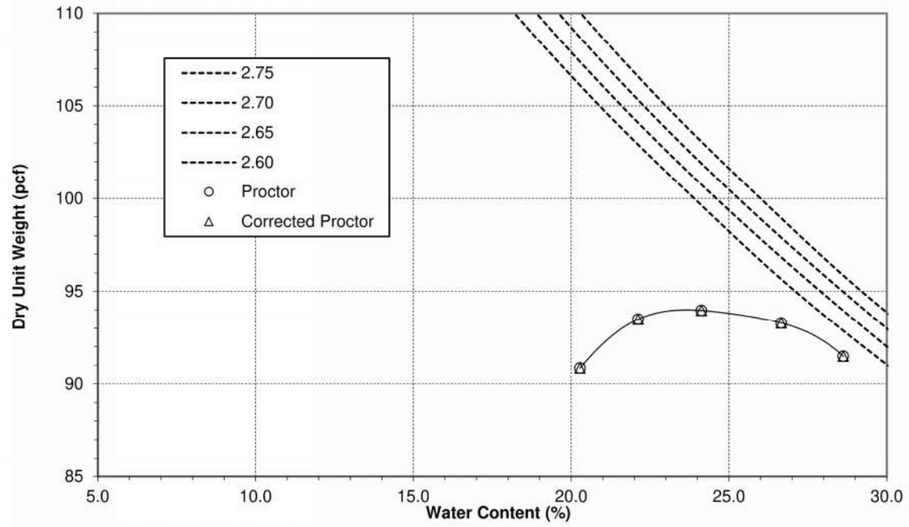
Laboratory Test Report

Client: **North Carolina Dept. of Transportation**
Project: **20235702.001A**
NCDOT BR-0015 Roadway
02-000L - Lab

Report No.: **23-CLT-00649 Rev. 1**
Sampled by: **Mayson Foster**
Submitted by: **Dan Kubinski**

Issued: **6/9/2023**
Field ID: **L_1450, CBR-1**
Date: **5/8/2023**
Date: **5/15/2023**

Tested on **5/24/2023** by **C. Blalock**
Material Description: **Brown Sandy Silt (A-7-5)**
Location: **Boring No. L_1450, Alignment -L-, STA 14+50, 88' LT**



Test Method: AASHTO T99 A	Uncorrected	Corrected
Maximum Dry Unit Weight (pcf)	**94.0**	**na**
Optimum Water Content (%)	**23.6**	**na**
Oversize Fraction, retained on 3/4 (%)		**<5**
Bulk Specific Gravity of Oversize Fraction		**na**

Rammer Type: Manual
Specimen Preparation: Moist

Remarks:
AASHTO T-100, Soil Specific Gravity @ 20°C: 2.747

Reviewed on 6/9/2023 by Michelle Stadel,

Laboratory Test Report

Client: **North Carolina Dept. of Transportation**
Project: **20235702.001A**
NCDOT BR-0015 Roadway
02-000L - Lab

Report No.: **23-CLT-00649 Rev. 1**
Sampled by: **Mayson Foster**
Submitted by: **Dan Kubinski**

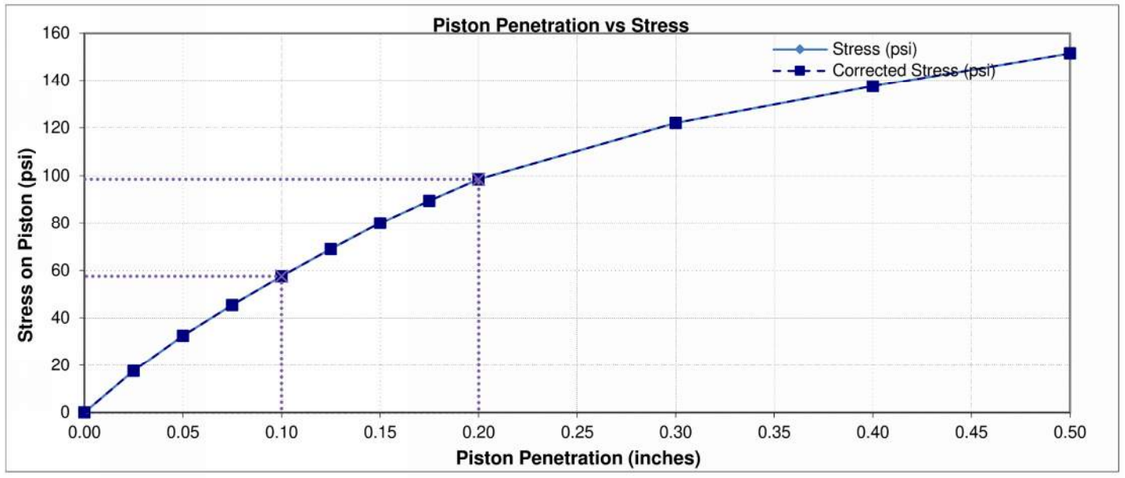
Issued: **6/9/2023**
Field ID: **L_1450, CBR-1**
Date: **5/8/2023**
Date: **5/15/2023**

Sample Source: **Boring No. L_1450, Alignment -L-, STA 14+50, 88' LT**
Sample ID: **CBR-1**
Sample Description: **Brown Sandy Silt (A-7-5)**
Material Used:
Surcharge Weight: **10 lbs**

Date Tested: **5/30/2023**
Tested By: **C. Blalock**
Condition of Sample: **Soaked**
Time Soaked: **96 hrs**

AASHTO T193 - Standard Test Method for The California Bearing Ratio (CBR)

Dry Unit Wgt Before Soaking (pcf):	**90.8**	Compaction Method:
Water Content Before Soaking (%):	**21.2**	**Manual**
Dry Unit Wgt After Soaking (pcf):	**101.1**	Max. Dry Unit Weight:
Water Content After Soak, Top in. (%):	**30.3**	**94.0 pcf**
Swell (%):	**5.65**	Optimum Water Content:
CBR (Corrected CBR) @ 0.1 in. Penetration:	**5.8 (5.8)**	**23.6 %**
CBR (Corrected CBR) @ 0.2 in. Penetration:	**6.6 (6.6)**	



Remarks:

Reviewed on 6/9/2023 by Michelle Stadel,

Limitations: Pursuant to applicable building codes, the results presented in this report are for the exclusive use of the client and the registered design professional in responsible charge. The results apply only to the samples tested. If changes to the specifications were made and not communicated to Kleinfelder, Kleinfelder assumes no responsibility for pass/fail statements (meets/did not meet), if provided. This report may not be reproduced, except in full, without written approval of Kleinfelder.

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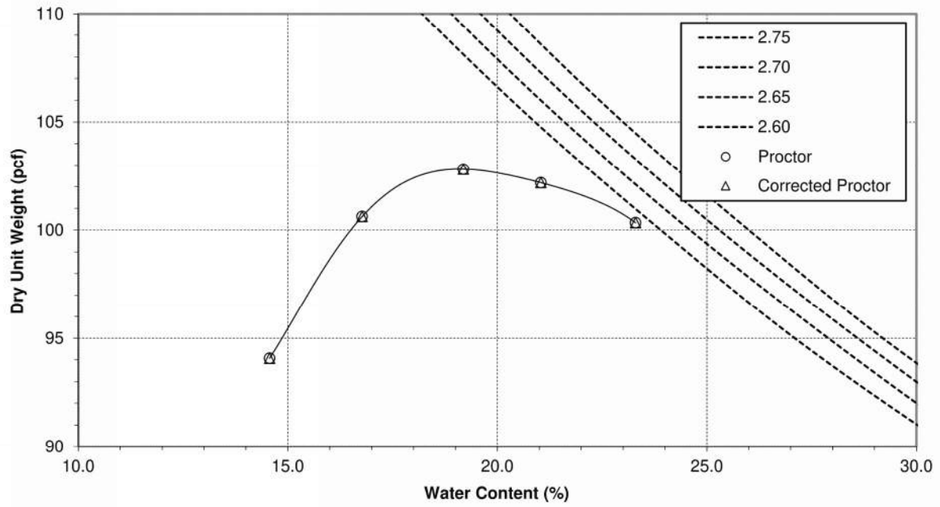
Laboratory Test Report

Client: **North Carolina Dept. of Transportation**
Project: **20235702.001A**
NCDOT BR-0015 Roadway
02-000L - Lab

Report No.: **23-CLT-00650 Rev. 1**
Sampled by: **Mayson Foster**
Submitted by: **Dan Kubinski**

Issued: **6/9/2023**
Field ID: **L_1850, CBR-2**
Date: **5/9/2023**
Date: **5/15/2023**

Tested on **5/24/2023** by **C. Blalock**
Material Description: **Reddish Yellow Elastic Silt with Sand (A-7-5)**
Location: **Boring No. L_1850, -L-, STA 18+50, 89' LT**



Test Method: AASHTO T99 A	Uncorrected	Corrected
Maximum Dry Unit Weight (pcf)	102.8	na
Optimum Water Content (%)	19.1	na
Oversize Fraction, retained on 3/4 (%)		<5
Bulk Specific Gravity of Oversize Fraction		na

Rammer Type: Manual
Specimen Preparation: Moist

Remarks:
AASHTO T-100, Soil Specific Gravity at 20°C: 2.678

Reviewed on 6/9/2023 by Michelle Stadel,

Laboratory Test Report

Client: **North Carolina Dept. of Transportation**
Project: **20235702.001A**
NCDOT BR-0015 Roadway
02-000L - Lab

Report No.: **23-CLT-00650 Rev. 1**
Sampled by: **Mayson Foster**
Submitted by: **Dan Kubinski**

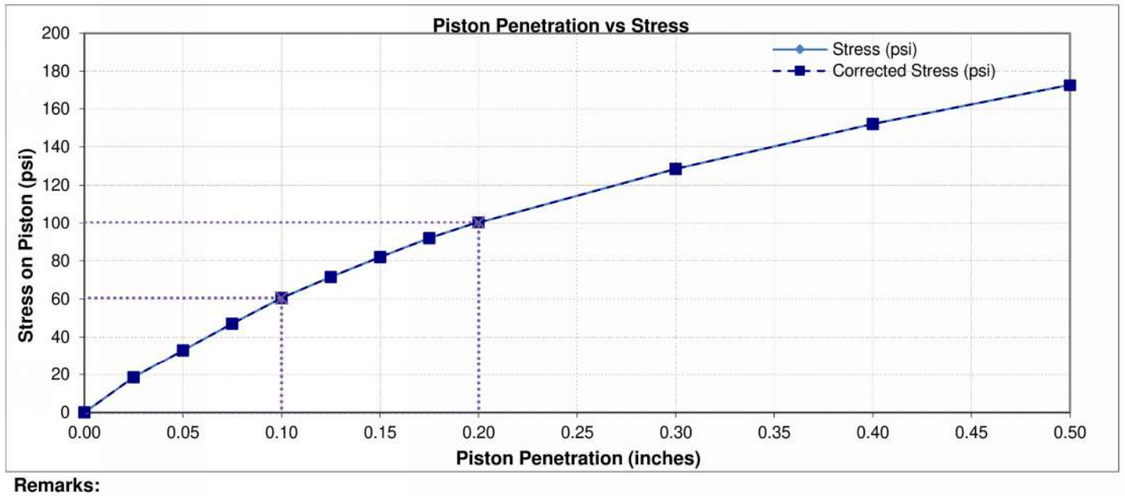
Issued: **6/9/2023**
Field ID: **L_1850, CBR-2**
Date: **5/9/2023**
Date: **5/15/2023**

Sample Source: **Boring No. L_1850, -L-, STA 18+50, 89' LT**
Sample ID: **CBR-2**
Sample Description: **Reddish Yellow Elastic Silt with Sand (A-7-5)**
Material Used:
Surcharge Weight: **10 lbs**

Date Tested: **5/30/2023**
Tested By: **C. Blalock**
Condition of Sample: **Soaked**
Time Soaked: **96 hrs**

AASHTO T-193 - Standard Test Method for The California Bearing Ratio

Dry Unit Wgt Before Soaking (pcf):	**100.6**	Compaction Method:
Water Content Before Soaking (%):	**17.0**	**Manual**
Dry Unit Wgt After Soaking (pcf):	**106.1**	Max. Dry Unit Weight:
Water Content After Soak, Top in. (%):	**27.1**	**102.8 pcf**
Swell (%):	**4.1**	Optimum Water Content:
CBR (Corrected CBR) @ 0.1 in. Penetration:	**6.1 (6.1)**	**19.1 %**
CBR (Corrected CBR) @ 0.2 in. Penetration:	**6.7 (6.7)**	



Remarks:

Reviewed on 6/9/2023 by Michelle Stadel,

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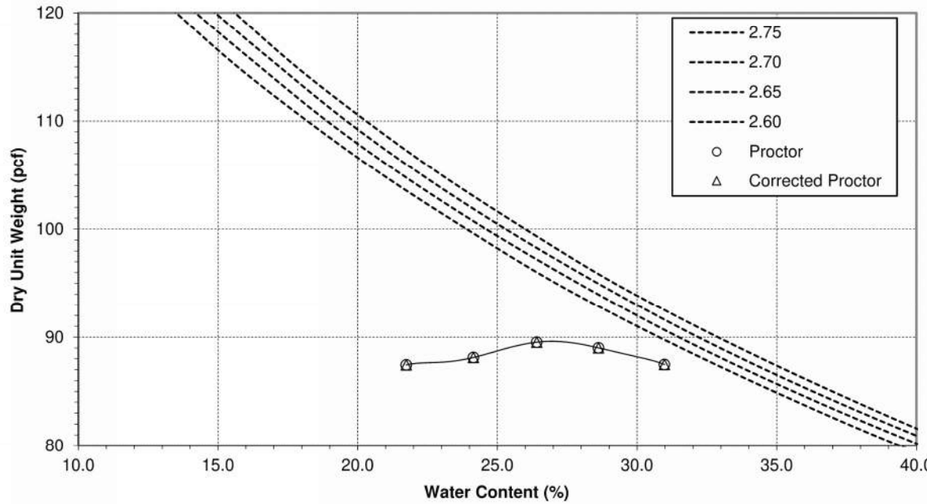
Laboratory Test Report

Client: **North Carolina Dept. of Transportation**
Project: **20235702.001A**
NCDOT BR-0015 Roadway
02-000L - Lab

Report No.: **23-CLT-00649 Rev. 1**
Sampled by: **Mayson Foster**
Submitted by: **Dan Kubinski**

Issued: **6/9/2023**
Field ID: **L_1450, CBR-1**
Date: **5/8/2023**
Date: **5/15/2023**

Tested on **5/26/2023** by **C. Blalock**
Material Description: **Brown Sandy Silt (A-7-5)**
Location: **Boring No. L-1450, Alignment -L-, STA 14+50, 88' LT, CBR-1, 8.5' - 18.5'**



Test Method: AASHTO T99 A	Uncorrected	Corrected
Maximum Dry Unit Weight (pcf)	**89.6**	**na**
Optimum Water Content (%)	**26.9**	**na**
Oversize Fraction, retained on 3/4 (%)		**<5**
Bulk Specific Gravity of Oversize Fraction		**na**

Rammer Type: Manual
Specimen Preparation: Dry

Remarks:
+4% Lime

Reviewed on 6/9/2023 by Michelle Stadel,

Laboratory Test Report

Client: **North Carolina Dept. of Transportation**
Project: **20235702.001A**
NCDOT BR-0015 Roadway
02-000L - Lab

Report No.: **23-CLT-00649 Rev. 1**
Sampled by: **Mayson Foster**
Submitted by: **Dan Kubinski**

Issued: **6/9/2023**
Field ID: **L_1450, CBR-1**
Date: **5/8/2023**
Date: **5/15/2023**

Tested By : **C. Blalock**
Date Molded: **5/31/2023**
Sample Location: **Boring No. L-1450, CBR-1, 8.5' - 18.5'**
Alignment -L-, STA 14+50, 88' LT

ASTM D5102 - Modified, Unconfined Compressive Strength of Compacted Soil-Lime Mixtures

	A	B	C	D
Sample Preparation:	**AASHTO T99**	**AASHTO T99**	**AASHTO T99**	**AASHTO T99**
Water Content (%):	**25.7**	**26**	**25.9**	**26**
Height (in):	**4.632**	**4.619**	**4.644**	**4.62**
Diameter (in):	**4.00**	**4.00**	**3.999**	**4.002**
Cross-Sectional Area (in^2):	**12.57**	**12.59**	**12.56**	**12.58**
Test Date:	**6/7/2023**	**6/7/2023**	**6/7/2023**	**6/7/2023**
Age (days):	**7**	**7**	**7**	**7**
Maximum Load (lbf):	**860**	**830**	**850**	**850**
h/d Conversion Factor	**none**	**none**	**none**	**none**
Compressive Strength (psi):	**70**	**65**	**70**	**70**
Dry Unit Weight (pcf):	**89.6**	**89.2**	**88.4**	**88.5**

Curing Details: Samples extruded, placed in plastic bags, and cured for 7 days at 73°F ± 4°.
Specification: Per NCDOT, cast according to AASHTO T99 and broke per AASHTO T208.

Remarks:
(A) 3.0% Lime; Percent Strain = 2.0. (B) 3.0% Lime; Percent Strain = 2.4.
(C) 5% Lime; Percent Strain = 2.5. (D) 5% Lime; Percent Strain = 2.9.

Reviewed on 6/9/2023 by Michelle Stadel,

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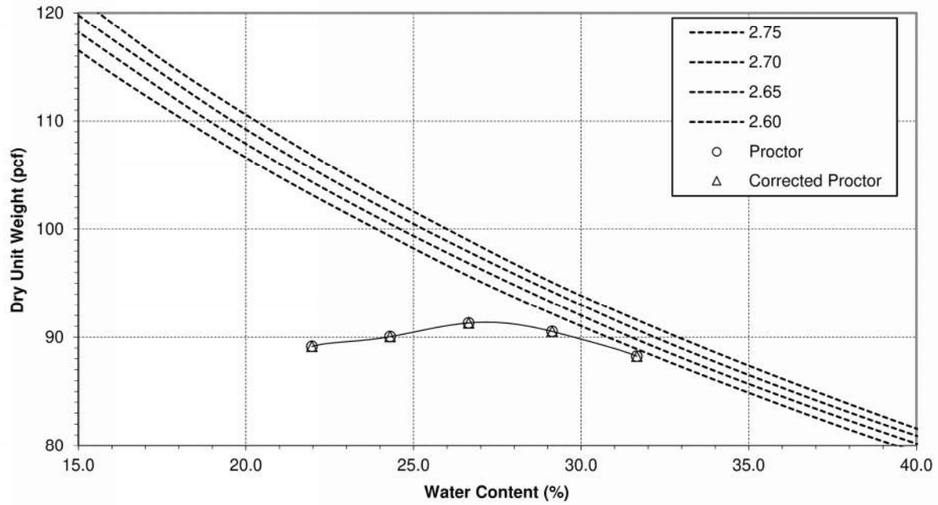
Laboratory Test Report

Client: **North Carolina Dept. of Transportation**
Project: **20235702.001A**
NCDOT BR-0015 Roadway
02-000L - Lab

Report No.: **23-CLT-00651 Rev. 0**
Sampled by: **Dan Kubinski**
Submitted by: **Dan Kubinski**

Issued: **6/9/2023**
Field ID: **L-4200, CBR-3**
Date: **5/5/2023**
Date: **5/15/2023**

Tested on **5/25/2023** by **C. Blalock**
Material Description: **Reddish Brown Elastic Silt with Sand (A-7-5)**
Location: **Boring No. L-4200, Alignment -L-, STA 42+00, 0' CL, CBR-3, 0' - 2.5'**



Test Method: AASHTO T99 A	Uncorrected	Corrected
Maximum Dry Unit Weight (pcf)	**91.4**	**na**
Optimum Water Content (%)	**27.2**	**na**
Oversize Fraction, retained on 3/4 (%)		**<5**
Bulk Specific Gravity of Oversize Fraction		**na**

Rammer Type: Manual
Specimen Preparation: Dry

Remarks:
+4% Lime

AASHTO T100, Soil Specific Gravity = 2.727

Reviewed on 6/9/2023 by Michelle Stadel,

Laboratory Test Report

Client: **North Carolina Dept. of Transportation**
Project: **20235702.001A**
NCDOT BR-0015 Roadway
02-000L - Lab

Report No.: **23-CLT-00651 Rev. 0**
Sampled by: **Dan Kubinski**
Submitted by: **Dan Kubinski**

Issued: **6/9/2023**
Field ID: **L-4200, CBR-3**
Date: **5/5/2023**
Date: **5/15/2023**

Tested By : **C. Blalock**
Date Molded: **5/31/2023**
Sample Location: **Boring No. L-4200, CBR-3, 0' - 2.5'**
Alignment -L-, STA 42+00, 0' CL

ASTM D5102 - Modified, Unconfined Compressive Strength of Compacted Soil-Lime Mixtures

	A	B	C	D
Sample Preparation:	**AASHTO T208**	**AASHTO T208**	**AASHTO T208**	**AASHTO T208**
Water Content (%):	**25.4**	**25.5**	**26.2**	**25.9**
Height (in):	**4.641**	**4.623**	**4.628**	**4.615**
Diameter (in):	**3.99**	**4.01**	**4**	**4**
Cross-Sectional Area (in^2):	**12.53**	**12.6**	**12.57**	**12.57**
Test Date:	**6/7/2023**	**6/7/2023**	**6/7/2023**	**6/7/2023**
Age (days):	**7**	**7**	**7**	**7**
Maximum Load (lbf):	**760**	**770**	**820**	**910**
h/d Conversion Factor	**none**	**none**	**none**	**none**
Compressive Strength (psi):	**60**	**60**	**65**	**70**
Dry Unit Weight (pcf):	**91.9**	**91.6**	**90.1**	**90.5**

Curing Details: Samples extruded, placed in plastic bags, and cured for 7 days at 73°F ± 4°.
Specification: Per NCDOT, cast according to AASHTO T99 and broke per AASHTO T208.

Remarks:
(A) 3.0% Lime; Percent Strain = 2.2. (B) 3.0% Lime; Percent Strain = 2.1.
(C) 5% Lime; Percent Strain = 2.1. (D) 5% Lime; Percent Strain = 2.4.

Reviewed on 6/9/2023 by Michelle Stadel,

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PAVEMENT CORE EVALUATION
BR-0015 (67015.1.1)
BRIDGE NO. 67 AND NO. 68 REPLACEMENTS ON US 29/US 70 NB & SB OVER SR 1192 (W. 5TH AVENUE)

LINE	STATION	ABC STONE (in)	LAYER THICKNESS (in)	PAVEMENT LAYERS	REMARKS
-L-	1830_WB_ISS 6.75" Asphalt	2.00	4.00	S	3 Lifts; Delamination between 2nd and 3rd lift; Low oxidation
			2.75	B	1 Lift; Low oxidation
-L-	1830_WB_OSL 7.25" Asphalt 9.25" Concrete	4.50	4.25	S	3 Lifts; Low oxidation
			3.00	B	1 Lift; Delamination between base asphalt and concrete layer; Low oxidation
			9.25	C	1 Lift
-L-	1830_WB_OSS 8.50" Asphalt	0.00	3.75	S	3 Lifts; Low oxidation
			4.75	B	2 Lifts; Low oxidation
-L-	1960_EB_ISS 7.25" Asphalt	0.00	4.25	S	3 Lifts; Delamination between 2nd and 3rd lift; Low oxidation
			3.00	B	1 Lift; Low oxidation
-L-	1960_EB_OSL 8.25" Asphalt 9.25" Concrete	4.75	3.00	S	2 Lifts; Delamination between surface asphalt and base asphalt layers; Low oxidation
			3.25	B	1 Lift; Low oxidation
			2.00	S	1 Lift; Delamination between surface asphalt and concrete layer; Low oxidation
			9.25	C	1 Lift
-L-	1960_EB_OSS 10.25" Asphalt	11.75	3.00	S	2 Lifts; Low oxidation
			7.25	B	2 Lifts; Low oxidation
-L-	2590_WB_ISS 8.50" Asphalt	0.00	4.50	S	3 Lifts; Delamination between 2nd and 3rd lift; Low oxidation
			4.00	B	1 Lift; Low oxidation
-L-	3150_WB_OSS 9.25" Asphalt	0.00	5.25	S	3 Lifts; Low oxidation
			2.50	B	1 Lift; Low oxidation
			1.50	S	1 Lift; Low oxidation
-L-	3275_EB_DECEL_LN 10.75" Asphalt	7.00	5.00	S	3 Lifts; Delamination between 2nd and 3rd lift; Low oxidation
			5.75	B	1 Lift; Low oxidation
-L-	3870_WB_ISS 7.00" Asphalt	0.00	4.00	S	2 Lifts; Low oxidation
			3.00	B	1 Lift; Low oxidation
-L-	3870_WB_DECEL_LN 11.00" Asphalt	7.00	4.00	S	2 Lifts; Low oxidation
			7.00	B	2 Lifts; Low oxidation
-L-	3870_WB_OSS 7.50" Asphalt	0.00	4.00	S	2 Lifts; Low oxidation
			3.50	B	1 Lift; Low oxidation

Note(s):

NM - Not Measured
PS - Paved Shoulder
WB - Westbound
EB - Eastbound
LT - Left
RT - Right

OSS - Outside Shoulder
ISS - Inside Shoulder
OSL - Outside Lane
DECEL - Deceleration
ACCEL - Acceleration
LN - Lane

S - Asphalt Surface Course
I - Asphalt Intermediate Course
B - Asphalt Base Course
C - Concrete

PAVEMENT CORE EVALUATION
BR-0015 (67015.1.1)
BRIDGE NO. 67 AND NO. 68 REPLACEMENTS ON US 29/US 70 NB & SB OVER SR 1192 (W. 5TH AVENUE)

LINE	STATION	ABC STONE (in)	LAYER THICKNESS (in)	PAVEMENT LAYERS	REMARKS
-L-	4280_EB_ISL 8.50" Asphalt 9.50" Concrete	5.00	3.75	S	3 Lifts; Delamination between 2nd and 3rd lift; Low oxidation
			2.75	B	1 Lift; Low oxidation
			2.00	S	2 Lifts; Delamination between 1st and 2nd lift; Low oxidation
			9.50	C	
-L-	4280_EB_ACCEL_LN 9.50" Asphalt	8.50	3.75	S	3 Lifts; Low oxidation
			5.75	B	1 Lift; Low oxidation
-L-	4280_EB_OSS 7.00" Asphalt	0.00	3.50	S	3 Lifts; Low oxidation
			3.50	B	1 Lift; Low oxidation
-Y1-	1570_LT_PS 5.00" Asphalt	NM	2.50	S	1 Lift; Low oxidation
			2.50	I	1 Lift; Low oxidation
-Y1-	1570_LT_LN 6.00" Asphalt	NM	6.00	S	2 Lifts; Low oxidation; Cracked completely through 1st surface asphalt layer
-Y1-	1570_RT_LN 7.00" Asphalt	0.00	4.00	S	2 Lifts; Low oxidation
			3.00	I	1 Lift; Low oxidation
-Y1-	1570_RT_PS 4.00" Asphalt	NM	4.00	S	2 Lifts; Low oxidation
-Y2-	1620_LT_LN 3.00" Asphalt	7.00	3.00	S	2 Lifts; Low oxidation; Cracked completely through surface asphalt layer

Note(s):

NM - Not Measured
PS - Paved Shoulder
WB - Westbound
EB - Eastbound
LT - Left
RT - Right

OSS - Outside Shoulder
ISS - Inside Shoulder
OSL - Outside Lane
DECEL - Deceleration
ACCEL - Acceleration
LN - Lane

S - Asphalt Surface Course
I - Asphalt Intermediate Course
B - Asphalt Base Course
C - Concrete