DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

REFERENCE: R-3300B

PROJECT: 40237

SEE SHEET 3 FOR PLAN SHEET LAYOUT AT TIME OF INVESTIGATION

CONTENTS

LINE	STATION	PLAN	PROFILE
-LI-	578+00 to 820+00	4-20	34-51
-LI_NORTHERN-	820+00 to 874+60	20-23	51-55
-L-	220+39 to 231+00	33	56
-L-	264+00 to 307+44	24-27	57-58
-LLT-	307+44 to 332+55	27-29	59
-LRT-	307+44 to 332+55	27-29	60
-Y19-	10+55 to 59+26	23-24, 33	61-64
-Y20-	10+11 to 11+09	33	65
-Y26-	10+26 to 12+25	29	65
-Y30-	22+25 to 59+00	5, 30-31	66-68
-Y30DET-	18+31 to 60+96	5, 30-31	69-72
-Y30RPA-	5+00 to 25+04	5-6	73-74
-Y30RPB-	5+00 to 21+88	4-5	75-76
-Y30RPC-	5+00 to 25+88	4-5	77-78
-Y30RPD-	5+00 to 23+80	5-6	79-80
-Y31-	18+20 to 46+00	14	81-82
-Y31DET-	19+50 to 45+71	14	83-84
-Y31RPA-	5+00 to 15+90	14	85
-Y31RPB-	5+00 to 19+37	13-14	86-87
-Y31RPC-	5+00 to 23+22	13-14	88-89
-Y31LPC-	5+00 to 14+40	14	90
-Y32-	10+00 to 47+12	23-24, 33	91-93
-Y32RPB1-	5+00 to 22+88	22-23, 33	94-95
-Y32LPA2-	5+00 to 14+33	23	96
-Y25-	10+00 to 10+98	25	-
-Y35-	10+80 to 11+62	27	97
-Y38-	17+15 to 25+00	9	97
-Y40-	231+00 to 256+67	23,33	98-99
-Y41-	10+14 to 11+30	33	100
-Y42-	10+12 to 11+40	33	100
-Y43-	10+12 to 11+00	33	100
-Y44-	10+12 to 11+75	23	100
-SR4-	10+10 to 27+65	30	101-102
-SR5-	10+26 to 21+20	31	103
-SR6-	10+26 to 39+89	5-6, 30	104-106
-SR7-	10+15 to 57+20	14-17	107-110

CROSS SECTIONS

LINE	STATION	SHEETS
-LI-	586+50 to 589+00	111-113
-LI-	590+50 to 598+00	114-117
-LI-	611+50	118
-LI-	612+00	119
-LI-	623+50	120
-LI-	630+00	121
-LI-	642+00	122
-LI-	648+50 to 658+00	123-131
-LI-	659+50 to 665+50	132-138
-LI-	677+00 to 677+50	139
-LI-	701+00 to 701+50	140
-LI-	710+00 to 715+50	141-145
-LI-	720+00	146
-LI-	731+50 to 741+50	147-154
-LI-	779+00 to 820+00	155-180
-LI_NORTHERN-	820+00 to 836+00	181-191
-LI_NORTHERN-	840+50 to 851+50	192-198
-LI_NORTHERN-	861+00 TO 864+00	199-201
-Y30-	41+50 to 47+50	202-211
-Y30-	55+00 to 59+50	212-216
-Y30DET-	18+00 to 21+00	217-219
-Y30DET-	44+00 to 46+50	220-222
-Y30DET-	60+00 to 61+50	223-224
-Y30RPA-	14+00 to 19+50	225-230
-Y30RPB-	13+50 to 17+50	231-235
-Y30RPC-	7+00 to 25+50	236-262
-Y30RPD-	12+50 to 20+00	263-272
-Y31-	19+50 to 21+00	273-274
-Y31-	32+00	275
-Y31DET-	20+00 to 21+50	276-277
-Y31RPA-	11+00 to 11+50	278
-Y32-	19+00 to 21+00	279-282
-Y32-	26+50 to 39+00	283-296
-Y32RPB1-	13+00 to 22+50	297-310
-Y32LPA2-	5+50 to 14+00	311-318
-SR4-	10+50 to 11+00	319
-SR5-	10+50 to 11+50	320
-SR6-	24+50 to 28+00	321-324
-SR7-	15+50 to 22+00	325-331
-SR7-	27+00 to 30+00	332-335
-SR7-	34+50 to 37+50	336-338
-SR7-	44+50 to 57+00	339-351

APPENDIX I	SHEETS
CPT LOGS	I-88

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

ROADWAY SUBSURFACE INVESTIGATION

COUNTY PENDER

PROJECT DESCRIPTION NC 417 (HAMPSTEAD BYPASS) FROM SOUTH OF NC 210 TO US-17 NORTH OF HAMPSTEAD

INVENTORY – REVISED

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-3300B	1	352

CAUTION NOTICE

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

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

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

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

PERSONNEL

CATLIN PERSONNEL

INVESTIGATED BY J. L. Stone, P.G.

DRAWN BY J. L. Stone, P.G.

CHECKED BY S. V. Hudson, P.G.

SUBMITTED BY J. L. Stone, P.G.

DATE SEPTEMBER 2021

CATLIN
Engineers and Scientists
Wilmington, NC - Washington, NC - Raleigh, NC

NORTH CAROLINA LICENSED SEAL 2007 GEOLOGIST JOSEPH L STONE

DocuSigned by:
Joseph L. Stone
10FDBDD34BEF4C4...
9/13/2021
SIGNATURE DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	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 LOOSE MEDIUM DENSE DENSE VERY DENSE	< 4 4 TO 10 10 TO 30 30 TO 50 > 50	N/A
GENERALLY SILT-CLAY MATERIAL (COHESIVE)	VERY SOFT SOFT MEDIUM STIFF STIFF VERY STIFF HARD	< 2 2 TO 4 4 TO 8 8 TO 15 15 TO 30 > 30	< 0.25 0.25 TO 0.5 0.5 TO 1.0 1 TO 2 2 TO 4 > 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 SL — SHRINKAGE LIMIT	- MOIST - (M)	SOLID; AT OR NEAR OPTIMUM MOISTURE
	- 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
- [X] CME-550
- [ ] VANE SHEAR TEST
- [ ] PORTABLE HOIST
- [X] CME-45B
- [ ] _____

ADVANCING TOOLS:
- [X] CLAY BITS
- [ ] 6" CONTINUOUS FLIGHT AUGER
- [ ] 8" HOLLOW AUGERS
- [ ] HARD FACED FINGER BITS
- [ ] TUNG.-CARBIDE INSERTS
- [X] CASING [ ] W/ ADVANCER
- [X] TRICONE 2 15/16" STEEL TEETH
- [ ] TRICONE _____" TUNG.-CARB.
- [ ] CORE BIT
- [X] CPT RIG

HAMMER TYPE:
- [X] AUTOMATIC [ ] MANUAL

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

HAND TOOLS:
- [ ] POST HOLE DIGGER
- [X] HAND AUGER
- [ ] SOUNDING ROD
- [ ] VANE SHEAR TEST
- [X] SOIL PROBE

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: r3300Bb_ls_tnl_181016.tin dated 1/2/19

ELEVATION: FEET

NOTES:

U.C.P. = UNDIVIDED COASTAL PLAIN = UNDIVIDED C.P.

NM = NO MEASUREMENT

FIAD = FILLED IMMEDIATELY AFTER DRILLING

C.H.F. = CASTLE HAYNE FORMATION

APPROXIMATE LIMIT OF ORGANIC SOILS

DATE: 8-15-14

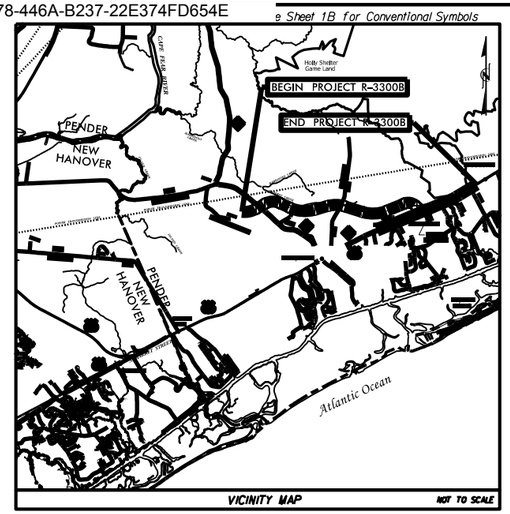
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

10-SEP-2021 13:01
C:\Users\Lee Stone\Desktop\22263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\Site&Sub\R3300B_rdy_tsh.dgn
Lee Stone
AT LSTONE-CAD-PC
09/08

TIP PROJECT: R-3300B

CONTRACT:

e Sheet 1B for Conventional Symbols



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PENDER COUNTY

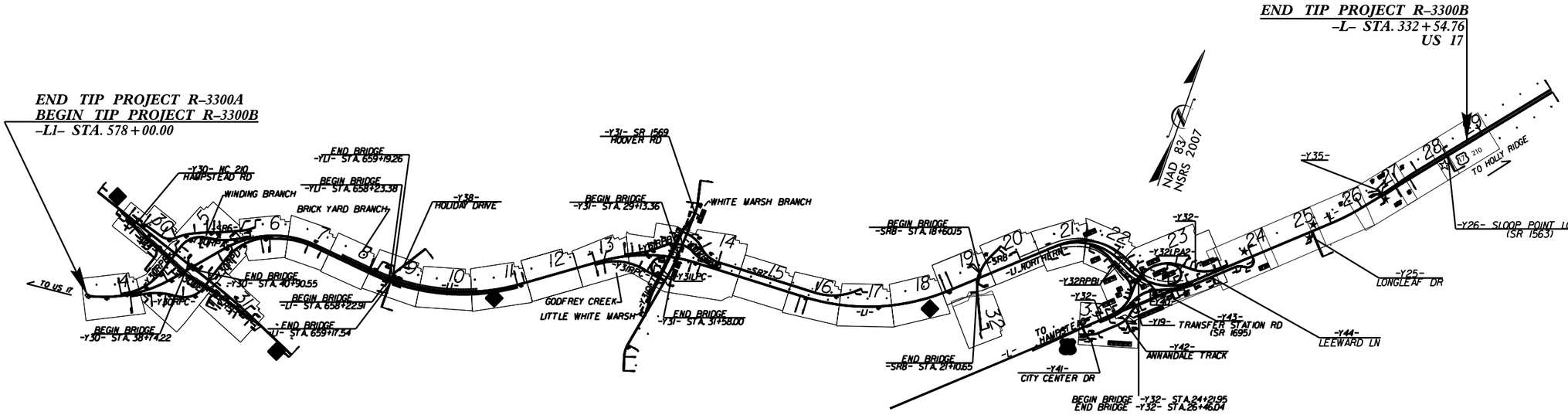
CATLIN Engineers and Scientists
Wilmington, NC

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-3300B	3	352

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
40237.1.1	N/A	PE
40237.2.1	N/A	R/W

LOCATION: NC 417 (HAMPSTEAD BYPASS) FROM SOUTH OF NC 210 TO EAST OF SR 1563 (SLOOP POINT LOOP ROAD).

TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURES, SIGNALS, AND CULVERTS



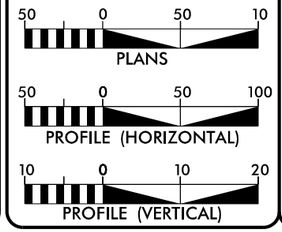
☆ UPDATE EXISTING SIGNAL
★ PROPOSED SIGNAL

–PART OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF HAMPSTEAD.
–THIS IS A CONTROLLED–ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.
–CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY MODIFIED METHOD III.

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2016 = N/A
ADT 2040 = 55,400
DHV = 8 %
D = 60 %
T = 6 % *
V = 70 MPH
*(TTST 2% + DUALS 4%)
FUNC CLASS = FREEWAY
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-3300B	=	6.893 MILES
LENGTH STRUCTURE TIP PROJECT R-3300B	=	0.023 MILES
TOTAL LENGTH TIP PROJECT R-3300B	=	6.916 MILES

PREPARED IN THE OFFICE OF:
STANTEC CONSULTING
801 Jones Franklin Road |Suite 300| Raleigh, NC 27606
Tel. (919) 851-6866 | Fax. (919) 851-7024 | www.stantec.com
License No. F-0672

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: APRIL 1, 2019

LETTING DATE: SEPTEMBER 10, 2020

MICHAEL D. LINDGREN, P.E.
PROJECT ENGINEER

TRACE HOWELL, P.E.
NCDOT DIVISION 3 CONTACT

HYDRAULICS ENGINEERS

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

WBS Number: 40237.1.1
TIP Number: R-3300B
F.A .Project N/A
County: Pender
Description: NC 417 (Hampstead Bypass) From South of NC 210 to US-17 North of Hampstead

CATLIN Number: 217060

SUBJECT: Geotechnical Inventory Report

Project Description

This project begins at the northern terminus of NCDOT TIP Project R-3300A, north of Wilmington and extends northward for approximately 6± miles. This Geotechnical Investigation was confined to areas of proposed construction.

Fieldwork was conducted from July of 2018 through January 2020. Standard Penetration Tests (SPT) borings, Cone Penetration Tests (CPT) borings, hand auger borings, and soil probes were completed along and at various offsets from the proposed project alignments. Representative soil samples have been collected for visual classification in the field and for laboratory analysis.

The following alignments were investigated. Subsurface profiles and selected cross sections of these alignments are included in this report.

Line	Station (±)
-L1-	578+00 to 820+00
-L1NORTHERN-	820+00 to 874+60
-L-*	220+39 to 231+00
-L-*	264+00 to 307+44
-LLT-*	307+44 to 332+55
-LRT-*	307+44 to 332+55
-Y19-	10+55 to 59+26
-Y20-*	10+11 to 11+09
-Y25-*	10+00 to 10+98
-Y26-*	10+26 to 12+25
-Y30-	22+25 to 59+00
-Y30DET-	18+31 to 60+96
-Y30RPA-	5+00 to 25+04
-Y30RPB-	5+00 to 21+88
-Y30RPC-	5+00 to 25+88
-Y30RPD-	5+00 to 23+80
-Y31-	18+20 to 46+00
-Y31DET-	19+50 to 45+71
-Y31RPA-	5+00 to 15+90
-Y31RPB-	5+00 to 19+37
-Y31RPC-	5+00 to 23+22
-Y31LPC-	5+00 to 14+40
-Y32-	10+00 to 47+12
-Y32RPB1-	5+00 to 22+88
-Y32LPA2-	5+00 to 14+33
-Y35-*	10+80 to 11+62
-Y38-	17+15 to 25+00
-Y40-	231+00 to 256+67
-Y41-	10+14 to 11+30
-Y42-	10+12 to 11+40
-Y43-	10+12 to 11+00
-Y44-	10+12 to 11+75
-SR4-	10+10 to 27+65
-SR5-	10+26 to 21+20
-SR6-	10+26 to 39+89
-SR7	10+15 to 57+20

*Investigated under TIP U-5732 by Falcon Engineering.

Areas of Special Geotechnical Interest

1) All but the following sections of the project exhibit high groundwater.

Line	Station (±)
-L1-	631+00 to 634+00
-L1-	675+00 to 677+00
-L-	220+39 to 225+00
-L-	278+00 to 283+00
-LLT-	327+00 to 332+55
-LRT-	327+00 to 332+55
-Y30DET-	21+00 to 24+50
-Y31-	21+50 to 24+00
-SR4-	11+00 to 16+50
-SR6-	12+00 to 14+00

2) The following sections contain organic soils that have the potential to cause embankment/subgrade and or slope stability problems during construction.

Line	Station (±)
-L1-	580+87 to 582+19
-L1-	586+62 to 588+48
-L1-	590+75 to 598+17
-L1-	611+00 to 614+06

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Line	Station (±)
-L1-	641+53 to 642+46
-L1-	648+53 to 652+12
-L1-	653+00 to 658+49
-L1-	658+89 to 665+22
-L1-	710+01 to 715+15
-L1-	731+83 to 741+41
-L1-	779+11 to 791+78
-L1-	793+20 to 820+00
-L1NORTHERN-	820+00 to 824+33
-L1NORTHERN-	826+69 to 828+34
-L1NORTHERN-	830+55 to 835+78
-L1NORTHERN-	840+95 to 851+25
-L1NORTHERN-	860+77 to 864+00
-Y30-	41+41 to 42+98
-Y30-	44+15 to 47+15
-Y30-	55+02 to 56+74
-Y30DET-	43+77 to 46+02
-Y30DET-	55+71 to 56+91
-Y30RPA-	14+12 to 19+12
-Y30RPB-	5+03 to 6+75
-Y30RPB-	13+52 to 17+44
-Y30RPC-	7+30 to 23+84
-Y30RPC-	24+45 to 25+90
-Y30RPD-	12+75 to 16+34
-Y30RPD-	17+79 to 19+99
-Y31-	20+11 to 21+02
-Y31-	28+87 to 31+37
-Y31DET-	20+07 to 21+44
-Y31RPA-	6+24 to 11+36
-Y31RPC-	5+00 to 9+56
-Y32-	19+20 to 20+75
-Y32-	26+25 to 38+75
-Y32RPB1-	7+79 to 22+84
-Y32LPA2-	5+29 to 14+33
-Y19-	23+93 to 25+28
-SR6-	24+78 to 27+48
-SR7-	15+69 to 19+44
-SR7	21+07 to 21+96
-SR7-	26+93 to 29+55
-SR7-	34+62 to 37+47
-SR7-	44+59 to 57++68

3) All but the following sections contain cohesive soils that have the potential to cause embankment/subgrade and or slope stability problems during construction.

Line	Station (±)
-L1-	685+89 to 695+10
-L1-	696+62 to 703+52
-L1-	728+43 to 731+05
-L1-	733+82 to 741+40
-L1-	749+59 to 750+11
-L1-	755+68 to 757+10
-L1-	768+56 to 771+09
-L1-	775+70 to 787+30
-L1-	803+85 to 805+26
-L1-	807+89 to 812+99
-L1_NORTHERN-	821+34 to 826+34
-L1_NORTHERN-	839+06 to 841+12
-L1_NORTHERN-	845+69 to 874+60
-L-	220+39 to 231+00
-L-	264+00 to 307+44
-LLT-	307+44 to 332+55
-LRT-	307+44 to 332+55
-Y19-	11+27 to 59+26
-Y20-	10+11 to 11+09
-Y26-	10+26 to 12+25
-Y31-	19+42 to 20+00
-Y31-	38+82 to 39+81
-Y31-	41+98 to 46+00
-Y31DET-	19+35 to 20+08
-Y31DET-	23+56 to 32+29
-Y31DET-	36+22 to 37+40
-Y31DET-	40+61 to 45+71
-Y31RPA-	5+59 to 9+44
-Y31RPB-	9+65 10+10
-Y31RPB-	12+57 to 12+78
-Y31RPC-	9+85 to 10+98
-Y31RPC-	13+11 to 22+14
-Y32-	10+00 to 20+17
-Y32-	22+91 to 26+20
-Y32-	29+83 to 47+12
-Y32RPB1-	5+00 to 9+43
-Y32RPB1-	10+87 to 14+71
-Y32RPB1-	17+25 to 20+42
-Y32RPB1-	21+72 to 22+88
-Y32LPA2-	5+00 to 14+33
-Y35-	10+80 to 11+62
-Y38-	17+15 to 25+00
-Y40-	231+00 to 239+51
-Y40-	248+13 to 256+67
-Y42-	10+12 to 11+40
-Y43-	10+12 to 11+10
-Y44-	10+12 to 11+75

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Line	Station (±)
-SR6-	34+63 to 38+03
-SR7-	47+90 to 57+20

4) Water Wells were encountered at the following locations.

Line	Station/Offset (±)
-Y30-	33+22, 82’ RT
-Y30RPD-	21+95, 47’ RT
-Y30RPD-	21+85, 6’ LT
-Y31-	38+30, 42’ RT
-SR4-	14+64, 5’ LT

5) Ponds were encountered at the following locations.

Line	Station (±)
-L1-	603+55 to 604+91
-L1-	676+62 to 677+75
-L1-	700+70 to 702+18
-Y31-	27+36 to 28+09
-SR4-	17+90 to 18+15

Physiography and Geology

This project corridor is located within the Coastal Plain Physiographic Province. Topography along the project is nearly flat to gently sloping. Ground elevations range from 20± to 65± feet above sea level.

Surficial soils in this area are generally classified as alluvial and undivided coastal plain sediments.

Ground Water

Ground water data was collected from July of 2018 through July of 2019 and was found to be within 6’ of natural ground throughout much of the project area. It should be noted that in 2018 this area received record rainfall.

Soils

Soils encountered along the project site include roadway embankment, artificial fill, alluvial, undivided coastal plain sediments, and those belonging to the Castle Hayne Formation.

- Roadway Embankment soils were identified beneath and adjacent to existing roadways and consists of 1± to 6± feet of loose to medium dense, sand and silty sand (A-3 and A-2-4).
- Artificial fill consisting of 1± to 3± feet of very loose to loose sand and gravel (A-2-4, A-3, A-1-b) was encountered along several soil roads that bisect the project area and in an abandoned industrial facility near the southern end of the project area.
- Alluvial soils were found adjacent to several creeks that cross the project corridor. These soils are composed of 1± to 8± feet of very loose to loose sand (A-3, A-2-4), 5± feet of very soft to medium stiff sandy silt, up to 5± feet of very loose sands (A-2, A-3) with trace to little organic content, and up to 2± feet of very soft sandy silt (A-4) with little to moderate content.
- Undivided Coastal Plain (U.C.P) soils primarily consist of up to 26± feet of very loose to dense sand and clayey sand (A-3, A-2-4 and A-2-6) and very soft to medium stiff silts and clays (A-4, A-6, A-7-6). Laboratory analysis of these cohesive soils returned moisture values ranging from 2% to 87%. Organic soils were also encountered throughout much of the project area. They are primarily comprised of 1± to 12± feet of very soft to stiff sandy silt with little to moderate organic matter, along with 3± feet or less of very loose to medium dense silty sand with trace to moderate organic matter, and up to 9± feet of very soft and very loose muck. Laboratory analysis of these organic soils returned organic contents ranging from 1% up to 78%, and moisture values from 9% to 68%.
- The Castle Hayne Formation underlies the U.C.P. soils throughout the project area. It is primarily composed of up to 19± feet of very soft to medium stiff silts and clays (A-4, A-6, A-7-6) and very loose to medium dense sands (A-2-4, A-3), interbedded with very soft to very hard limestone. The thickness of the limestone layers ranges from 1± to 25± feet.

Culvert at -L1- Sta. 612+13±

Natural ground elevations range from 25± feet along the bed of the creek to 30± feet along the adjacent floodplain. Borings completed in the vicinity show approximately 12± feet of very soft to medium stiff sandy silt with trace organic matter (A-4) and up to 4± feet of loose sand (A-2-4) with trace organic matter at the surface. These soils are underlain by 5± feet of soft sandy clay (A-6,) and 8 or more feet of very loose to medium dense sand. (A-2-4).

Culvert at -L1- Sta. 660+85±

Natural ground elevations range from 22± feet along the bed of the creek to 26± feet along the adjacent floodplain. Borings completed in the vicinity show up to ±1 foot of very soft, moderately organic, sandy silt (A-4) at the surface, underlain by 8± feet of loose sand (A-2-4) and 9± feet of soft silty clay (A-7-6). Very soft to moderately hard limestone was encountered at a depth of 20± feet (approximately 5 feet above sea level and continued down to a depth of 45± feet or -20± feet below sea level.

Culvert at -L1- Sta. 712+62±

Natural ground elevations range from 34± feet along the bed of the creek to 37± feet along the adjacent floodplain. Borings completed in the vicinity show up to ±9 feet of very soft muck at the surface, underlain by up to 20± feet of very loose to medium dense sand (A-2-4), 7± to 12± feet of very soft sandy silt, (A-4) and silty clay (A-7-6), and 9± feet of soft silty clay (A-7-6) and 4± to 7 or more feet of very soft to moderately hard limestone. The limestone layers were encountered at elevations ranging from 8± feet above sea level to -9± feet below sea level. Interbedded in this limestone was 5± feet of stiff to very stiff sandy clay (A-6).

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Culvert at -Y30RPA- Sta. 16+22±

Natural ground elevations range from 19± feet along the bed of the creek to 22± feet along the adjacent floodplain. Borings completed in the vicinity show approximately 4± feet of very loose sand (A-2-4) with little organic matter at the surface. These soils are underlain by 5± feet of very soft to stiff sandy silt (A-4), and 1± to 11 or more feet of very loose to medium dense sand (A-2-4).

Culvert at -Y30RPD- Sta. 19+49±

Natural ground elevations range from 23± feet along the bed of the creek to 27± feet along the adjacent floodplain. Borings completed in the vicinity show approximately 4± feet of very loose muck at the surface. These soils are underlain by 15± feet of very soft sandy silt (A-4) and silty clay (A-7), and 7 or more feet of very loose to medium dense sand (A-2-4).

Culvert at -Y38- Sta. 19+80±

Natural ground elevations range from 24± feet along the bed of the creek to 28± feet along the adjacent roadway embankment. Borings completed in the vicinity show approximately 2± feet of very loose sand with little organics (A-4-4), underlain by very loose to loose sand. (A-2-4).

Undisturbed Samples

Undisturbed thin wall shelby tube samples were collected at the following locations and submitted for testing.

Sample No.	Station	Depth (ft)	Test
ST-01A	-SR6- 26+05, 10’ RT	7.0 - 9.0	Consolidation, UU
ST-01B	-Y30RPB-, 21+00, CL	20.6 - 22.6	Consolidation, UU
ST-02B	-L1-, 594+05, CL	6.0 -7.4	Consolidation, UU
ST-03B	-L1-, 712+25, 90’ LT	16.0 - 18.0	Consolidation, UU
ST-04B	-L1-, 714+00, 60’ LT	20.3 - 22.3	Consolidation, UU
ST-05B	-Y31RPB-, 17+05, CL	21.0 - 23.0	Consolidation, UU
ST-06B	-L1- ,768+05, CL	4.5 - 6.1	Consolidation, UU
ST-08B	-Y32RPB1-, 21+00, 4’ LT	25.0 - 27.0	Consolidation, UU
ST-09	-Y30RPA-, 16+22, 1’ LT	5.4 - 7.4	Consolidation, UU
ST-09B	-Y30-, 38+05, 5’ RT	20.6 - 22.0	Consolidation, CU
ST-10B	-Y30RPC-, 24+00, 5’ RT	23.0 - 25.0	Consolidation, UU
ST-11B	-L1-, 642+00, 5’ RT	15.0 - 17.0	Consolidation, CU
ST-12B	-L1-, 657+00, CL	11.0- 13.0	Consolidation, CU

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CATLIN Engineers and Scientists

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

END PROJECT R-3300A -LI- STA.578+00.00
BEGIN PROJECT R-3300B -LI- STA.578+00.00

NAD 83/NSRS 2007

-Y30RPB- ST Sta. 5+00.00
-LI- POC Sta.586+36.72
47.00 LT

-Y30RPB- SC Sta. 7+96.00

-Y30RPB-

-Y30RPC-

-LI-

GREG TL-3

18" HDPE

8' SOIL

6' SOIL

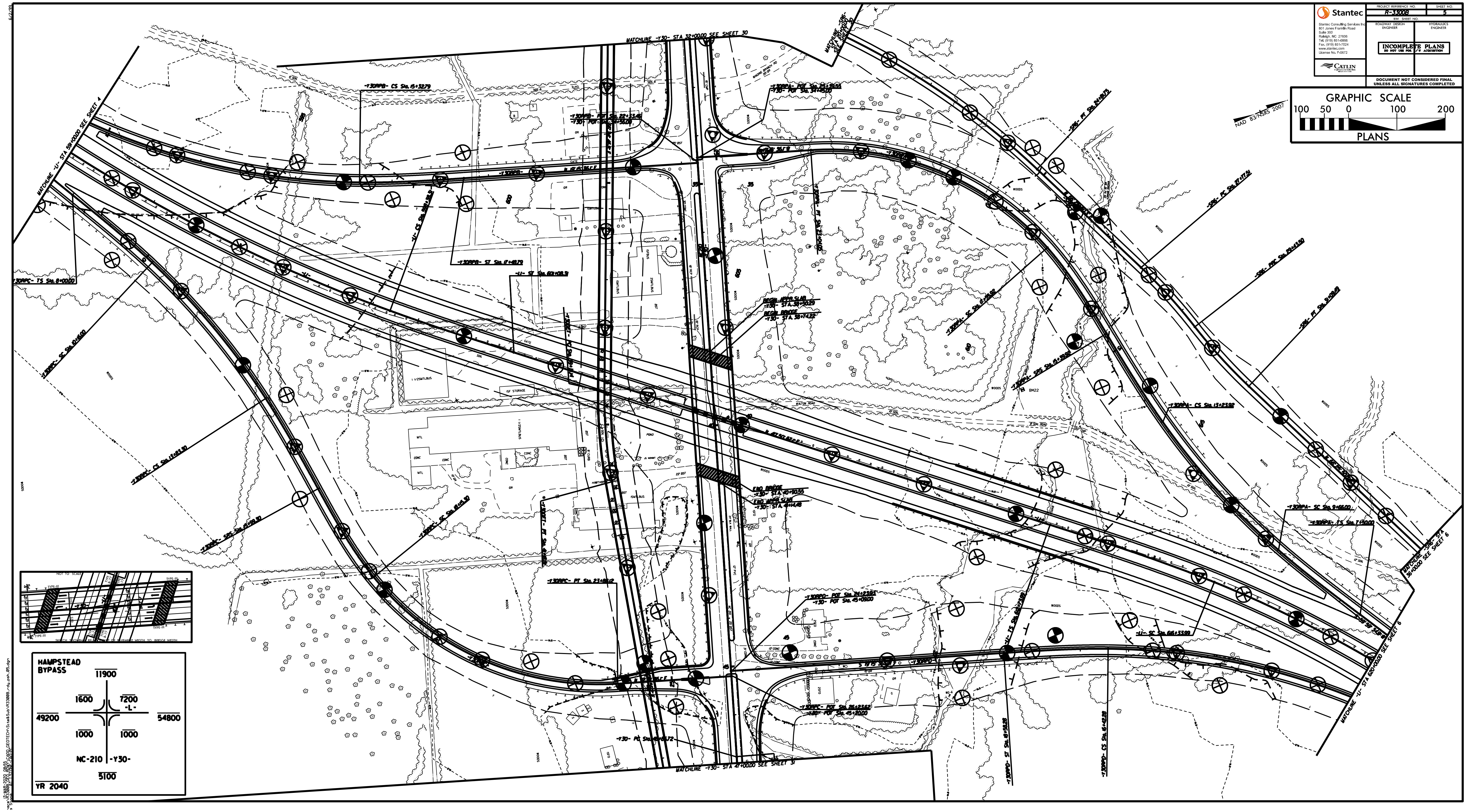
WOODS

MATCHLINE -LI- STA 591+00.00 SEE SHEET 5

-Y30RPC- POT Sta. 5+00.00
-LI- POC Sta. 588+55.13
47.00 RT

13-MAR-2020 08:55
R3300B_GEO_ROW1.dgn
\\Catlinfile\projects\R3300B\CADD\GEOTECH\Site&Sub\R3300B_rdy_psh_04.dgn

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/2020

CATLIN
Engineers and Scientists

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-SR6- PC Sta. 36+17.77

END CONSTRUCTION
-SR6- PT Sta. 39+89.31

MATCHLINE -SR6-
STA 36+00.00 SEE SHEET 5

-SR6-

-LI- POC Sta. 621+74.24
-Y30RPA- POT Sta. 5+00.00
47' LT

-Y30RPA-
S 59°59'34.9" W

-LI-

MATCHLINE -LI-
STA 620+00.00 SEE SHEET 5

-Y30RPD-

-Y30RPD- SC Sta. 7+19.00

-Y30RPD- ST Sta. 5+00.00
-LI- POC Sta. 626+39.93
47.00' RT

MATCHLINE -LI-
STA 631+00.00 SEE SHEET 7

NAD 83/NSRS 2007

620 625 630

WOODS

GREU TL-3

WLB

F

C

13-MAR-2020 08:55
...\R3300B_CFO_ROW\CADD\GEOTECH\Site&Sub\R3300B_rdy_psh_06.dgn
$$$$USER
$$$$PSETTING=CADD

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	7
R/W SHEET NO.	

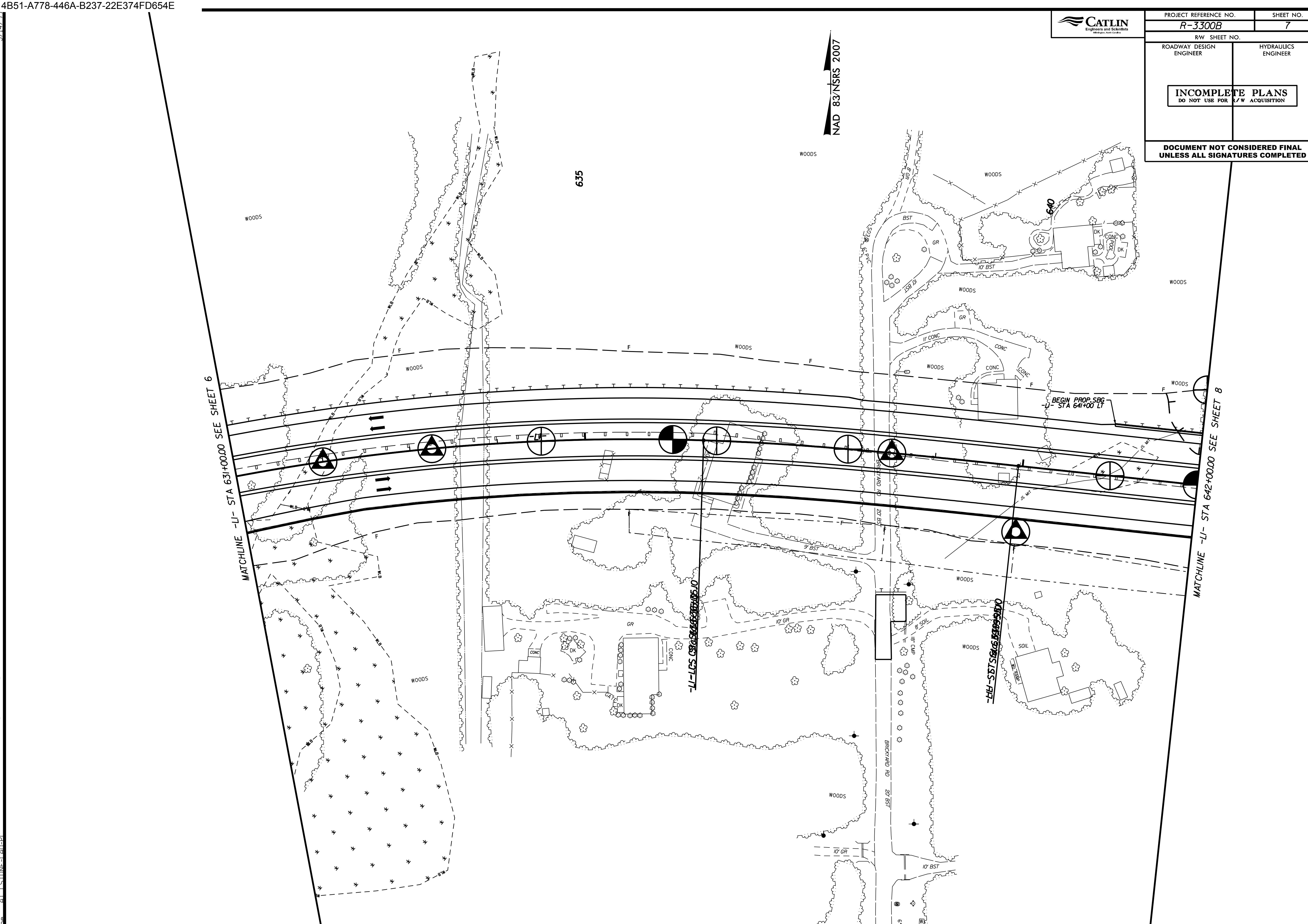
ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CATLIN Engineers and Scientists Wilmington, North Carolina



5/14/99

13-MAR-2020 08:55
\R3300B_GEO_RDWY\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_07.dgn

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CATLIN Engineers and Scientists

NAD 83/NSRS 2007

645

650

WOODS

BRICK YARD BRANCH

-L1- TS Sta. 652+63.80

BEGIN NOISE WALL NO.10
-MW10- STA.10+00.00
-L1- STA.645+04.32
60.50' LT

-L1-

88.56' Off of -L1-

MATCHLINE -L1- STA 642+00.00 SEE SHEET 7

MATCHLINE -L1- STA 653+00.00 SEE SHEET 9

WOODS

WOODS

WOODS

12" SOIL & GR

ISFD

DK

CONC

G

10' CONC

GR

11' GR

S

36" WD

POOL

WALL

PLANTER

SEE SHEET 2B-1 FOR HORIZONTAL CURVE DATA
SEE SHEET 36 FOR -L1- PROFILE

13-MAR-2020 08:55
e:\R3300B_GEO_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_08.dgn
GEO_01 (STONE_CAPE)

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CATLIN Engineers and Scientists

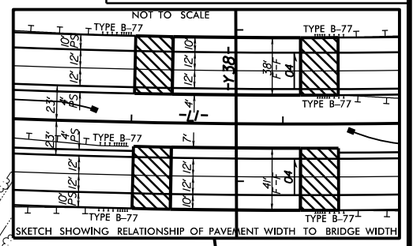
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NSRS 2007

NOT TO SCALE



SKETCH SHOWING RELATIONSHIP OF PAVEMENT WIDTH TO BRIDGE WIDTH

MATCHLINE -LI- STA 653+00.00 SEE SHEET 8

MATCHLINE -LI- STA 666+00.00 SEE SHEET 10

BEGIN CONSTRUCTION
-Y38- POT Sta. 17+15.00

-LI- SC-Sta. 654+45.80

-Y38- PC Sta. 19+82.68

-Y38- PT Sta. 20+66.33

BEGIN BRIDGE
-LI- STA. 658+22.66

BEGIN APPR. SLAB
-LI- STA. 657+98.60

END BRIDGE
-LI- STA. 659+19.30

END APPR. SLAB
-LI- STA. 659+43.57

BEGIN APPR. SLAB
-LI- STA. 657+99.36

BEGIN BRIDGE
-LI- STA. 658+23.63

END BRIDGE
-LI- STA. 659+17.50

END APPR. SLAB
-LI- STA. 659+41.56

-LI- Sta. 658+69.17
-Y38- Sta. 21+61.95

END CONSTRUCTION
-Y38- POT Sta. 25+00.00

S 33°03'17.0" W

S 01°34'50.0" E

POND

BRICK YARD BRANCH

FOXFIELD DR

WOODS

SWAMP

ISFD

2SFD

2SFBKAPT

2SG

13-MAR-2020 08:55
R3300B_GEO_ROW1_CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_09.dgn
Active Setup: Default

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CATLIN Engineers and Scientists

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NSRS 2007

MATCHLINE -L1- STA 666+00.00 SEE SHEET 9

MATCHLINE -L1- STA 679+00.00 SEE SHEET 11

670

675

WOODS

ONE MILE RD

GARY DR

LANCE DR

WALNUT LANE

24" WD

48" WD

15" GR

12" GR

10" GR

15" CMP

12" CMP

8" CMP

24" CMP

WD POST

ARBOR

CONC PAVERS W/ YARD ART

CONC

GR

ISFD

2SFD

DK

S

CANOPY

HTR

F

RCP

48" CHL

SOIL

24" NW

48" NW/WD

WINDMILL

POND

GAZEBO

POLE

2SBKD

B

DAM

35' WD STRINGER CR

JS MT

13-MAR-2020 08:55
e:\R3300B_GEO_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_10.dgn
ROADWAY PLAN SHEET

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CATLIN Engineers and Scientists

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NSRS 2007

-L- CS Sta. 690+57.24

-L- ST Sta. 692+37.24

MATCHLINE -L- STA 679+00.00 SEE SHEET 10

MATCHLINE -L- STA 693+00.00 SEE SHEET 12

680

685

690

WOODS

GR

F

BASKETBALL COURT

ONE MILE RD

48" WW/WD

BM26

BM27

-L-

5/14/99

13-MAR-2020 08:55
e:\R3300B_GEO_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_11.dgn
ppw At [STONE_PRINT]

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NSRS 2007

MATCHLINE -L1- STA 693+00.00 SEE SHEET 11

MATCHLINE -L1- STA 706+00.00 SEE SHEET 13

695 700 705

WOODS

PASTURE

TIM MOORE RD

12" SOIL

48" WD & 4SBW

48" BW

48" WW

48" WW/WD

12" CMP

MTL POST

-L1- N 54°58'44.0" E

POND

8" HDPE

35" NORMT

35" BW

35" WW

48" CMP

CULTIVATED

TRICK'S PLACE

2SFD

STABLES

GATE

COW

BARGE

TIMBER

SOIL

OAK

EIP

13-MAR-2020 08:55
e:\R3300B\GEO_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_12.dgn
ddoo
Active Cell: (none)

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CATLIN Engineers and Scientists

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NSRS 2007

-L1- TS Sta. 710+57.93

-L1- SC Sta. 712+82.93

-L1- SC Sta. 712+82.93

-Y3IRPB- ST Sta. 5+00.00
-L1- POC Sta. 718+22.40
47.00 LT

-Y3IRPB-

-Y3IRPC-

-Y3IRPC- ST Sta. 5+00.00
-L1- POT Sta. 710+43.38
47' RT

-Y3IRPC- SC Sta. 7+16.00

BEGIN PROP. SBG
-L1- STA 711+50 RT

END PROP. SBG
-Y3IRPC- STA 8+17+ RT

MATCHLINE -L1- STA 706+00.00 SEE SHEET 12

MATCHLINE -L1- STA 719+00.00 SEE SHEET 14

GODFREY CREEK

WOODS

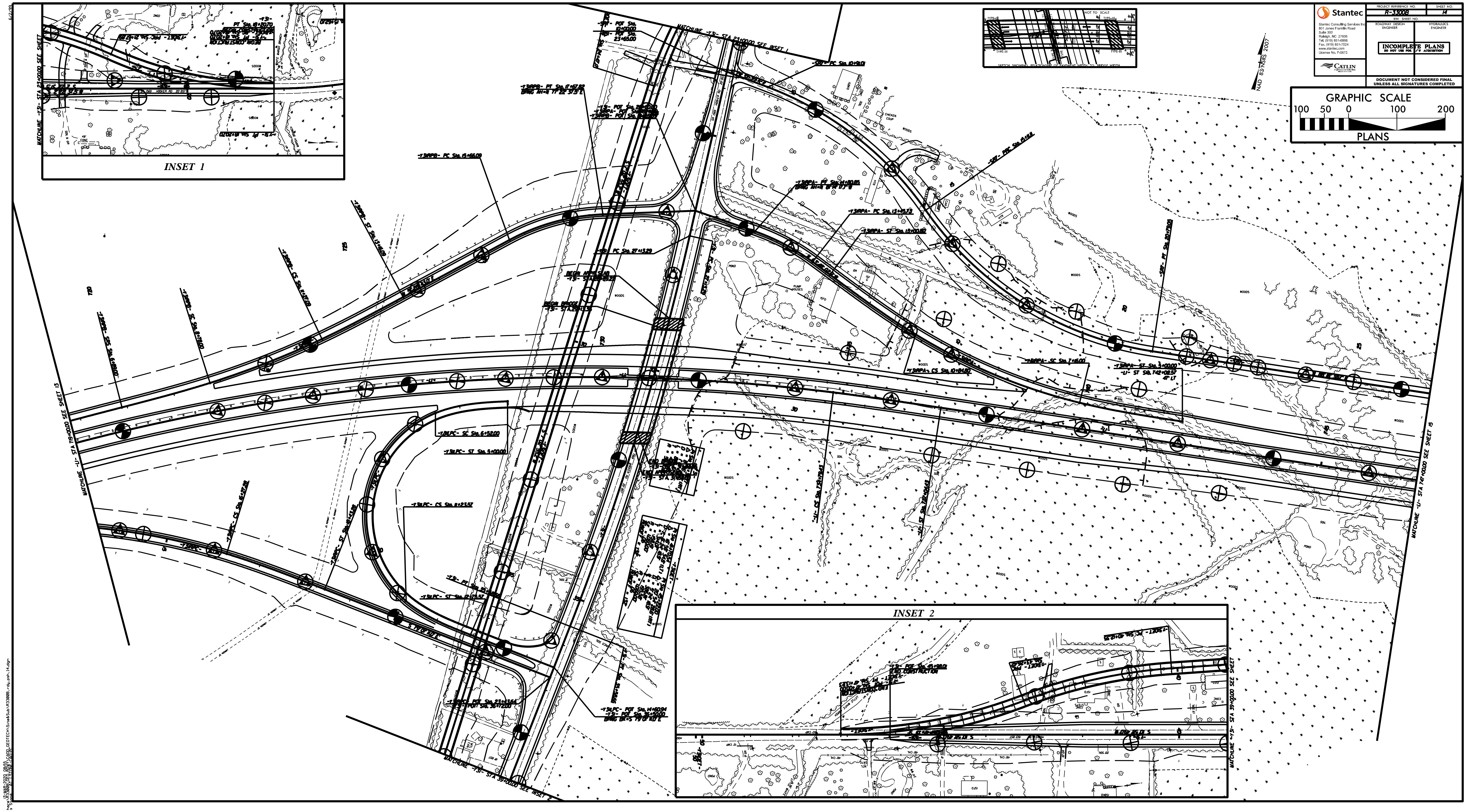
GR

710

715

13-MAR-2020 08:55
e:\R3300B_GEO_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_13.dgn
Geo_A1_ESTINE_GEO2

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CATLIN Engineers and Scientists

NAD 83/NSRS 2007

MATCHLINE -L1- STA 747+00.00 SEE SHEET 14

MATCHLINE -L1- STA 760+00.00 SEE SHEET 16

-SR1-

N 88° 16' 38.7" E

N 88° 16' 38.7" E

-L1-

30

35

750

755

760

WOODS

SODOM

BM30

B SOIL

F SOIL

C SOIL

13-MAR-2020 08:55
e:\R3300B_GEO_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_15.dgn
Default
Active Setup

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CATLIN Engineers and Scientists

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE -L1- STA 760+00.00 SEE SHEET 15

MATCHLINE -L1- STA 773+00.00 SEE SHEET 17

-SR2- PC Sta. 45+90.58

-L1- TS Sta. 763+07.12

-L1- SC Sta. 764+87.12

-L1-

MAD 83 NSRS 2007

WOODS

F

C

RLB

SOIL

13-MAR-2020 08:55
e:\R3300B_CED_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_16.dgn

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CATLIN Engineers and Scientists

NAD 83/NSRS 2007

-SR7- POT Sta. 57+68.41

-SR7- PT Sta. 55+99.95

-SR7- N 29° 43' 19.5" E

MATCHLINE -L1- STA 773+00.00 SEE SHEET 16

MATCHLINE -L1- STA 786+00.00 SEE SHEET 18

R3300-18

WOODS

775

780

785

N 63°51'52" E
428.96'

5/14/99

13-MAR-2020 08:55
e:\R3300B_GEO_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_17.dgn

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CATLIN Engineers and Scientists

NAD 83/NSRS 2007

790

795

WOODS

WOODS

WOODS

-L- STA 796+00.00 SEE SHEET 17

MATCHLINE -L- STA 796+00.00 SEE SHEET 17

MATCHLINE -L- STA 799+00.00 SEE SHEET 19

BM32

GREU TL-3

8" SCHL

.5 NORMT

.5 NORMT

.5 NORMT

8" SCHL

F

RLD

RTW

5/14/99

13-MAR-2020 08:55
e:\R3300B_CEP_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_18.dgn
User:
PSheet: A1_LSTONE_ANSI24

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

CATLIN
Engineers and Scientists

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NOT TO SCALE

SKETCH SHOWING RELATIONSHIP OF PAVEMENT WIDTH TO BRIDGE WIDTH

NO CLAIM

NAD 83/NSRS 2007

-LI- CS Sta. 799+93.46

-LI- ST Sta. 801+73.46

-LI- POT Sta. 808+59.78

-SR8- POC Sta. 19+89.90

END PROP SBG -LI- STA 807+00

BEGIN PROP SBG -LI- STA 799+93

BEGIN PROP SBG -LI- STA 802+50

END PROP SBG -LI- STA 805+00

-SR8- PT Sta. 23+45.49

N 48° 11' 57.4" E

S 24° 40' 58.8" E

WOVEN WIRE FENCE

CHORD

CABLE GUIDERAIL ANCHOR UNIT

GREU TL-3

CAT-1

MATCHLINE -LI- STA 799+00.00 SEE SHEET 18

MATCHLINE -LI- STA 812+00.00 SEE SHEET 20

MATCHLINE -SR8- STA 15+26.55 SEE SHEET 20

MATCHLINE -SR8- STA 24+00.00 SEE SHEET 32

5/14/99
10-SEP-2021 11:42
ampsteed, B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\R3300B_geo_psh_19.dgn

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

CATLIN
Engineers and Scientists

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NSRS 2007

MATCHLINE -SR8- STA 15+26.55 SEE SHEET 19

MATCHLINE -LI- STA 812+00.00 SEE SHEET 19

MATCHLINE -LI_NORTHERN- STA 825+00.00 SEE SHEET 21

-SR8- POT Sta.12+55.00 BEGIN CONSTRUCTION

-SR8- PI Sta.14+88.88

-SR8- POT Sta.16+88.88

-SR8- PC Sta.15+52.41

-LI- POT Sta. 820+00.00 BK = -LI_NORTHERN- POT Sta. 820+00.00 AH

-LI- N 48° 11' 57.44" E

-LI_NORTHERN- N 48° 11' 57.44" E

815

820

825

WOVEN WIRE FENCE

CABLE GUIDERAIL ANCHOR UNIT

10-SEP-2021 11:53
Hampstead_B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\R3300B_geo_psh_20.dgn
User: ajl
Style: STINE-ANSI-22

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CATLIN Engineers and Scientists

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NSRS 2007

MATCHLINE -LI_NORTHERN- STA 825+00.00 SEE SHEET 20

MATCHLINE -LI_NORTHERN- STA 837+00.00 SEE SHEET 22

-LI- TS Sta. 828+33.79

-LI_NORTH- SC Sta. 829+89.79

-LI_NORTH- TS Sta. 827+20.30

-LI_NORTH- SC Sta. 830+56.30

BEGIN PROP. SBG -LI_NORTH- STA 826+00 RT

END PROP. SBG -LI_NORTH- STA 828+25 RT

BEGIN PROP. SBG -LI_NORTH- STA 832+50 LT

WOODS

8" SOIL

7" SOIL

MTL BLEACHERS

48" CHL

RUBBERIZED TRACK

830

835

13-MAR-2020 08:55
e:\R3300B_GEO_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_21.dgn

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CATLIN Engineers and Scientists

NAD 83 NSRS 2007

-L1_NORTH- CS Sta. 844+57.66

-L1- CS Sta. 847+33.71

MATCHLINE -L1_NORTHERN- STA 837+00.00 SEE SHEET 21

MATCHLINE -L1_NORTHERN- STA 847+00.00 SEE SHEET 23

-Y32RPBI- PC Sta. 5+00.00

-Y32RPBI- CS Sta. 10+57.77

END PROP SBG
-Y32RPBI-
STA 12+58 RT

WOODS

TENNIS COURT

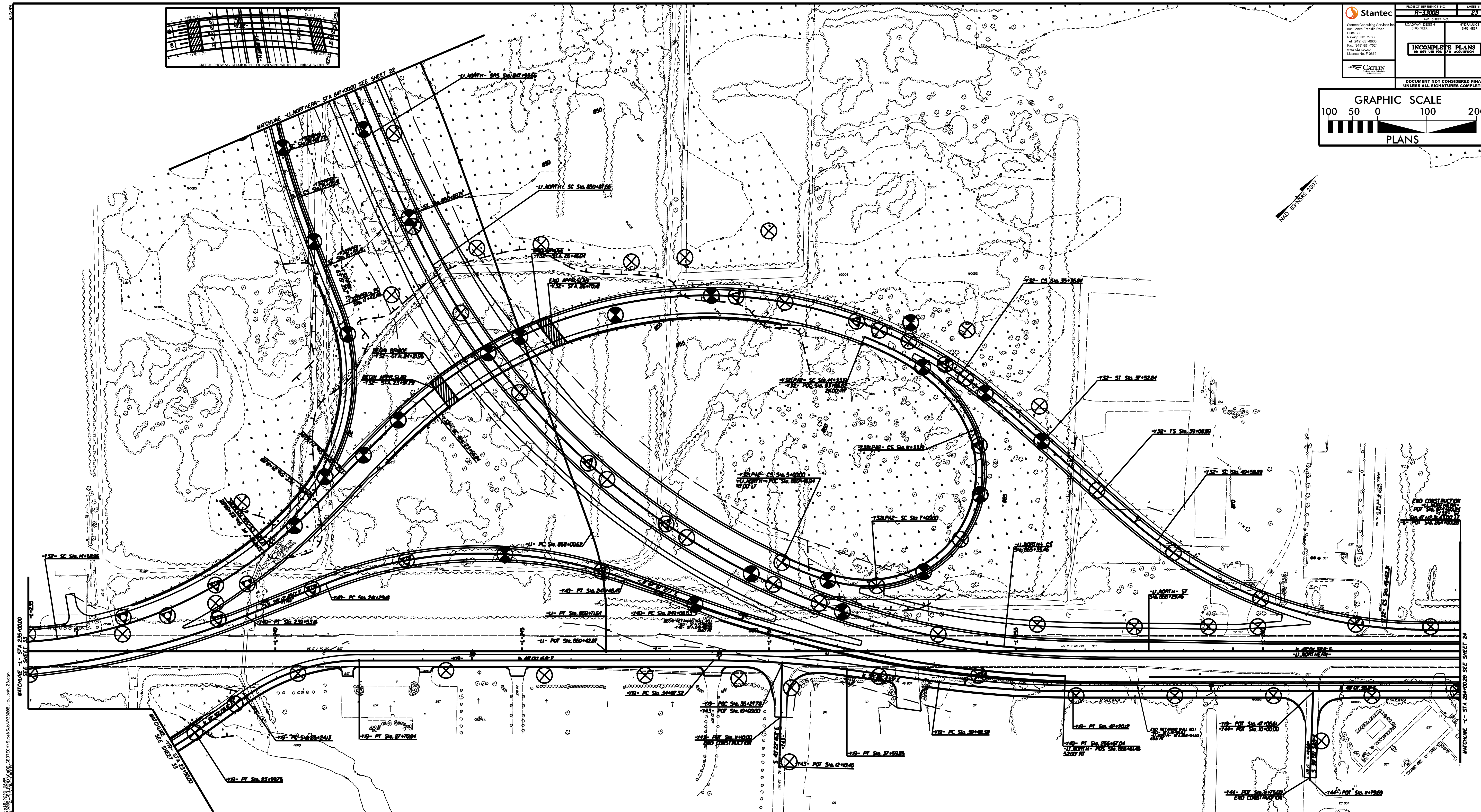
VARIED SOIL

6" SOIL

W/L

13-MAR-2020 08:55
...\R3300B_GEO_ROW_CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_22.dgn
...\R3300B_GEO_ROW_CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_22.dgn

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Dewberry
2650 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
PHONE: 919.881.9939
NC COA No. P-0929

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	24
FOR R/W SEE U-5732 SHEET NO.	24
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/ NSRS 2007

REVISIONS
5/14/20
03/15/2019 - R/W REVISION: ADDED ROW, DUE, PUE & TDE ON PARCEL 183; ADDED ROW & PUE ON PARCEL 184. - STANTEC

MATCHLINE -L- STA 264+00.28 SEE SHEET 23

MATCHLINE -L- STA 276+00.00 SEE SHEET 25

-L- POT Sta. 272+08.20
-Y19- POT Sta. 60+00.62
BRNG BK=N 41° 58' 21.2" W

-Y32- POT Sta. 48+80.11

N 48° 01' 38.8" E

US 17/ NC 210 60' BST -L-

-Y19- PC Sta. 53+27.35

-Y19- PT Sta. 54+67.07

-Y19- PC Sta. 56+12.45

-Y19- PT Sta. 59+31.90

S 80° 02' 58.4" E

★ PROPOSED SIGNAL

DRIVEWAY RADII ARE 10' UNLESS NOTED* OTHERWISE

13-MAR-2020 08:55
J:\R3300B_GEO_PDEV\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_24.dgn

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Dewberry
2650 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
PHONE: 919.881.9939
NC COA No. F-0929

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	25
FOR R/W SEE U-5732 SHEET NO.	25

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/
NSRS 2007

5/14/22

MATCHLINE -L- STA 276+00.00 SEE SHEET 24

MATCHLINE -L- STA 289+00.00 SEE SHEET 26

280

285

WOODS

WLB

GTB

DUAL U-TURN

105.2'

30" C&G

CONC

N 48° 01' 38.8" E

US 17 / NC 210 BST

-L-

GR

F

SOIL

ISBLK

TANK

-L- POT Sta.288+18.97
-Y25- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-Y25- STA. 10+98.66

SR 1676 N BELVEDERE DR BST

8" PVC

S 42° 08' 03.2" E

16" CONC

48" CONC

DRIVEWAY RADII ARE 10' UNLESS NOTED OTHERWISE

13-MAR-2020 08:55
...\R3300B_GEO_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_25.dgn

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Dewberry
2650 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
PHONE: 919.881.9939
NC COA No. P-0929

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	26
FOR R/W SEE U-5732 SHEET NO.	26
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

NAD 83/
NSRS 2007

290

295

300

MATCHLINE -L- STA 289+00.00 SEE SHEET 25

MATCHLINE -L- STA 301+00.00 SEE SHEET 27

-L- PC Sta. 293+35.83

EMBEL 164

WOODS

36" BST

30" C&G

N 48°01'38.8" E

US 17 / NC 210 BST

6" CURB

BST

LT

RLB

BUS

50 AZALEA DR BST

SFD

13-MAR-2020 08:55
...\R3300B_GEO_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_26.dgn
...\R3300B_GEO_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_26.dgn

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Dewberry
2650 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
PHONE: 919.881.9939
NC COA No. P-0929

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	27
FOR R/W SEE U-5732 SHEET NO.	27

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

REVISIONS

11282018 - R/W REVISION: ADDED PARCEL NUMBER 227. - STANTEC

13-MAR-2020 08:55
R3300B_GEO_ROW_CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_27.dgn
Default

NAD 83/
NSRS 2007

305

310

-L- PT Sta. 301+85.61

-Y35- PC Sta. 10+56.99

-Y35- POT Sta. 10+00.00
BRNG AH=S 62° 00' 36.3" E

-LLT- PRC Sta. 312+81.87

-Y35- PT Sta. 11+38.96
BRNG AH=S 83° 28' 14.8" E

-LLT- PC Sta. 307+44.34
-L- POT STA. 307+44.34

-LLT- POC Sta. 307+73.00
-Y35- POT Sta. 11+76.90

6" CURB
BST
SOIL
WOODS
30" C&G
18" CONC HW
12" RCP
US 17/ NC 210 60' BST
R3300-21
N 39° 31' 49.0" E

MATCHLINE -L- STA 301+00.00 SEE SHEET 26

MATCHLINE -L- STA 313+00.00 SEE SHEET 28

-LRT- PC Sta. 307+44.34
-L- POT STA. 307+44.34

-LRT- PRC Sta. 311+56.68

RLB

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Dewberry
2650 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
PHONE: 919.881.9939
NC COA No. P-0929

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

NAD 83/
NSRS 2007

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	28
FOR R/W SEE U-5732 SHEET NO.	28
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/19

REVISIONS

11282018 – R/W REVISION: ADDED PARCEL NUMBER 227. – STANTEC

13-MAR-2020 08:55
...\R3300B_GEO_ROW\CADD_GEOTECH\Site&Sub\R3300B_Rdy_psh_28.dgn
...\ALTSTINE-PATE

315

320

325

-LRT- PT Sta. 318+19.39

-LRT- PT Sta. 315+69.02

MATCHLINE -L- STA 313+00.00 SEE SHEET 27

MATCHLINE -L- STA 325+00.00 SEE SHEET 29

US 17 / NC 210 30' BST

US 17 / NC 210 39' BST

N 39° 31' 49.0" E

36" C&G

WOODS

SOIL

JS MT

WLB

GR

BST

ISF BUS

TEMPL 165

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Dewberry
2650 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
PHONE: 919.881.9939
NC COA No. P-0929

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	29
FOR R/W SEE U-5732 SHEET NO.	29
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/
NSRS 2007

REVISIONS
11/28/2018 - R/W REVISION: ADDED "DO NOT DISTURB" NOTES FOR THE PUMP HOUSE, LIGHT, FUEL PUMP & TIRE AIR STATION ON PARCEL 198 . - STANTEC 5/14/20

13-MAR-2020 08:55
R3300B_GEO_ROW.dgn
\\Stantec.com\ULI-Data\Projects\GADD_GEOTECH\Site&Sub\R3300B_Rdy_psh_29.dgn

330
335

END TIP PROJECT R-3300B
-L- STA. 332+54.76

-L- POT Sta. 326+50.00
-Y26- POT Sta. 10+00.00

END CONSTRUCTION
-LLT- STA. 332+55.00
-LRT- STA. 332+55.00

-L- POT Sta. 336+88.93

MATCHLINE -L- STA 325+00.00 SEE SHEET 28

-LLT-
-L-
-LRT-
-Y26-

US 17/ NC 210 BST
US 17/ NC 210 30' BST
US 17/ NC 210 BST VARIES
N 39° 31' 49.0" E
GRASS
CONC
30" C&G
24" C&G
28" BST
BST
GR
MTL CANOPY
3 FUEL PUMPS
12" RCP
ISF BUS
ISBK BUS
2SFD
ISFD
ISBK
SLOOP POINT
VOL FIRE DEPT
10' SOIL & GR
PARK
BLK
BLDG
PINNACLE PLACE 28' BST
CHAMPION COURT 28' BST
36" HDPE
WIRED DITCH
S 41° 01' 15.2" E
-Y26- POT Sta. 14+30.00

UPDATE EXISTING SIGNAL

DRIVEWAY RADII ARE 10' UNLESS NOTED OTHERWISE

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	30
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CATLIN Engineers and Scientists

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83 NSRS 2007

MATCHLINE -SR4- STA 24+00.00 SEE SHEET

END CONSTRUCTION
-SR4- POT Sta. 27+65.10

-SR4-
S 18° 45' 49.4" W

INSET 2

-SR6- PC Sta. 10+33.30

-SR6- PT Sta. 11+32.16

-SR6- PRC Sta. 19+85.38

-SR6- PC Sta. 16+10.30

MATCHLINE -SR6- STA 20+00.00 SEE SHEET 5

-SR4- POT Sta. 10+00.00
-Y30- POT Sta. 19+65.00

-SR6- POT Sta. 10+00.00
-Y30- POT Sta. 23+65.00
BRDG AH=N 19° 15' 36.1" E

BEGIN CONSTRUCTION
-Y30- POT Sta. 22+25.00

S 73° 35' 50.8" E
-SR6-

NC210
-Y30-
S 70° 44' 23.9" E

-SR4- PC Sta. 10+43.15

S 65° 26' 59.7" E
-SR4-

S 70° 18' 04.0" E

-Y30DET- PRC Sta. 19+96.79

-Y30DET- PT Sta. 22+26.96

-SR4- PRC Sta. 12+03.18

-SR4- PT Sta. 14+07.91

-Y30DET- PC Sta. 26+31.98

-Y30DET- PC Sta. 17+33.02

-Y30DET- PRC Sta. 27+62.06

-SR4- PT Sta. 18+54.34

-SR4- PC Sta. 19+85.63

-Y30DET- PT Sta. 28+73.64

-SR4- PT Sta. 23+74.22

MATCHLINE -Y30- STA 32+00.00 SEE SHEET 5

MATCHLINE -Y30DET- STA 17+92 +/- SEE INSET 1

MATCHLINE -SR4- STA 24+00.00 SEE INSET 2

INSET 1

BEGIN CONSTRUCTION
-Y30DET- PC Sta. 16+17.92
-Y30- PC Sta. 16+72.60

MATCHLINE -Y30DET- STA 17+92 +/-

WOODS
POND
HIDDEN BLUFF TR
SR 1002 ISLAND CREEK RD
CONC
WLB
24' GR
8' GR
2 DR

13-MAR-2020 08:55
J:\R3300B_GEO_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_30.dgn

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CATLIN Engineers and Scientists

NAD 83/NSRS 2007

-Y30- PC Sta. 46+86.72

MATCHLINE -Y30- STA 47+00.00 SEE SHEET 5

-Y30DET- PC Sta. 49+52.44

-Y30DET- PT Sta. 50+55.31

NC 210 -Y30-

NC 210 25' BST

-SR5- PC Sta. 17+61.80

-SR5- PT Sta. 20+97.10

END CONSTRUCTION
-SR5- POC Sta. 21+20.00

-SR5- POT Sta. 22+76.14

-SR5- POT Sta. 10+00.00
-Y30- POT Sta. 56+60.00

-Y30- PT Sta. 59+12.58
END CONSTRUCTION
-Y30- POT Sta. 59+00.00

-SR5- PC Sta. 10+38.30
BRNG BK=S 23°11'13.7"W

-Y30DET- PC Sta. 57+96.57

-Y30DET- PRC Sta. 59+79.23

-SR5- PT Sta. 13+23.81

-SR5- PRC Sta. 12+06.91

-Y30- PT Sta. 59+12.58

END
-Y30DET- PT
-Y30- PT

MATCHLINE -Y30DET- STA 61+42 +/-

INSET

MATCHLINE -Y30DET- STA 61+42 +/-

13-MAR-2020 08:55
e:\R3300B_GEO_ROW\CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_31.dgn
Plotted At 1:1 on 24"x36"

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

THIS SHEET IS FOR RIGHT OF WAY PURPOSES ONLY.

-Y16- PT Sta. 23+34.89

NAD 83/NSRS 2007

-Y16- PC Sta. 21+13.03

N 65°16'42"E

-Y16- PT Sta. 20+50.50

MATCHLINE -SR8- STA 24+00.00 SEE SHEET 19

25

S 24°40'58"E

30

20

-Y16-

~~END CONSTRUCTION~~
~~SR8 POT Sta. 32+81.17~~

~~SR8 POT Sta. 32+93.75~~

-Y16- PC Sta. 16+16.44

NO CLAIM

NO CLAIM

SEE SHEET 2B-1 FOR HORIZONTAL CURVE DATA
SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

CATLIN
Engineers and Scientists

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	32
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/2021

10-SEP-2021 11:54
C:\Temp\steed_B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\R3300B_geo_psh_32.dgn
psh
Default

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CATLIN Engineers and Scientists

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	33
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NSRS 2007

SURVEY NEEDED FOR

-Y32- TS Sta. 12+42.96

-L- POT Sta. 231+00.00
-Y32- POT Sta. 10+00.00, 16.00' LT
-Y40- POT Sta. 231+00.00, 43.00' RT

-L- 235

MATCHLINE -L- STA 235+00.00
SEE SHEET 23

MATCHLINE -Y19- STA 23+50.00
SEE SHEET 23

-Y20- POT Sta. 10+00.00

-Y20- POT Sta. 226+62.39
-Y20- POT Sta. 11+65.00
BRNG BK=S 4° 58' 21.2" E

-Y32- PC Sta. 10+00.00

-Y19- PC Sta. 20+29.30
-Y42- POT Sta. 10+00.00

-Y42- PC Sta. 10+16.70
BRDG BK=S 62° 05' 35.0" E

-Y42- PT Sta. 10+90.83

-Y40- PC Sta. 233+44.00

-Y42- PT Sta. 13+61.02
BRDG AH=N 48° 06' 56.8" E

-Y42- POT Sta. 14+01.63

-Y19- PC Sta. 20+29.30

-Y42- POT Sta. 11+40.00
END CONSTRUCTION

-Y42- PC Sta. 12+73.64

MATCHLINE -L- STA 225+57.67 THIS SHEET

-Y19- PT Sta. 12+54.80
BRDG AH=N 65° 03' 42.2" E

-Y19- PC Sta. 13+73.16

-Y19- PC Sta. 11+27.45

-Y19- POC Sta. 12+30.00
-Y41- POT Sta. 10+00.00

-Y41- PC Sta. 10+26.83
BRDG BK=S 9° 11' 16.2" E

-Y41- POT Sta. 11+30.00
END CONSTRUCTION

-Y41- PT Sta. 10+88.04

-Y41- POT Sta. 11+77.45

-Y19- PT Sta. 14+92.09

SURVEY NEEDED ALONG EXISTING VISTA LANE SURVEY LINE TO LOCATE EXISTING EASEMENTS FOR 6" WATER LINE

INSET

BEGIN CONSTRUCTION
-L- POT Sta. 220+33.00

PENDER CO BOARD OF EDUCATION
DB 1522 PG 254
DB 757 PG 209
DB 454 PG 138
MB 12 PG 16
MB 43 PG 45

JAY PATTERSON, ET AL
DB 2807 PG 315
MB 39 PG 94

NATALIE B. ROULEAU, ET AL
DB 3761 PG 151
MB 39 PG 94

-Y41-
PI Sta. 10+60.40
Δ = 58° 27' 00.6" (LT)
D = 95° 29' 34.7"
T = 61.21'
L = 33.57'
R = 60.00'
SE = 02
V = 15 MPH

MATCHLINE -L- STA 225+57.67 SHEET

54751
54WA02
12WA03

95
001

13-MAR-2020 08:55
R3300B_GEO_ROW_CADD_GEOTECH\Site&Sub\R3300B_rdy_psh_33.dgn

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

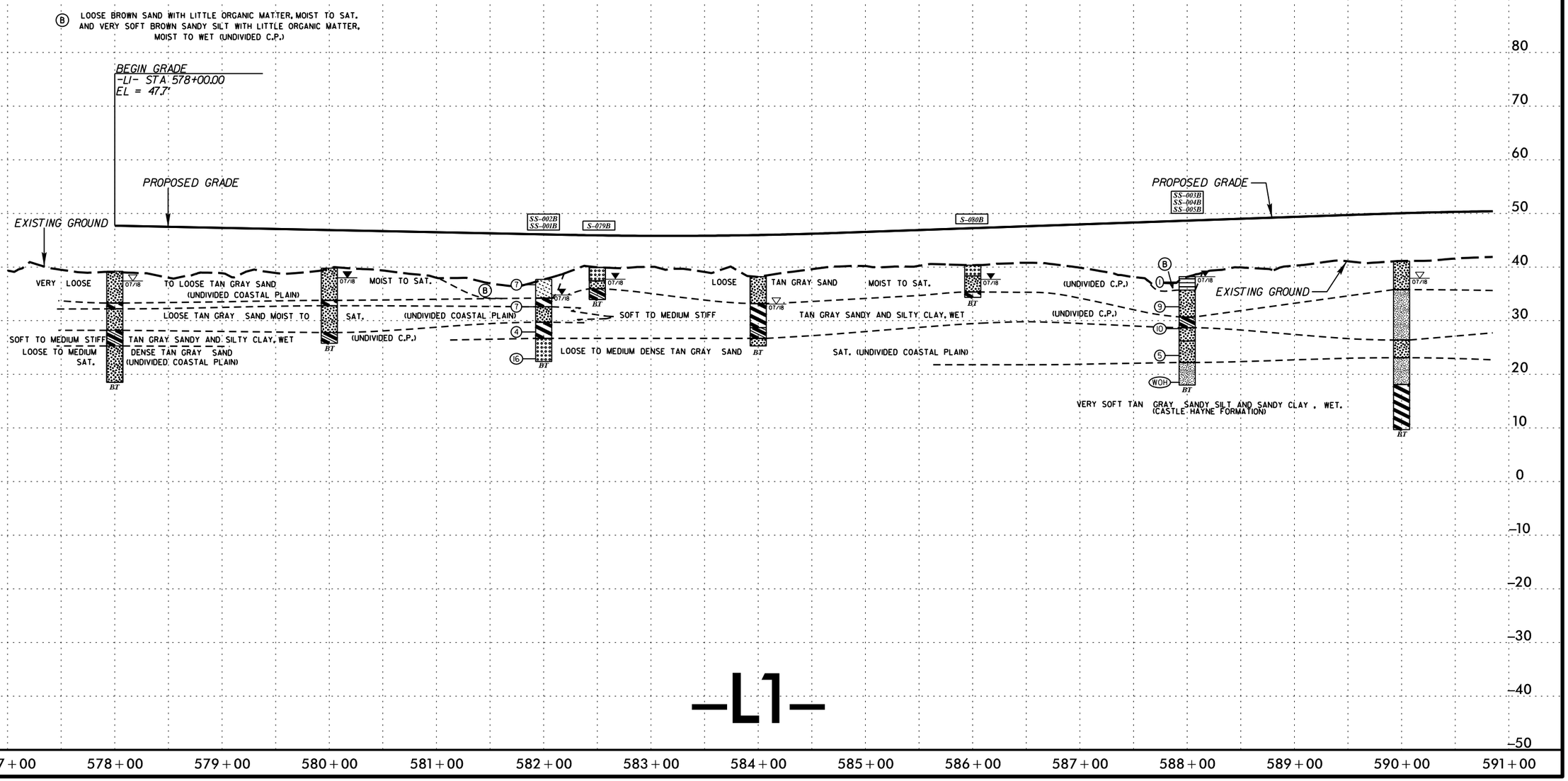
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	34
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-002B	CL	582+00	0.0 - 1.5	A-2-4(0)	24	NP	4.8	76.7	14.4	4.0	99.6	98	31	-	4.8
SS-001B	CL	582+00	4.1 - 5.1	A-7-6(26)	56	33	3.1	23.1	21.1	52.7	100	99	77	40	-
S-079B	CL	582+50	4.0 - 4.5	A-6(7)	30	15	2.6	50.9	20.3	26.3	100	99	64	21	-
S-080B	CL	586+00	2.5 - 3.0	A-2-4(0)	14	NP	0.7	83.8	4.4	11.1	100	100	22	-	-
SS-003B	CL	588+00	0.0 - 1.5	A-4(0)	22	0	2.5	63.2	22.1	12.2	99.9	99	44	43	9.6
SS-004B	CL	588+00	9.5 - 10.2	A-2-4(0)	22	NP	6.1	86.5	4.8	12.1	100	99	24	25	-
SS-005B	CL	588+00	18.7 - 20.2	A-4(0)	23	4	1.4	70.2	22.3	6.1	100	99	43	39	-



13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_34.dgn
Lee Stone ATI STINE Cell 2

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

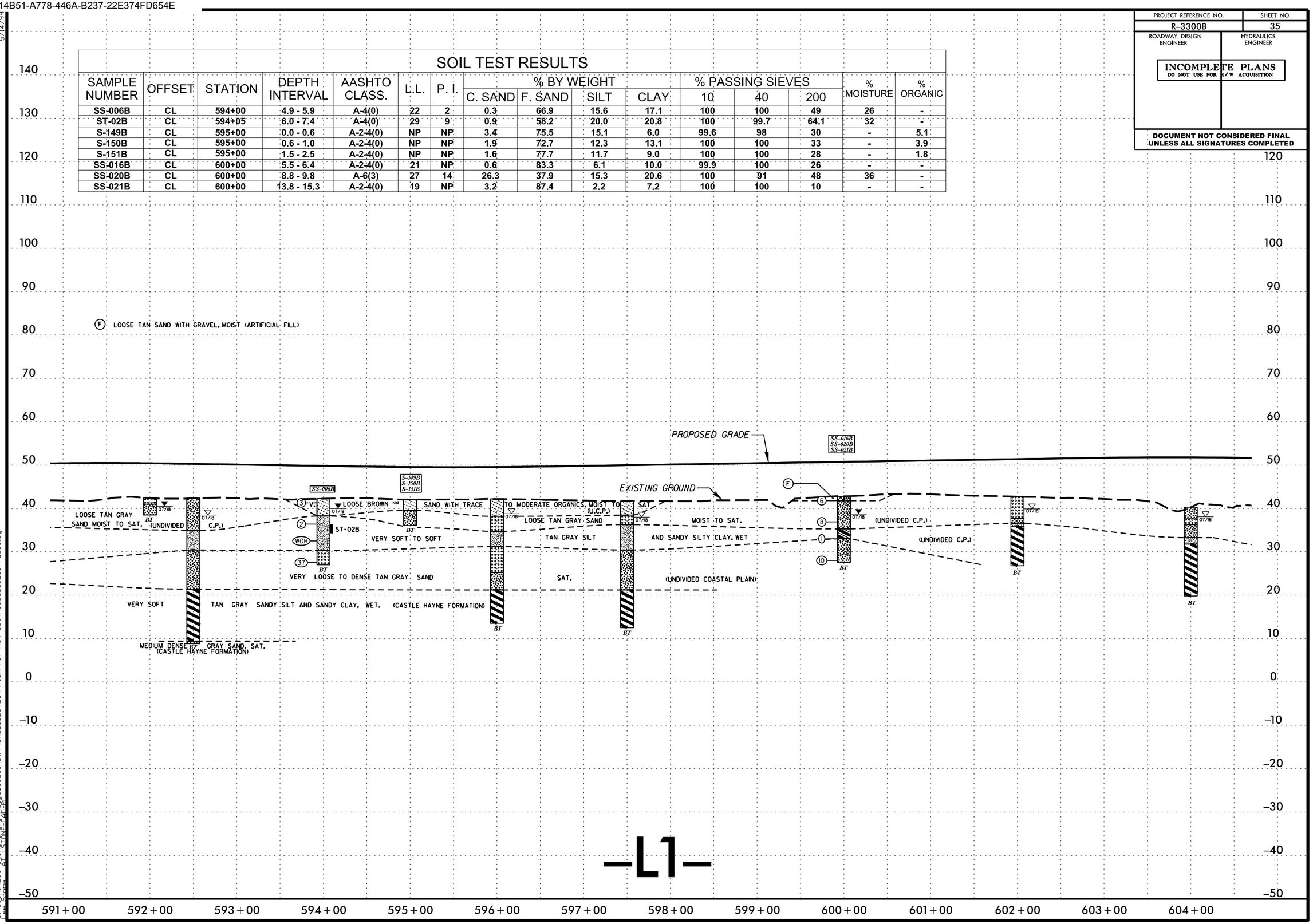
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	35
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-006B	CL	594+00	4.9 - 5.9	A-4(0)	22	2	0.3	66.9	15.6	17.1	100	100	49	26	-
ST-02B	CL	594+05	6.0 - 7.4	A-4(0)	29	9	0.9	58.2	20.0	20.8	100	99.7	64.1	32	-
S-149B	CL	595+00	0.0 - 0.6	A-2-4(0)	NP	NP	3.4	75.5	15.1	6.0	99.6	98	30	-	5.1
S-150B	CL	595+00	0.6 - 1.0	A-2-4(0)	NP	NP	1.9	72.7	12.3	13.1	100	100	33	-	3.9
S-151B	CL	595+00	1.5 - 2.5	A-2-4(0)	NP	NP	1.6	77.7	11.7	9.0	100	100	28	-	1.8
SS-016B	CL	600+00	5.5 - 6.4	A-2-4(0)	21	NP	0.6	83.3	6.1	10.0	99.9	100	26	-	-
SS-020B	CL	600+00	8.8 - 9.8	A-6(3)	27	14	26.3	37.9	15.3	20.6	100	91	48	36	-
SS-021B	CL	600+00	13.8 - 15.3	A-2-4(0)	19	NP	3.2	87.4	2.2	7.2	100	100	10	-	-



5/14/99

13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_35.dgn
ez_Stone
at \STONE_ez32

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

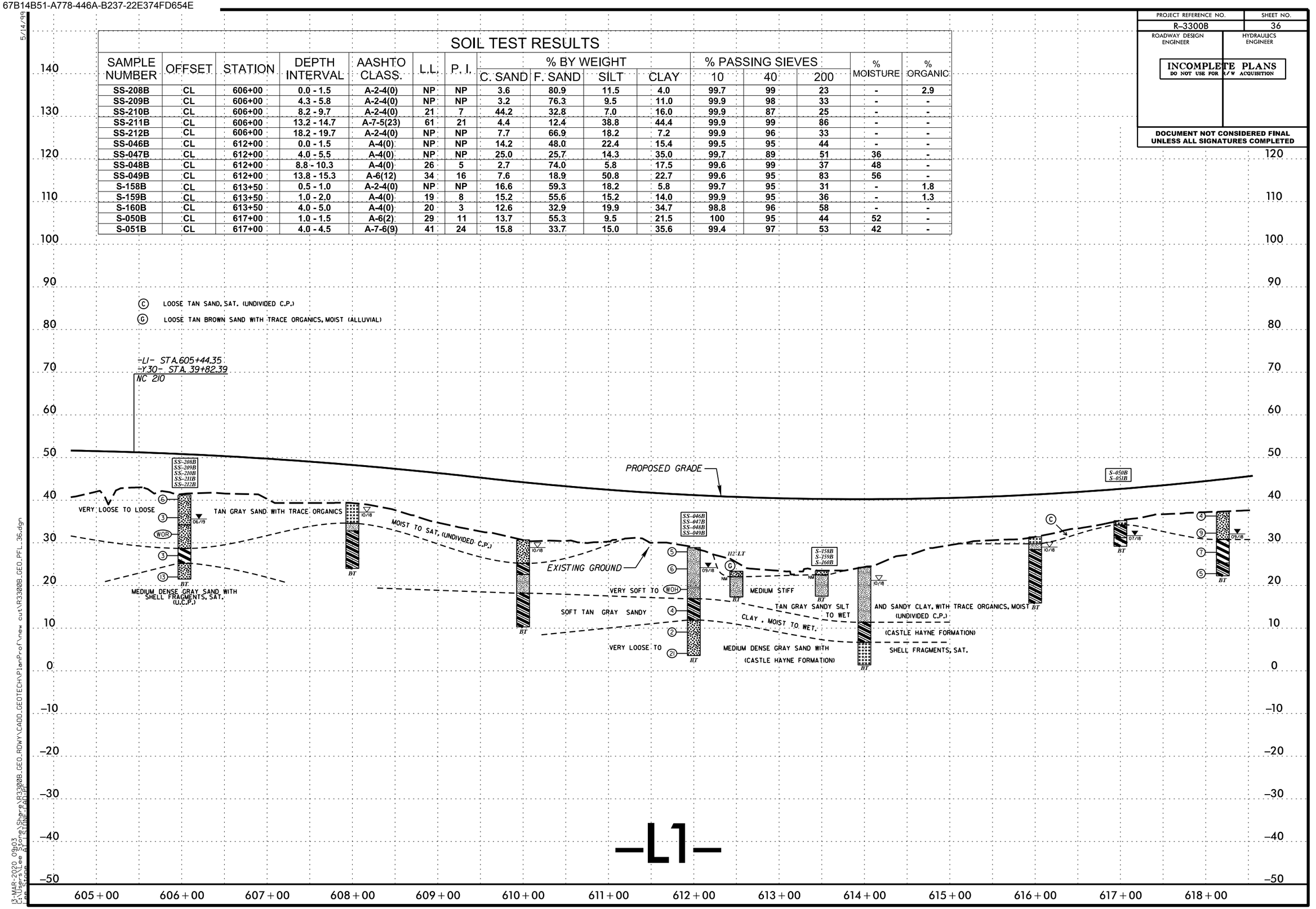
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	36
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-208B	CL	606+00	0.0 - 1.5	A-2-4(0)	NP	NP	3.6	80.9	11.5	4.0	99.7	99	23	-	2.9
SS-209B	CL	606+00	4.3 - 5.8	A-2-4(0)	NP	NP	3.2	76.3	9.5	11.0	99.9	98	33	-	-
SS-210B	CL	606+00	8.2 - 9.7	A-2-4(0)	21	7	44.2	32.8	7.0	16.0	99.9	87	25	-	-
SS-211B	CL	606+00	13.2 - 14.7	A-7-5(23)	61	21	4.4	12.4	38.8	44.4	99.9	99	86	-	-
SS-212B	CL	606+00	18.2 - 19.7	A-2-4(0)	NP	NP	7.7	66.9	18.2	7.2	99.9	96	33	-	-
SS-046B	CL	612+00	0.0 - 1.5	A-4(0)	NP	NP	14.2	48.0	22.4	15.4	99.5	95	44	-	-
SS-047B	CL	612+00	4.0 - 5.5	A-4(0)	NP	NP	25.0	25.7	14.3	35.0	99.7	89	51	36	-
SS-048B	CL	612+00	8.8 - 10.3	A-4(0)	26	5	2.7	74.0	5.8	17.5	99.6	99	37	48	-
SS-049B	CL	612+00	13.8 - 15.3	A-6(12)	34	16	7.6	18.9	50.8	22.7	99.6	95	83	56	-
S-158B	CL	613+50	0.5 - 1.0	A-2-4(0)	NP	NP	16.6	59.3	18.2	5.8	99.7	95	31	-	1.8
S-159B	CL	613+50	1.0 - 2.0	A-4(0)	19	8	15.2	55.6	15.2	14.0	99.9	95	36	-	1.3
S-160B	CL	613+50	4.0 - 5.0	A-4(0)	20	3	12.6	32.9	19.9	34.7	98.8	96	58	-	-
S-050B	CL	617+00	1.0 - 1.5	A-6(2)	29	11	13.7	55.3	9.5	21.5	100	95	44	52	-
S-051B	CL	617+00	4.0 - 4.5	A-7-6(9)	41	24	15.8	33.7	15.0	35.6	99.4	97	53	42	-



5/14/99
13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_36.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

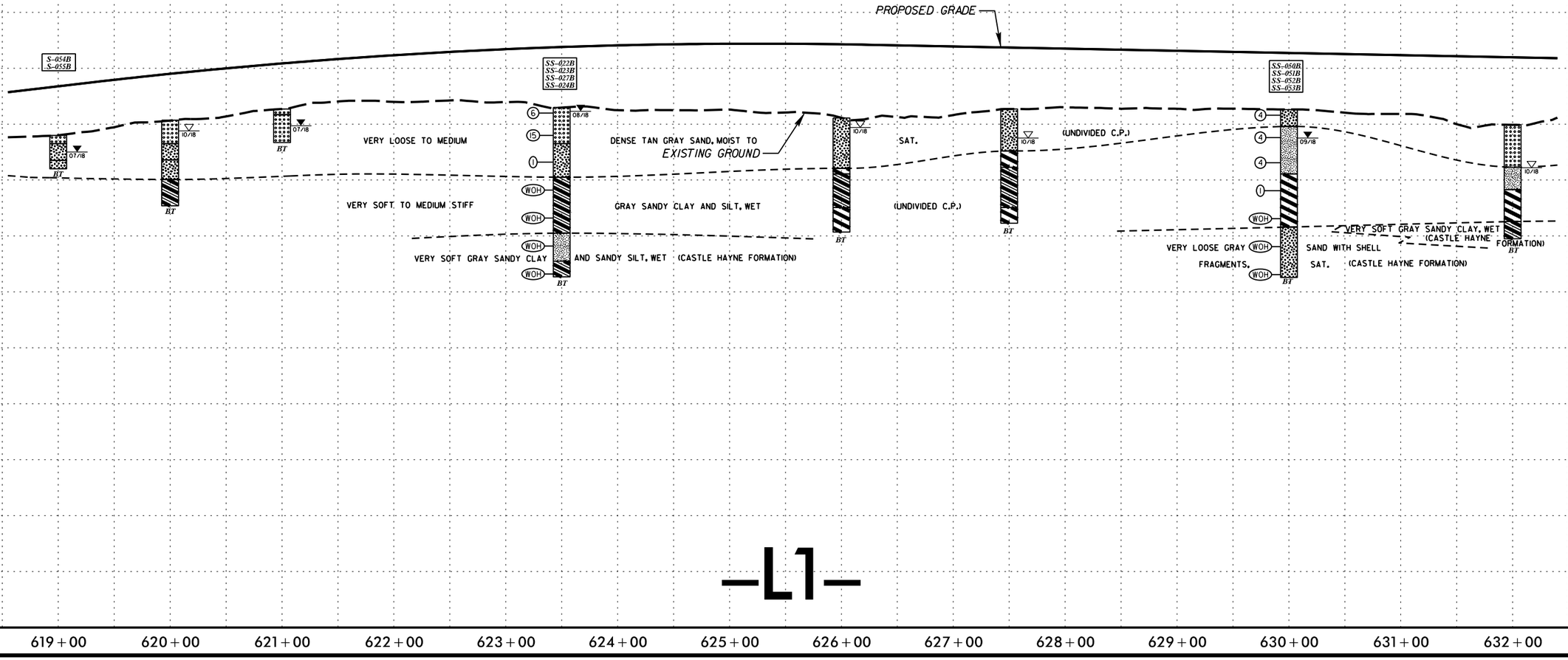
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	37
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-054B	CL	619+00	2.0 - 2.5	A-2-4(0)	22	NP	12.0	65.5	11.2	11.3	100	95	33	48	-
S-055B	CL	619+00	5.0 - 5.5	A-2-4(0)	21	6	24.8	52.4	6.5	16.4	100	93	26	49	-
SS-022B	CL	623+50	8.8 - 10.3	A-2-4(0)	18	NP	38.2	41.3	6.3	14.2	100	88	27	29	-
SS-023B	CL	623+50	13.8 - 16.3	A-6(9)	32	19	13.4	29.1	27.6	29.8	99.6	98	63	44	-
SS-027B	CL	623+50	23.8 - 25.3	A-4(0)	21	NP	1.8	66.0	21.9	10.3	99.8	99	44	35	-
SS-024B	CL	623+50	28.8 - 30.3	A-6(13)	35	16	4.7	18.6	58.1	18.7	99.8	97	87	44	-
SS-050B	CL	630+00	0.0 - 1.5	A-2-4(0)	NP	NP	4.7	79.9	12.1	3.3	99.9	97	28	-	-
SS-051B	CL	630+00	4.0 - 5.5	A-4(1)	25	7	0.5	71.5	13.6	14.4	100	100	47	45	-
SS-052B	CL	630+00	13.5 - 15.0	A-7-5(13)	44	14	10.1	12.2	58.3	19.3	100	94	82	64	-
SS-053B	CL	630+00	23.5 - 25.0	A-2-4(0)	NP	NP	1.1	75.7	16.5	6.7	100	99	31	-	-



–L1–

13-MAR-2020 09:03
C:\Users\lee.stone.sha\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_37.dgn
lee.stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

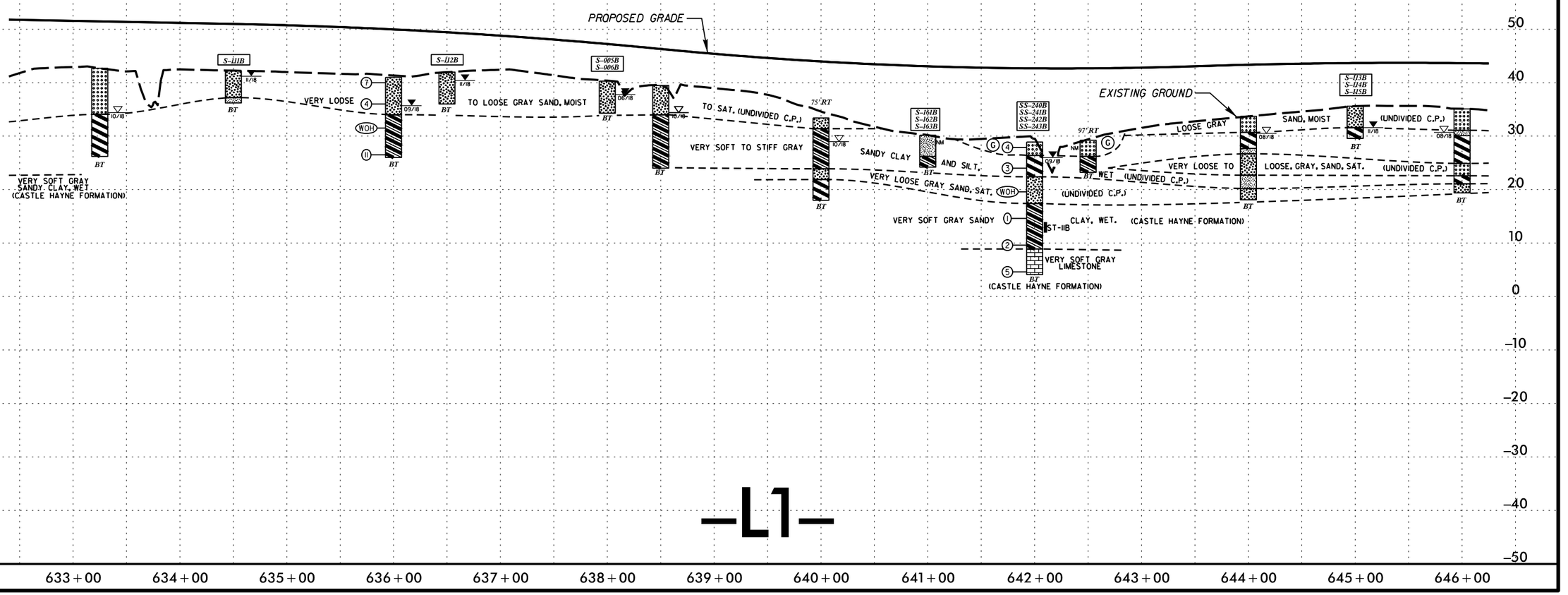
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	38
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-111B	CL	634+50	5.0 - 6.0	A-4(0)	NP	NP	0.7	63.1	26.1	10.0	100	100	56	-	-
S-112B	CL	636+50	0.0 - 1.0	A-2-4(0)	NP	NP	2.2	77.6	12.3	7.8	99.9	99	31	21	-
S-005B	CL	638+00	0.5 - 1.5	A-2-4(0)	16	NP	1.9	75.0	14.9	8.2	99.9	99	35	-	-
S-006B	CL	638+00	5.0 - 6.0	A-2-4(0)	18	NP	1.7	78.9	10.3	9.1	100	100	31	-	-
S-161B	CL	641+00	1.0 - 1.5	A-4(0)	24	6	7.1	64.0	12.7	16.2	99.9	97	37	-	-
S-162B	CL	641+00	1.5 - 2.5	A-4(0)	27	9	7.4	61.3	11.0	20.3	99.9	97	38	-	-
S-163B	CL	641+00	4.5 - 5.5	A-6(9)	36	20	5.9	38.3	24.9	30.9	99.7	99	59	-	-
SS-240B	CL	642+00	3.9 - 5.4	A-7-6(14)	42	25	4.0	33.5	28.4	34.0	99.7	99	66	-	-
SS-241B	CL	642+00	8.3 - 9.8	A-2-4(0)	NP	NP	3.7	71.0	18.2	7.1	99.9	98	35	-	-
SS-242B	CL	642+00	13.3 - 14.8	A-6(16)	37	18	1.3	19.0	54.3	25.4	99.8	99	89	-	-
SS-243B	CL	642+00	18.3 - 19.8	A-6(4)	32	14	7.4	47.1	26.2	19.3	99.8	96	53	-	-
ST-11B	5' RT	642+00	15.0-17.0	A-7-6(31)	48	31	0.4	16.5	47.4	35.8	99	99	96	48	-
S-113B	CL	645+00	0.0 - 1.0	A-2-4(0)	NP	NP	11.5	81.0	5.7	1.8	100	96	13	11	-
S-114B	CL	645+00	3.0 - 4.0	A-2-4(0)	27	10	33.2	45.8	4.1	16.9	99.7	85	24	-	-
S-115B	CL	645+00	4.0 - 5.0	A-7-6(37)	54	35	0.4	6.3	37.7	55.7	100	100	97	-	-



Ⓒ VERY LOOSE TAN BROWN SAND WITH TRACE ORGANICS, MOIST (ALLUVIAL)

-L1-

5/14/99
13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_38.dgn
ge Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	39
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

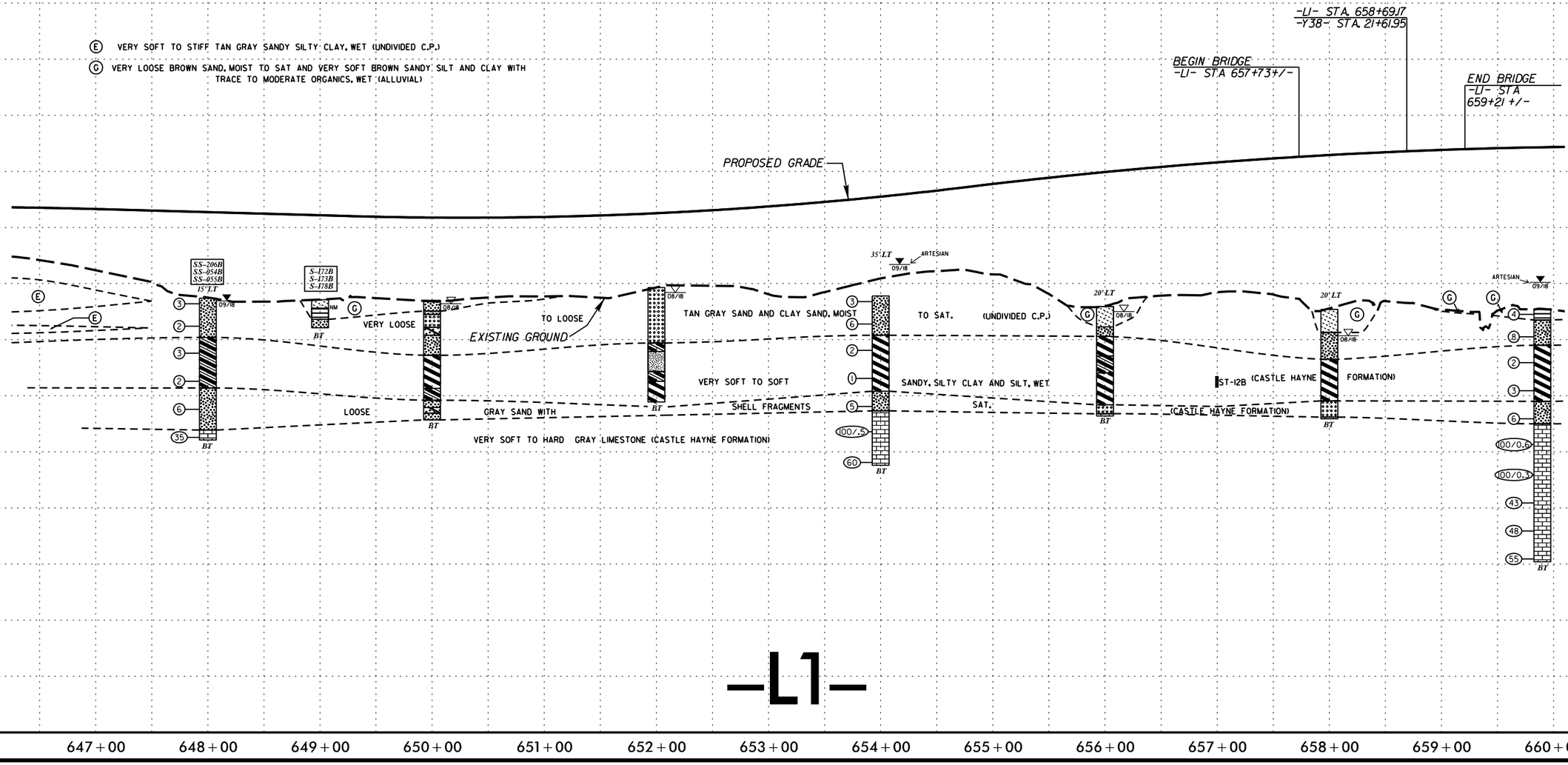
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-206B	15 ft RT	648+00	0.0 - 1.5	A-2-4(0)	NP	NP	16.5	66.7	12.8	4.0	100	96	18	-	-
SS-054B	15 ft RT	648+00	8.8 - 10.3	A-6(10)	31	14	3.2	28.8	49.9	18.1	99.6	98	81	-	-
SS-055B	15 ft RT	648+00	18.8 - 20.3	A-2-4(0)	24	9	60.4	16.7	15.4	7.5	82.6	66	25	-	-
S-172B	CL	649+00	0.5 - 1.5	A-2-4(0)	NP	NP	17.8	64.5	10.7	7.0	99.7	94	22	-	4.0
S-173B	CL	649+00	1.5 - 2.5	A-6(0)	26	11	13.9	54.5	9.4	22.1	99.6	94	35	-	-
S-178B	CL	649+00	3.5 - 4.5	A-2-4(0)	NP	NP	18.7	69.3	5.2	6.8	99.9	95	14	-	-
ST-12B	CL	657+00	11.0 - 13.0	A-6(11)	34	17	10.2	24.7	37.6	27.5	100	93	75	34	-

(E) VERY SOFT TO STIFF TAN GRAY SANDY SILTY CLAY, WET (UNDIVIDED C.P.)

(G) VERY LOOSE BROWN SAND, MOIST TO SAT AND VERY SOFT BROWN SANDY SILT AND CLAY WITH TRACE TO MODERATE ORGANICS, WET (ALLUVIAL)



13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_39.dgn
Lee Stone
5/14/99

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	40
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-179B	CL	661+00	0.0 - 1.0	A-4(0)	NP	NP	2.5	45.0	37.5	15.1	99.6	99	57	-	10.9
S-180B	CL	661+00	2.0 - 3.0	A-2-4(0)	NP	NP	6.1	66.5	15.5	11.9	99.7	99	32	-	-
S-081B	CL	668+50	4.0 - 4.5	A-2-4(0)	23	7	14.0	54.7	7.1	24.2	99.8	92	35	20	-

(E) SOFT TO MEDIUM STIFF TAN GRAY SANDY CLAY AND SILT, (UNDIVIDED C.P.)

(G) VERY SOFT TO SOFT BROWN SANDY SILT WITH LITTLE ORGANICS, MOIST (ALLUVIAL)

PROPOSED GRADE

EXISTING GROUND

WS ELEV. ON 9-14-2017 = 23.7'

S-179B
S-180B

S-081B

VERY LOOSE GRAY SAND, MOIST TO SAT.

SOFT GRAY SANDY, SILTY CLAY AND SILT

LOOSE GRAY SAND WITH SHELL FRAGMENTS, SAT. (CASTLE HAYNE FORMATION)

VERY SOFT TO HARD GRAY LIMESTONE BT

SOFT GRAY SILTY CLAY, WET (C.H.F.) (CASTLE HAYNE FORMATION)

SOFT TO MEDIUM (UNDIVIDED C.P.) WET

VERY LOOSE TO MEDIUM STIFF TAN GRAY SANDY CLAY AND SILT, (CASTLE HAYNE FORMATION)

DENSE GRAY SAND, MOIST TO SAT.

MOIST TO WET (UNDIVIDED C.P.)

(UNDIVIDED C.P.)

VERY LOOSE GRAY SILTY SAND, SAT. (U.C.P.)

SOFT GRAY SANDY CLAY, WET (CASTLE HAYNE FORMATION)

BT

08/18

09/18

10/18

-L1-

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50

660+00 661+00 662+00 663+00 664+00 665+00 666+00 667+00 668+00 669+00 670+00 671+00 672+00 673+00 674+00

5/14/99

13-MAR-2020 09:03
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_40.dgn
lee.stone
ati_time_table

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

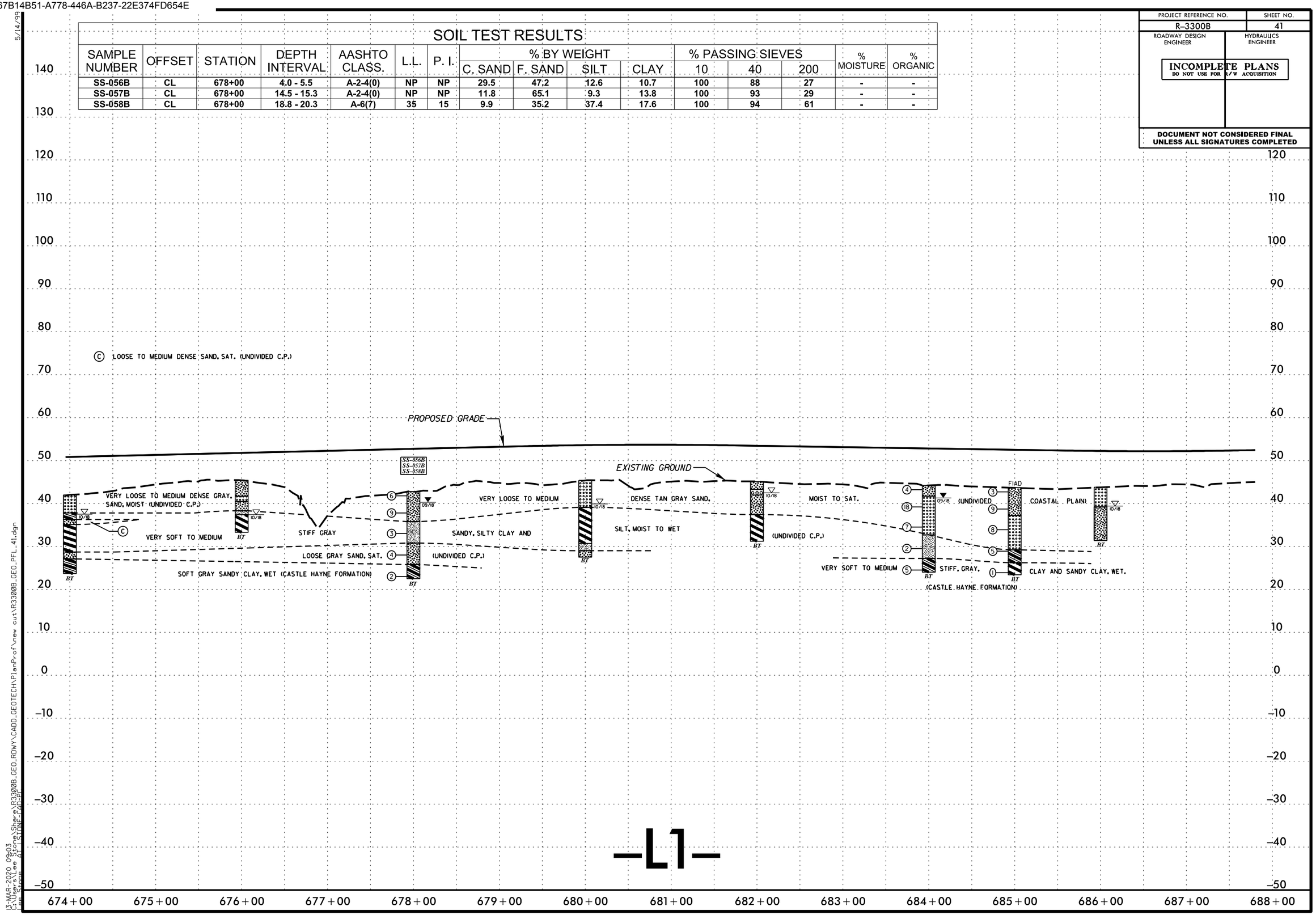
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	41
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-056B	CL	678+00	4.0 - 5.5	A-2-4(0)	NP	NP	29.5	47.2	12.6	10.7	100	88	27	-	-
SS-057B	CL	678+00	14.5 - 15.3	A-2-4(0)	NP	NP	11.8	65.1	9.3	13.8	100	93	29	-	-
SS-058B	CL	678+00	18.8 - 20.3	A-6(7)	35	15	9.9	35.2	37.4	17.6	100	94	61	-	-



–L1–

13-MAR-2020 09:03
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_41.dgn
lee.stone
ai_ISTINE_ena.plt

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	42
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

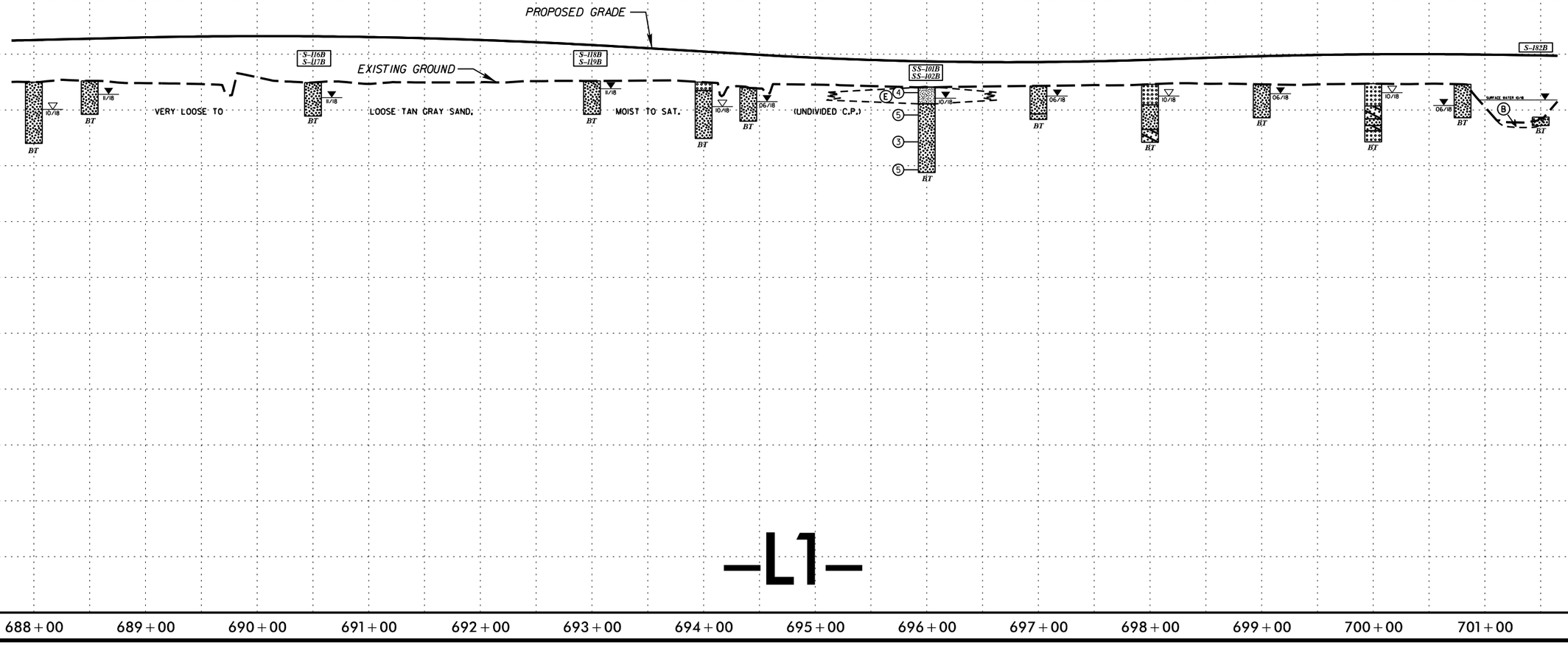
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-116B	CL	690+50	4.0 - 5.0	A-2-4(0)	NP	NP	30.0	49.3	11.7	9.0	100	87	25	-	-
S-117B	CL	690+50	5.0 - 6.0	A-2-4(0)	NP	NP	28.1	47.7	14.2	10.0	100	88	28	-	-
S-118B	CL	693+00	0.0 - 1.0	A-2-4(0)	NP	NP	28.8	55.2	14.0	2.0	99.9	90	20	16	2.1
S-119B	CL	693+00	2.0 - 3.0	A-2-4(0)	NP	NP	32.7	52.9	7.6	6.8	100	87	18	18	-
SS-101B	CL	696+00	0.0 - 1.5	A-4(0)	NP	NP	37.5	45.4	9.1	8.1	100	85	36	-	-
SS-102B	CL	696+00	8.8 - 10.3	A-2-4(0)	NP	NP	18.3	61.9	5.8	14.1	99.7	99	22	-	-
S-182B	CL	701+50	1.0 - 1.5	A-2-4(0)	NP	NP	40.5	41.2	7.2	11.1	100	82	20	-	1.5

Ⓑ VERY LOOSE TAN BROWN SAND WITH TRACE ORGANICS, SAT. (UNDIVIDED C.P.)

Ⓔ SOFT TO MEDIUM STIFF TAN GRAY SANDY SILT. (UNDIVIDED C.P.)



-L1-

13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_42.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	43
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

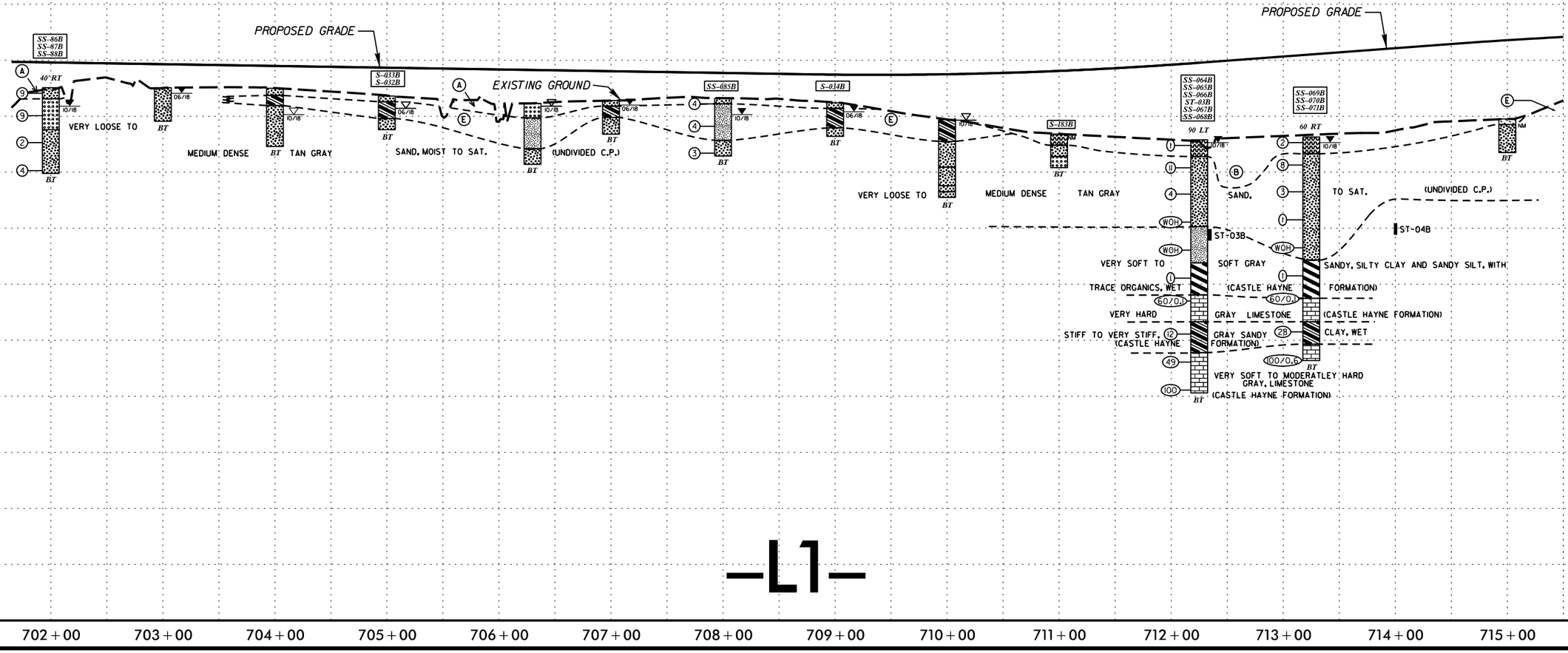
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-086B	40 ft RT	702+00	0.0 - 1.5	A-2-4(0)	NP	NP	44.2	43.2	7.3	5.3	99.7	80	15	-	2.8
SS-087B	40 ft RT	702+00	4.0 - 5.5	A-3(0)	NP	NP	64.6	26.2	0.9	8.3	99.9	70	10	-	-
SS-088B	40 ft RT	702+00	8.8 - 10.3	A-2-4(0)	NP	NP	3.8	72.2	8.4	15.6	99.9	100	32	-	-
S-033B	CL	705+00	1.5 - 2.0	A-6(2)	31	15	26.8	37.1	9.0	27.1	98.5	87	39	18	-
S-032B	CL	705+00	4.0 - 4.5	A-2-4(0)	20	7	24.0	46.4	11.5	18.1	98.8	89	34	22	-
SS-085B	CL	708+00	4.0 - 5.5	A-4(2)	24	10	26.5	42.0	9.3	22.3	99.8	89	48	-	-
S-034B	CL	709+00	1.0 - 1.5	A-6(2)	25	12	9.8	46.6	15.1	28.5	100	97	47	-	-
S-183B	CL	711+00	0.0 - 1.0	A-2-4(0)	NP	NP	12.5	57.8	20.2	9.5	99.8	97	33	-	12.5
SS-064B	90 ft LT	712+25	0.0 - 1.5	A-4(0)	NP	NP	25.1	40.5	30.5	3.9	93.7	85	37	-	21.7
SS-065B	90 ft LT	712+25	4.0 - 5.5	A-2-4(0)	NP	NP	0.2	81.1	6.6	12.1	100	100	25	-	-
SS-066B	90 ft LT	712+25	13.7 - 15.2	A-2-4(0)	NP	NP	10.9	69.7	15.3	4.1	99.8	96	32	-	-
ST-03B	90 ft LT	712+25	16.0 - 18.0	A-4(2)	27	5	0.7	47.9	37.9	13.6	100	99	66	42	-
SS-067B	90 ft LT	712+25	23.7 - 25.2	A-7-6(17)	43	22	4.7	29.4	47.4	18.5	99.8	96	80	-	-
SS-068B	90 ft LT	712+25	33.7 - 35.2	A-6(3)	30	11	23.2	31.1	19.4	26.3	100	84	52	-	-
SS-069B	60 ft RT	713+25	4.0 - 5.5	A-2-4(0)	NP	NP	15.5	71.2	4.3	9.0	100	98	17	21	-
SS-070B	60 ft RT	713+25	13.8 - 15.3	A-2-4(0)	NP	NP	22.1	61.6	11.3	5.0	99.3	90	23	32	-
SS-071B	60 ft RT	713+25	23.8 - 25.3	A-7-6(17)	45	24	9.4	32.6	39.6	18.3	100	93	75	65	-
ST-04B	60 ft LT	714+00	20.3 - 22.3	A-7-6(39)	54	36	0.4	16.5	56.9	26.2	100	99	92	56	-

(A) LOOSE TAN SAND WITH TRACE ORGANICS, MOIST (UNDIVIDED C.P.)

(B) VERY SOFT BROWN BLACK MUCK, MOIST TO WET AND VERY LOOSE MODERATELY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)

(E) SOFT TO MEDIUM STIFF TAN GRAY SANDY CLAY AND SILT, MOIST TO WET (UNDIVIDED C.P.)



–L1–

13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_43.dgn
Ez Stone
ez_stone_ea1.tcl

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

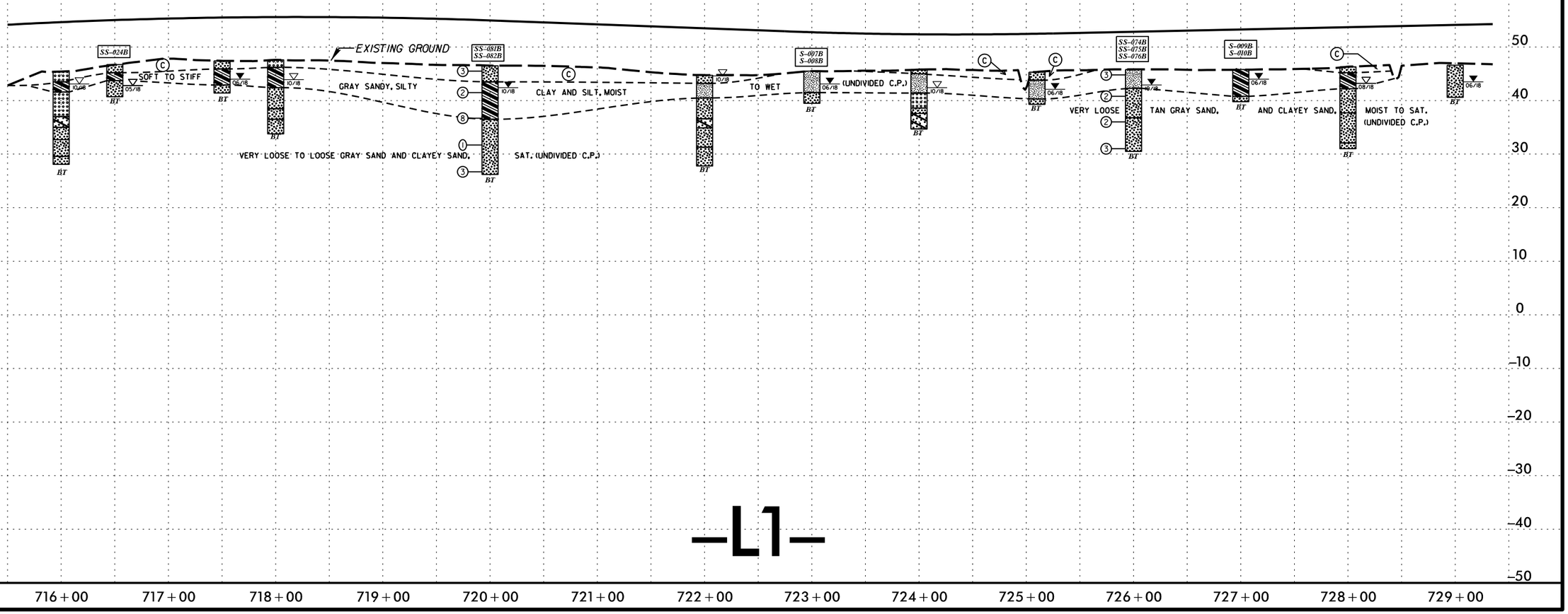
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	44
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-024B	CL	716+50	1.5 - 2.0	A-6(4)	34	18	11.4	47.7	11.7	29.2	100	97	44	22	-
SS-081B	CL	720+00	4.0 - 5.5	A-6(3)	28	15	11.4	44.6	15.5	28.5	100	97	47	-	-
SS-082B	CL	720+00	13.8 - 15.3	A-2-4(0)	NP	NP	12.7	70.8	4.3	12.3	100	99	31	-	-
S-007B	CL	723+00	1.0 - 1.5	A-4(0)	18	5	12.7	49.7	19.5	18.1	100	97	41	22	-
S-008B	CL	723+00	4.5 - 5.0	A-2-4(0)	14	NP	14.8	54.8	13.3	17.1	100	96	33	24	-
SS-074B	CL	726+00	0.0 - 1.5	A-4(0)	19	3	14.0	50.2	21.2	14.6	99.9	97	49	-	3.3
SS-075B	CL	726+00	4.0 - 5.5	A-2-4(0)	17	5	16.8	52.4	11.1	19.6	99.9	96	35	-	-
SS-076B	CL	726+00	9.0 - 10.3	A-2-4(0)	NP	NP	55.8	29.4	2.2	12.6	100	85	20	-	-
S-009B	CL	727+00	1.0 - 1.5	A-6(5)	34	11	12.8	29.2	23.7	34.3	99.9	94	61	35	-
S-010B	CL	727+00	4.0 - 5.0	A-6(4)	28	15	12.2	38.6	18.0	31.3	100	97	52	19	-



5/14/99
13-MAR-2020 09:03
C:\Users\lee.stone\Share\R3300B_GEO_ROWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_44.dgn
lee.stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

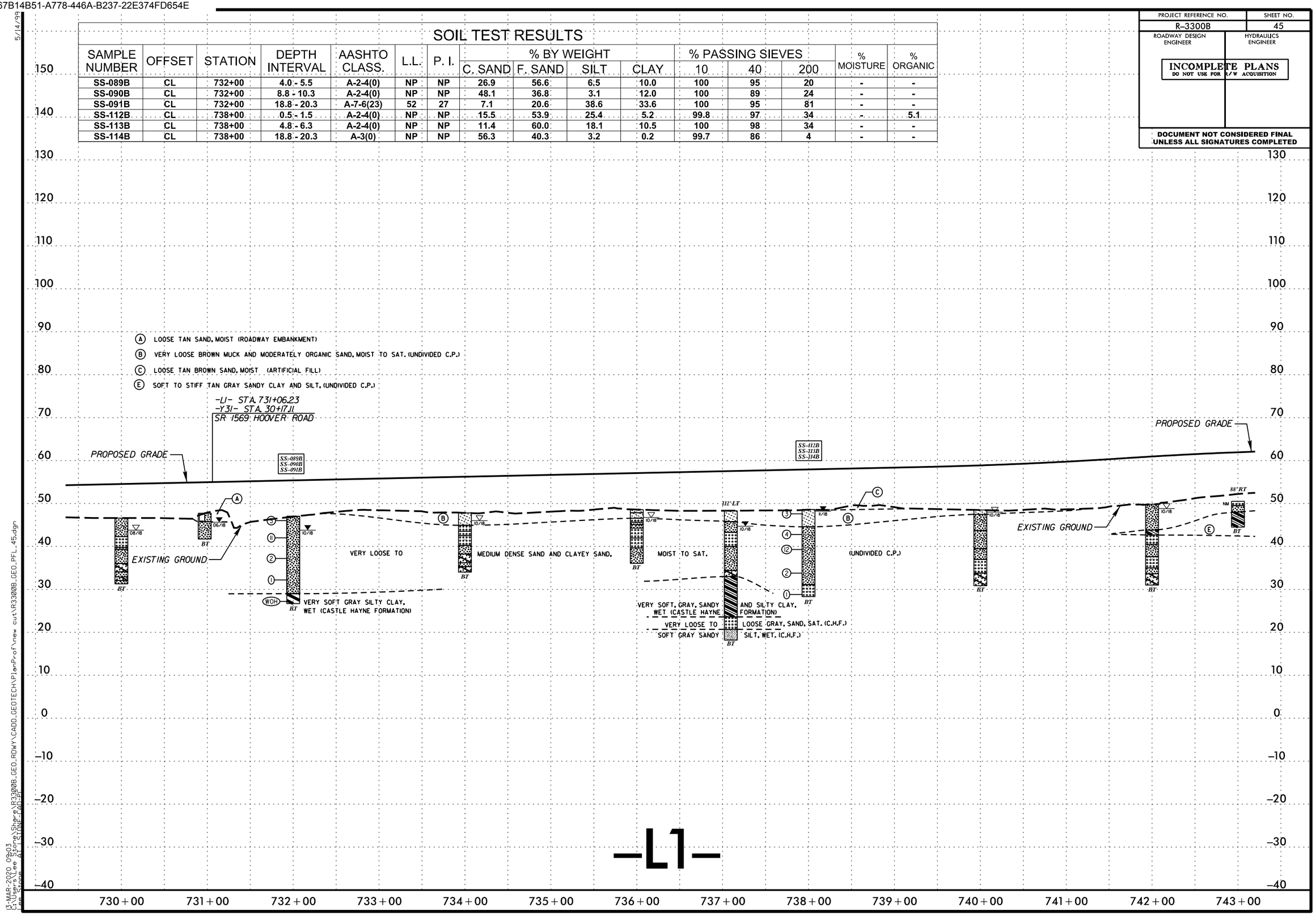
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	45
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-089B	CL	732+00	4.0 - 5.5	A-2-4(0)	NP	NP	26.9	56.6	6.5	10.0	100	95	20	-	-
SS-090B	CL	732+00	8.8 - 10.3	A-2-4(0)	NP	NP	48.1	36.8	3.1	12.0	100	89	24	-	-
SS-091B	CL	732+00	18.8 - 20.3	A-7-6(23)	52	27	7.1	20.6	38.6	33.6	100	95	81	-	-
SS-112B	CL	738+00	0.5 - 1.5	A-2-4(0)	NP	NP	15.5	53.9	25.4	5.2	99.8	97	34	-	5.1
SS-113B	CL	738+00	4.8 - 6.3	A-2-4(0)	NP	NP	11.4	60.0	18.1	10.5	100	98	34	-	-
SS-114B	CL	738+00	18.8 - 20.3	A-3(0)	NP	NP	56.3	40.3	3.2	0.2	99.7	86	4	-	-



13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_ROWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_45.dgn
Lee Stone
ai_sltmplt.pltcfg

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

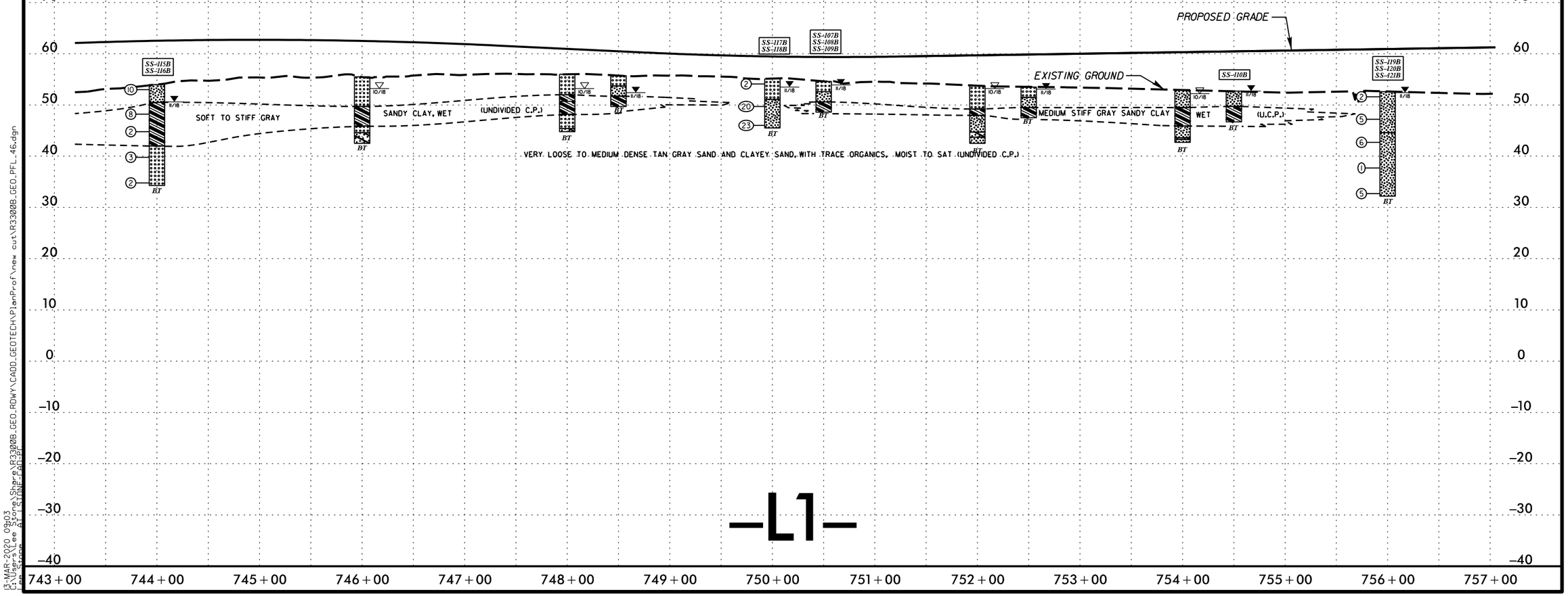
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-115B	CL	744+00	4.8 - 6.3	A-6(7)	35	20	27.6	22.0	15.6	34.8	99.9	89	51	-	-
SS-116B	CL	744+00	13.2 - 14.7	A-3(0)	NP	NP	71.2	23.7	2.9	2.2	100	78	5	-	-
SS-117B	CL	750+00	0.0 - 1.5	A-3(0)	NP	NP	31.3	62.8	5.7	0.2	99.9	93	7	-	-
SS-118B	CL	750+00	4.4 - 5.9	A-2-4(0)	NP	NP	32.5	52.2	8.1	7.3	99.9	87	16	-	-
S-107B	CL	750+50	0.0 - 1.0	A-3(0)	NP	NP	33.1	61.8	5.1	0.0	99.8	90	6	0	-
S-108B	CL	750+50	2.0 - 3.0	A-2-4(0)	NP	NP	26.2	49.5	18.3	6.0	100	93	25	9	1.9
S-109B	CL	750+50	4.0 - 5.0	A-6(2)	29	12	25.0	31.5	13.1	30.4	99.8	90	44	-	-
S-110B	CL	754+50	0.0 - 1.0	A-2-4(0)	NP	NP	31.1	45.5	15.5	8.0	99.7	88	25	11	2.7
SS-119B	CL	756+00	0.0 - 1.5	A-2-4(0)	18	3	28.2	49.6	12.8	9.4	99.9	89	24	-	-
SS-120B	CL	756+00	8.9 - 10.4	A-2-4(0)	NP	NP	10.9	73.3	6.1	9.6	100	97	18	-	-
SS-121B	CL	756+00	18.9 - 20.4	A-2-4(0)	NP	NP	7.8	81.4	4.4	6.4	100	98	13	-	-

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	46
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_46.dgn
ez_stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

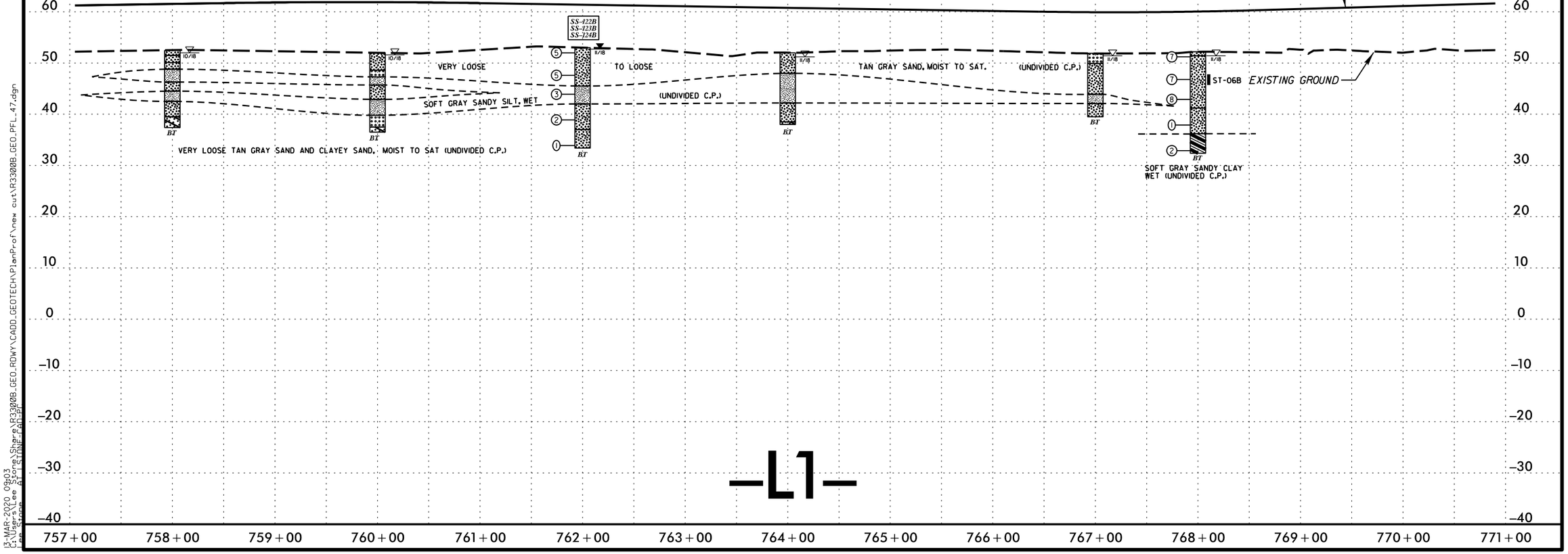
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	47
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-122B	CL	762+00	0.0 - 1.5	A-2-4(0)	NP	NP	23.0	60.6	7.5	8.8	99.9	92	17	-	-
SS-123B	CL	762+00	8.1 - 9.6	A-4(0)	NP	NP	8.7	56.0	18.3	16.9	100	95	38	-	-
SS-124B	CL	762+00	18.1 - 19.6	A-2-4(0)	NP	NP	8.7	69.6	8.9	12.9	100	97	26	-	-
ST-06B	CL	768+05	4.5 - 6.1	A-2-4(0)	16	3	39.6	38.4	5.1	16.9	99.9	77.2	22.9	-	-



–L1–

13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_ROWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_47.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

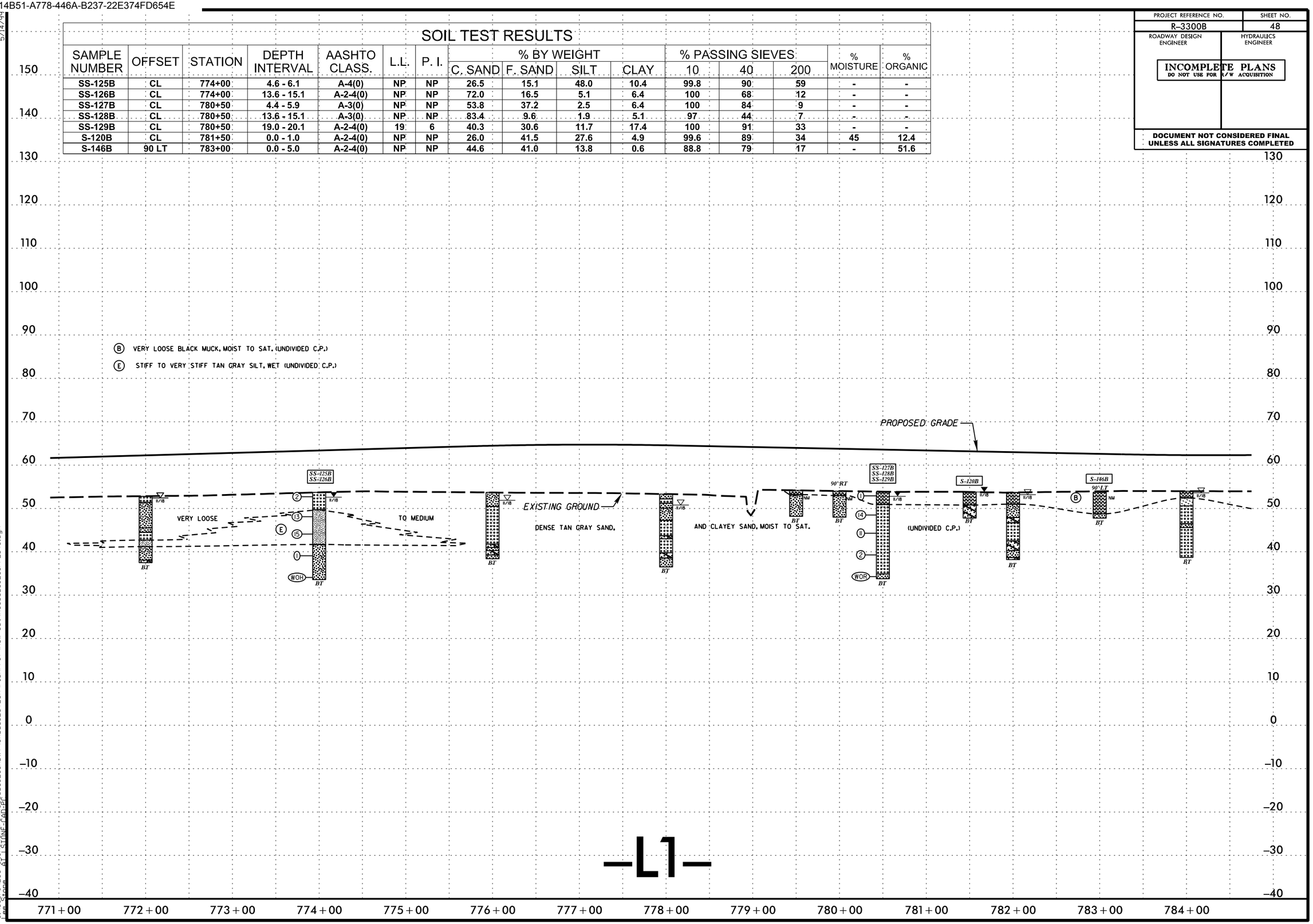
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	48
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-125B	CL	774+00	4.6 - 6.1	A-4(0)	NP	NP	26.5	15.1	48.0	10.4	99.8	90	59	-	-
SS-126B	CL	774+00	13.6 - 15.1	A-2-4(0)	NP	NP	72.0	16.5	5.1	6.4	100	68	12	-	-
SS-127B	CL	780+50	4.4 - 5.9	A-3(0)	NP	NP	53.8	37.2	2.5	6.4	100	84	9	-	-
SS-128B	CL	780+50	13.6 - 15.1	A-3(0)	NP	NP	83.4	9.6	1.9	5.1	97	44	7	-	-
SS-129B	CL	780+50	19.0 - 20.1	A-2-4(0)	19	6	40.3	30.6	11.7	17.4	100	91	33	-	-
S-120B	CL	781+50	0.0 - 1.0	A-2-4(0)	NP	NP	26.0	41.5	27.6	4.9	99.6	89	34	45	12.4
S-146B	90 LT	783+00	0.0 - 5.0	A-2-4(0)	NP	NP	44.6	41.0	13.8	0.6	88.8	79	17	-	51.6



13-MAR-2020 09:03
C:\Users\lee.stone\Shar e\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_48.dgn
lee.stone
ef_LSTINE_ea.tbl

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	49
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-153B	CL	786+50	0.0 - 1.5	A-2-4(0)	NP	NP	43.5	38.6	9.7	8.2	99.7	76	19	2	-
SS-154B	CL	786+50	8.7 - 10.2	A-2-4(0)	NP	NP	5.8	83.5	6.7	4.0	99.9	98	12	-	-
SS-155B	25 ft RT	792+00	0.0 - 1.5	A-3(0)	NP	NP	40.7	52.9	6.4	0.0	99.9	88	7	-	-
SS-156B	25 ft RT	792+00	8.7 - 10.2	A-6(5)	37	15	17.9	31.9	15.6	34.6	99.9	89	51	-	-
SS-157B	25 ft RT	792+00	18.7 - 20.2	A-3(0)	NP	NP	90.5	5.8	-0.3	3.9	98.0	29	4	-	-
SS-158B	CL	798+00	0.0 - 1.5	A-2-4(0)	NP	NP	26.5	52.1	12.7	8.7	98.8	88	23	9	-
SS-159B	CL	798+00	8.8 - 10.3	A-6(4)	38	13	30.4	21.5	16.5	31.6	98.5	77	49	-	-
SS-160B	CL	798+00	13.8 - 15.3	A-2-4(0)	NP	NP	50.8	39.7	3.5	6.0	99.2	81	10	-	-

(B) VERY LOOSE BROWN BLACK MODERATELY ORGANIC SAND AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

PROPOSED GRADE

EXISTING GROUND

SS-153B
SS-154B

SS-155B
SS-156B
SS-157B
25'RT

SS-158B
SS-159B
SS-160B

90'RT NM (B) BT

90'LT NM (4) (9) (19) (20) BT II/18

VERY LOOSE TO DENSE TAN GRAY SAND, MOIST TO SAT.

BT II/18

VERY LOOSE TO SOFT GRAY SAND, MOIST TO SAT.

(4) (7) (3) (46) (3) BT II/18

DENSE TAN GRAY SANDY CLAY, WET (UNDIVIDED C.P.)

BT II/18

(UNDIVIDED C.P.)

BT II/18

99'LT NM (B) BT

(WOH) (10) (3) (25) (45) BT II/18

(UNDIVIDED C.P.)

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10 -20 -30 -40

785+00 786+00 787+00 788+00 789+00 790+00 791+00 792+00 793+00 794+00 795+00 796+00 797+00 798+00

-L1-

13-MAR-2020 09:03
C:\Users\lee.stone\Shared\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_49.dgn
lee.stone
ATLSTINE_Ena2P

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

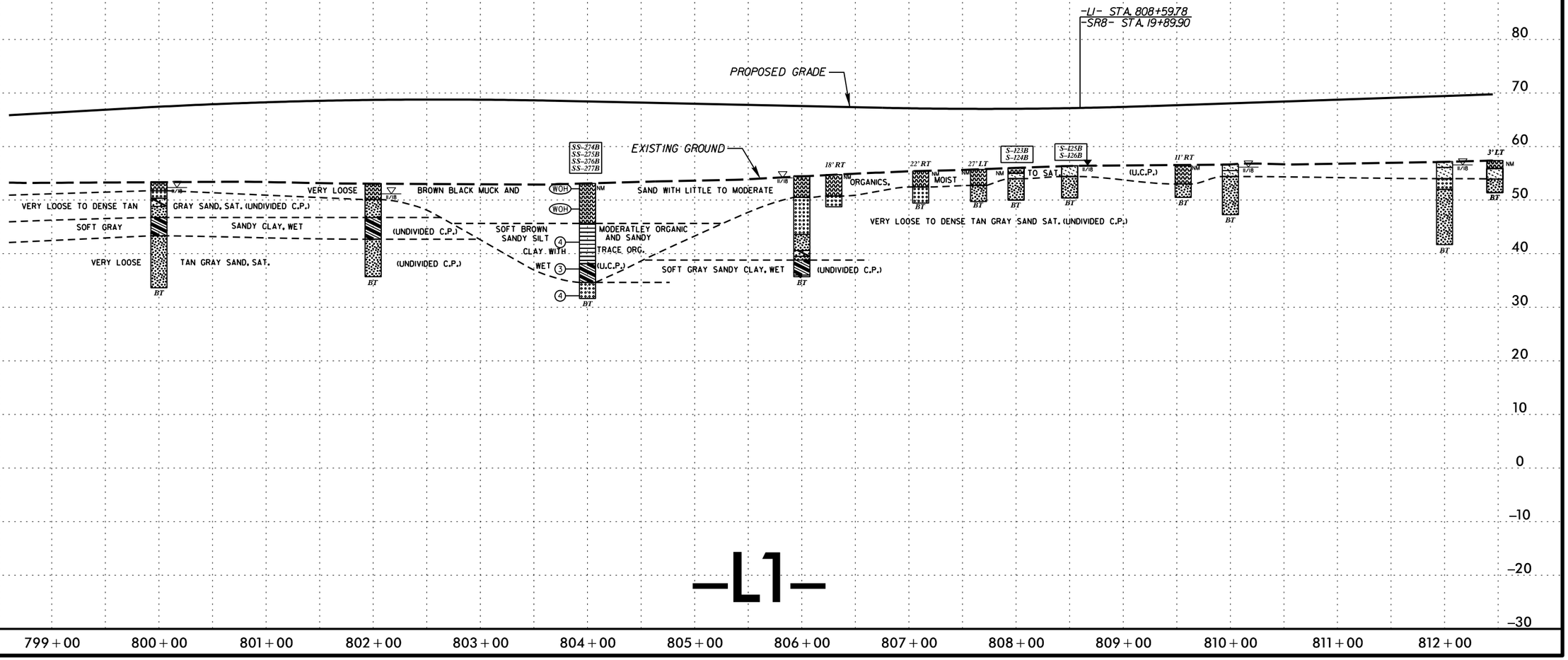
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	50
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-274B	CL	804+00	3.8 - 5.3	-	NEM	-	-	-	-	-	NEM	NEM	NEM	-	22.3
SS-275B	CL	804+00	10.0 - 11.5	A-4(0)	NP	NP	9.9	49.4	29.0	11.8	98.8	96	43	-	13.5
SS-276B	CL	804+00	15.0 - 16.5	A-6(3)	30	11	3.7	48.6	23.9	23.8	99.2	97	51	-	4.9
SS-277B	CL	804+00	20.0 - 21.5	A-3(0)	NP	NP	10.6	84.9	1.3	3.3	99.0	97	5	-	-
S-123B	CL	808+00	0.0 - 1.0	A-3(0)	NP	NP	28.7	65.3	5.6	0.5	94	90	8	52	18.8
S-124B	CL	808+00	1.0 - 2.0	A-2-4(0)	NP	NP	28.0	60.7	6.8	4.5	100	91	12	28	4.2
S-125B	CL	808+50	0.0 - 1.0	A-2-4(0)	NP	NP	28.9	57.5	11.3	2.3	99.6	91	15	68	8.1
S-126B	CL	808+50	1.0 - 2.0	A-2-4(0)	NP	NP	35.2	51.2	9.3	4.3	99.9	88	14	24	3.9



5/14/99
13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_50.dgn
ez Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	51
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-127B	CL	816+00	0.0 - 1.0	A-2-4(0)	NP	NP	31.6	58.5	8.6	1.3	99.4	89	11	57	15.1
S-128B	CL	816+00	1.0 - 2.0	A-2-4(0)	NP	NP	35.2	53.2	8.3	3.3	99.5	85	12	23	3.4
S-129B	CL	818+50	3.0 - 4.0	A-2-4(0)	NP	NP	25.8	60.6	10.8	2.8	99.4	91	14	-	-
S-130B	CL	822+00	0.0 - 1.0	A-2-4(0)	NP	NP	9.1	81.8	8.1	1.0	100	97	11	40	-
S-131B	CL	822+00	4.0 - 5.0	A-2-4(0)	NP	NP	22.2	49.1	18.4	10.3	99.3	89	31	-	-

END -LI- STA.820+00.00
BEGIN -LINORTHERN-
STA.820+00.00
ELEV.= 66.71'

(B) VERY LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANIC CONTENT, AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

PROPOSED GRADE

S-127B
S-128B
S-129B
S-130B
S-131B

3' LT
27' RT
WATER SURFACE 11/18
EXISTING GROUND

VERY LOOSE TO DENSE
TAN GRAY SAND, SAT. (UNDIVIDED C.P.)
VERY LOOSE TO DENSE.
TAN GRAY SAND
SOFT GRAY
SANDY CLAY, WET
SAT. (UNDIVIDED C.P.)
(UNDIVIDED C.P.)
MEDIUM STIFF GRAY SILTY CLAY AND SANDY SILT, WET (UNDIVIDED C.P.)
VERY LOOSE TO DENSE (UNDIVIDED TAN GRAY SAND, SAT. C.P.)

-L1- /-L1NORTHERN-

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 –10 –20 –30

813+00 814+00 815+00 816+00 817+00 818+00 819+00 820+00 821+00 822+00 823+00 824+00 825+00 826+00

5/14/99

13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_51.dgn
ge Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

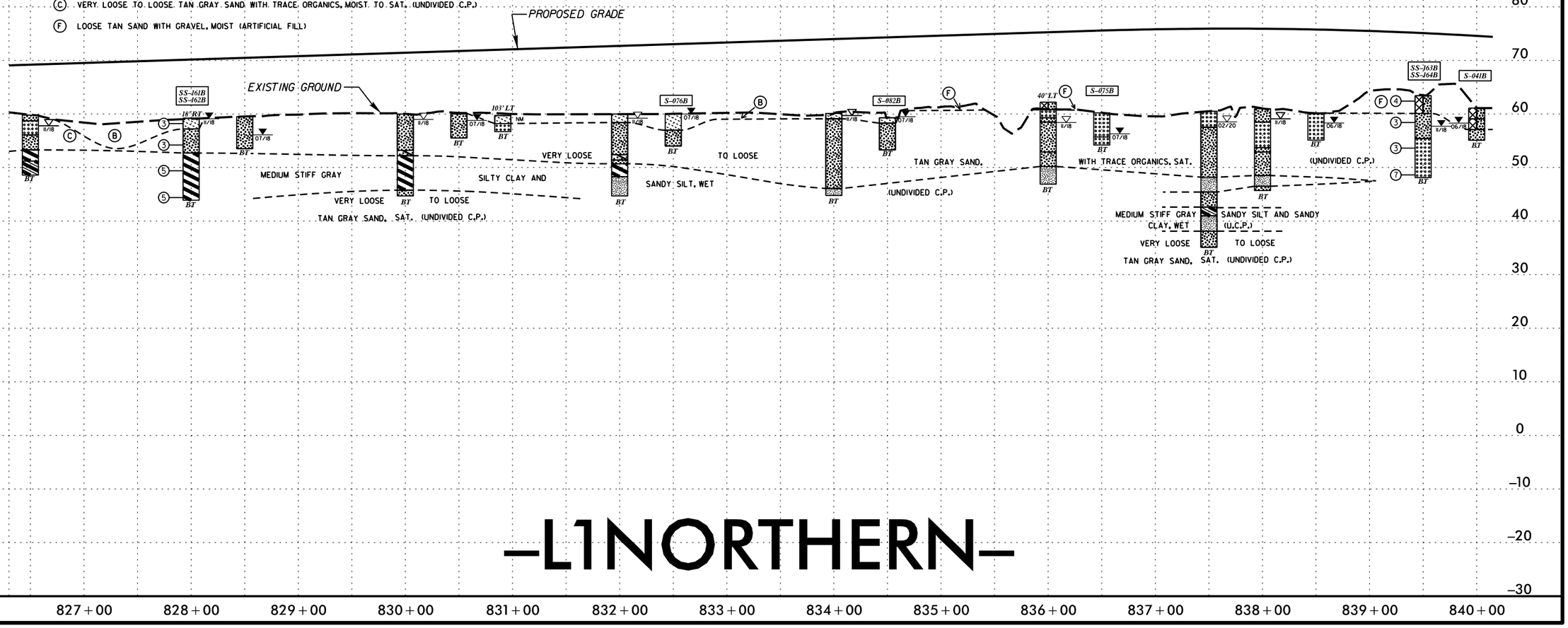
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	52
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-161B	18 ft RT	828+00	0.0 - 1.5	A-2-4(0)	NP	NP	40.3	39.3	12.5	8.0	99.4	83	21	-	5.8
SS-162B	18 ft RT	828+00	8.8 - 10.3	A-7-6(13)	41	14	6.7	10.6	41.1	41.7	94.4	97	84	-	-
S-076B	CL	832+50	2.0 - 3.0	A-2-4(0)	23	NP	34.4	39.9	14.1	11.6	99.9	89	26	36	8.4
S-082B	CL	834+50	4.5 - 6.0	A-2-4(0)	15	NP	50.1	37.3	5.5	7.1	100	86	13	23	-
S-075B	CL	836+50	5.0 - 5.5	A-3(0)	17	NP	47.7	48.0	1.9	2.4	99.9	84	5	-	2.3
SS-163B	CL	839+50	0.0 - 1.5	A-2-4(0)	NP	NP	26.6	63.8	3.6	6.0	99.7	93	10	10	-
SS-164B	CL	839+50	8.8 - 10.3	A-3(0)	NP	NP	17.7	78.1	2.2	2.0	98.6	88	5	-	-
S-041B	CL	840+00	2.0 - 2.5	A-2-4(0)	20	3	12.5	62.7	5.5	19.3	99.9	98	25	-	-



–L1NORTHERN–

5/14/99
13-MAR-2020 09:03
C:\Users\lee.stone.SHARE\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_52.dgn
lee.stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	53
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

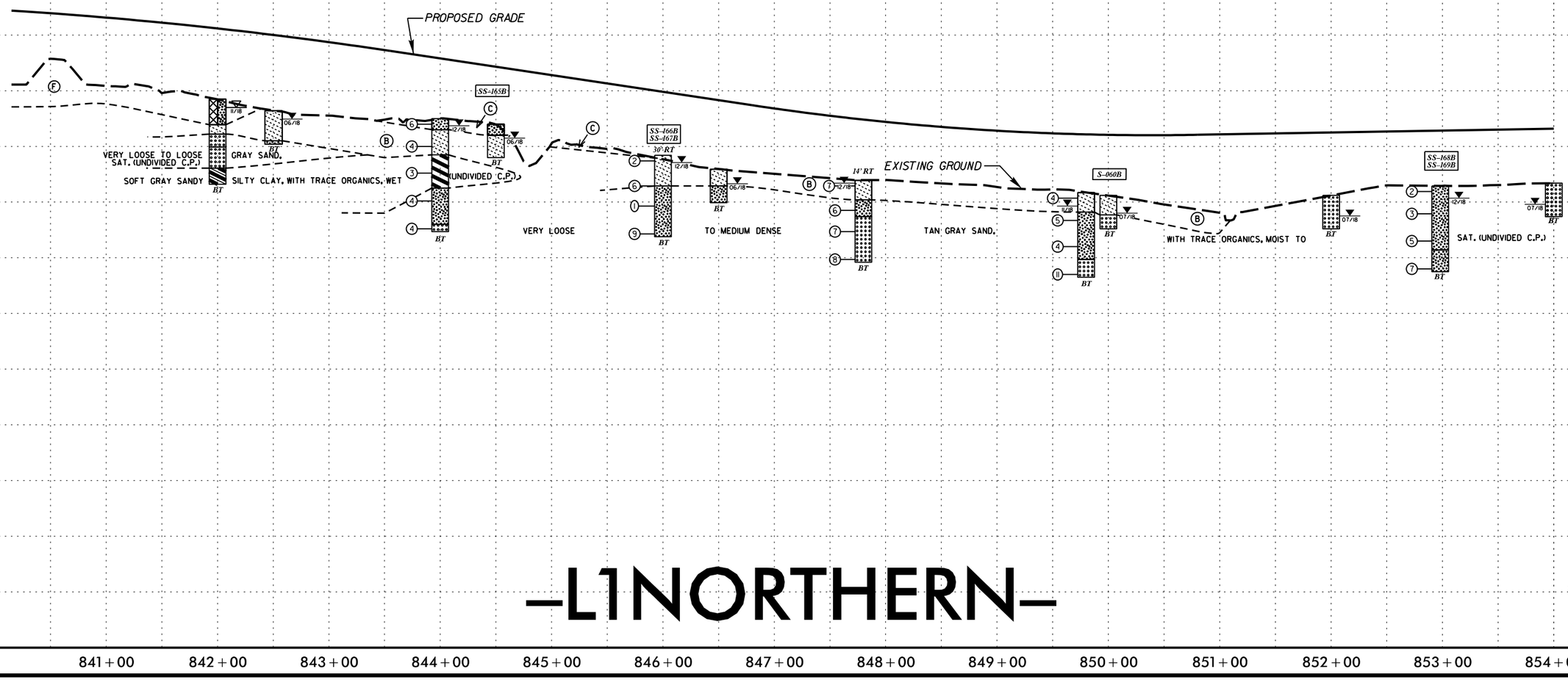
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-165B	CL	844+50	4.0 - 5.5	A-3(0)	NP	NP	22.9	69.8	4.3	3.0	99.7	95	8	-	6.0
SS-166B	30 ft RT	846+00	0.0 - 1.5	A-2-4(0)	NP	NP	23.7	65.9	9.2	1.2	99.9	94	12	-	4
SS-167B	30 ft RT	846+00	8.1 - 9.6	A-2-4(0)	NP	NP	47.5	33.2	7.3	12.0	99.5	84	21	-	-
S-060B	CL	850+00	2.0 - 2.5	A-2-4(0)	24	6	31.3	49.2	1.2	18.4	100	95	21	13	-
SS-168B	CL	852+98	4.0 - 5.5	A-2-4(0)	NP	NP	7.4	84.8	5.0	2.8	100	99	10	-	2.7
SS-169B	CL	852+98	13.9 - 15.4	A-2-4(0)	NP	NP	5.3	65.8	11.1	17.7	98.4	98	34	-	-

(B) VERY LOOSE TO LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANIC CONTENT, MOIST TO SAT. (UNDIVIDED C.P.)
(C) LOOSE GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)
(F) VERY LOOSE TO LOOSE TAN SAND, MOIST TO SAT. (ARTIFICIAL FILL)



-L1NORTHERN-

13-MAR-2020 09:03
C:\Users\Lee Stone\Shere\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_53.dgn
ee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	54
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

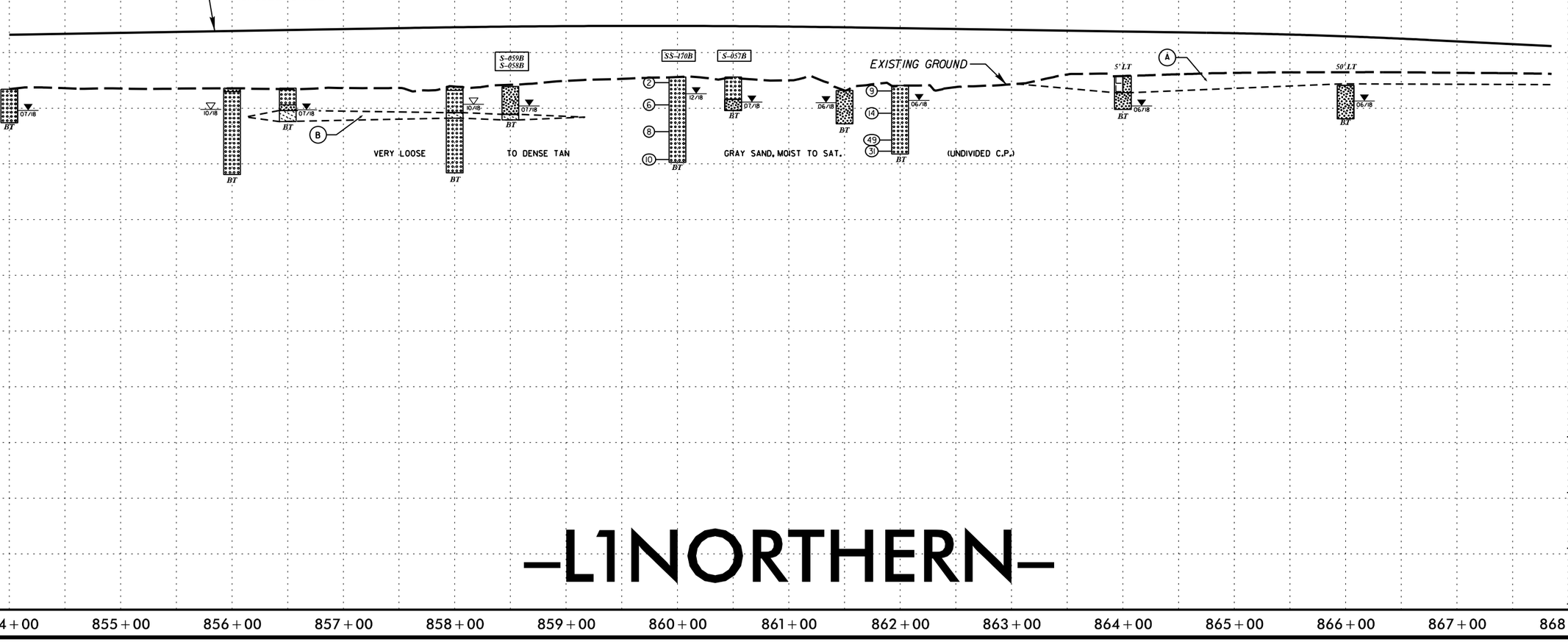
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-059B	CL	858+50	3.0 - 3.5	A-2-4(0)	20	2	16.1	65.4	2.6	15.9	100	97	19	19	-
S-058B	CL	858+50	5.0 - 6.0	A-3(0)	27	NP	9.4	85.0	3.8	1.8	100	100	7	26	3.1
SS-170B	CL	860+00	8.8 - 10.3	A-3(0)	NP	NP	2.9	94.3	2.4	0.4	100	100	4	-	-
S-057B	CL	860+50	4.0 - 4.5	A-2-4(0)	17	NP	17.8	70.1	0.2	11.9	100	96	13	20	-

(A) LOOSE TO MEDIUM DENSE TAN SAND, MOIST (ROADWAY EMBANKMENT)

(B) VERY LOOSE BROWN SAND WITH LITTLE ORGANIC CONTENT, SAT. (UNDIVIDED C.P.)



-L1NORTHERN-

13-MAR-2020 09:03
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_54.dgn
lee.stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	55
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 –10 –20 –30 –40 –50

Ⓐ LOOSE TO MEDIUM DENSE TAN SAND, MOIST (ROADWAY EMBANKMENT)

END GRADE
-L-NORTHERN-
STA 874+60.24
ELEV = 46.09'

PROPOSED GRADE

50'LT

06/18 BT

VERY LOOSE TO DENSE TAN GRAY SAND, MOIST TO SAT.

(UNDIVIDED C.P.)

EXISTING GROUND

-L1NORTHERN-

868+00 869+00 870+00 871+00 872+00 873+00 874+00 875+00 876+00 877+00 878+00 879+00 880+00 881+00

13-MAR-2020 09:03
C:\Users\Lee Stone\Shared\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_55.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

CATLIN Engineers and Scientists

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	56
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-

BEGIN GRADE
-L- STA.220+39.64
ELEV = 41.00'

(A) LOOSE TO MEDIUM DENSE TAN SAND,MOIST (ROADWAY EMBANKMENT)

PROPOSED GRADE

40' RT

DRY 06/19

BT

(A)

LOOSE TO MEDIUM DENSE GRAY SAND,

TOPSAIL SCHOOLS
-L- STA.226+62.39 =
-Y20- STA.11+65.00

52' RT

06/19

BT

EXISTING GROUND

MOIST TO SAT.(UNDIVIDED C.P.)

VISTA LN
-L- STA.226+63.76=
-Y19- STA.10+00.00

45' RT

(A)

06/19

BT

END GRADE
-L- STA.231+00.00
ELEV = 43.81'

70 60 50 40 30 20

220 221 222 223 224 225 226 227 228 229 230 231 232 233

5/28/9

13-MAR-2020 09:03
C:\Users\lee.stone\Shere\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_56.dgn
lee.stone
41_11INE-A01P

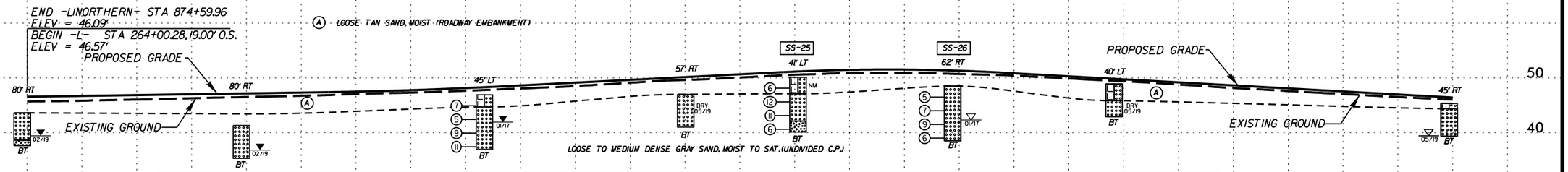
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No.: F-0672

CATLIN Engineers and Scientists

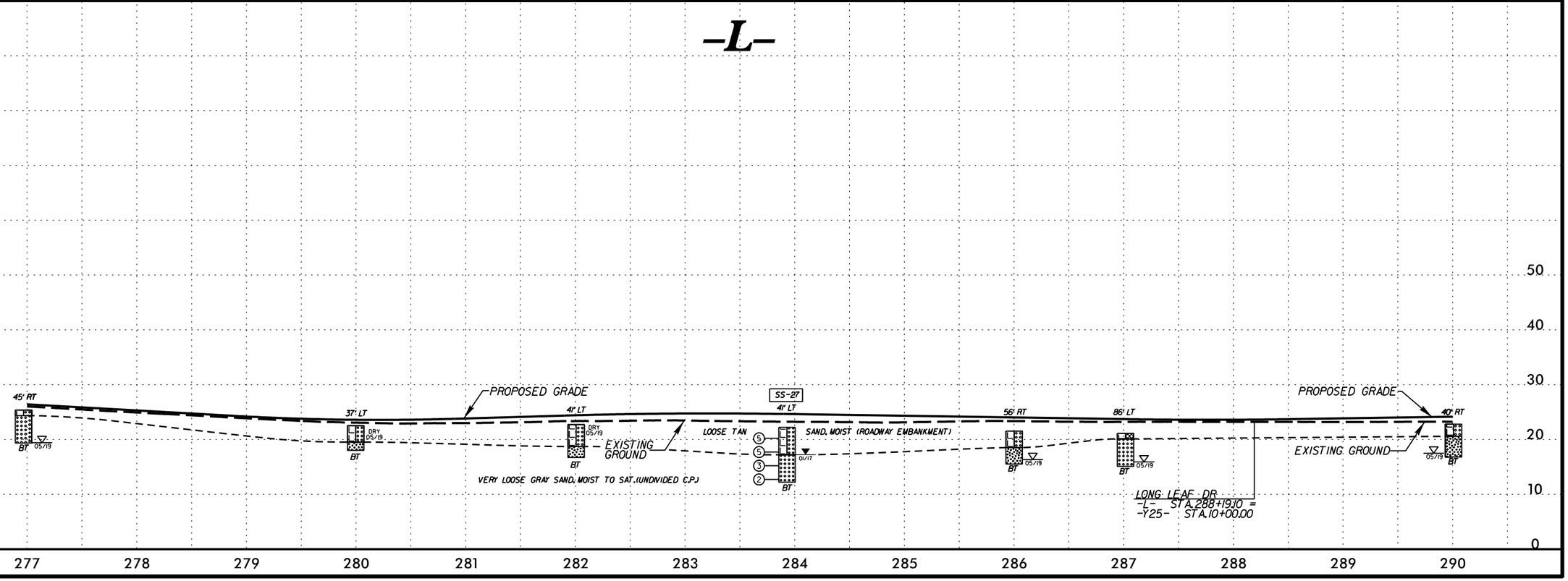
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	57
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-25	41 LT	271+03	8.5-10.0	A-2-4(0)	ND	NP	-	-	-	-	100	97	13	17	-
SS-26	62 RT	272+44	8.5-10.0	A-3(0)	ND	NP	-	-	-	-	100	99	6	26	-
SS-27	41 LT	283+93	3.5-5.0	A-3(0)	ND	NP	-	-	-	-	100	98	9	21	-



13-MAR-2020 09:03
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_57.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

CATLIN Engineers and Scientists

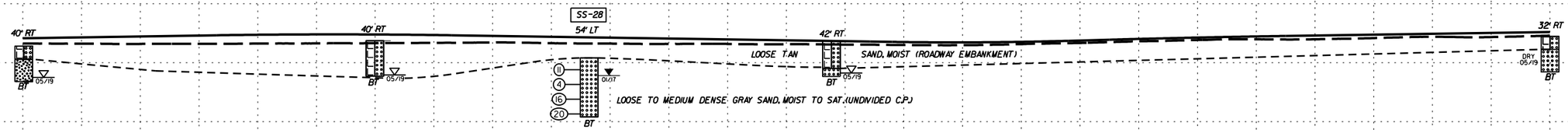
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	58
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

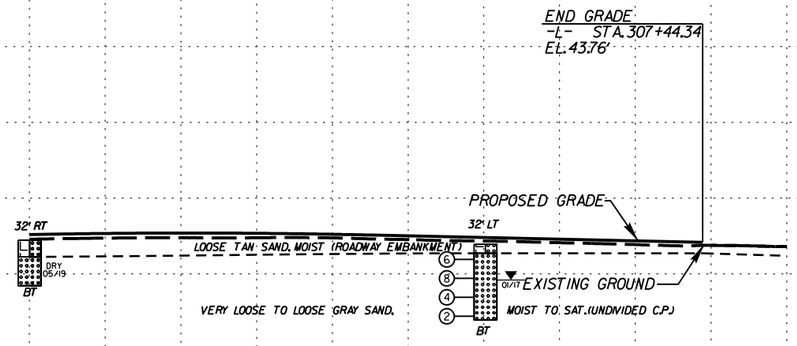
-L-

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-28	54 LT	294+82	3.5-5.0	A-3(0)	ND	NP	-	-	-	-	100	100	9	29	-



-L-



13-MAR-2020 09:03
C:\Users\Lee.Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_58.dgn
Lee.Stone
ALT_STONE-A01P

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

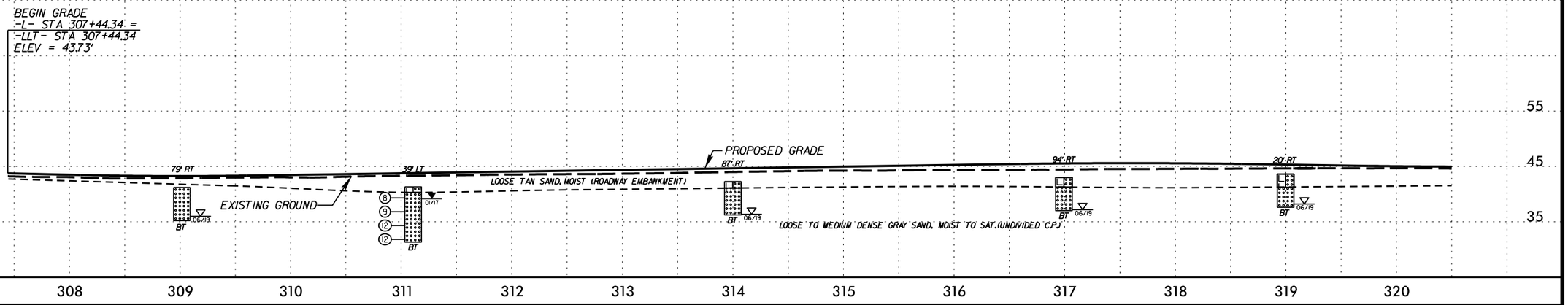
-LLT-

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

CATLIN Engineers and Scientists

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	59
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

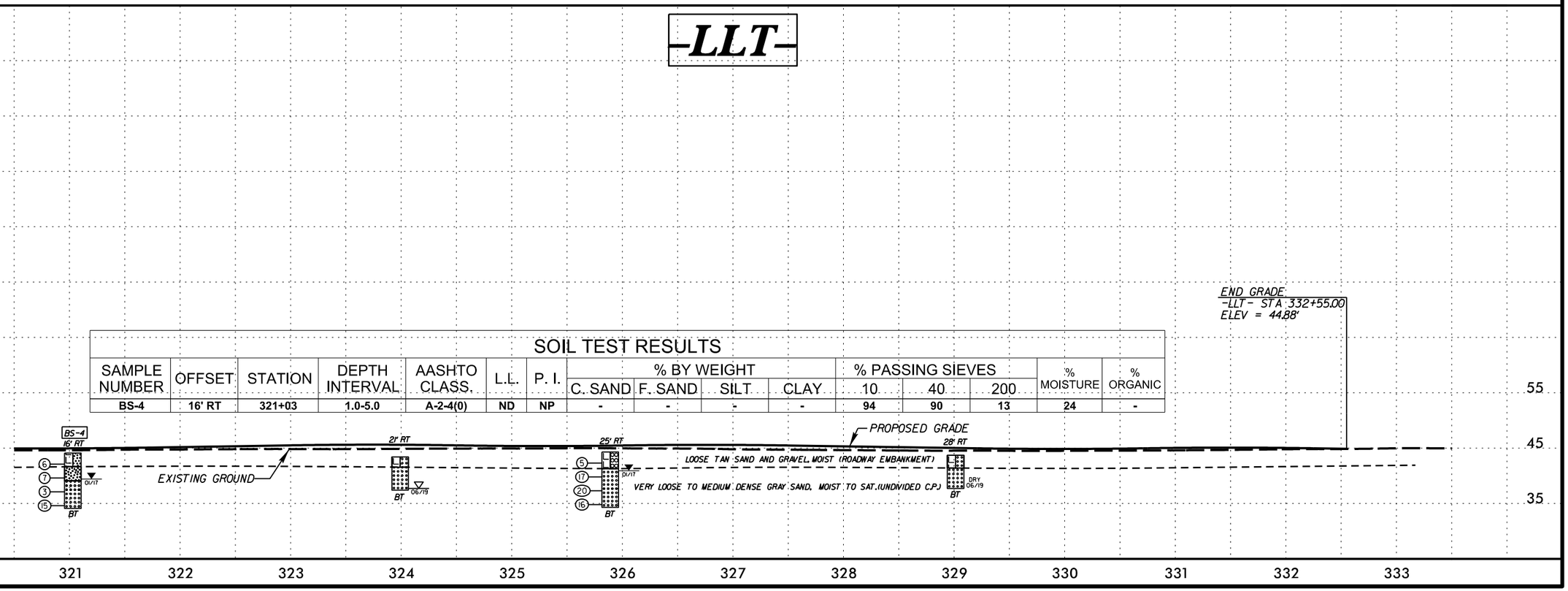
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



-LLT-

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
BS-4	16' RT	321+03	1.0-5.0	A-2-4(0)	ND	NP	-	-	-	-	94	90	13	24	-



13-MAR-2020 09:03
C:\Users\Lee.Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_59.dgn
Lee.Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

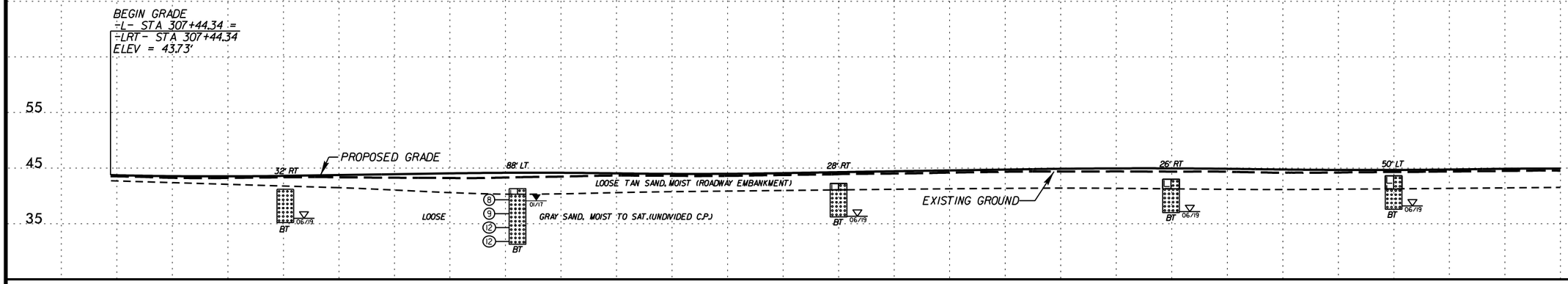
CATLIN Engineers and Scientists

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	60
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-LRT-

BEGIN GRADE
-L- STA 307+44.34 =
-LRT- STA 307+44.34
ELEV = 43.73'



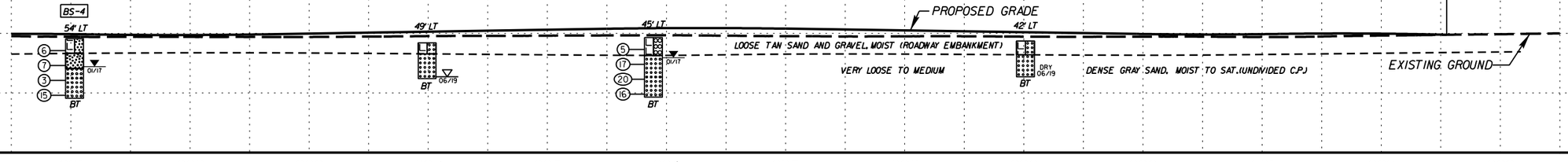
308 309 310 311 312 313 314 315 316 317 318 319 320

-LRT-

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
BS-4	54' LT	321+03	1.0-5.0	A-2-4(0)	ND	NP	-	-	-	-	94	90	13	24	-

END GRADE
-LRT- STA 332+55.00
ELEV = 44.76'



321 322 323 324 325 326 327 328 329 330 331 332 333

13-MAR-2020 09:03
C:\Users\lee.stone\Sheres\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_60.dgn
lee.stone
ALT_STONE-A0.PSF

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

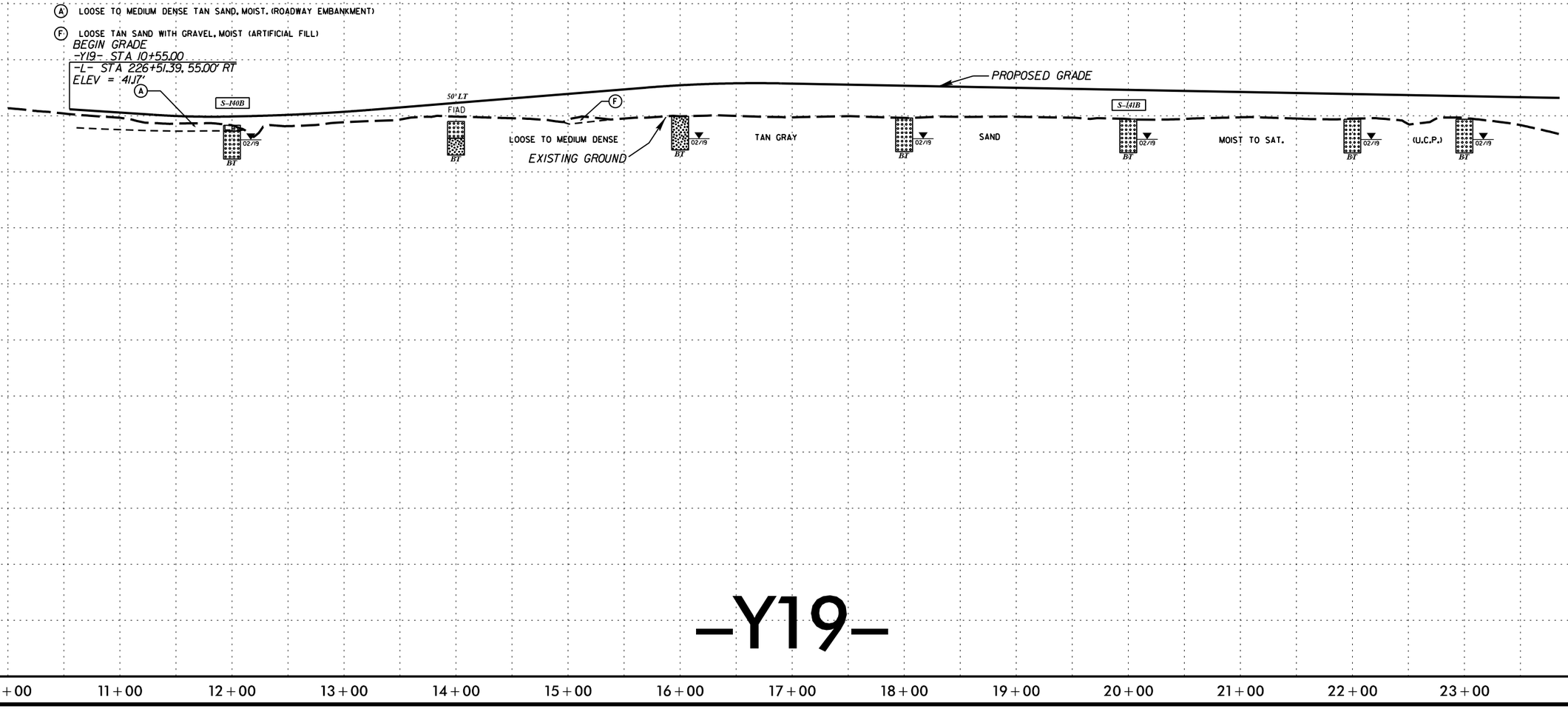
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	61
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-140B	CL	12+00	1.0 - 6.0	A-3(0)	NP	NP	10.6	81.1	3.8	4.4	100	100	9	-	-
S-141B	CL	20+00	0.0 - 6.0	A-3(0)	NP	NP	16.6	77.6	2.4	3.4	99.9	97	7	-	-



5/14/99
13-MAR-2020 09:03
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_61.dgn
lee.stone
ai (STONE-CAD)

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	62
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

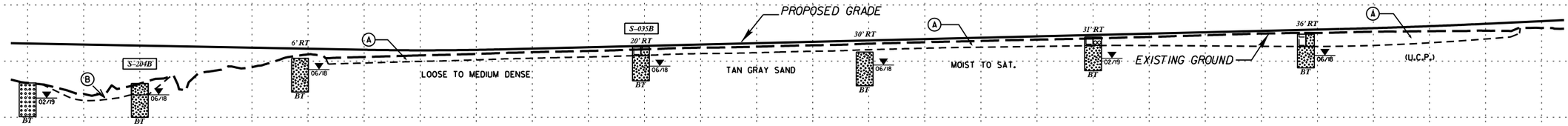
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-204B	CL	25+00	1.5 - 2.0	A-2-4(0)	NP	NP	12.0	77.0	5.4	5.5	99.9	99	12	-	2.5
S-035B	20 ft RT	29+47	4.0 - 4.5	A-2-4(0)	15	NP	11.6	74.1	8.1	6.2	100	99	15	-	-

Ⓐ LOOSE TO MEDIUM DENSE TAN SAND, MOIST. (ROADWAY EMBANKMENT)
Ⓑ VERY LOOSE BROWN SAND WITH TRACE TO LITTLE ORGANICS, MOIST TO SAT. (U.C.P.)



130 120 110 100 90 80 70 60 50 40 30 20 10 0 –10 –20 –30 –40 –50 –60

24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00

–Y19–

13-MAR-2020 09:03
C:\Users\lee.stone.sha\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_62.dgn
lee.stone
ORIGINAL

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

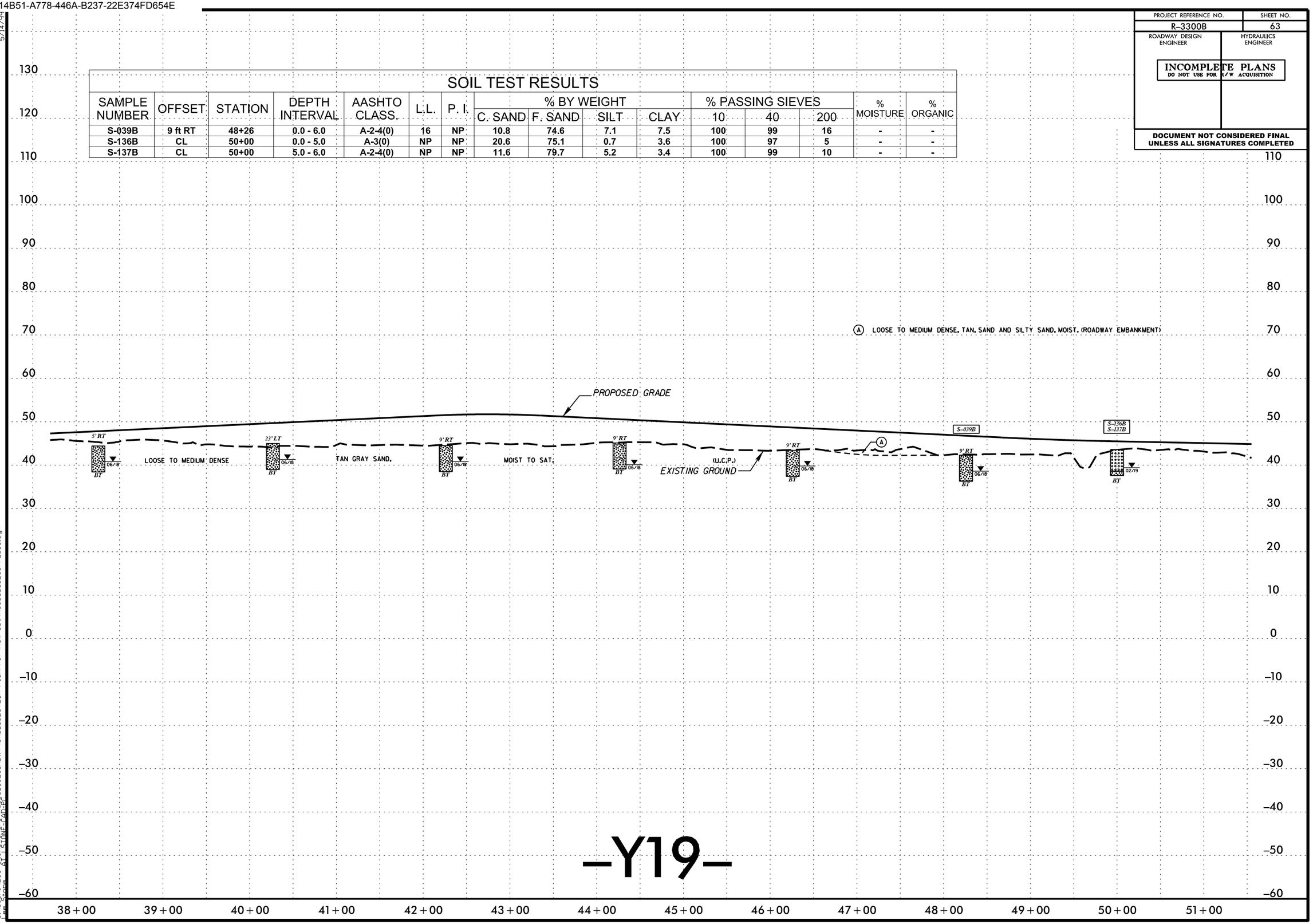
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	63
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-039B	9 ft RT	48+26	0.0 - 6.0	A-2-4(0)	16	NP	10.8	74.6	7.1	7.5	100	99	16	-	-
S-136B	CL	50+00	0.0 - 5.0	A-3(0)	NP	NP	20.6	75.1	0.7	3.6	100	97	5	-	-
S-137B	CL	50+00	5.0 - 6.0	A-2-4(0)	NP	NP	11.6	79.7	5.2	3.4	100	99	10	-	-



DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

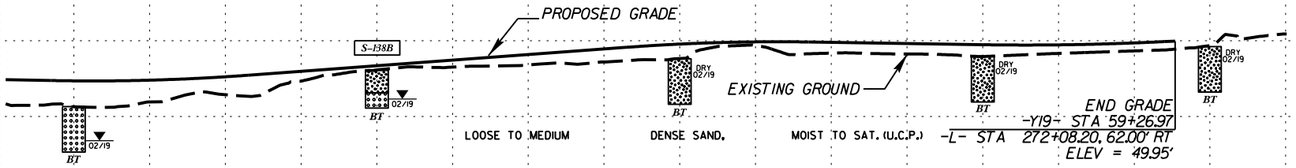
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	64
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-138B	CL	54+00	1.0 - 2.0	A-2-4(0)	NP	NP	18.9	72.5	4.2	4.4	99.5	94	10	-	-



130 120 110 100 90 80 70 60 50 40 30 20 10 0 –10 –20 –30 –40 –50 –60

52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00

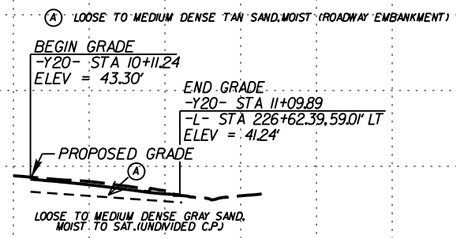
–Y19–

13-MAR-2020 09:03
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_64.dgn
lee.stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

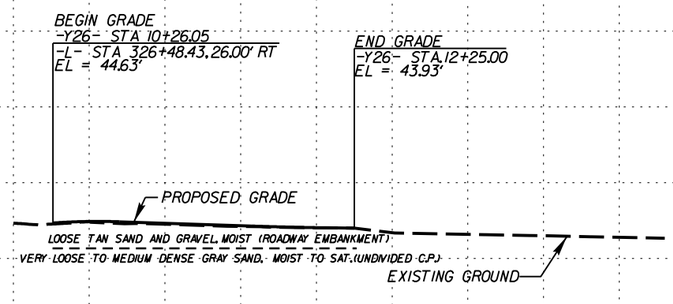
5/28/9

–Y20–



FOR –Y20– PLAN SEE SHEET 30

–Y26–



Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

CATLIN Engineers and Scientists

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	65
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

13-MAR-2020 09:03
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_65.dgn
lee.stone
ALT STONE-CATLIN

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

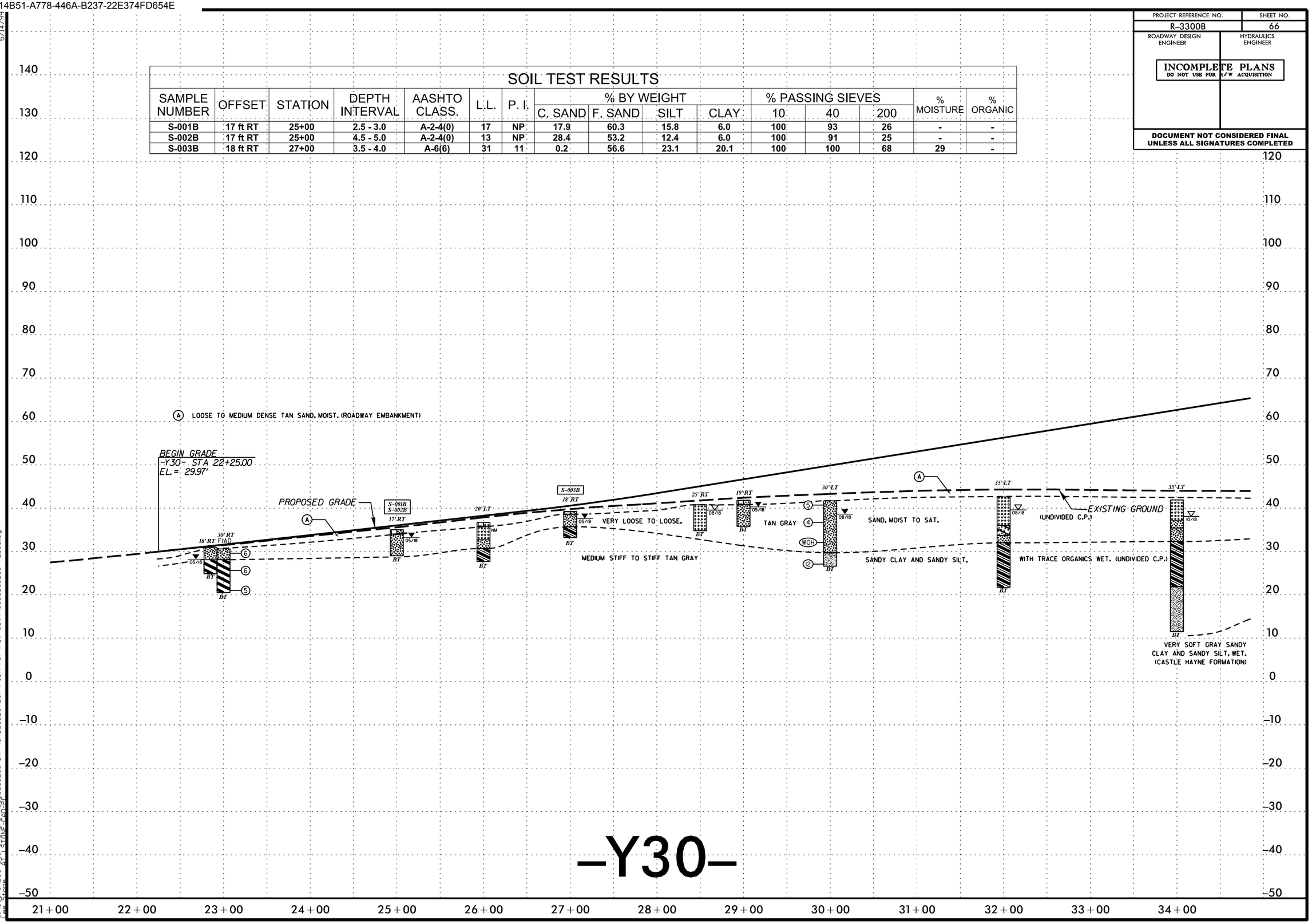
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	66
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-001B	17 ft RT	25+00	2.5 - 3.0	A-2-4(0)	17	NP	17.9	60.3	15.8	6.0	100	93	26	-	-
S-002B	17 ft RT	25+00	4.5 - 5.0	A-2-4(0)	13	NP	28.4	53.2	12.4	6.0	100	91	25	-	-
S-003B	18 ft RT	27+00	3.5 - 4.0	A-6(6)	31	11	0.2	56.6	23.1	20.1	100	100	68	29	-



13-MAR-2020 09:03
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_66.dgn
lee.stone
ef_ISTINE_Letter

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

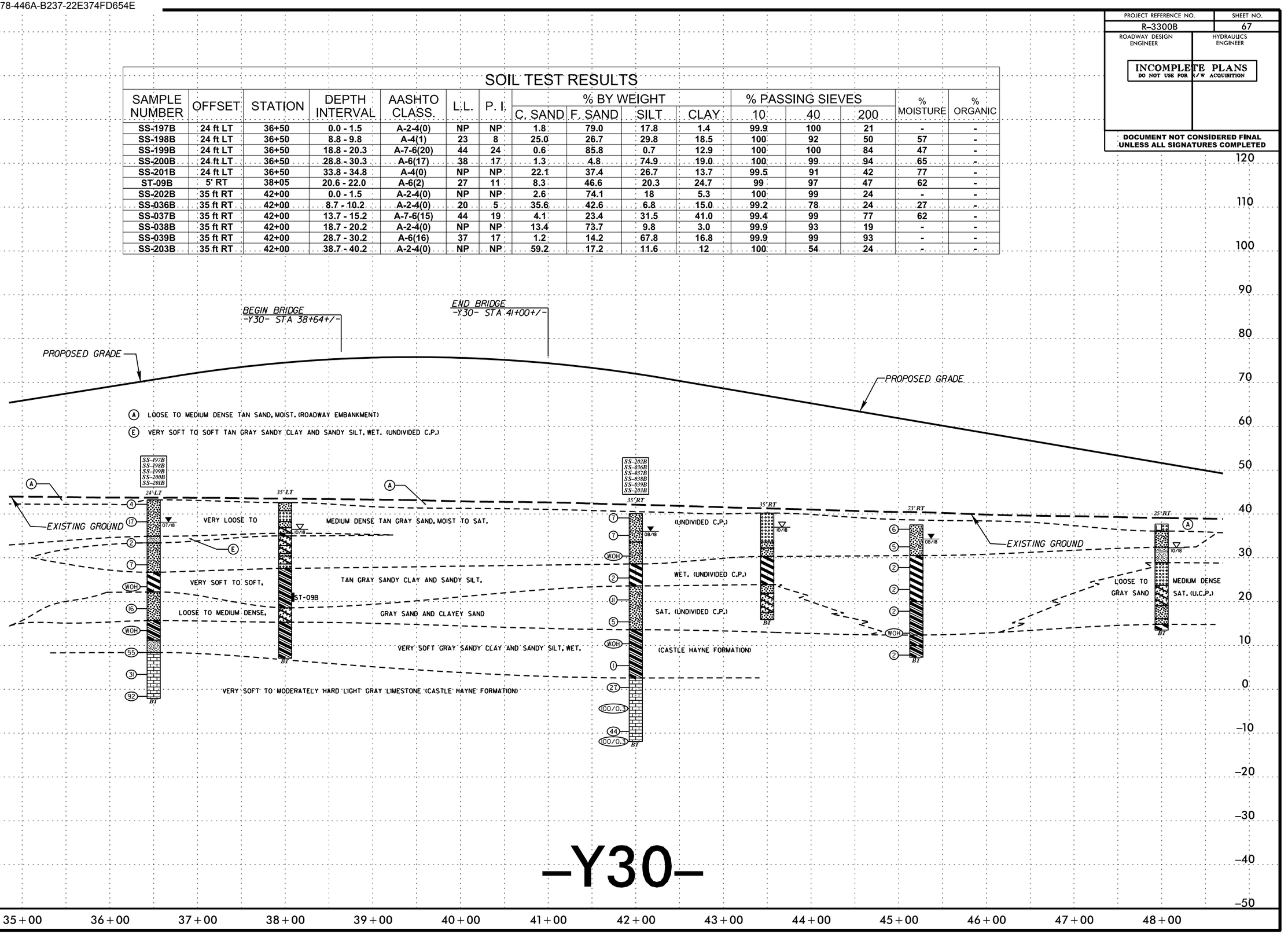
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	67
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-197B	24 ft LT	36+50	0.0 - 1.5	A-2-4(0)	NP	NP	1.8	79.0	17.8	1.4	99.9	100	21	-	-
SS-198B	24 ft LT	36+50	8.8 - 9.8	A-4(1)	23	8	25.0	26.7	29.8	18.5	100	92	50	57	-
SS-199B	24 ft LT	36+50	18.8 - 20.3	A-7-6(20)	44	24	0.6	85.8	0.7	12.9	100	100	84	47	-
SS-200B	24 ft LT	36+50	28.8 - 30.3	A-6(17)	38	17	1.3	4.8	74.9	19.0	100	99	94	65	-
SS-201B	24 ft LT	36+50	33.8 - 34.8	A-4(0)	NP	NP	22.1	37.4	26.7	13.7	99.5	91	42	77	-
ST-09B	5' RT	38+05	20.6 - 22.0	A-6(2)	27	11	8.3	46.6	20.3	24.7	99	97	47	62	-
SS-202B	35 ft RT	42+00	0.0 - 1.5	A-2-4(0)	NP	NP	2.6	74.1	18	5.3	100	99	24	-	-
SS-036B	35 ft RT	42+00	8.7 - 10.2	A-2-4(0)	20	5	35.6	42.6	6.8	15.0	99.2	78	24	27	-
SS-037B	35 ft RT	42+00	13.7 - 15.2	A-7-6(15)	44	19	4.1	23.4	31.5	41.0	99.4	99	77	62	-
SS-038B	35 ft RT	42+00	18.7 - 20.2	A-2-4(0)	NP	NP	13.4	73.7	9.8	3.0	99.9	93	19	-	-
SS-039B	35 ft RT	42+00	28.7 - 30.2	A-6(16)	37	17	1.2	14.2	67.8	16.8	99.9	99	93	-	-
SS-203B	35 ft RT	42+00	38.7 - 40.2	A-2-4(0)	NP	NP	59.2	17.2	11.6	12	100	54	24	-	-



5/14/99

13-MAR-2020 09:03
C:\Users\Lee Stone\Sharp\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_67.dgn
Lee Stone
BT STONE Family

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

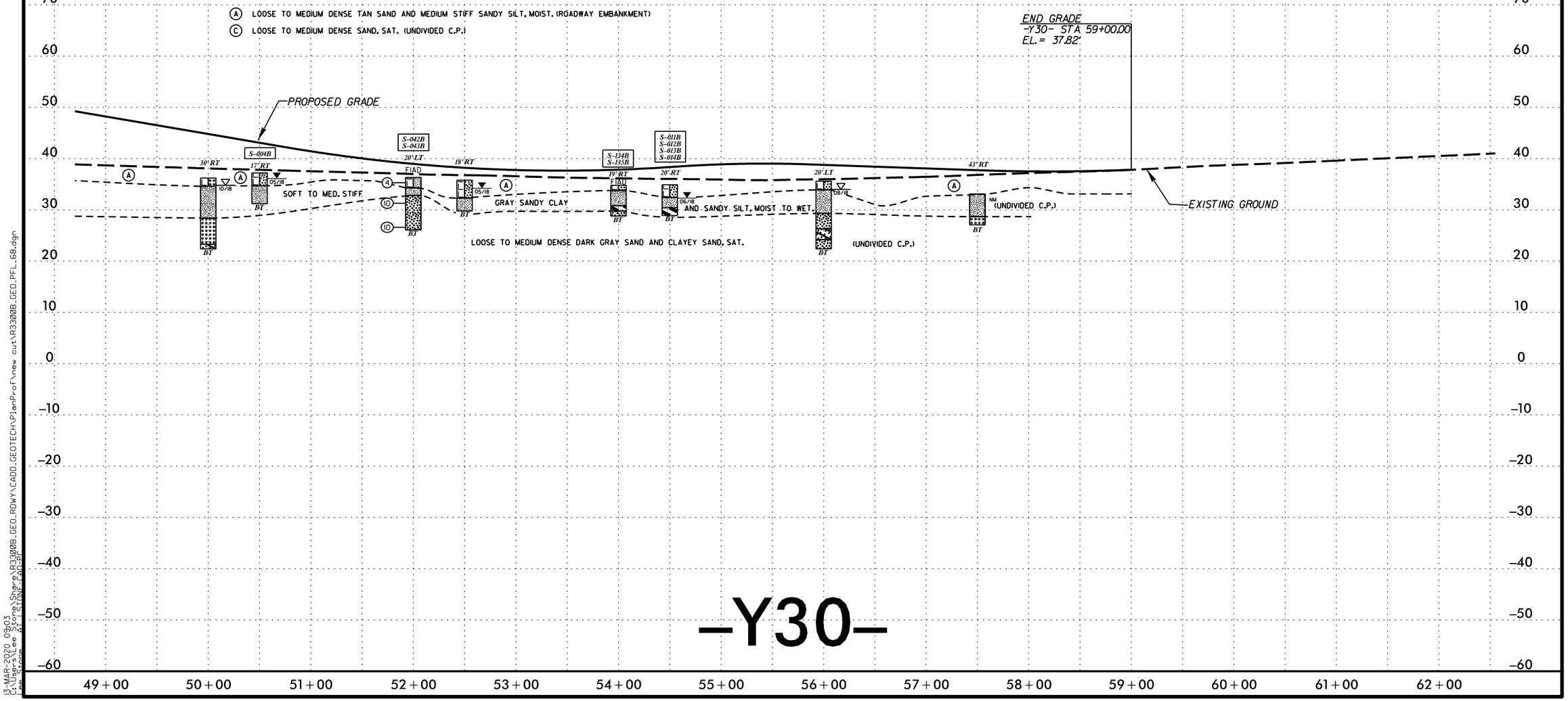
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	68
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-004B	17 ft RT	50+50	2.5 - 3.0	A-4(3)	25	8	0.2	54.1	22.6	23.1	100	100	62	23	-
SS-042B	20 ft LT	52+00	0.0 - 1.5	A-4(0)	NP	NP	4.6	72.0	15.1	8.3	99.7	98	36	-	-
SS-043B	20 ft LT	52+00	8.7 - 10.2	A-2-4(0)	NP	NP	17.1	65.2	11.7	6.0	99.8	93	25	-	-
S-134B	19 ft RT	54+00	2.0 - 3.0	A-4(0)	21	6	8.4	61.9	10.4	19.3	99.6	96	38	-	-
S-135B	19 ft RT	54+00	4.0 - 5.0	A-7-6(17)	48	29	1.4	36.2	15.0	47.4	99.9	100	66	-	-
S-011B	19 ft RT	54+50	1.0 - 1.5	A-2-4(0)	18	NP	10.3	72.4	11.3	6.0	99.8	97	27	-	-
S-012B	19 ft RT	54+50	2.5 - 3.0	A-4(1)	24	10	6.7	61.0	10.2	22.0	100	97	41	-	-
S-013B	19 ft RT	54+50	3.5 - 4.0	A-4(0)	21	4	7.9	64.7	9.3	18.1	100	96	35	-	-
S-014B	19 ft RT	54+50	4.5 - 5.0	A-7-6(13)	43	27	2.5	41.9	13.6	42.0	100	99	61	-	-



13-MAR-2020 09:03
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_68.dgn
lee.stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

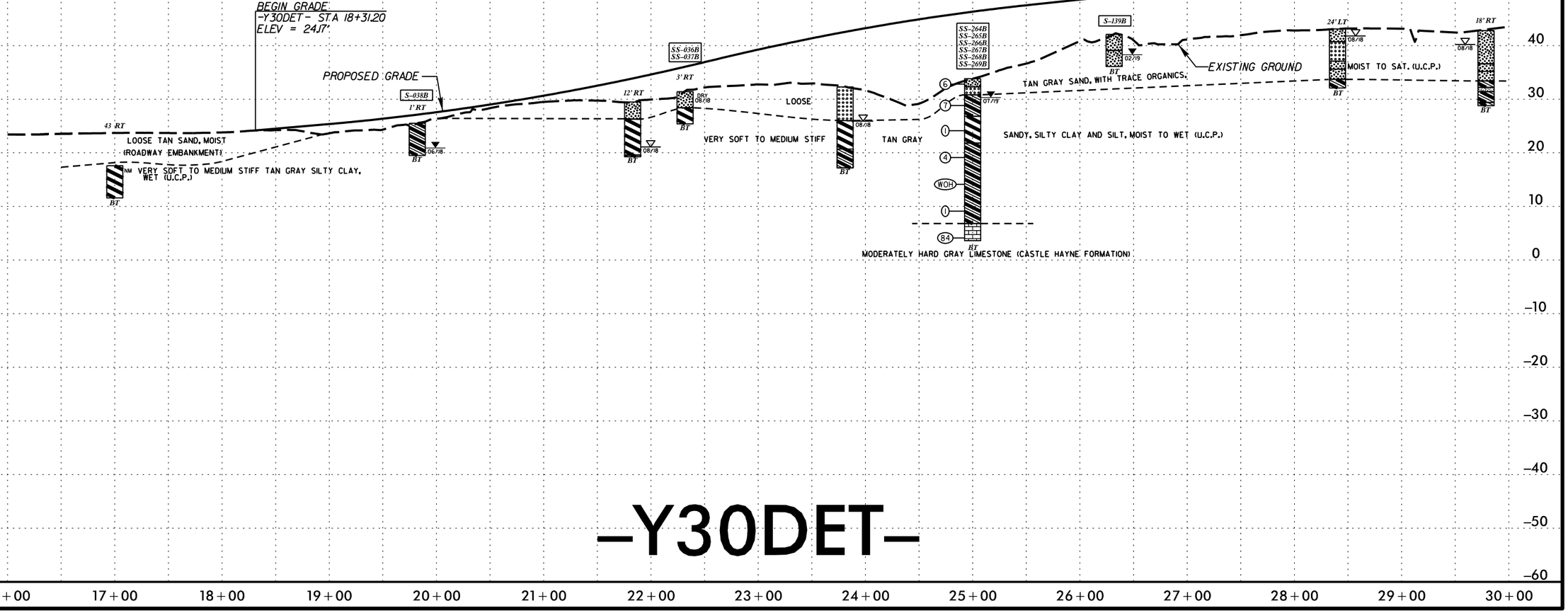
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	69
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-038B	1 ft RT	19+83	0.0 - 6.0	A-6(7)	39	22	6.6	47.6	12.0	33.8	100	98	51	-	-
S-036B	3 ft RT	22+32	0.0 - 3.0	A-2-4(0)	20	NP	7.1	83.4	5.3	4.2	99.9	97	18	-	-
S-037B	3 ft RT	22+32	3.0 - 6.0	A-7-6(18)	50	31	7.0	33.5	23.8	35.6	100	97	64	-	-
SS-264B	CL	25+00	0.0 - 1.5	A-2-4(0)	NP	NP	11.3	68.8	12.9	7.0	99.8	95	31	-	2.4
SS-265B	CL	25+00	4.0 - 5.5	A-6(8)	37	21	8.9	41.7	19.9	29.5	99.6	97	53	-	-
SS-266B	CL	25+00	8.7 - 10.2	A-7-6(26)	54	27	1.7	16.9	35.7	45.7	99.8	99	86	-	-
SS-267B	CL	25+00	13.7 - 15.2	A-6(2)	31	12	4.4	57.6	25.7	12.3	99.9	98	44	-	-
SS-268B	CL	25+00	18.7 - 20.2	A-6(12)	35	16	4.8	24.0	53.9	17.2	99.7	98	81	-	-
SS-269B	CL	25+00	23.7 - 25.2	A-6(2)	29	13	34.5	27.2	24.1	14.2	93.3	84	42	-	-
S-139B	CL	26+32	3.0 - 6.0	A-2-4(0)	NP	NP	1.6	78.2	5.7	14.5	100	99	30	-	-



5/14/99

13-MAR-2020 09:03
C:\Users\Lee Stone\Shere\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_69.dgn
ez_stone
At: STONE_eq1.12

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

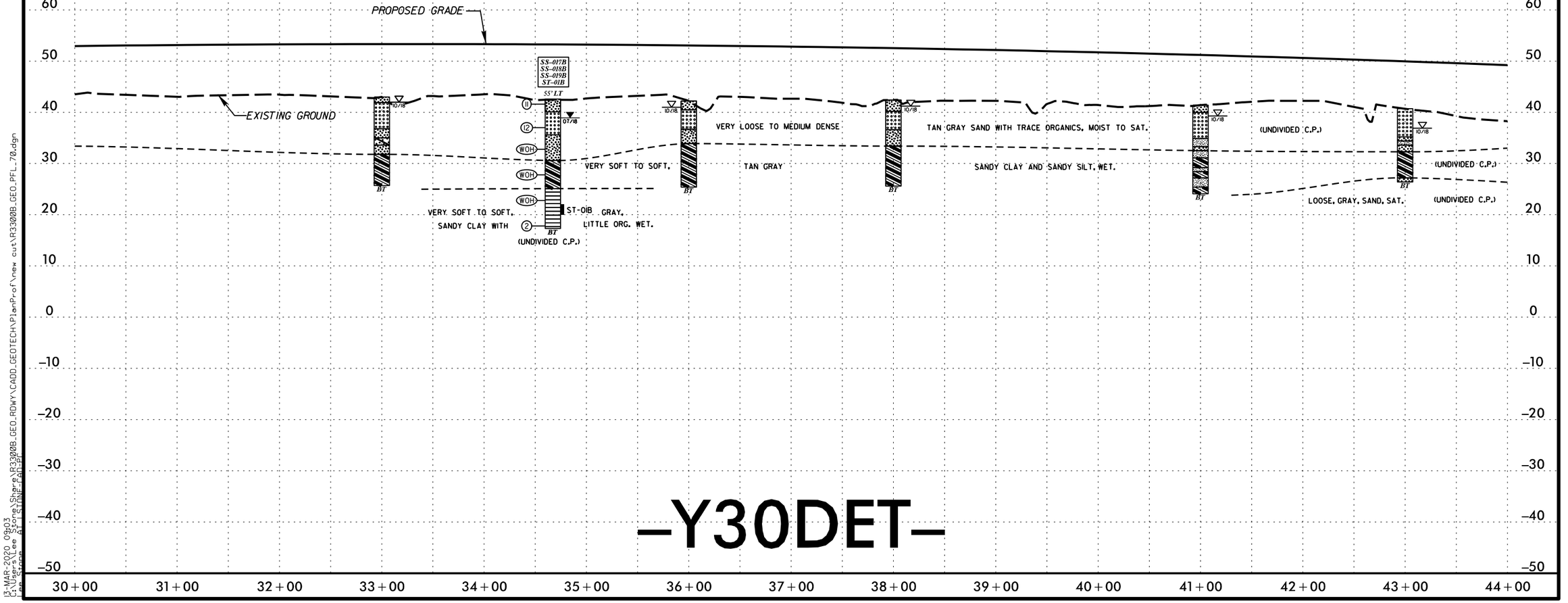
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	70
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-017B	55 ft LT	34+67	0.0 - 1.5	A-2-4(0)	25	NP	7.5	78.3	11.2	3.0	99.8	97	20	-	-
SS-018B	55 ft LT	34+67	8.8 - 10.3	A-2-4(0)	17	NP	52.3	26.0	5.6	16.1	99.9	75	23	-	-
SS-019B	55 ft LT	34+67	13.8 - 15.3	A-6(8)	35	20	11.1	35.7	27.5	25.7	100	98	57	58	-
ST-01B	55 ft LT	34+67	20.0 - 22.6	A-6(4)	40	16	6.2	50.6	12.2	30.9	99.9	98.5	46.2	62	7.2



–Y30DET–

5/14/99
13-MAR-2020 09:03
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_70.dgn
Lee Stone AT | STINE-Fan2F

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

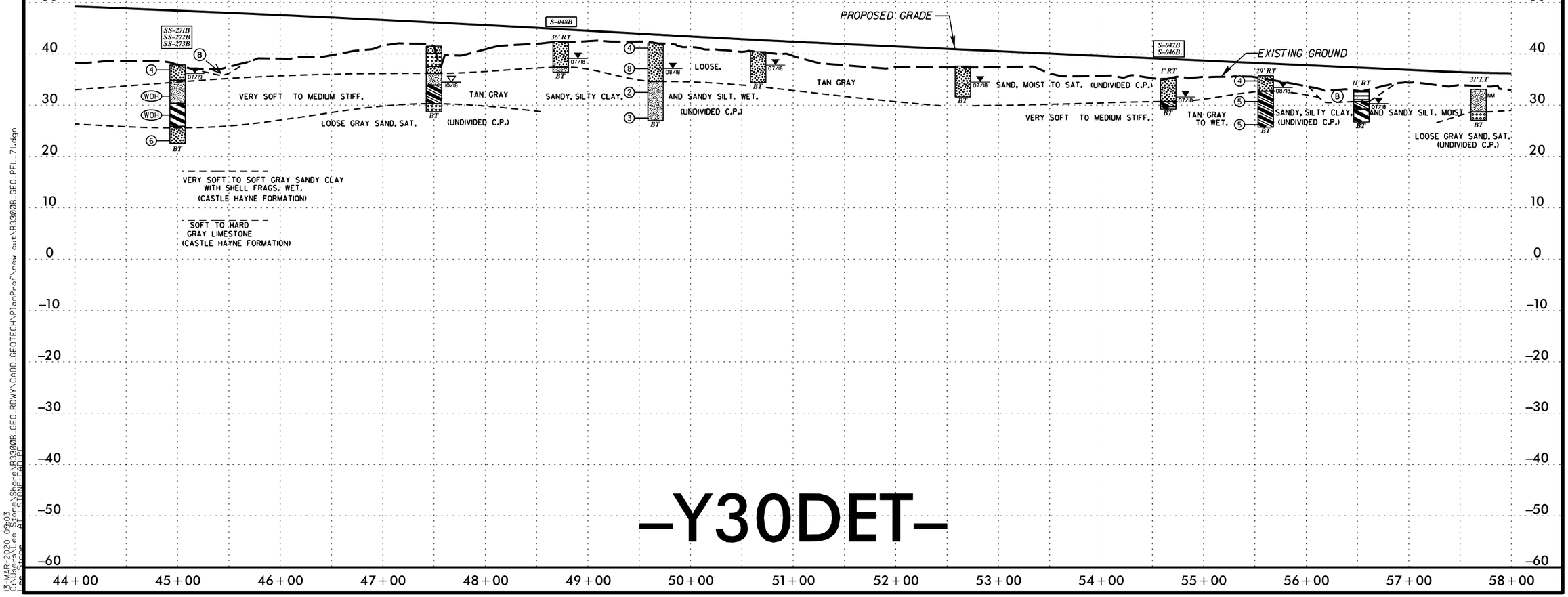
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	71
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-271B	CL	45+00	5.1 - 6.6	A-4(3)	27	9	3.1	49.3	22.4	25.2	99.8	99	63	-	-
SS-272B	CL	45+00	8.8 - 10.3	A-7-6(13)	42	25	8.7	30.6	24.5	36.2	99.9	99	63	-	-
SS-273B	CL	45+00	13.8 - 15.3	A-2-4(0)	NP	NP	5.9	82.6	5.5	6.0	99.9	98	13	-	-
S-048B	36 ft RT	48+74	5.0 - 5.5	A-4(0)	22	NP	0.2	74.4	12.1	13.3	100	100	42	-	-
S-047B	1 ft RT	55+66	5.0 - 5.5	A-6(9)	35	20	7.2	44.2	15.8	32.8	99.6	96	58	-	-
S-046B	1 ft RT	55+66	5.5 - 6.0	A-7-6(25)	48	29	2.0	19.8	29.8	48.4	99.9	99	84	37	-



–Y30DET–

13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_71.dgn
Lee Stone
At 1 STONE-EAD2F

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	72
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

130 120 110 100 90 80 70 60 50 40 30 20 10 0 –10 –20 –30 –40 –50 –60

Ⓐ LOOSE TO MEDIUM DENSE, TAN, SAND, MOIST. (ROADWAY EMBANKMENT)

END GRADE
-Y30DET- STA. 60+96.03
EL.= 39.11'

PROPOSED GRADE

EXISTING GROUND

15' RT

Ⓐ

MEDIUM STIFF TAN GRAY SANDY SILT MOIST. (UNDIVIDED C.P.)

LOOSE GRAY SAND, SAT. (UNDIVIDED C.P.)

BT 07/18

–Y30DET–

58+00 59+00 60+00 61+00 62+00 63+00 64+00 65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00

13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_72.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	73
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

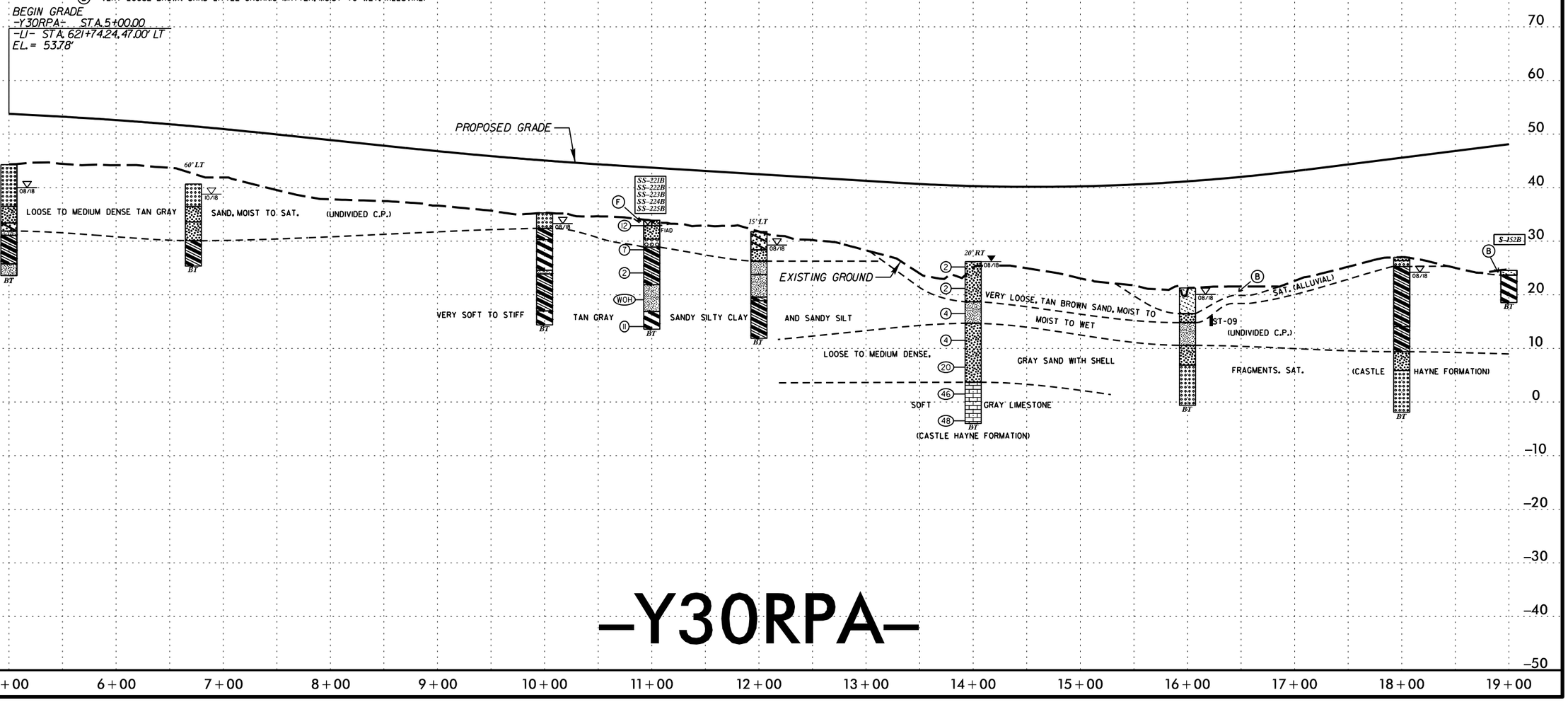
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-221B	CL	11+00	0.0 - 1.5	A-2-4(0)	NP	NP	30.3	51.2	8.6	9.9	98.6	91	24	-	1.9
SS-222B	CL	11+00	5.0 - 6.0	A-6(4)	31	14	21.7	33.9	24.4	20.0	90.3	93	49	-	-
SS-223B	CL	11+00	8.8 - 10.3	A-6(3)	30	16	20.4	41.2	18.5	19.9	98.9	90	43	-	-
SS-224B	CL	11+00	13.8 - 15.3	A-4(0)	NP	NP	1.1	68.6	24.3	6.0	99.9	99	42	-	-
SS-225B	CL	11+00	18.8 - 20.3	A-7-6(8)	41	12	15.7	25.2	46.0	13.1	99.9	89	67	-	-
ST-09	1' LT	16+22	5.4 - 7.4	A-7-6(0)	42	28	-	-	-		-	-	-	48.6	-
S-152B	CL	19+00	0.5-1.0	A-2-4(0)	NP	NP	9.0	72.8	13.5	4.7	98.8	96	25	-	4.6

(F) VERY LOOSE TAN SAND, MOIST (ARTIFICIAL FILL)

(B) VERY LOOSE BROWN SAND LITTLE ORGANIC MATTER, MOIST TO WET. (ALLUVIAL)



-Y30RPA-

13-MAR-2020 09:03
C:\Users\Lee Stone\Shared\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_73.dgn
Lee Stone
ef_ISTINE_Full.tbl

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

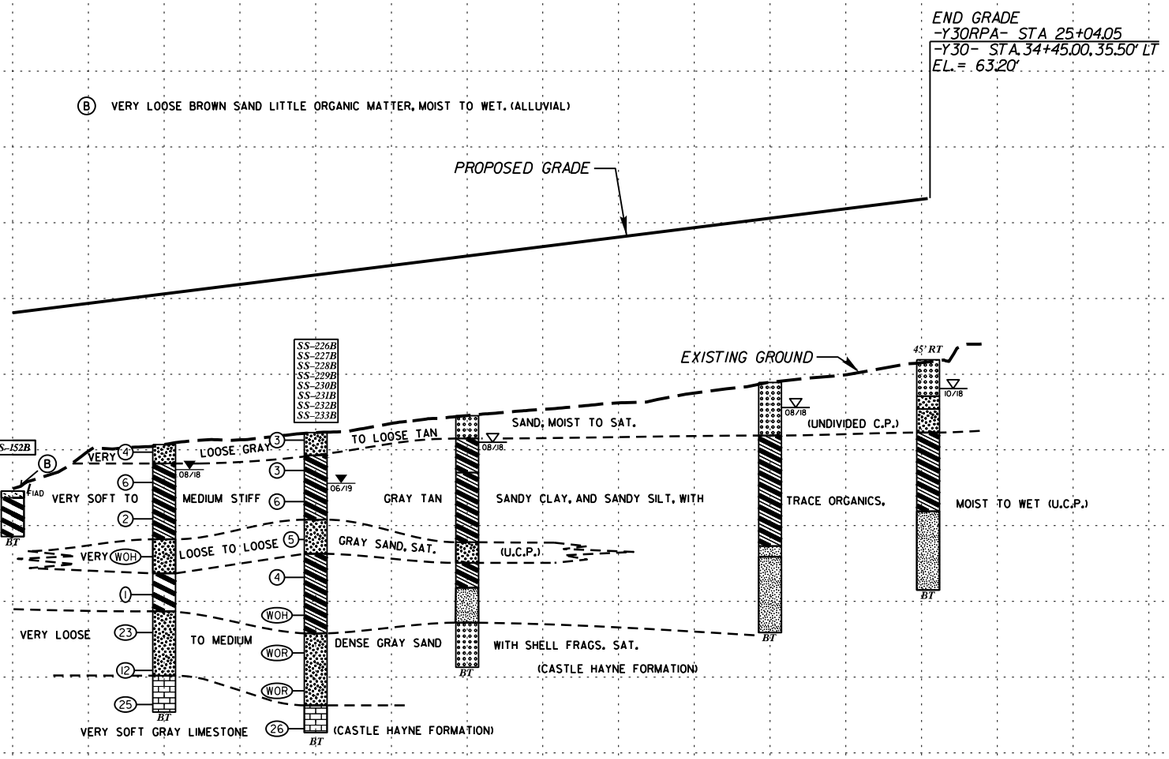
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	74
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-152B	CL	19+00	0.5-1.0	A-2-4(0)	NP	NP	9.0	72.8	13.5	4.7	98.8	96	25	-	4.6
SS-226B	CL	21+00	4.0 - 5.5	A-6(1)	28	12	17.6	54.7	11.3	16.4	99.9	92	36	-	-
SS-227B	CL	21+00	8.1 - 9.6	A-6(7)	35	20	13.6	39.3	21.5	25.5	100	97	52	-	-
SS-228B	CL	21+00	13.1 - 14.6	A-2-4(0)	NP	NP	10.8	63.4	16.4	9.4	99.9	95	28	-	-
SS-229B	CL	21+00	18.1 - 19.6	A-6(6)	40	14	6.3	46.0	30.3	17.5	99.9	97	55	-	-
SS-230B	CL	21+00	23.1 - 24.6	A-6(15)	38	17	2.0	21.0	60.7	16.3	100	99	87	-	-
SS-231B	CL	21+00	28.1 - 29.6	A-2-4(0)	25	8	27.1	45.7	21.2	6.0	99.7	92	34	-	-
SS-232B	CL	21+00	33.1 - 34.6	A-2-4(0)	NP	NP	66.8	19.8	10.5	2.9	96.5	53	15	-	-
SS-233B	CL	21+00	38.1 - 39.6	A-3(0)	NP	NP	79.1	14.5	4.7	1.6	80.6	39	7	-	-



-Y30RPA-

13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_ROWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_74.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

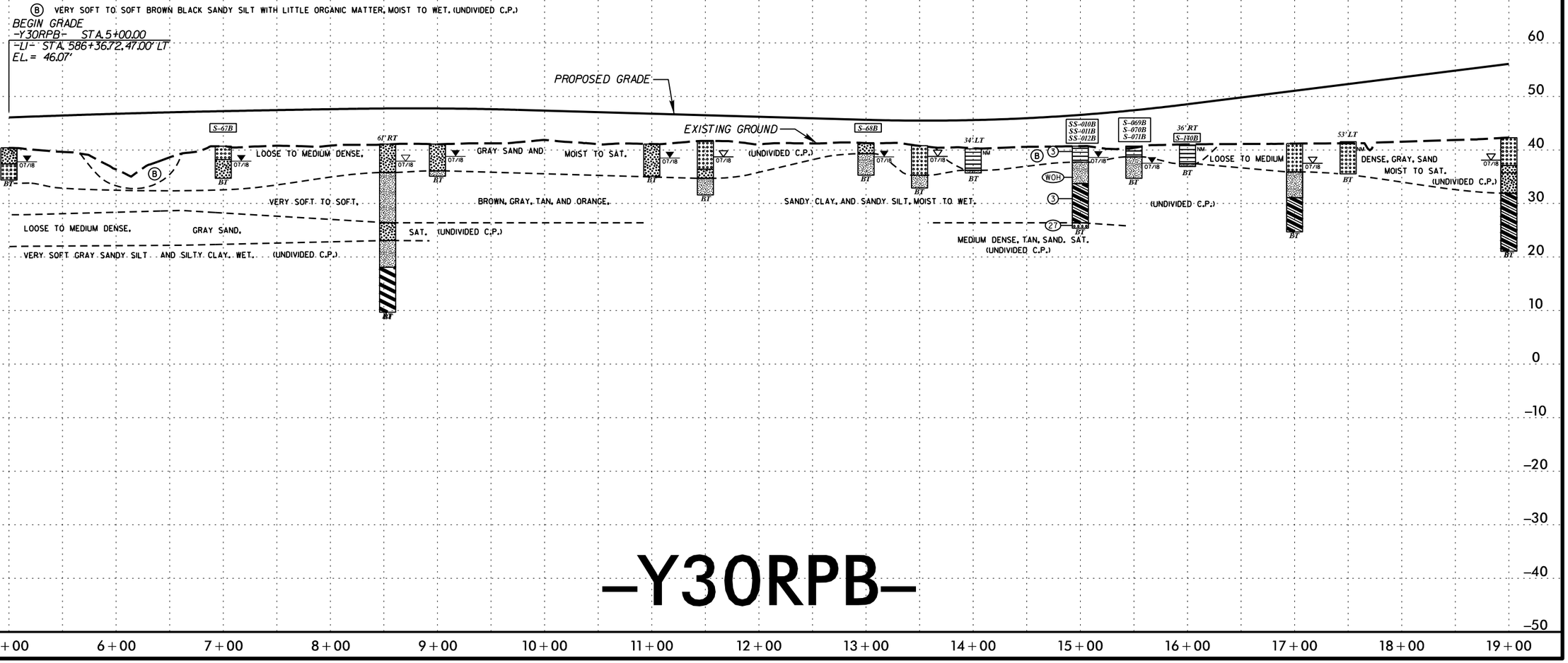
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	75
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-067B	CL	7+00	2.5 - 4.0	A-2-4(0)	21	NP	1.9	73.7	12.2	12.2	99.9	99	31	-	-
S-068B	CL	13+00	4.5 - 6.0	A-4(0)	22	4	0.4	62.4	16.5	20.6	100	100	57	-	-
SS-010B	CL	15+00	0.0 - 1.5	A-4(0)	23	NP	1.7	58.8	25.3	14.2	99.9	99	53	35	5.2
SS-011B	CL	15+00	4.8 - 5.4	A-4(0)	22	NP	6.3	57.0	18.5	18.2	100	98	53	-	-
SS-012B	CL	15+00	8.8 - 10.3	A-6(10)	36	21	7.3	34.6	20.7	37.4	99.9	98	61	33	-
S-069B	CL	15+50	0.0 - 1.5	A-4(0)	20	NP	1.6	62.2	23.9	12.3	100	99	49	-	-
S-070B	CL	15+50	1.5 - 3.0	A-4(0)	NP	-18	1.2	63.4	17.1	18.4	100	100	48	-	-
S-071B	CL	15+50	4.5 - 6.0	A-4(3)	26	8	1.4	52.2	22.7	23.7	100	100	63	-	-
S-140B	36 ft RT	16+00	0.0 - 3.5	A-4(1)	25	6	1.0	58.1	22.6	18.3	99.9	100	52	-	5.7



13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_75.dgn
Lee Stone
ef_ISTONE_Cat32

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

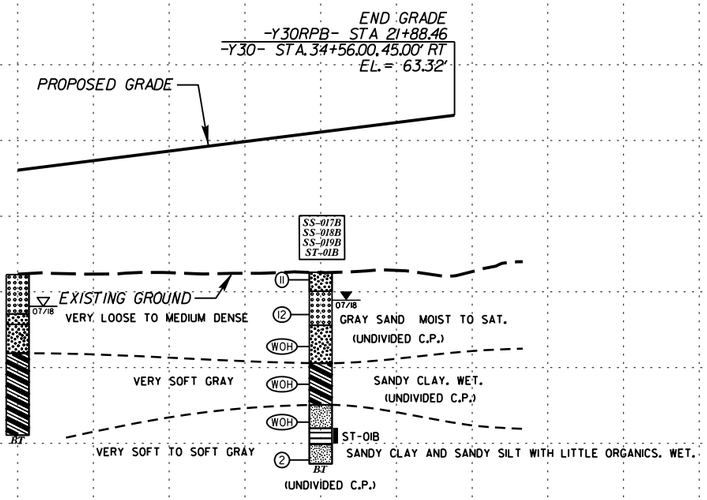
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	76
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-017B	CL	21+00	0.0 - 1.5	A-2-4(0)	25	NP	7.5	78.3	11.2	3.0	99.8	97	20	-	-
SS-018B	CL	21+00	8.8 - 10.3	A-2-4(0)	17	NP	52.3	26.0	5.6	16.1	99.9	75	23	-	-
SS-019B	CL	21+00	13.8 - 15.3	A-6(8)	35	20	11.1	35.7	27.5	25.7	100	98	57	58	-
ST-01B	CL	21+00	20.6 - 22.6	A-6(4)	40	16	6.2	50.6	12.2	30.9	99.9	98.5	46.2	62	7.2



-Y30RPB-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10 -20 -30 -40

19+00 20+00 21+00 22+00

5/14/99

13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_76.dgn
ge Stone
ET STONE PE/PI

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	77
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

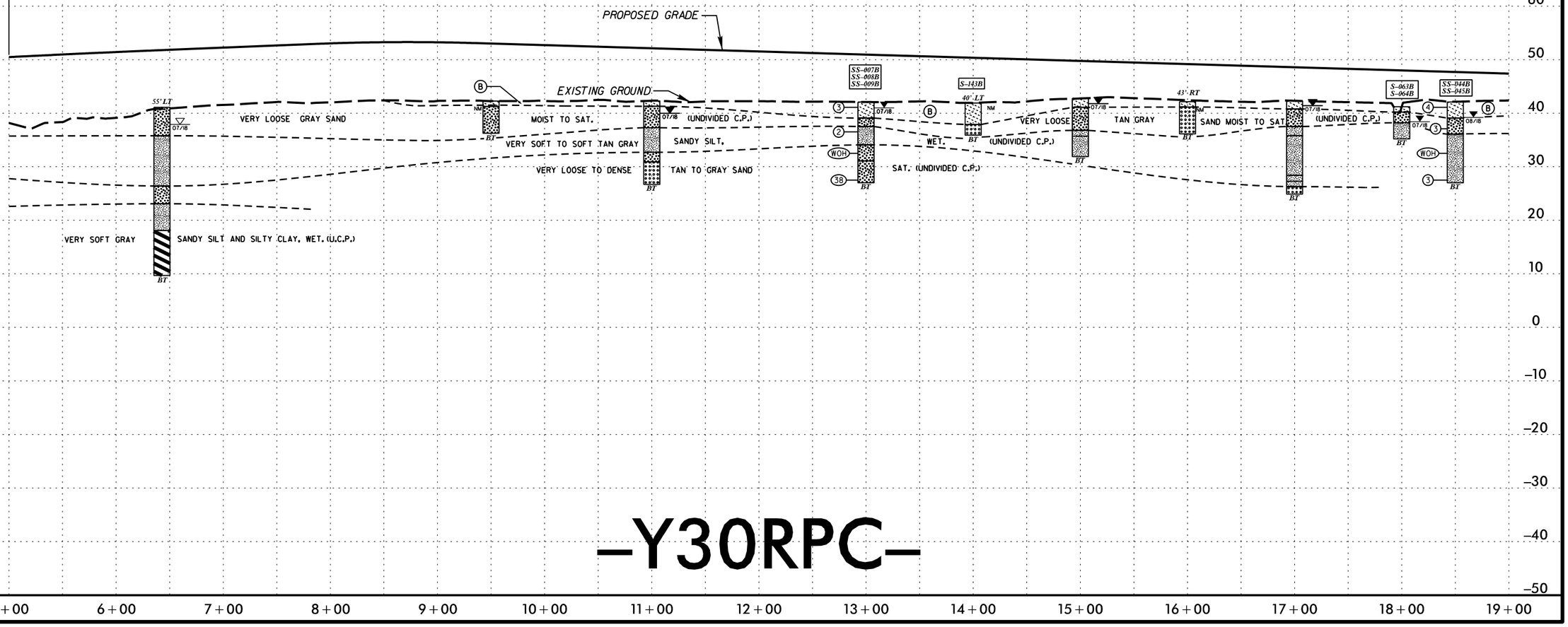
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-007B	CL	13+00	0.0 - 1.5	A-2-4(0)	19	NP	1.8	76.6	11.5	10.1	100	100	28	21	3.1
SS-008B	CL	13+00	4.6 - 5.6	A-4(0)	24	NP	0.4	71.7	12.7	15.1	100	100	48	30	-
SS-009B	CL	13+00	8.6 - 10.1	A-2-4(0)	18	NP	47.9	35.5	4.5	12.0	99.7	78	17	34	-
S-143B	40 ft LT	14+00	0.0 - 4.0	A-2-4(0)	NP	NP	2.2	73.9	17.9	6.0	99.7	99	31	-	7.6
S-063B	CL	18+00	0.0 - 1.0	A-2-4(0)	30	NP	3.5	75.6	17.8	3.0	99.8	98	28	-	-
S-064B	CL	18+00	3.5 - 4.0	A-4(0)	22	NP	0.5	76.5	12.9	10.0	99.8	100	46	-	-
SS-044B	CL	18+50	0.0 - 1.5	A-2-4(0)	NP	NP	3.9	74.1	16.0	6.0	98.8	98	28	-	-
SS-045B	CL	18+50	8.6 - 10.1	A-4(0)	25	4	0.4	68.7	14.9	16.1	100	100	54	-	-

(B) VERY LOOSE BROWN SAND WITH LITTLE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)



5/14/99
13-MAR-2020 09:03
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_77.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

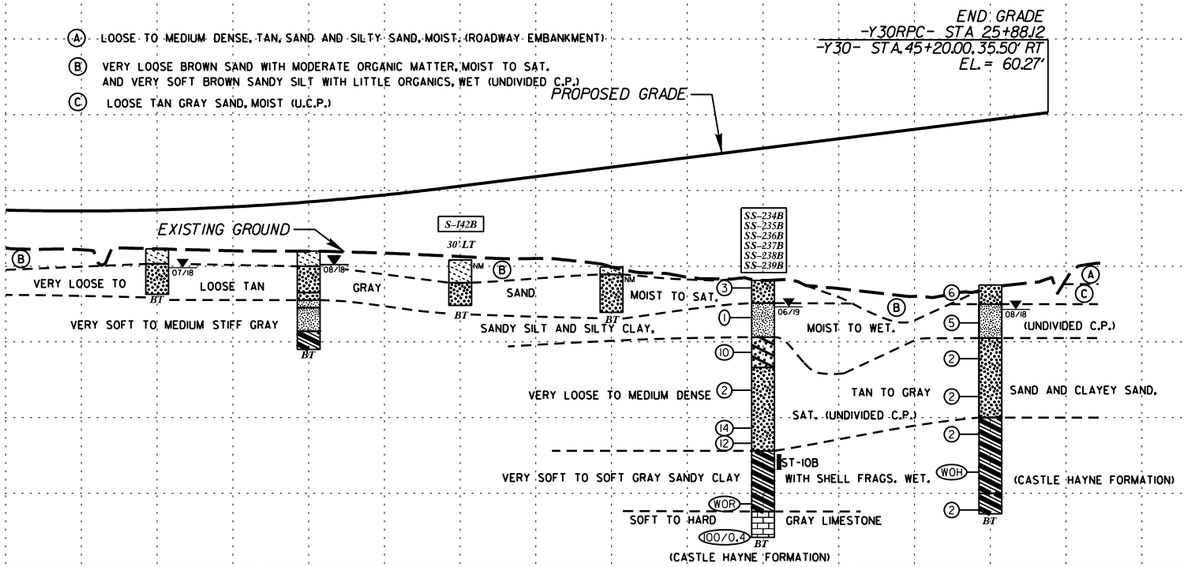
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	78
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-142B	30 ft LT	22+00	0.0 - 3.0	A-2-4(0)	NP	NP	3.6	76.5	15.9	4.0	99.9	99	28	-	5.7
SS-234B	CL	24+00	0.0 - 1.5	A-2-4(0)	NP	NP	1.2	78.8	11.7	8.3	100	100	30	-	-
SS-235B	CL	24+00	3.9 - 5.4	A-4(2)	24	8	10.8	49.2	18.7	21.3	100	97	56	-	-
SS-236B	CL	24+00	8.5 - 10.0	A-2-6(1)	32	15	4.8	64.2	8.7	22.4	100	99	34	-	-
SS-237B	CL	24+00	13.5 - 15.0	A-2-4(0)	NP	NP	36.4	45.0	9.6	9.1	98.1	81	21	-	-
SS-238B	CL	24+00	18.5 - 20.0	A-2-4(0)	NP	NP	7.4	76.5	9.9	6.2	99.9	97	21	-	-
SS-239B	CL	24+00	28.5 - 30.0	A-6(1)	27	11	20.0	43.4	28.1	8.5	99.9	94	43	-	-
ST-10B	5' RT	24+00	23.0-25.0	A-6(21)	40	21	0.4	9.8	-	-	100	99	97	-	-



-Y30RPC-

5/14/99
13-MAR-2020 09:04
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_78.dgn
lee.stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	79
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

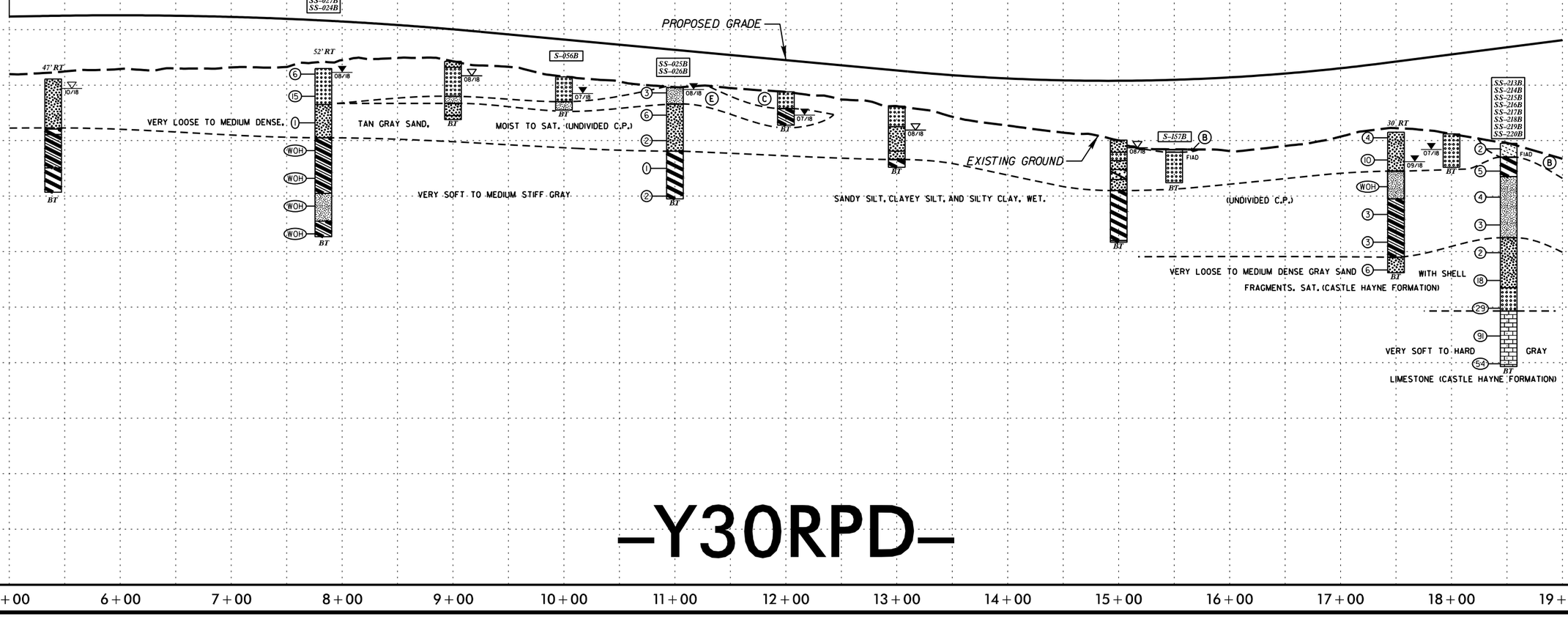
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-022B	52 ft RT	7+82	8.8 - 10.3	A-2-4(0)	18	NP	38.2	41.3	6.3	14.2	100	88	27	29	-
SS-023B	52 ft RT	7+82	13.8 - 16.3	A-6(9)	32	19	13.4	29.1	27.6	29.8	99.6	98	63	44	-
SS-027B	52 ft RT	7+82	23.8 - 25.3	A-4(0)	21	NP	1.8	66.0	21.9	10.3	99.8	99	44	35	-
SS-024B	52 ft RT	7+82	28.8 - 30.3	A-6(13)	35	16	4.7	18.6	58.1	18.7	99.8	97	87	44	-
S-056B	CL	10+00	4.5 - 5.0	A-4(2)	25	7	0.7	54.4	22.4	22.4	100	100	66	45	-
SS-025B	CL	11+00	8.6 - 10.1	A-2-4(0)	15	NP	26.4	47.0	9.2	17.4	99.8	96	28	33	-
SS-026B	CL	11+00	13.6 - 15.1	A-7-5(9)	44	14	24.3	12.0	42.4	21.3	99.4	83	66	87	-
S-157B	CL	15+50	0.0 - 0.5	A-4(0)	NP	NP	19.8	48.3	28.1	3.8	98.9	93	39	-	6.5
SS-213B	CL	18+50	0.0 - 1.5	A-2-4(0)	NP	NP	16.0	69.5	11.3	3.2	98.6	94	22	-	9.7
SS-214B	CL	18+50	4.0 - 5.5	A-7-5(47)	85	38	0.8	7.2	31.8	60.2	99.8	100	94	-	-
SS-215B	CL	18+50	8.7 - 10.2	A-4(0)	NP	NP	3.5	70.9	20.6	5.0	99.5	98	39	-	-
SS-216B	CL	18+50	13.7 - 15.2	A-4(11)	38	10	1.6	14.6	51.1	32.8	99.7	99	92	-	-
SS-217B	CL	18+50	18.7 - 20.2	A-2-4(0)	NP	NP	36.0	37.0	13.7	13.3	99.6	90	31	-	-
SS-218B	CL	18+50	23.7 - 25.2	A-2-4(0)	NP	NP	63.5	23.5	7.9	5.1	98.7	63	14	-	-
SS-219B	CL	18+50	28.7 - 30.2	A-3(0)	NP	NP	74.1	17.5	4.8	3.6	69.7	48	9	-	-
SS-220B	CL	18+50	33.7 - 35.2	A-2-4(0)	NP	NP	59.3	19.4	16.7	4.5	45.1	53	24	-	-

(B) VERY SOFT BROWN SANDY SILT WITH LITTLE ORGANIC MATTER, MOIST AND VERY LOOSE BROWN MODERATELY ORGANIC SAND, MOIST. (UNDIVIDED C.P.)

(C) LOOSE TO MEDIUM DENSE, SAND AND SILTY SAND, SAT. (UNDIVIDED C.P.)

(E) SOFT, TAN AND GRAY, SANDY CLAY AND SANDY SILT, WET. (UNDIVIDED C.P.)



-Y30RPD-

5/14/99
13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_ROWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_79.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	80
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 –10 –20 –30 –40 –50

(B) VERY LOOSE BLACK MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

END GRADE
-Y30RPD- STA. 23+80.43
-Y30- STA. 45+09.00, 43.50' LT
EL. = 60.45'

PROPOSED GRADE

EXISTING GROUND

20' LT
(B) 08/18 B1 VERY LOOSE TO LOOSE. VERY SOFT GRAY VERY LOOSE TO MEDIUM DENSE.

08/18 B1 GRAY, SAND (UNDIVIDED C.P.) MOIST TO SAT. SANDY CLAY AND SANDY SILT, WET SAND WITH SHELL FRAGMENTS, (CASTLE HAYNE FORMATION)

20' LT
(8) (3) 08/18 B1 MEDIUM STIFF, (6) GRAY SILTY CLAY, WET. (UNDIVIDED C.P.) (4) (WOH) (WOH) (1) (16) SAT. (UNDIVIDED C.P.) SOFT GRAY SANDY CLAY WITH SHELL FRAGS. WET. (CASTLE HAYNE FORMATION)

–Y30RPD–

19+00 20+00 21+00 22+00 23+00 24+00

13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_ROWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_80.dgn
Lee Stone
ATLSTNE_rad.pf

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

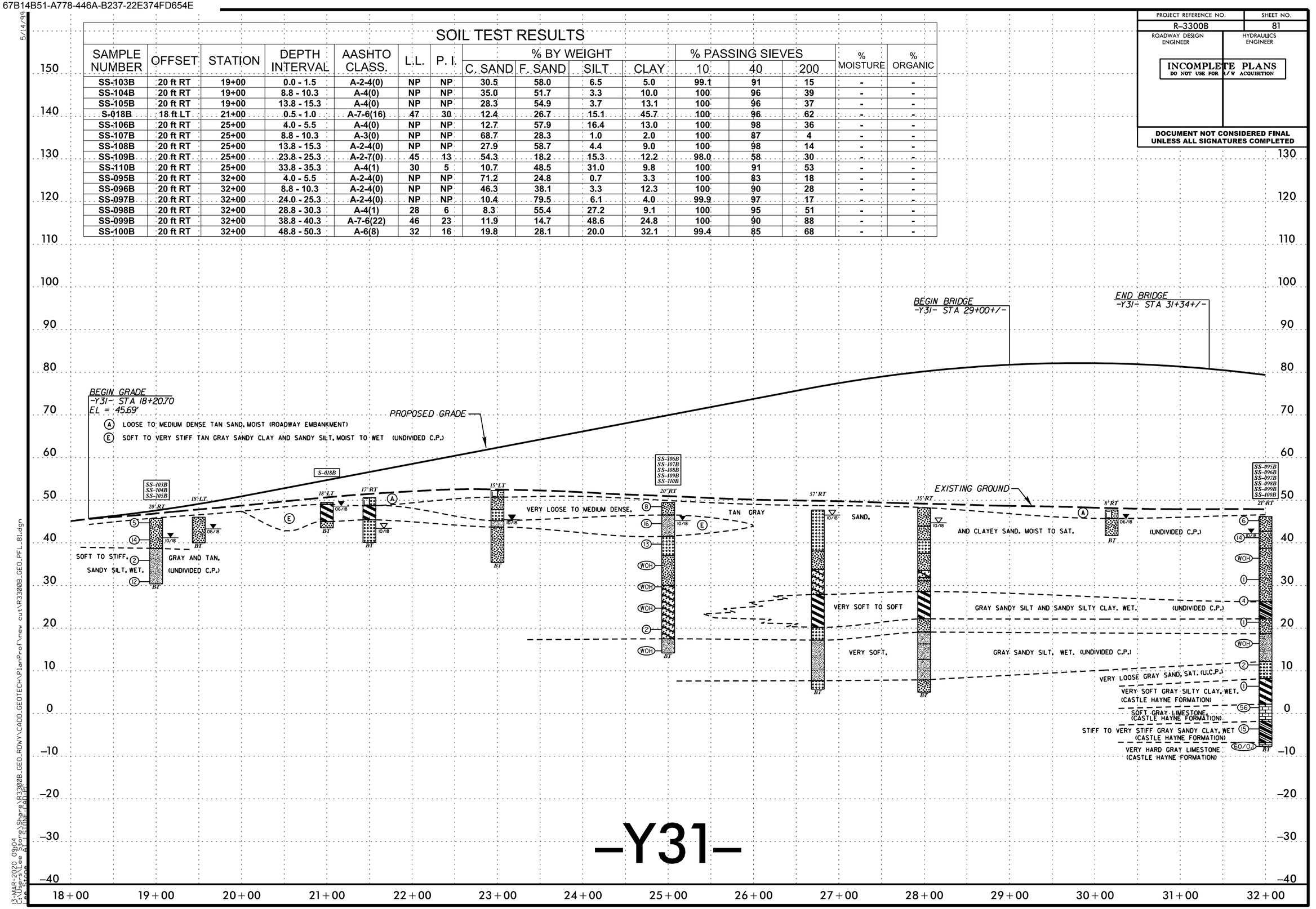
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	81
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-103B	20 ft RT	19+00	0.0 - 1.5	A-2-4(0)	NP	NP	30.5	58.0	6.5	5.0	99.1	91	15	-	-
SS-104B	20 ft RT	19+00	8.8 - 10.3	A-4(0)	NP	NP	35.0	51.7	3.3	10.0	100	96	39	-	-
SS-105B	20 ft RT	19+00	13.8 - 15.3	A-4(0)	NP	NP	28.3	54.9	3.7	13.1	100	96	37	-	-
S-018B	18 ft LT	21+00	0.5 - 1.0	A-7-6(16)	47	30	12.4	26.7	15.1	45.7	100	96	62	-	-
SS-106B	20 ft RT	25+00	4.0 - 5.5	A-4(0)	NP	NP	12.7	57.9	16.4	13.0	100	98	36	-	-
SS-107B	20 ft RT	25+00	8.8 - 10.3	A-3(0)	NP	NP	68.7	28.3	1.0	2.0	100	87	4	-	-
SS-108B	20 ft RT	25+00	13.8 - 15.3	A-2-4(0)	NP	NP	27.9	58.7	4.4	9.0	100	98	14	-	-
SS-109B	20 ft RT	25+00	23.8 - 25.3	A-2-7(0)	45	13	54.3	18.2	15.3	12.2	98.0	58	30	-	-
SS-110B	20 ft RT	25+00	33.8 - 35.3	A-4(1)	30	5	10.7	48.5	31.0	9.8	100	91	53	-	-
SS-095B	20 ft RT	32+00	4.0 - 5.5	A-2-4(0)	NP	NP	71.2	24.8	0.7	3.3	100	83	18	-	-
SS-096B	20 ft RT	32+00	8.8 - 10.3	A-2-4(0)	NP	NP	46.3	38.1	3.3	12.3	100	90	28	-	-
SS-097B	20 ft RT	32+00	24.0 - 25.3	A-2-4(0)	NP	NP	10.4	79.5	6.1	4.0	99.9	97	17	-	-
SS-098B	20 ft RT	32+00	28.8 - 30.3	A-4(1)	28	6	8.3	55.4	27.2	9.1	100	95	51	-	-
SS-099B	20 ft RT	32+00	38.8 - 40.3	A-7-6(22)	46	23	11.9	14.7	48.6	24.8	100	90	88	-	-
SS-100B	20 ft RT	32+00	48.8 - 50.3	A-6(8)	32	16	19.8	28.1	20.0	32.1	99.4	85	68	-	-



5/14/99

13-MAR-2020 09:04
C:\Users\lee.stone.sha\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_81.dgn
lee.stone
$LINE_Font

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

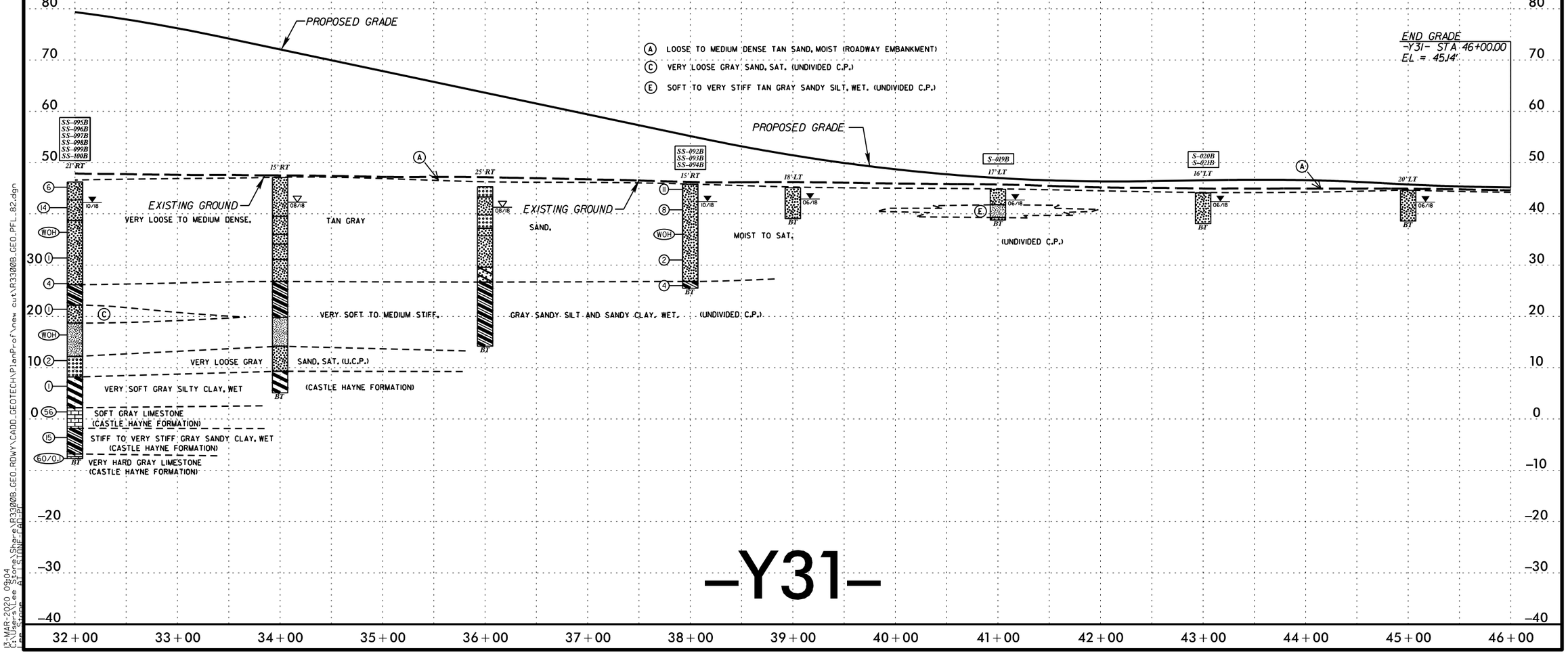
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	82
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-095B	20 ft RT	32+00	4.0 - 5.5	A-2-4(0)	NP	NP	71.2	24.8	0.7	3.3	100	83	18	-	-
SS-096B	20 ft RT	32+00	8.8 - 10.3	A-2-4(0)	NP	NP	46.3	38.1	3.3	12.3	100	90	28	-	-
SS-097B	20 ft RT	32+00	24.0 - 25.3	A-2-4(0)	NP	NP	10.4	79.5	6.1	4.0	99.9	97	17	-	-
SS-098B	20 ft RT	32+00	28.8 - 30.3	A-4(1)	28	6	8.3	55.4	27.2	9.1	100	95	51	-	-
SS-099B	20 ft RT	32+00	38.8 - 40.3	A-7-6(22)	46	23	11.9	14.7	48.6	24.8	100	90	88	-	-
SS-100B	20 ft RT	32+00	48.8 - 50.3	A-6(8)	32	16	19.8	28.1	20.0	32.1	99.4	85	68	-	-
SS-092B	15 ft RT	38+00	0.0 - 1.5	A-2-4(0)	NP	NP	23.3	56.9	11.3	8.5	99.8	94	25	-	-
SS-093B	15 ft RT	38+00	8.8 - 10.3	A-2-4(0)	NP	NP	47.8	37.2	3.7	11.3	100	88	15	-	-
SS-094B	15 ft RT	38+00	19.0 - 20.3	A-6(6)	30	14	7.9	48.1	16.4	27.5	99.3	98	64	-	-
S-019B	17 ft LT	41+00	3.0 - 3.5	A-4(2)	23	10	11.4	40.3	20.4	27.9	100	98	52	-	-
S-020B	16 ft LT	43+00	0.5 - 1.0	A-2-4(0)	20	NP	37.5	38.0	8.2	16.4	99.9	89	27	-	-
S-021B	16 ft LT	43+00	3.0 - 3.5	A-2-4(0)	21	8	33.4	37.5	9.7	19.4	100	89	31	-	-



13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_82.dgn
Lee Stone, AIT | STINE FARM

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

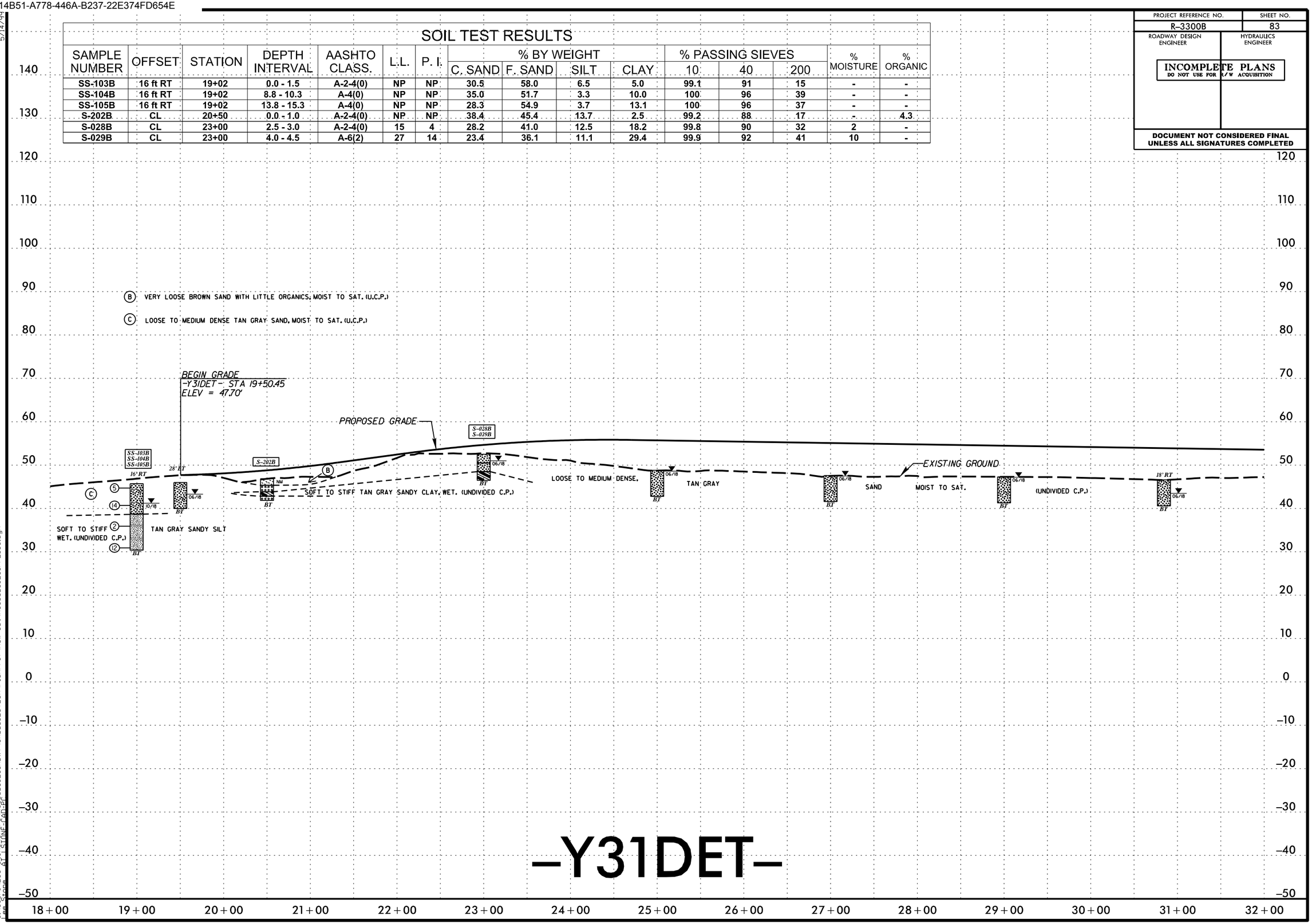
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	83
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-103B	16 ft RT	19+02	0.0 - 1.5	A-2-4(0)	NP	NP	30.5	58.0	6.5	5.0	99.1	91	15	-	-
SS-104B	16 ft RT	19+02	8.8 - 10.3	A-4(0)	NP	NP	35.0	51.7	3.3	10.0	100	96	39	-	-
SS-105B	16 ft RT	19+02	13.8 - 15.3	A-4(0)	NP	NP	28.3	54.9	3.7	13.1	100	96	37	-	-
S-202B	CL	20+50	0.0 - 1.0	A-2-4(0)	NP	NP	38.4	45.4	13.7	2.5	99.2	88	17	-	4.3
S-028B	CL	23+00	2.5 - 3.0	A-2-4(0)	15	4	28.2	41.0	12.5	18.2	99.8	90	32	2	-
S-029B	CL	23+00	4.0 - 4.5	A-6(2)	27	14	23.4	36.1	11.1	29.4	99.9	92	41	10	-



13-MAR-2020 09:04
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_83.dgn
lee.stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-030B	CL	33+00	3.0 - 3.5	A-4(0)	19	6	15.2	49.0	15.4	20.4	100	96	39	2	-
S-031B	CL	33+00	4.5 - 5.0	A-2-4(0)	13	NP	18.5	55.4	11.0	15.1	99.7	96	29	20	-
S-027B	CL	39+00	1.5 - 2.0	A-4(0)	20	7	12.9	49.0	18.0	20.1	100	97	42	-	-

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	84
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

END GRADE
-Y31DET- STA 45+71.10
EL. = 44.60'

PROPOSED GRADE

EXISTING GROUND

S-030B
S-031B

S-027B

17' LT

38' LT

06/18

BT

(E) SOFT TO STIFF TAN GRAY SANDY SILT, WET. (UNDIVIDED C.P.)

LOOSE TO MEDIUM DENSE.

TAN GRAY SAND.

MOIST TO SAT.

(UNDIVIDED C.P.)

-Y31DET-

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 –10 –20 –30 –40 –50

32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00

13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_84.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

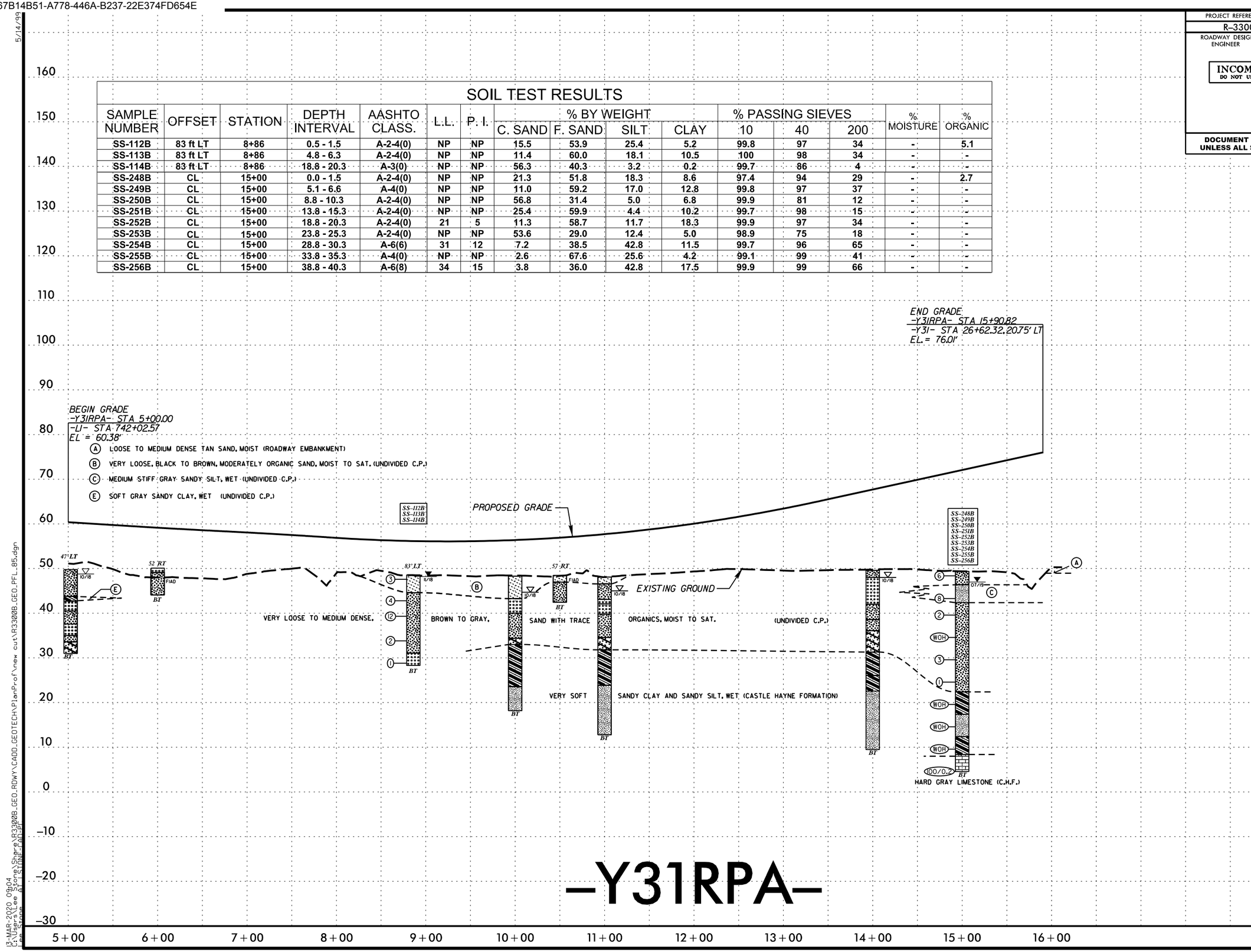
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	85
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-112B	83 ft LT	8+86	0.5 - 1.5	A-2-4(0)	NP	NP	15.5	53.9	25.4	5.2	99.8	97	34	-	5.1
SS-113B	83 ft LT	8+86	4.8 - 6.3	A-2-4(0)	NP	NP	11.4	60.0	18.1	10.5	100	98	34	-	-
SS-114B	83 ft LT	8+86	18.8 - 20.3	A-3(0)	NP	NP	56.3	40.3	3.2	0.2	99.7	86	4	-	-
SS-248B	CL	15+00	0.0 - 1.5	A-2-4(0)	NP	NP	21.3	51.8	18.3	8.6	97.4	94	29	-	2.7
SS-249B	CL	15+00	5.1 - 6.6	A-4(0)	NP	NP	11.0	59.2	17.0	12.8	99.8	97	37	-	-
SS-250B	CL	15+00	8.8 - 10.3	A-2-4(0)	NP	NP	56.8	31.4	5.0	6.8	99.9	81	12	-	-
SS-251B	CL	15+00	13.8 - 15.3	A-2-4(0)	NP	NP	25.4	59.9	4.4	10.2	99.7	98	15	-	-
SS-252B	CL	15+00	18.8 - 20.3	A-2-4(0)	21	5	11.3	58.7	11.7	18.3	99.9	97	34	-	-
SS-253B	CL	15+00	23.8 - 25.3	A-2-4(0)	NP	NP	53.6	29.0	12.4	5.0	98.9	75	18	-	-
SS-254B	CL	15+00	28.8 - 30.3	A-6(6)	31	12	7.2	38.5	42.8	11.5	99.7	96	65	-	-
SS-255B	CL	15+00	33.8 - 35.3	A-4(0)	NP	NP	2.6	67.6	25.6	4.2	99.1	99	41	-	-
SS-256B	CL	15+00	38.8 - 40.3	A-6(8)	34	15	3.8	36.0	42.8	17.5	99.9	99	66	-	-



–Y31RPA–

5/14/99

13-MAR-2020 09:04
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_85.dgn
lee.stone
$LTYPE_PAT32

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	86
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-081B	48 ft RT	6+79	4.0 - 5.5	A-6(3)	28	15	11.4	44.6	15.5	28.5	100	97	47	-	-
SS-082B	48 ft RT	6+79	13.8 - 15.3	A-2-4(0)	NP	NP	12.7	70.8	4.3	12.3	100	99	31	-	-
SS-083B	CL	11+00	0.0 - 1.5	A-4(0)	NP	NP	16.3	58.8	16.6	8.2	99.8	96	38	-	2.7
SS-084B	CL	11+00	8.8 - 10.3	A-2-4(0)	NP	NP	53.4	33.2	2.1	11.2	100	87	21	-	-
SS-077B	CL	17+00	8.8 - 10.3	A-2-4(0)	NP	NP	47.9	37.3	2.2	12.6	100	88	15	-	-
SS-078B	CL	17+00	18.8 - 20.3	A-7-6(23)	54	28	9.7	16.7	41.1	32.5	99.9	92	77	-	-
ST-05B	CL	17+05	21.0 - 23.0	A-2-7(0)	42	22	14.4	68.5	10.3	6.8	99.9	95.8	20.5	48	-
SS-079B	CL	17+00	23.8 - 25.3	A-3(0)	NP	NP	41.6	52.3	2.6	3.5	99.5	83	8	-	-
SS-080B	CL	17+00	28.8 - 30.2	A-4(2)	27	9	25.8	46.9	17.2	10.1	96.4	81	50	-	-

(E) MEDIUM STIFF TAN GRAY SANDY SILT WITH TRACE ORGANICS, MOIST. (UNDIVIDED C.P.)

BEGIN GRADE
-Y31RPB- STA 5+00.00
-L1- STA 718+22.40
EL = 56.79'

PROPOSED GRADE

EXISTING GROUND

SS-081B
SS-082B
48' RT
SOFT TO STIFF GRAY AND RED (UNDIVIDED C.P.)
SANDY CLAY, MOIST TO WET
VERY LOOSE TO MEDIUM DENSE.
61' RT
TAN GRAY SAND.
SS-083B
SS-084B
MOIST TO SAT.
(UNDIVIDED C.P.)
VERY SOFT GRAY SILTY CLAY
VERY LOOSE GRAY SAND, SAT. (UNDIVIDED C.P.)
SS-077B
SS-078B
ST-05B
SS-079B
SS-080B
23' LT
VERY SOFT TO SOFT GRAY SANDY SILT, WET (UNDIVIDED C.P.)
VERY LOOSE GRAY SAND, SAT. (UNDIVIDED C.P.)

-Y31RPB-

13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_86.dgn
Lee Stone
ST | STIP-Fab2P

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	87
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

END GRADE
-Y31RPB- STA 19+37.91
-Y31- STA 26+65.56, 20.75' RT
EL. = 75.71'

Ⓐ LOOSE TO MEDIUM DENSE TAN SAND, MOIST (ROADWAY EMBANKMENT)

10/18

VERY LOOSE TO MEDIUM DENSE, TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT GRAY SILTY CLAY, WET. (UNDIVIDED C.P.)

VERY LOOSE GRAY SAND, SAT. (UNDIVIDED C.P.)

VERY SOFT TO SOFT GRAY SANDY SILT, WET (UNDIVIDED C.P.)

BT VERY LOOSE GRAY SAND, SAT. (UNDIVIDED C.P.)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 –10 –20 –30

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 –10 –20 –30

19+00

–Y31RPB–

13-MAR-2020 09:04
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_87.dgn
Lee Stone RI | STINE FARM

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	88
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-183B	47 LT	5+56	0.0-1.0	A-2-4(0)	NP	NP	12.5	57.8	20.2	9.5	99.8	97	33	-	12.5
SS-069B	4 ft RT	7+80	4.0 - 5.5	A-2-4(0)	NP	NP	15.5	71.2	4.3	9.0	100	98	17	21	-
SS-070B	4 ft RT	7+80	13.8 - 15.3	A-2-4(0)	NP	NP	22.1	61.6	11.3	5.0	99.3	90	23	32	-
SS-071B	4 ft RT	7+80	23.8 - 25.3	A-7-6(17)	45	24	9.4	32.6	39.6	18.3	100	93	75	65	-

(B) VERY LOOSE, BROWN-BLACK MODERATELY ORGANIC SAND AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

(E) SOFT TO STIFF TAN GRAY SANDY SILT, WET. (UNDIVIDED C.P.)

BEGIN GRADE
-Y31RPC-, STA 5+00.00
-LI-, STA 710+43.38
EL. = 47.09'

PROPOSED GRADE

EXISTING GROUND

47 LT
S-183B
NM
BT

58 RT
NM
BT

59 RT
NM
BT

SS-69B
SS-70B
SS-71B
4' RT
2
8
3
1
WOH
1
60/0.1
28
100/0.6
BT
10/18

VERY SOFT TO MEDIUM STIFF GRAY SILTY CLAY, WET. (CASTLE HAYNE FORMATION)

HARD LIGHT GRAY, LIMESTONE
(CASTLE HAYNE FORMATION)

VERY STIFF GRAY SANDY CLAY, WET.
(CASTLE HAYNE FORMATION)

HARD LIGHT GRAY, LIMESTONE
(CASTLE HAYNE FORMATION)

MEDIUM DENSE TO VERY LOOSE, WHITE TO GRAY, SILTY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

06/18
10/18

54" RCP

-Y31RPC-

60
50
40
30
20
10
0
-10
-20
-30
-40
-50

5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00

J3-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_88.dgn
Lee Stone
ST | STINE Family

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

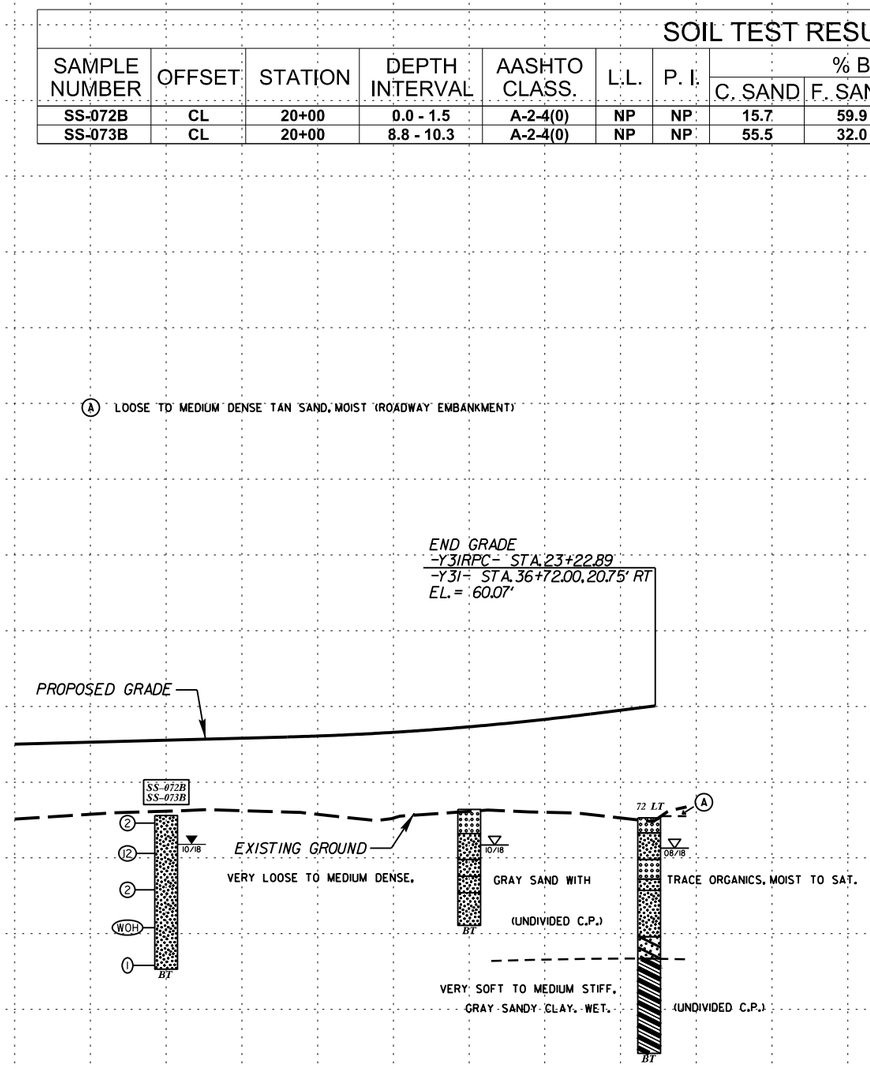
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	89
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-072B	CL	20+00	0.0 - 1.5	A-2-4(0)	NP	NP	15.7	59.9	17.4	7.0	99.9	97	29	16	2.6
SS-073B	CL	20+00	8.8 - 10.3	A-2-4(0)	NP	NP	55.5	32.0	1.7	10.8	100	84	13	25	-



–Y31RPC–

5/14/99
13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_89.dgn
Lee Stone
Arial STINE Font

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

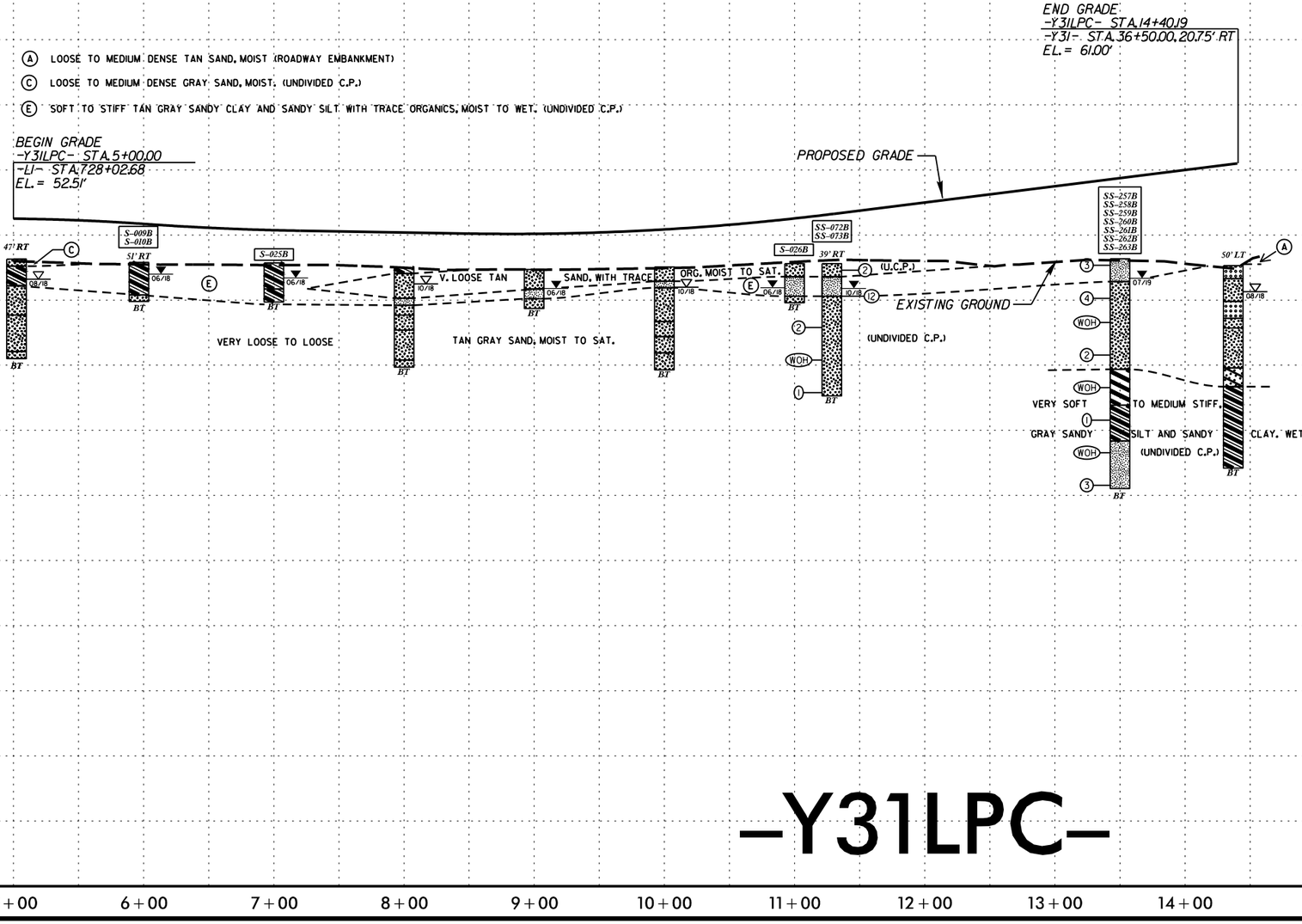
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	90
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-009B	51 ft RT	5+95	1.0 - 1.5	A-6(5)	34	11	12.8	29.2	23.7	34.3	99.9	94	61	35	-
S-010B	51 ft RT	5+95	4.0 - 5.0	A-6(4)	28	15	12.2	38.6	18.0	31.3	100	97	52	19	-
S-025B	CL	7+00	2.0 - 3.0	A-6(2)	24	11	13.0	43.5	17.2	26.3	100	97	47	25	-
S-026B	CL	11+00	2.5 - 3.0	A-4(0)	16	2	14.5	54.8	15.6	15.1	100	97	35	-	-
SS-072B	39 ft RT	11+29	0.0 - 1.5	A-2-4(0)	NP	NP	15.7	59.9	17.4	7.0	99.9	97	29	16	2.6
SS-073B	39 ft RT	11+29	8.8 - 10.3	A-2-4(0)	NP	NP	55.5	32.0	1.7	10.8	100	84	13	25	-
SS-257B	CL	13+50	0.0 - 1.5	A-4(0)	NP	NP	20.5	46.7	20.3	12.5	100	95	37	-	1.5
SS-258B	CL	13+50	5.1 - 6.6	A-2-4(0)	NP	NP	27.7	45.7	14.4	12.3	100	94	30	-	-
SS-259B	CL	13+50	13.8 - 15.3	A-2-4(0)	NP	NP	1.2	75.4	10.3	13.1	99.9	100	28	-	-
SS-260B	CL	13+50	18.8 - 20.3	A-7-5(33)	62	31	3.0	8.1	53.0	35.9	99.9	99	90	-	-
SS-261B	CL	13+50	23.8 - 25.3	A-6(2)	30	11	22.3	38.5	27.2	12.0	97.2	82	48	-	-
SS-262B	CL	13+50	28.8 - 30.3	A-4(3)	28	9	4.0	51.6	34.1	10.3	99.7	96	58	-	-
SS-263B	CL	13+50	33.8 - 35.3	A-4(0)	NP	NP	17.8	51.0	22.2	9.1	99.6	85	41	-	-



13-MAR-2020 09:04
C:\Users\Lee.Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_90.dgn
Lee.Stone
ATLSTINE-A01P

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

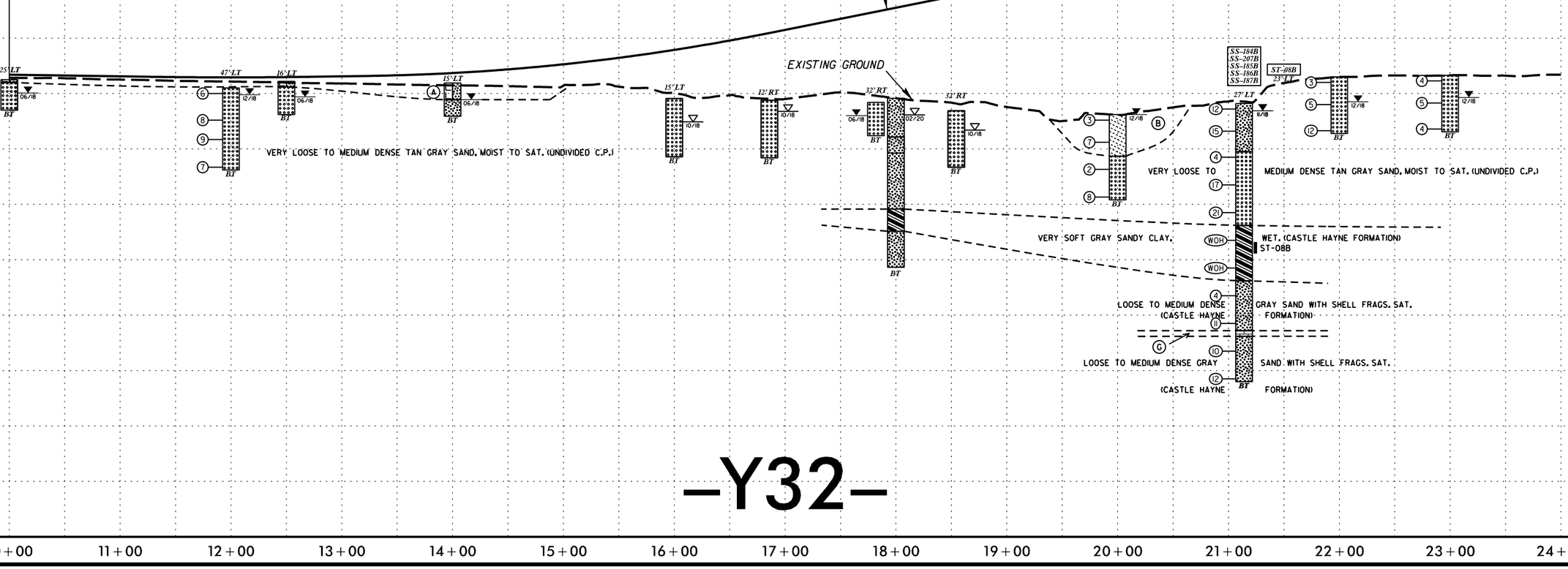
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	91
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-184B	27 ft LT	21+14	0.0 - 1.5	A-2-4(0)	NP	NP	10.1	77.0	3.0	9.8	100	99	14	-	-
SS-207B	27 ft LT	21+14	8.7 - 10.2	A-3(0)	NP	NP	2.4	96.4	0.2	1.0	99.9	99	1	-	-
SS-185B	27 ft LT	21+14	23.7 - 25.2	A-6(13)	35	16	2.4	23.6	55.3	18.7	100	99	84	-	-
SS-186B	27 ft LT	21+14	33.7 - 35.2	A-2-4(0)	NP	NP	41.0	31.1	14.8	13.1	91.3	76	33	-	-
SS-187B	27 ft LT	21+14	43.7 - 45.2	A-2-4(0)	NP	NP	26.5	64.1	2.7	6.7	96.2	85	10	-	-
ST-08B	23 ft LT	21+15	25.0 - 27.0	A-6(14)	39	-	0.4	37.4	34.5	27.7	100	99.8	73.0	-	-



5/14/99
13-MAR-2020 09:04
C:\Users\Lee Stone\Shared\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_91.dgn
ez_Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	92
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-168B	CL	25+28	4.0 - 5.5	A-2-4(0)	NP	NP	7.4	84.8	5.0	2.8	100	99	10	-	2.7
SS-169B	CL	25+28	13.9 - 15.4	A-2-4(0)	NP	NP	5.3	65.8	11.1	17.7	98.4	98	34	-	-
SS-171B	20 ft RT	28+00	0.0 - 1.5	A-3(0)	NP	NP	12.1	83.3	3.2	1.4	100	97	5	-	0.6
SS-172B	20 ft RT	28+00	8.7 - 10.2	A-3(0)	NP	NP	35.3	63.2	1.3	0.2	98.8	85	2	-	-
SS-173B	20 ft RT	28+00	13.7 - 15.2	A-2-4(0)	NP	NP	3.9	72.1	6.0	18.1	100	100	26	-	-
SS-174B	20 ft RT	28+00	23.7 - 25.2	A-2-4(0)	NP	NP	3.4	83.3	4.9	8.4	100	100	17	-	-
SS-175B	20 ft RT	28+00	28.7 - 30.2	A-6(6)	29	12	2.3	42.0	44.0	11.7	100	99	66	-	-
SS-192B	28 ft RT	34+64	0.0 - 1.5	A-2-4(0)	NP	NP	11.9	78.3	3.6	6.8	99.8	99	11	-	2.8
SS-193B	28 ft RT	34+64	8.8 - 10.3	A-3(0)	NP	NP	21.7	76.3	-1.0	0.2	99.8	98	2	-	-
SS-176B	CL	36+00	0.0 - 1.5	A-2-4(0)	NP	NP	8.5	80.2	6.5	4.8	99.6	98	12	-	5.8
SS-177B	CL	36+00	4.0 - 5.0	A-2-4(0)	NP	NP	11.4	74.4	10.4	3.8	97.9	97	16	-	12.1

–Y32–

13-MAR-2020 09:04
C:\Users\Lee Stone\Shere\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_92.dgn
Lee Stone
AT T STINE-ANTZ

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

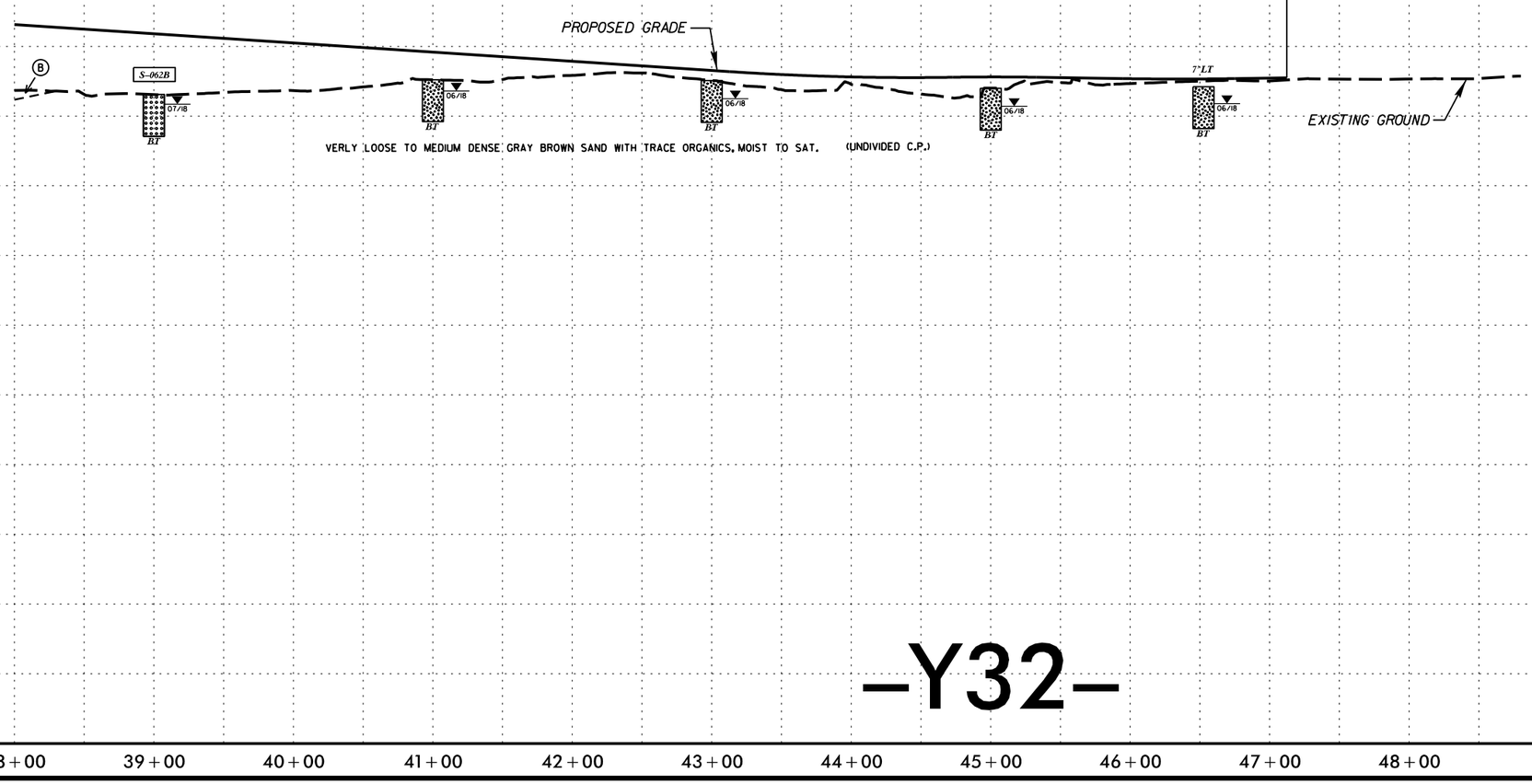
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	93
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-062B	CL	39+00	5.5 - 6.0	A-3(0)	25	NP	7.8	90.1	-0.1	2.2	97.5	99	3	65	3.0



13-MAR-2020 09:04
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_93.dgn
lee.stone
Arial STINE-Font

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	94
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-040B	CL	7+00	3.5 - 4.0	A-3(0)	18	NP	15.4	76.4	5.2	3.0	100	99	9	-	3.4
SS-178B	CL	8+00	4.0 - 5.5	A-3(0)	NP	NP	10.6	84.4	3.1	1.8	100	99	6	-	3.6
S-072B	CL	9+00	1.0 - 1.5	A-3(0)	17	NP	22.4	69.4	2.1	6.1	99.9	93	9	26	13.6
SS-179B	CL	10+00	8.8 - 10.3	A-4(0)	NP	NP	0.7	31.0	56.3	11.9	100	100	69	28	6.4
S-073B	CL	11+00	4.0 - 4.5	A-3(0)	24	NP	20.1	71.3	5.5	3.0	99.8	94	10	43	5.8
S-074B	CL	13+00	4.0 - 4.5	A-4(0)	32	NP	12.7	53.6	15.9	17.8	100	96	36	50	8.2
SS-180B	CL	14+00	13.8 - 15.3	A-2-4(0)	NP	NP	4.6	65.4	10.0	19.9	100	100	33	-	-
SS-181B	CL	16+00	8.8 - 10.3	A-4(0)	22	3	8.1	61.7	11.7	18.5	99.9	97	36	34	-
SS-182B	CL	18+00	4.0 - 5.0	A-2-4(0)	NP	NP	18.9	61.9	9.1	10.1	98.3	92	21	-	4.9
SS-183B	CL	18+00	8.8 - 10.3	A-2-4(0)	19	6	21.9	49.0	10.9	18.2	98.1	92	32	-	-

(B) VERY LOOSE TO LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANICS AND MUCK, MOIST TO SAT. AND SOFT BROWN SANDY SILT WITH LITTLE ORGANIC MATTER, WET (UNDIVIDED C.P.)

(C) VERY LOOSE TO LOOSE TAN SAND, MOIST TO SAT. (ARTIFICIAL FILL)

BEGIN GRADE
-Y32RPB1- STA 5+00.00 =
-L1_NORTHERN- STA 838+15.14 (47' LT)
EL = 73.96'

PROPOSED GRADE

EXISTING GROUND

47' LT
50' LT
S-040B
SS-178B
S-072B
SS-179B
S-073B
S-074B
SS-180B
SS-181B
SS-182B
SS-183B

VERY LOOSE TO MEDIUM DENSE TAN BROWN (UNDIVIDED C.P.)
SAND
MOIST TO SAT.
SOFT GRAY SANDY SILT WET
WITH LITTLE ORGANICS, (U.C.P.)
VERY LOOSE TO
MEDIUM DENSE TAN GRAY
SAND WITH TRACE ORGANICS
SAT.
SOFT GRAY SANDY SILT, WET (UNDIVIDED C.P.)
(UNDIVIDED C.P.)

-Y32RPB1-

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 –10 –20 –30

5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00

5/14/99

13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_ROWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_94.dgn
Lee Stone
ATLSTINE_Eng1.tbl

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	95
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

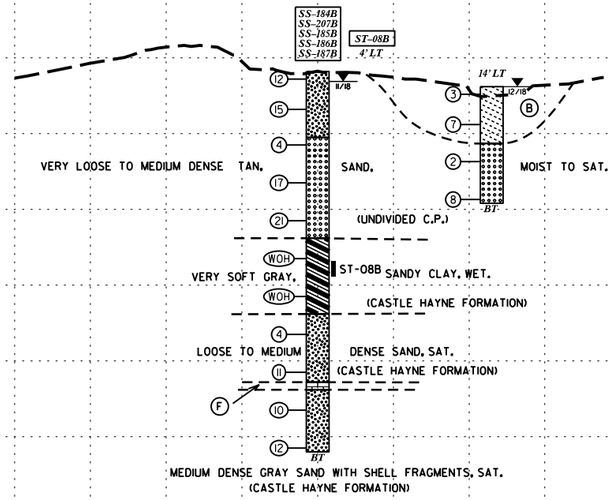
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-184B	CL	21+00	0.0 - 1.5	A-2-4(0)	NP	NP	10.1	77.0	3.0	9.8	100	99	14	-	-
SS-207B	CL	21+00	8.7 - 10.2	A-3(0)	NP	NP	2.4	96.4	0.2	1.0	99.9	99	1	-	-
SS-185B	CL	21+00	23.7 - 25.2	A-6(13)	35	16	2.4	23.6	55.3	18.7	100	99	84	-	-
SS-186B	CL	21+00	33.7 - 35.2	A-2-4(0)	NP	NP	41.0	31.1	14.8	13.1	91.3	76	33	-	-
SS-187B	CL	21+00	43.7 - 45.2	A-2-4(0)	NP	NP	26.5	64.1	2.7	6.7	96.2	85	10	-	-
ST-08B	4 ft LT	21+00	25.0 - 27.0	A-6(14)	39	22	0.4	37.4	34.5	27.7	100	99.8	73.0	39	-

(B) VERY LOOSE TO LOOSE, BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

(F) MODERATELY HARD GRAY LIMESTONE (CASTLE HAYNE FORMATION)

END GRADE
-Y32RPB1- STA 22+88.82=
-Y32- STA 19+24.23 (12.00' RT)
EL = 59.75'



-Y32RPB1-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 −10 −20 −30 −40

19+00 20+00 21+00 22+00

5/14/99

13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_95.dgn
ps_Stone_Lee | STONE_Lee.pltcfg

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

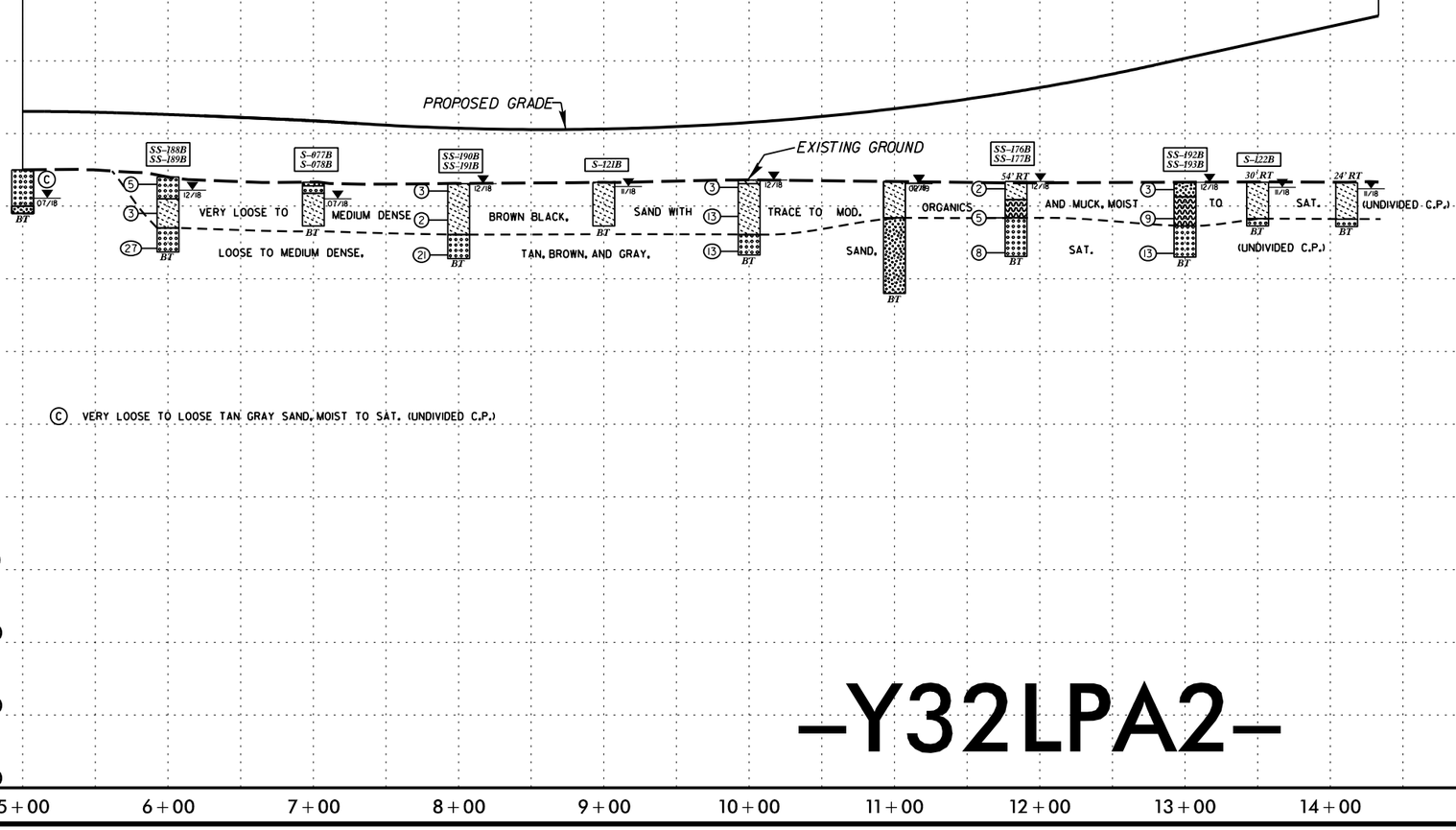
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	96
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-188B	CL	6+00	0.0 - 1.5	A-3(0)	NP	NP	18.3	73.2	4.3	4.2	99.3	96	9	-	2.9
SS-189B	CL	6+00	4.0 - 5.5	A-2-4(0)	NP	NP	10.1	75.6	7.2	7.1	100	99	15	-	3.5
S-077B	CL	7+00	2.0 - 2.5	A-2-4(0)	22	NP	12.2	72.2	6.5	9.1	100	98	17	-	5.9
S-078B	CL	7+00	4.0 - 4.5	A-2-4(0)	18	NP	7.3	80.8	6.9	5.0	100	99	13	-	3.1
SS-190B	CL	8+00	0.0 - 1.5	A-2-4(0)	NP	NP	17.0	72.4	8.3	2.2	99.7	95	12	-	6.8
SS-191B	CL	8+00	4.0 - 5.5	A-2-4(0)	NP	NP	6.7	76.8	11.2	5.3	100	99	18	-	6.1
S-121B	CL	9+00	1.0 - 2.0	A-2-4(0)	NP	NP	11.6	75.0	8.2	5.3	99.7	99	14	24	4
SS-176B	54 ft RT	11+84	0.0 - 1.5	A-2-4(0)	NP	NP	8.5	80.2	6.5	4.8	99.6	98	12	-	5.8
SS-177B	54 ft RT	11+84	4.0 - 5.0	A-2-4(0)	NP	NP	11.4	74.4	10.4	3.8	97.9	97	16	-	12.1
SS-192B	CL	13+00	0.0 - 1.5	A-2-4(0)	NP	NP	11.9	78.3	3.6	6.2	99.8	99	11	-	2.8
SS-193B	CL	13+00	8.8 - 10.3	A-3(0)	NP	NP	21.7	76.3	-1.0	3.0	99.8	98	2	-	-
S-122B	30 ft RT	13+50	5.0 - 6.0	A-3(0)	NP	NP	6.1	90.9	2.8	0.2	100	99	4	-	-



5/14/99
13-MAR-2020 09:04
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_96.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	97
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

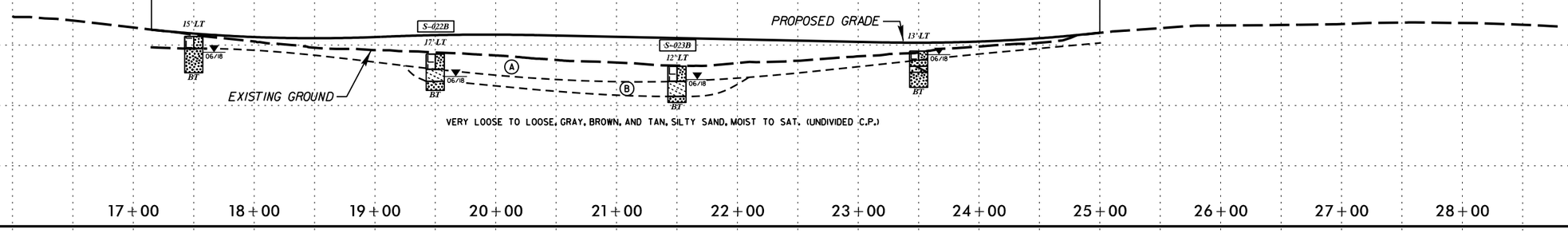
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

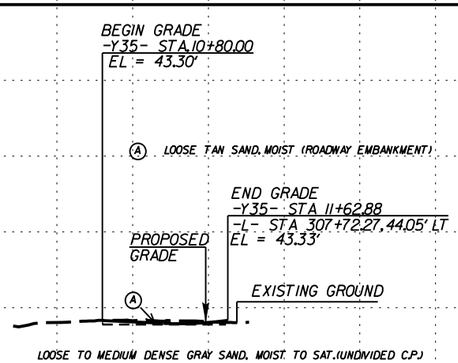
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y38-

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-022B	17 ft LT	19+50	2.5 - 3.0	A-2-4(0)	19	NP	12.2	65.6	9.8	12.3	98.3	96	26	-	4.1
S-023B	12 ft LT	21+50	3.5 - 4.0	A-2-4(0)	24	NP	16.8	54.0	12.1	17.0	99.8	95	33	-	-





-Y35-

13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_97.dgn
Stone, Lee

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	98
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-195B	CL	245+00	23.8 - 25.3	A-4(3)	21	7	2.5	23.0	63.0	11.5	100	98	81	31	-
SS-194B	CL	245+00	28.8 - 30.3	A-2-6(1)	30	13	38.1	33.0	22.6	6.3	100	91	32	37	-
SS-196B	CL	245+00	38.8 - 40.3	A-2-4(0)	NP	NP	65.1	23.0	6.4	5.5	91.4	62	15	-	-

BEGIN GRADE
-Y40- STA 231+00.00 =
-L- STA 231+00.00 (43.00' RT)
-Y32- STA 10+00.00 (59.00' RT)
EL = 431'

PROPOSED GRADE

Ⓐ LOOSE TAN SAND, MOIST (ROADWAY EMBANKMENT)

EXISTING GROUND

SS-195B
SS-194B
SS-196B

VERY LOOSE TO MEDIUM DENSE, TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT TO SOFT, GRAY SANDY SILT, WET (CASTLE HAYNE FORMATION)

VERY LOOSE TO MEDIUM DENSE GRAY SAND WITH SHELL FRAGMENTS, SAT. (CASTLE HAYNE FORMATION)

-Y40-

13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_98.dgn
Lee Stone
ef_ISTINE_ea.tbl

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

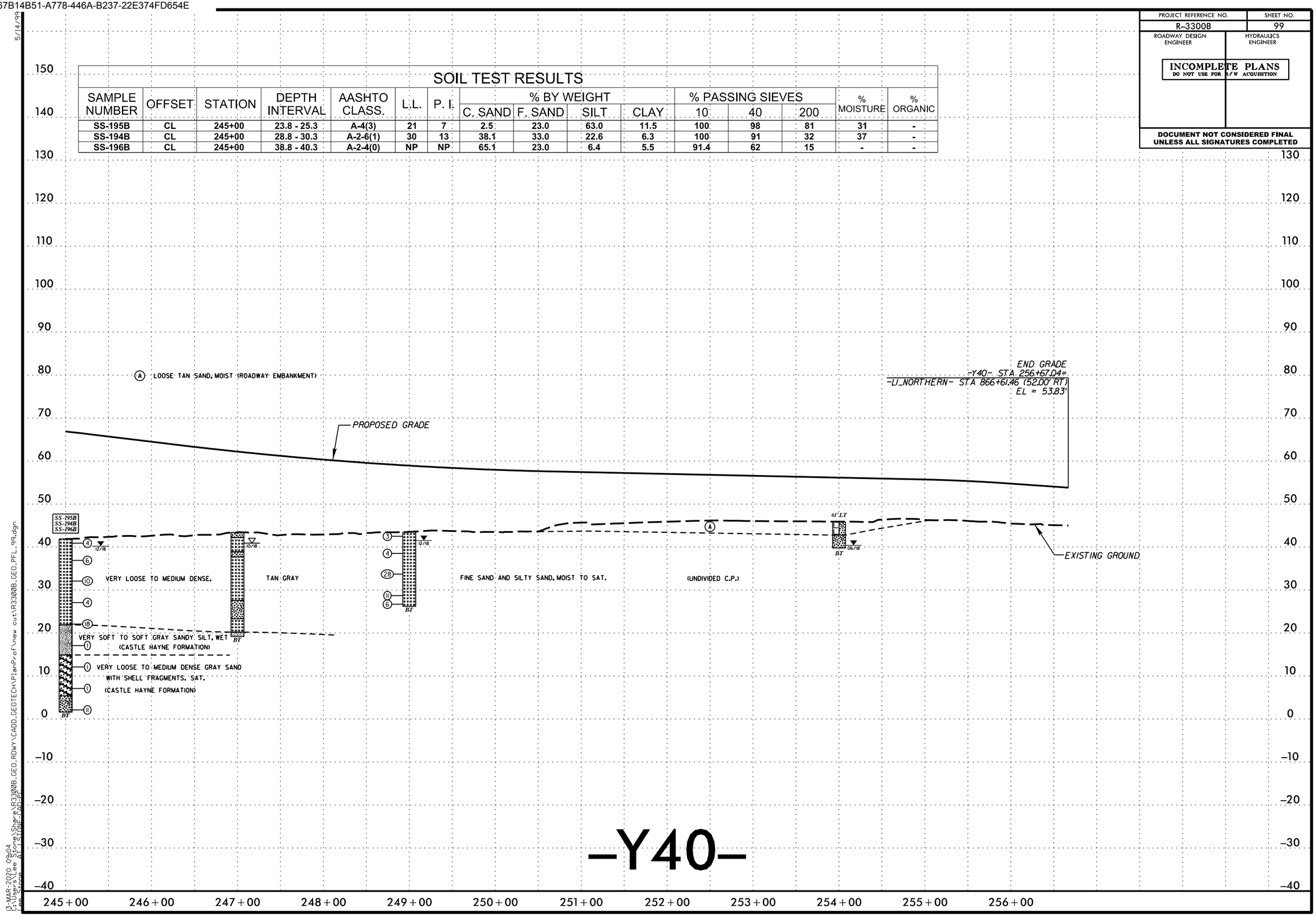
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	99
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-195B	CL	245+00	23.8 - 25.3	A-4(3)	21	7	2.5	23.0	63.0	11.5	100	98	81	31	-
SS-194B	CL	245+00	28.8 - 30.3	A-2-6(1)	30	13	38.1	33.0	22.6	6.3	100	91	32	37	-
SS-196B	CL	245+00	38.8 - 40.3	A-2-4(0)	NP	NP	65.1	23.0	6.4	5.5	91.4	62	15	-	-



5/14/99
13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_99.dgn
Lee Stone

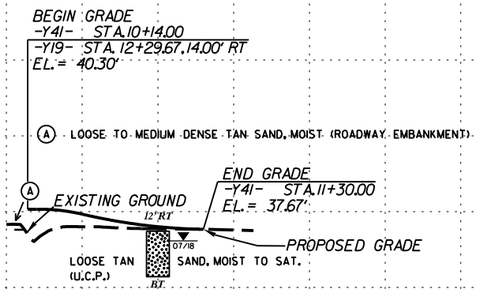
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	100
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

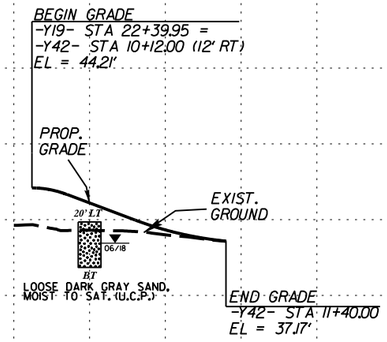
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

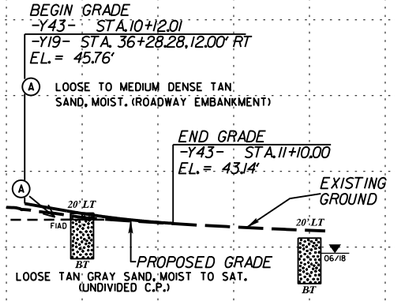
-Y41-



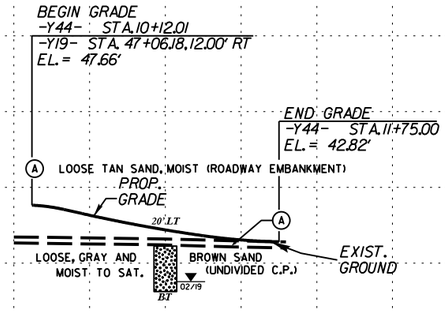
-Y42-



-Y43-



-Y44-



13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_100.dgn
Lee Stone BT | STONE Family

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

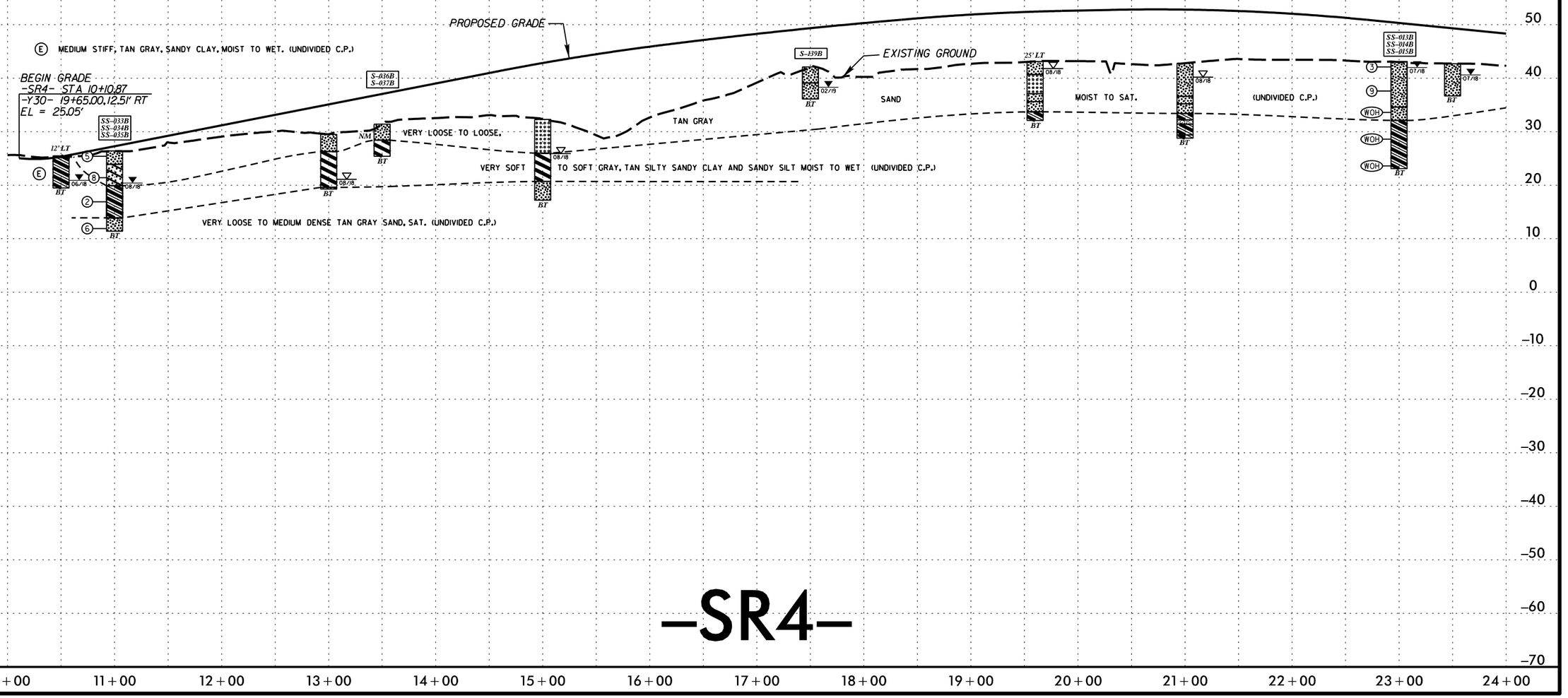
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	101
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-033B	CL	11+00	0.0 - 1.5	A-2-4(0)	21	NP	13.2	64.5	17.3	5.0	99.3	94	30	-	-
SS-034B	CL	11+00	4.0 - 5.5	A-2-6(0)	25	11	31.7	39.7	7.2	21.4	99.8	96	32	33	-
SS-035B	CL	11+00	13.5 - 15.0	A-2-4(0)	28	7	28.6	44.1	18.2	9.1	99.6	91	34	-	-
S-036B	CL	13+50	0.0 - 3.0	A-2-4(0)	20	NP	7.1	83.4	5.3	4.2	99.9	97	18	-	-
S-037B	CL	13+50	3.0 - 6.0	A-7-6(18)	50	31	7.0	33.5	23.8	35.6	100	97	64	-	-
S-139B	CL	17+50	3.0 - 6.0	A-2-4(0)	NP	NP	1.6	78.2	5.7	14.5	100	99	30	-	-
SS-013B	CL	23+00	4.5 - 6.0	A-2-4(0)	22	NP	0.7	84.9	6.2	8.2	99.9	100	27	25	-
SS-014B	CL	23+00	8.5 - 10.0	A-2-4(0)	16	NP	51.4	34.2	2.3	12.1	100	76	15	28	-
SS-015B	CL	23+00	13.5 - 15.0	A-6(4)	28	14	12.1	42.5	20.9	24.5	100	98	52	24	-



13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_101.dgn
Stone, Lee

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

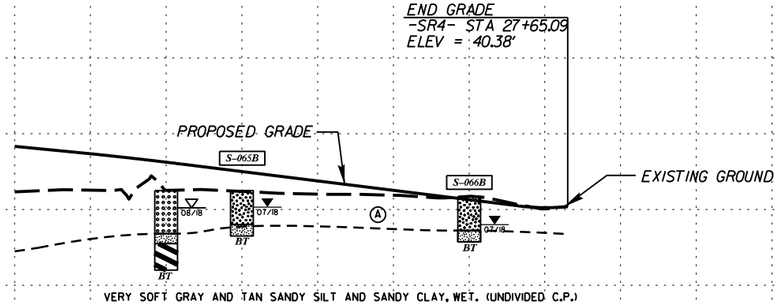
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	102
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-065B	CL	25+50	4.5 - 6.0	A-4(0)	24	NP	0.3	72.1	13.5	14.1	100	100	43	-	-
S-066B	CL	27+00	4.5 - 6.0	A-4(0)	25	NP	0.3	71.5	12.9	15.3	100	100	45	-	-



-SR4-

13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_ROWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_102.dgn
Stone, Lee | STIP Team 57

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	103
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

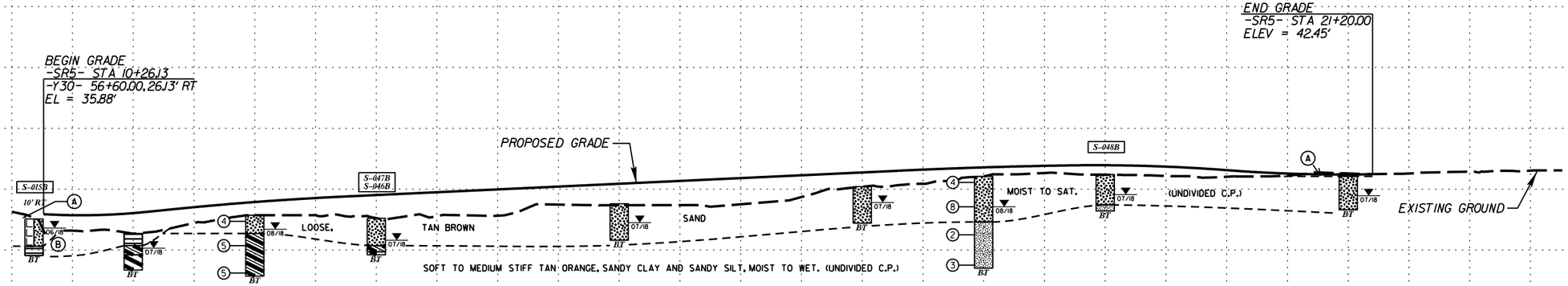
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-015B	10 ft RT	10+18	4.5 - 5.0	A-5(0)	41	NP	6.8	50.7	37.0	5.5	99.6	98	50	-	17.8
S-047B	CL	13+00	5.0 - 5.5	A-6(9)	35	20	7.2	44.2	15.8	32.8	99.6	96	58	-	-
S-046B	CL	13+00	5.5 - 6.0	A-7-6(25)	48	29	2.0	19.8	29.8	48.4	99.9	99	84	37	-
S-048B	CL	19+00	5.0 - 5.5	A-4(0)	22	NP	0.2	74.4	12.1	13.3	100	100	42	-	-

(A) LOOSE TO MEDIUM DENSE TAN SAND, MOIST. (ROADWAY EMBANKMENT)
(B) VERY SOFT BROWN BLACK SANDY SILT WITH MODERATE ORGANICS, MOIST TO WET (U.C.P.)



-SR5-

13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_103.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

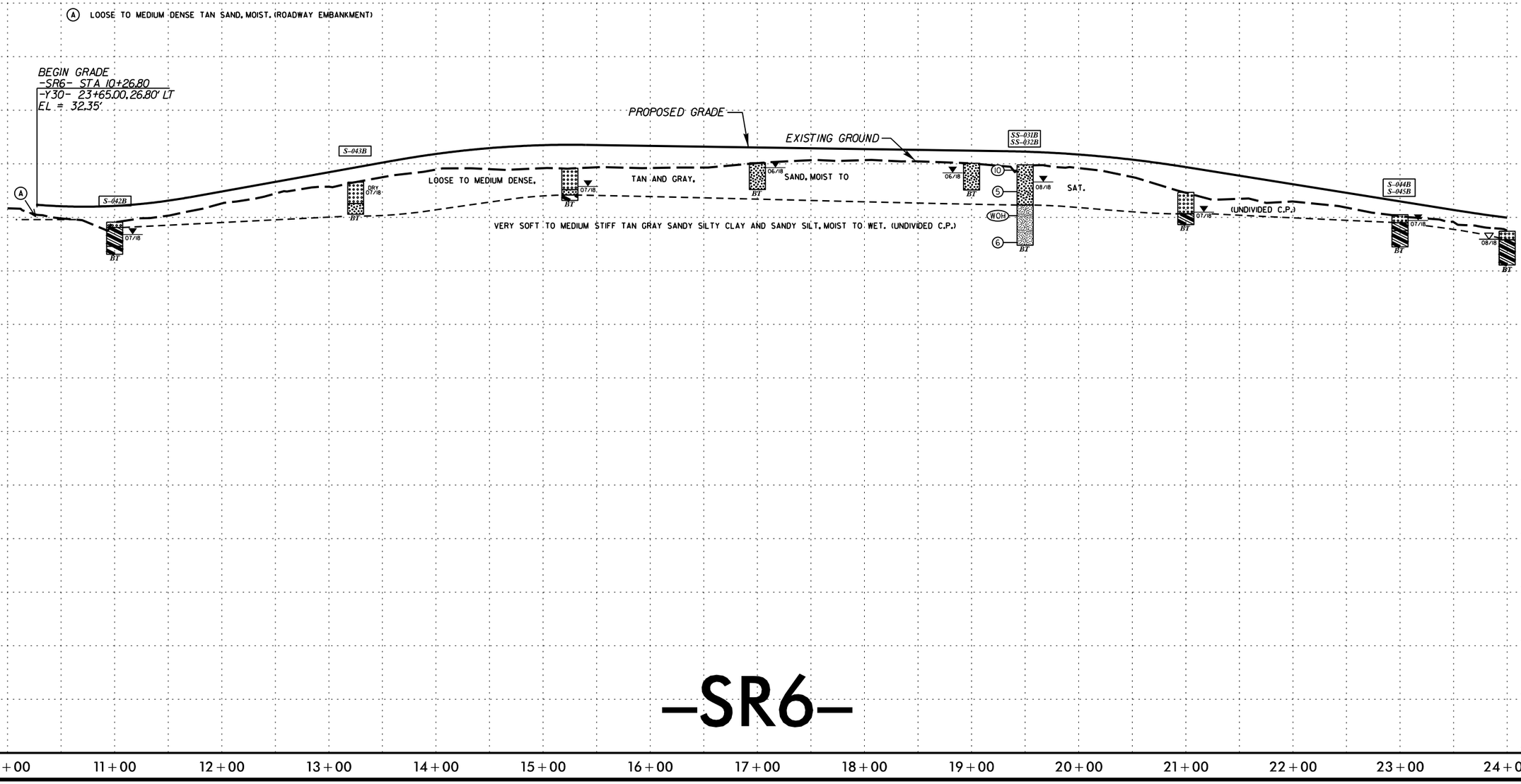
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	104
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-042B	CL	11+00	1.0 - 1.5	A-6(2)	30	13	23.6	41.9	8.8	25.7	100	91	39	20	-
S-043B	CL	13+25	5.0 - 6.0	A-2-4(0)	20	6	42.9	38.1	4.5	14.5	100	83	23	16	-
SS-031B	CL	19+50	0.0 - 1.5	A-2-4(0)	19	NP	4.6	83.5	6.4	5.5	99.9	98	17	-	-
SS-032B	CL	19+50	8.5 - 10.0	A-4(1)	25	6	2.6	56.6	19.2	21.6	99.7	99	61	38	-
S-044B	CL	23+00	1.5 - 2.0	A-6(3)	31	14	10.8	47.1	13.2	28.9	100	98	46	27	-
S-045B	CL	23+00	3.5 - 4.0	A-6(11)	40	22	10.1	31.2	20.4	38.3	100	98	61	30	-



DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	105
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

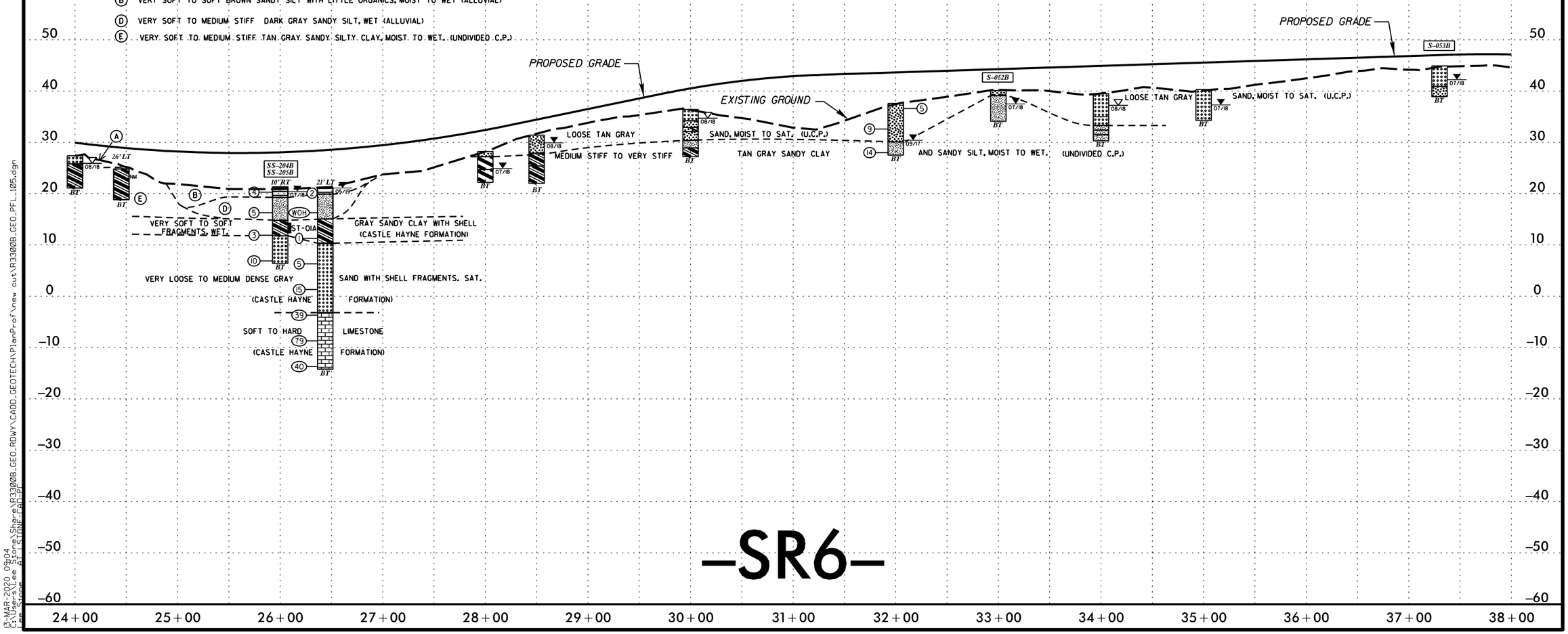
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-204B	10 ft RT	26+00	0.0 - 1.5	A-4(0)	NP	NP	11.8	40.5	41.8	6.0	97.4	95	49	-	-
SS-205B	10 ft RT	26+00	8.4 - 9.5	A-6(2)	30	14	25.5	32.2	19.2	23.0	99.6	92	43	-	-
ST-01A	10 ft RT	26+05	7.0 - 9.0	A-6(1)	30	13	30.9	35.6	9.8	23.7	99.5	91.3	37.2	31	0.9
S-052B	CL	33+00	5.0 - 5.5	A-4(1)	25	7	2.2	63.6	17.7	16.5	100	99	56	36	-
S-053B	CL	37+30	4.0 - 4.5	A-2-4(0)	21	1	1.8	79.7	5.1	13.4	99.9	99	25	45	-

(A) LOOSE TAN GRAY SAND, MOIST (UNDIVIDED C.P.)

(B) VERY SOFT TO SOFT BROWN SANDY SILT WITH LITTLE ORGANICS, MOIST TO WET (ALLUVIAL)

(D) VERY SOFT TO MEDIUM STIFF DARK GRAY SANDY SILT, WET (ALLUVIAL)

(E) VERY SOFT TO MEDIUM STIFF TAN GRAY SANDY SILTY CLAY, MOIST TO WET. (UNDIVIDED C.P.)



-SR6-

13-MAR-2020 09:04
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_105.dgn
lee.stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

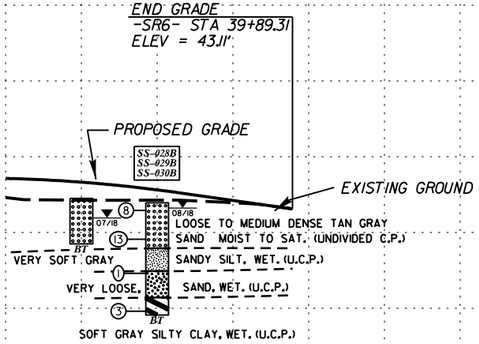
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	106
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-028B	CL	39+00	0.0 - 1.5	A-2-4(0)	21	NP	3.8	87.8	3.4	5.1	100	99	15	-	-
SS-029B	CL	39+00	8.3 - 9.0	A-4(0)	21	4	26.4	42.8	15.5	15.3	99.9	91	46	32	-
SS-030B	CL	39+00	13.3 - 14.8	A-7-6(25)	49	28	6.0	12.0	46.8	35.2	99.9	99	84	54	-



130 120 110 100 90 80 70 60 50 40 30 20 10 0 –10 –20 –30 –40 –50 –60

38+00 39+00

-SR6-

13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_106.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	107
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-111B	CL	12+00	4.0 - 5.5	A-6(8)	37	22	20.4	28.9	16.0	34.7	100	93	52	-	-
S-187B	CL	21+50	1.0 - 2.0	A-2-4(0)	NEM	NEM	46.4	29.2	12.6	11.8	90.7	71	28	-	73.2
S-188B	CL	21+50	11.5 - 12.5	NEM	NEM	NEM	42.1	42.9	8.0	7.0	99.6	89	16	-	3.4
S-099B	CL	22+50	0.0 - 1.0	A-2-4(0)	NP	NP	44.7	45.0	9.3	1.0	98.2	86	11	5	-
S-100B	CL	22+50	2.0 - 3.0	A-2-4(0)	NP	NP	36.6	45.9	13.5	4.0	99.7	89	19	3	-
S-101B	CL	22+50	3.0 - 4.0	A-2-4(0)	19	6	41.4	33.7	7.3	17.5	99.8	85	25	-	-
S-102B	CL	22+50	4.0 - 5.0	A-6(2)	28	14	28.3	32.5	10.8	28.5	100	90	40	-	-

BEGIN GRADE
-SR7- STA 10+15.04
-Y31- STA 23+67.09 14.89' LT
EL = 64.50'

(B) VERY LOOSE BROWN BLACK LITTLE TO MODERATELY ORGANIC SAND AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

(C) VERY LOOSE TO LOOSE TAN SAND, MOIST TO SAT. (UNDIVIDED C.P.)

PROPOSED GRADE

EXISTING GROUND

SS-111B

VERY SOFT TO MEDIUM STIFF, GRAY SANDY CLAY, MOIST TO WET

(UNDIVIDED C.P.)

VERY LOOSE TO LOOSE GRAY TAN SAND AND CLAYEY SAND,

36'LT

VERY SOFT TO MEDIUM STIFF, GRAY AND BROWN, WITH TRACE TO LITTLE ORGANICS, SAT

S-187B
S-188B

(UNDIVIDED C.P.)

S-099B
S-100B
S-101B
S-102B

SANDY CLAY AND SANDY SILT, WET, (UNDIVIDED C.P.)

-SR7-

13-MAR-2020 09:04
C:\Users\lee.stone.she\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_107.dgn
lee.stone@ncdot.gov

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJECT REFERENCE NO.	SHEET NO.
R-3300B	108
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

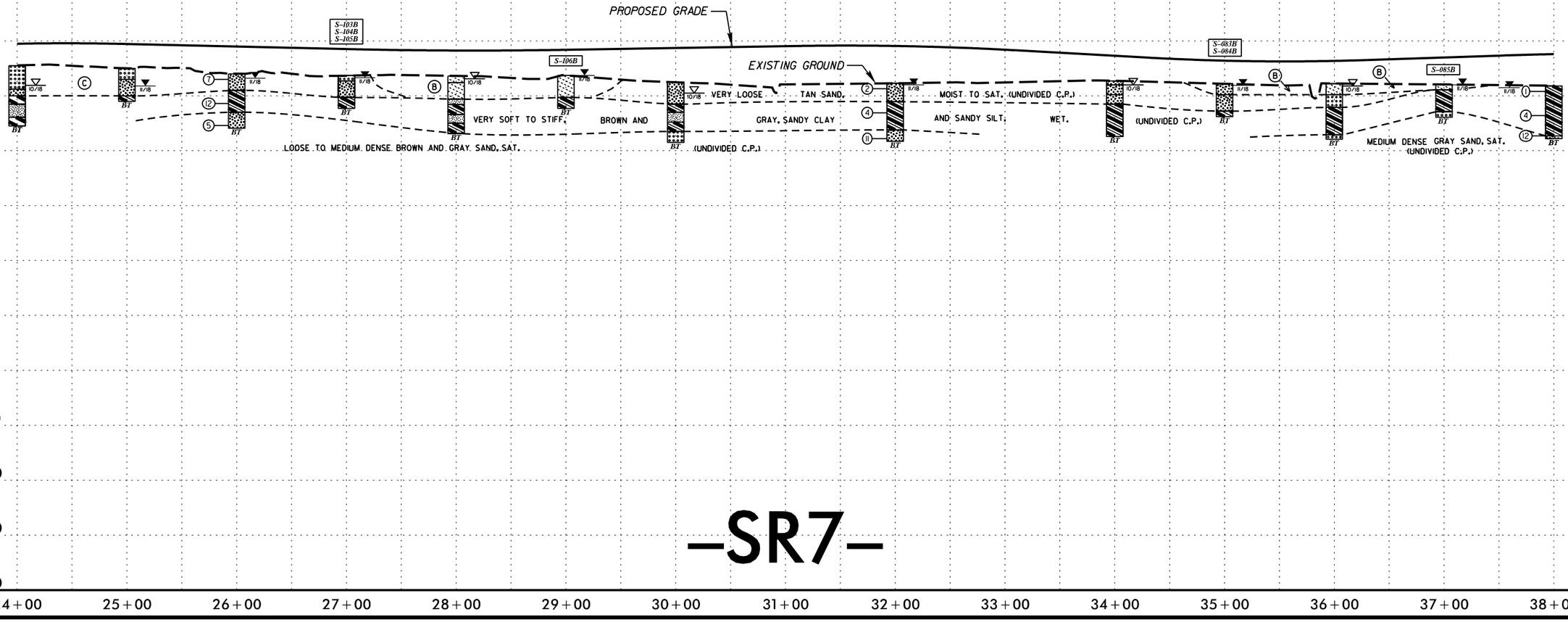
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-103B	CL	27+00	0.0 - 1.0	A-3(0)	NP	NP	38.1	55.3	3.9	2.7	99.9	89	7	-	-
S-104B	CL	27+00	3.0 - 4.0	A-2-4(0)	NP	NP	28.3	44.6	13.6	13.5	99.6	90	28	-	-
S-105B	CL	27+00	5.0 - 6.0	A-6(6)	32	14	13.5	28.7	11.3	46.5	100	94	58	-	-
S-106B	CL	29+00	2.0 - 3.0	A-2-4(0)	NP	NP	28.4	51.4	12.1	8.1	100	90	21	21	4.8
S-083B	CL	35+00	1.0 - 2.0	A-2-4(0)	NP	NP	24.7	52.3	11.0	12.0	99.7	91	25	16	2.0
S-084B	CL	35+00	5.0 - 6.0	A-6(1)	25	11	24.8	38.5	11.4	25.3	99.9	89	38	-	-
S-085B	CL	37+00	0.0 - 1.0	A-2-4(0)	21	7	23.8	47.6	16.4	12.3	99.9	90	30	21	4.9

(B) VERY LOOSE TO LOOSE BROWN BLACK SAND WITH TRACE TO LITTLE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

(C) LOOSE TAN SAND, MOIST TO SAT. (UNDIVIDED C.P.)



–SR7–

5/14/99
13-MAR-2020 09:04
C:\Users\lee.stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_108.dgn
lee.stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

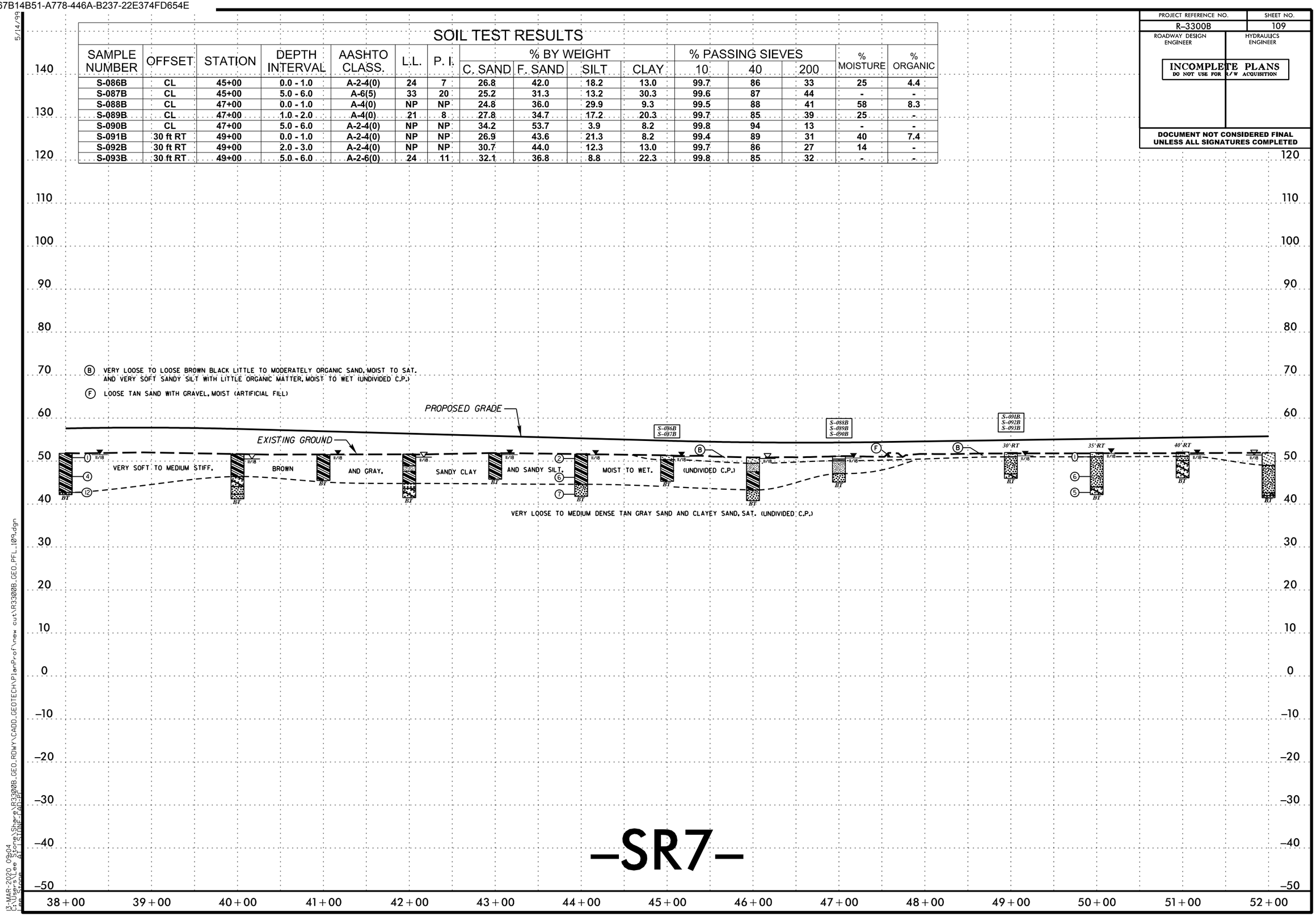
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	109
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-086B	CL	45+00	0.0 - 1.0	A-2-4(0)	24	7	26.8	42.0	18.2	13.0	99.7	86	33	25	4.4
S-087B	CL	45+00	5.0 - 6.0	A-6(5)	33	20	25.2	31.3	13.2	30.3	99.6	87	44	-	-
S-088B	CL	47+00	0.0 - 1.0	A-4(0)	NP	NP	24.8	36.0	29.9	9.3	99.5	88	41	58	8.3
S-089B	CL	47+00	1.0 - 2.0	A-4(0)	21	8	27.8	34.7	17.2	20.3	99.7	85	39	25	-
S-090B	CL	47+00	5.0 - 6.0	A-2-4(0)	NP	NP	34.2	53.7	3.9	8.2	99.8	94	13	-	-
S-091B	30 ft RT	49+00	0.0 - 1.0	A-2-4(0)	NP	NP	26.9	43.6	21.3	8.2	99.4	89	31	40	7.4
S-092B	30 ft RT	49+00	2.0 - 3.0	A-2-4(0)	NP	NP	30.7	44.0	12.3	13.0	99.7	86	27	14	-
S-093B	30 ft RT	49+00	5.0 - 6.0	A-2-6(0)	24	11	32.1	36.8	8.8	22.3	99.8	85	32	-	-



–SR7–

13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_109.dgn
ez Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

5/14/99

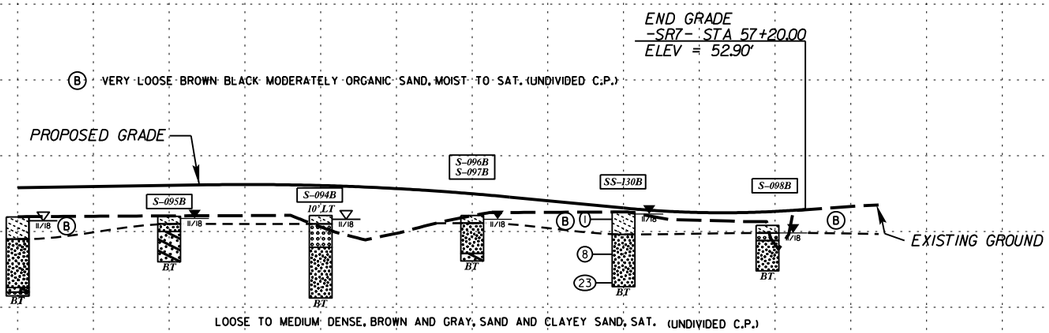
PROJECT REFERENCE NO.	SHEET NO.
R-3300B	110
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-095B	CL	53+00	0.0 - 1.0	A-2-4(0)	NP	NP	38.1	35.4	23.3	3.2	99.7	85	28	44	8.1
S-094B	10 ft LT	54+00	5.0 - 6.0	A-2-4(0)	17	5	45.7	33.0	8.0	13.2	99.8	82	22	-	-
S-096B	CL	55+00	4.0 - 5.0	A-2-4(0)	23	10	45.1	25.5	9.1	20.3	99.6	77	30	-	-
S-097B	CL	55+00	5.0 - 6.0	A-2-6(0)	26	11	52.0	18.2	7.4	22.4	99.6	74	30	-	-
SS-130B	CL	56+00	0.0 - 1.5	A-2-4(0)	NP	NP	45.2	39.6	14.0	1.2	99.5	78	16	-	8.9
S-098B	CL	56+95	3.0 - 4.0	A-2-4(0)	NP	NP	40.1	47.6	7.0	5.2	99.8	82	13	-	-



140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 –10 –20 –30 –40 –50

52+00 53+00 54+00 55+00 56+00 57+00

–SR7–

13-MAR-2020 09:04
C:\Users\Lee Stone\Share\R3300B_GEO_RDWY\CADD_GEOTECH\PlanProf\new cut\R3300B_GEO_PFL_110.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJ. REFERENCE NO.	SHEET NO.
R-3300B	111

0 5 10

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

60 50 40 30 20 10

Ⓑ VERY SOFT BROWN SANDY SILT WITH LITTLE ORGANIC MATTER, MOIST TO WET (UNDIVIDED C.P.)

Y30RPB
6+11.71

Ⓑ

NM

BT

LOOSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

SOFT TO MEDIUM STIFF TAN GRAY SILTY CLAY, WET (UNDIVIDED C.P.)

LOOSE TO MEDIUM DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

VERY SOFT TAN GRAY SANDY SILT, WET (CASTLE HAYNE FORMATION)

587+50.00

60 50 40 30 20 10

Ⓑ SOFT BROWN SANDY SILT WITH LITTLE ORGANIC MATTER, MOIST TO WET (UNDIVIDED C.P.)

Y30RPB
5+62.40

Ⓑ

NM

BT

LOOSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

SOFT TO MEDIUM STIFF TAN GRAY SILTY CLAY, WET (UNDIVIDED C.P.)

LOOSE TO MEDIUM DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

VERY SOFT TAN GRAY SANDY SILT, WET (CASTLE HAYNE FORMATION)

587+00.00

50 40 30 20 10 0

Y30RPB
5+13.09

586+36
47 LT

07/18

BT

LOOSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

SOFT TO MEDIUM STIFF TAN GRAY SILTY CLAY, WET (UNDIVIDED C.P.)

LOOSE TO MEDIUM DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

VERY SOFT TAN GRAY SANDY SILT, WET (CASTLE HAYNE FORMATION)

586+50.00

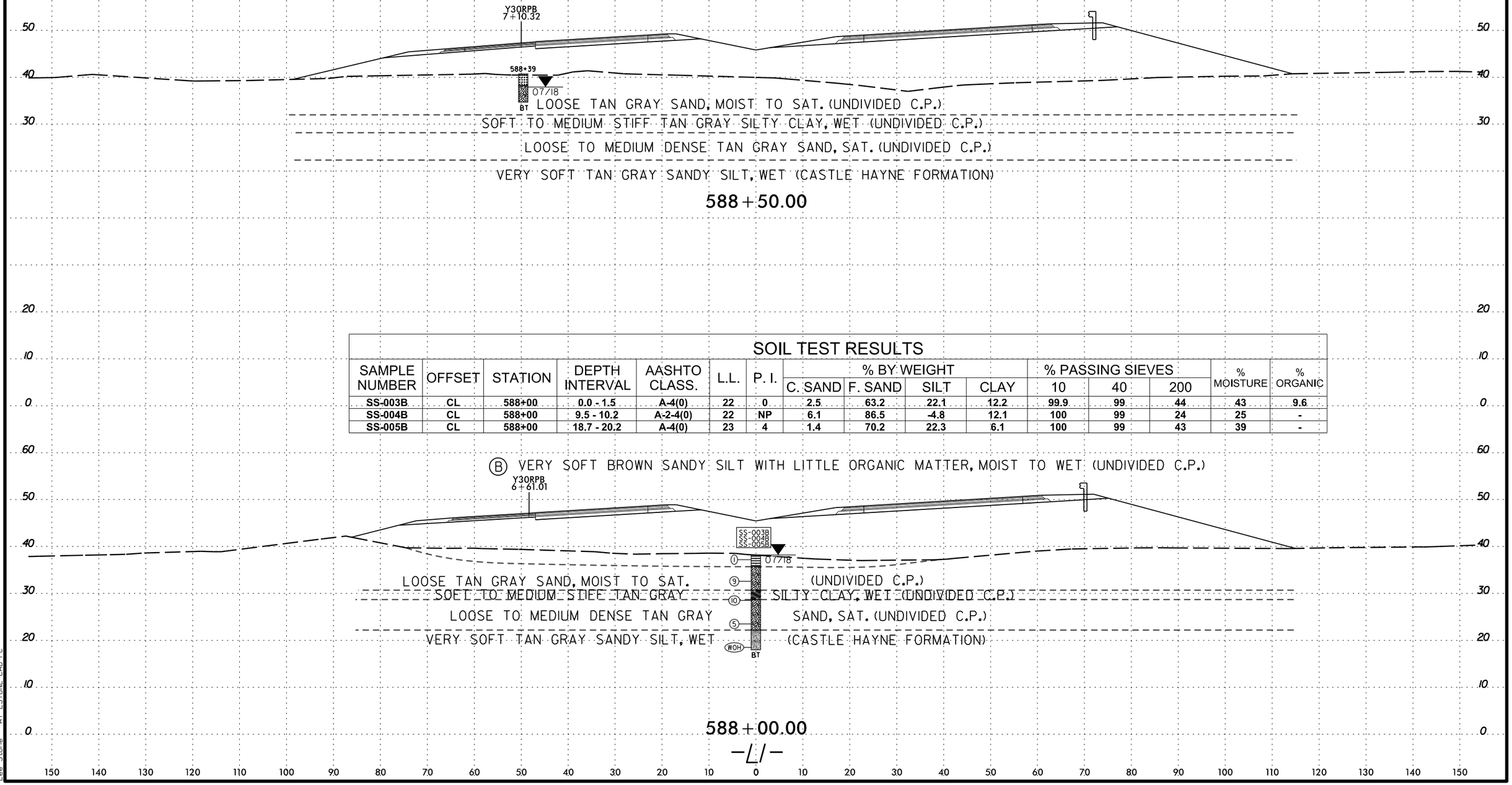
-L1-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_Geo_XSLL158650-58900.dgn
09-SEP-2021 15:22
C:\Users\Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	112



SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-003B	CL	588+00	0.0 - 1.5	A-4(0)	22	0	2.5	63.2	22.1	12.2	99.9	99	44	43	9.6
SS-004B	CL	588+00	9.5 - 10.2	A-2-4(0)	22	NP	6.1	86.5	-4.8	12.1	100	99	24	25	-
SS-005B	CL	588+00	18.7 - 20.2	A-4(0)	23	4	1.4	70.2	22.3	6.1	100	99	43	39	-

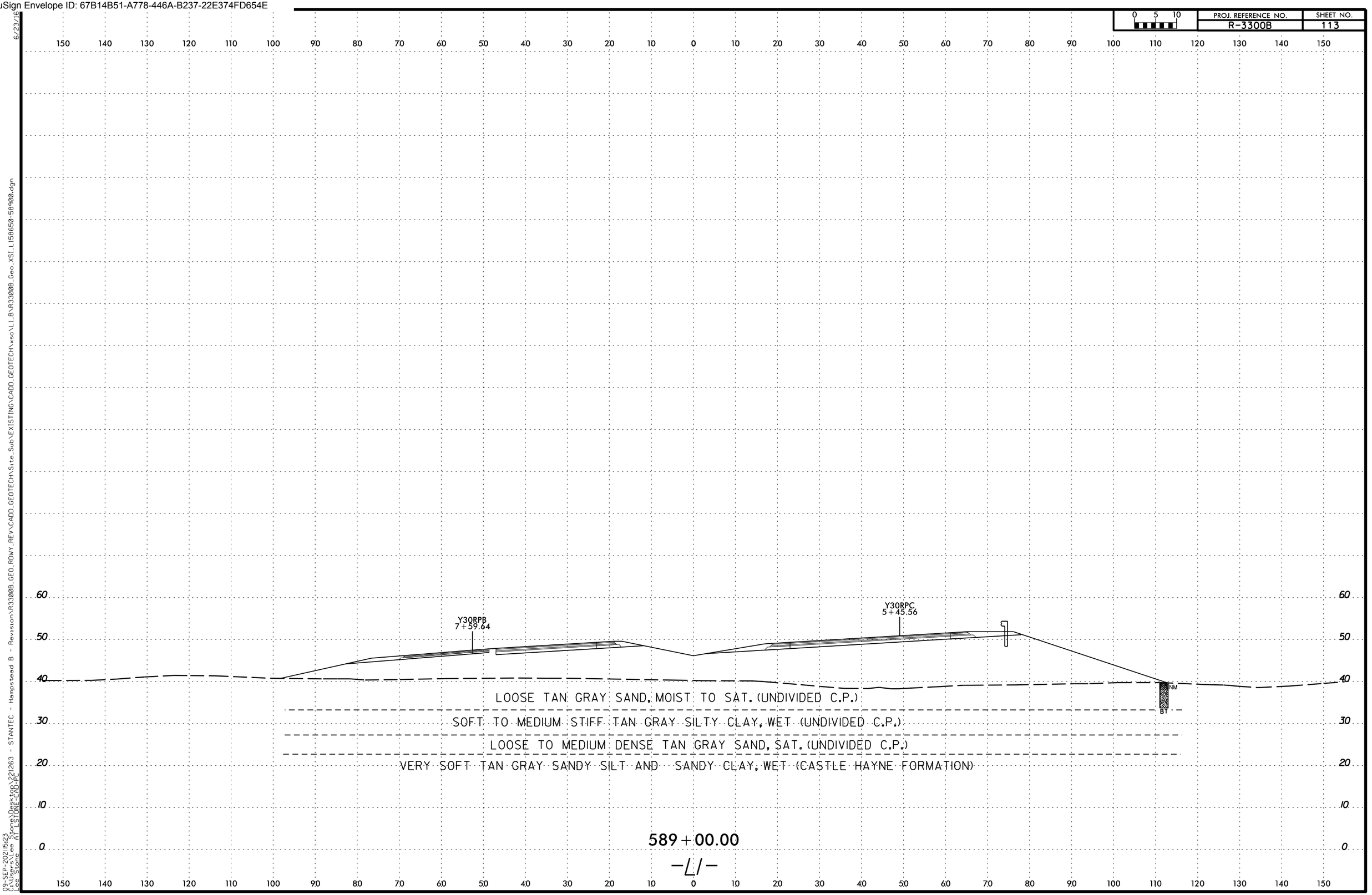
Ⓑ VERY SOFT BROWN SANDY SILT WITH LITTLE ORGANIC MATTER, MOIST TO WET (UNDIVIDED C.P.)

-L/-

09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLL158650-589000.dgn
Lee Stone AT LSTONE CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

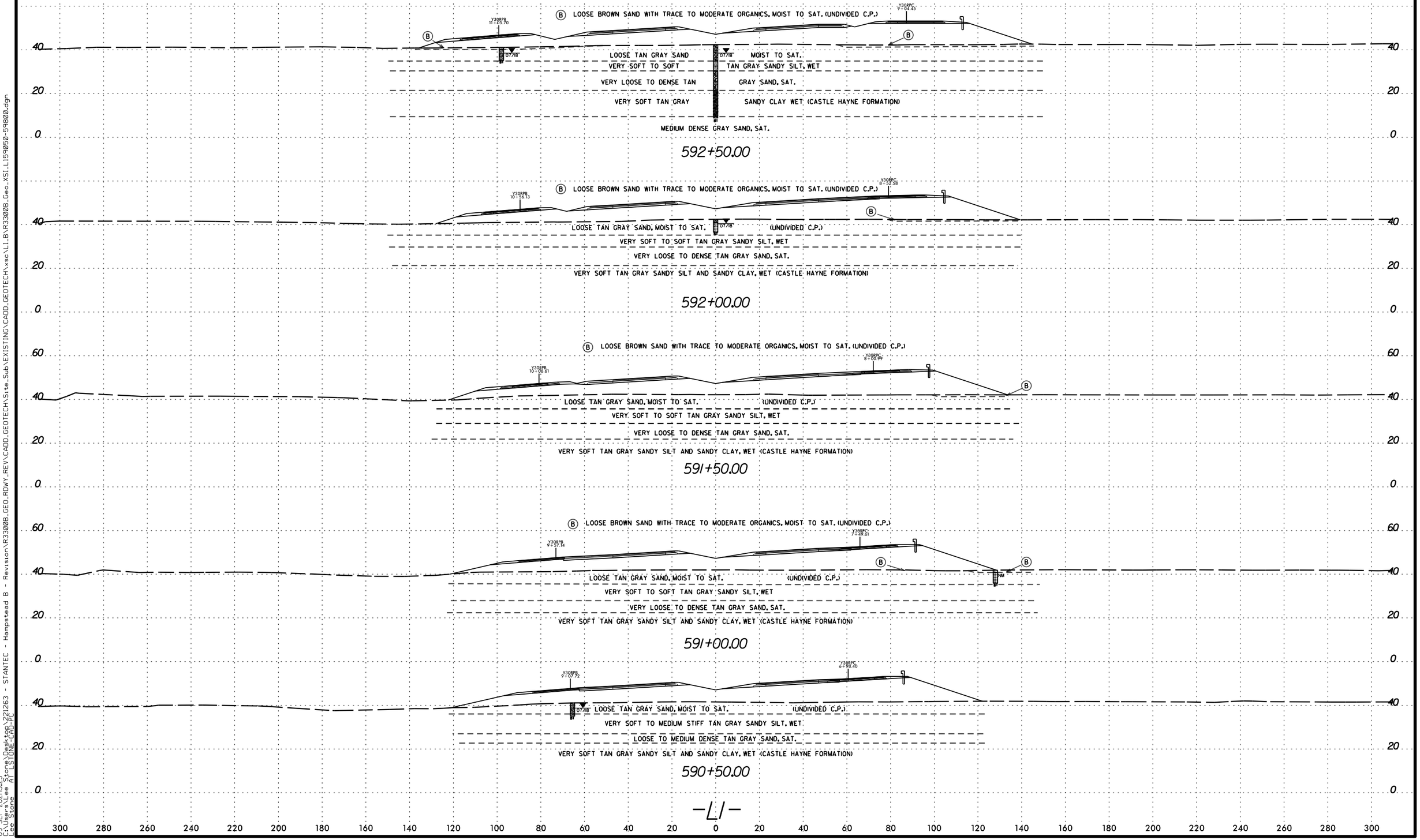
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	113



6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\22I263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLL158650-58900.dgn
Lee Stone AT LSTONE_CAD_PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



-L/-

09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LL_R3300B_Geo_XSLL159050-59800.dgn
Lee Stone AT LSTONE-CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

(B) LOOSE BROWN SAND WITH TRACE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

Y308PC 11+18.39

07/18

LOOSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

LOOSE 07/18 TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT TO SOFT TAN GRAY SANDY SILT, WET

VERY LOOSE TO DENSE TAN GRAY SAND, SAT.

VERY SOFT TAN GRAY SANDY SILT AND SANDY CLAY, WET (CASTLE HAYNE FORMATION)

594+50.00

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-006B	CL	594+00	4.9 - 5.9	A-4(0)	22	2	0.3	66.9	15.6	17.1	100	100	49	26	-

(B) LOOSE BROWN SAND WITH TRACE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

SS-006B

Y308PC 12+33.31

07/18

VERY SOFT TO SOFT TAN GRAY SANDY SILT, WET

VERY LOOSE TO DENSE TAN GRAY SAND, SAT.

VERY SOFT TAN GRAY SANDY SILT AND SANDY CLAY, WET (CASTLE HAYNE FORMATION)

594+00.00

(B) LOOSE BROWN SAND WITH TRACE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

Y308PB 12+05.05

Y308PC 10+09.28

LOOSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT TO SOFT TAN GRAY SANDY SILT, WET

VERY LOOSE TO DENSE TAN GRAY SAND, SAT.

VERY SOFT TAN GRAY SANDY SILT AND SANDY CLAY, WET (CASTLE HAYNE FORMATION)

MEDIUM DENSE GRAY SAND, SAT.

593+50.00

(B) LOOSE BROWN SAND WITH TRACE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

Y308PB 11+55.34

Y308PC 9+56.76

07/18

NM

LOOSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT TO SOFT TAN GRAY SANDY SILT, WET

VERY LOOSE TO DENSE TAN GRAY SAND, SAT.

VERY SOFT TAN GRAY SANDY SILT AND SANDY CLAY, WET (CASTLE HAYNE FORMATION)

MEDIUM DENSE GRAY SAND, SAT.

593+00.00

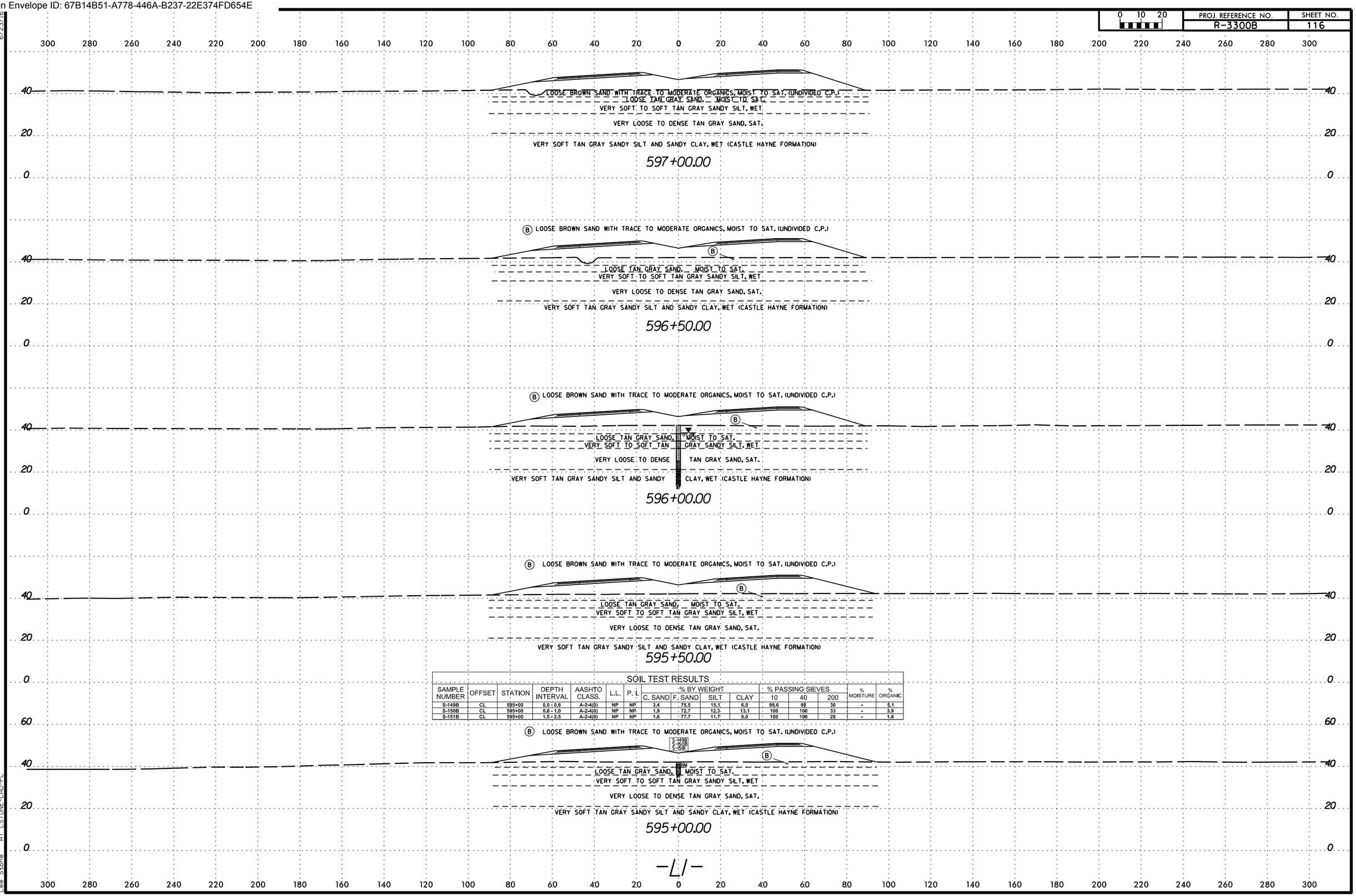
-L/-

40 20 0

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLL159050-594000.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	116



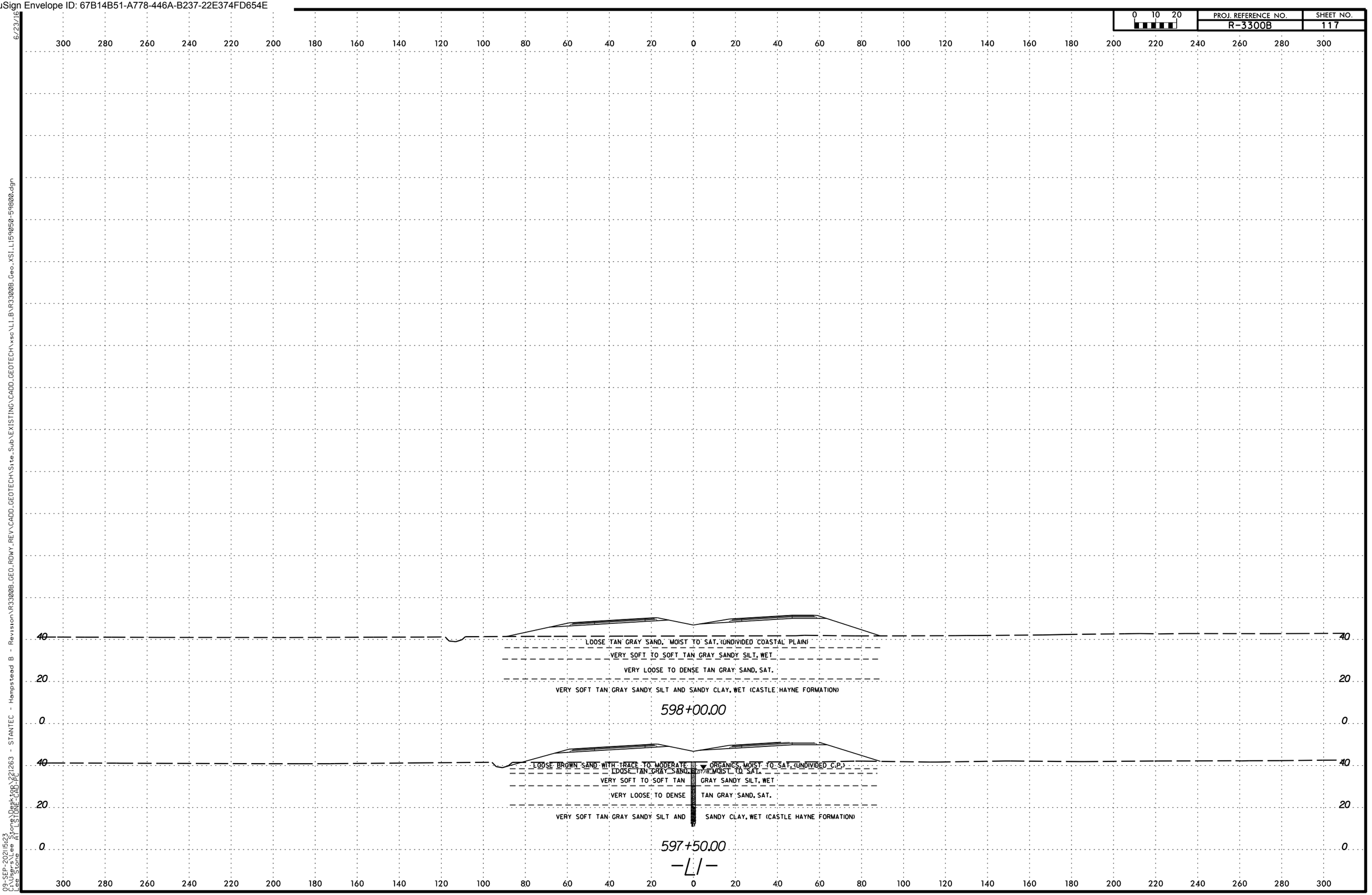
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-149B	CL	595+00	0.0 - 0.6	A-2-4(0)	NP	NP	3.4	75.5	15.1	6.0	99.6	98	30	-	5.1
S-150B	CL	595+00	0.6 - 1.0	A-2-4(0)	NP	NP	1.9	72.7	12.3	13.1	100	100	33	-	3.9
S-151B	CL	595+00	1.5 - 2.5	A-2-4(0)	NP	NP	1.6	77.7	11.7	9.0	100	100	28	-	1.8

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLL159050-59800.dgn
09-SEP-2021 15:23
Lee Stone
AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

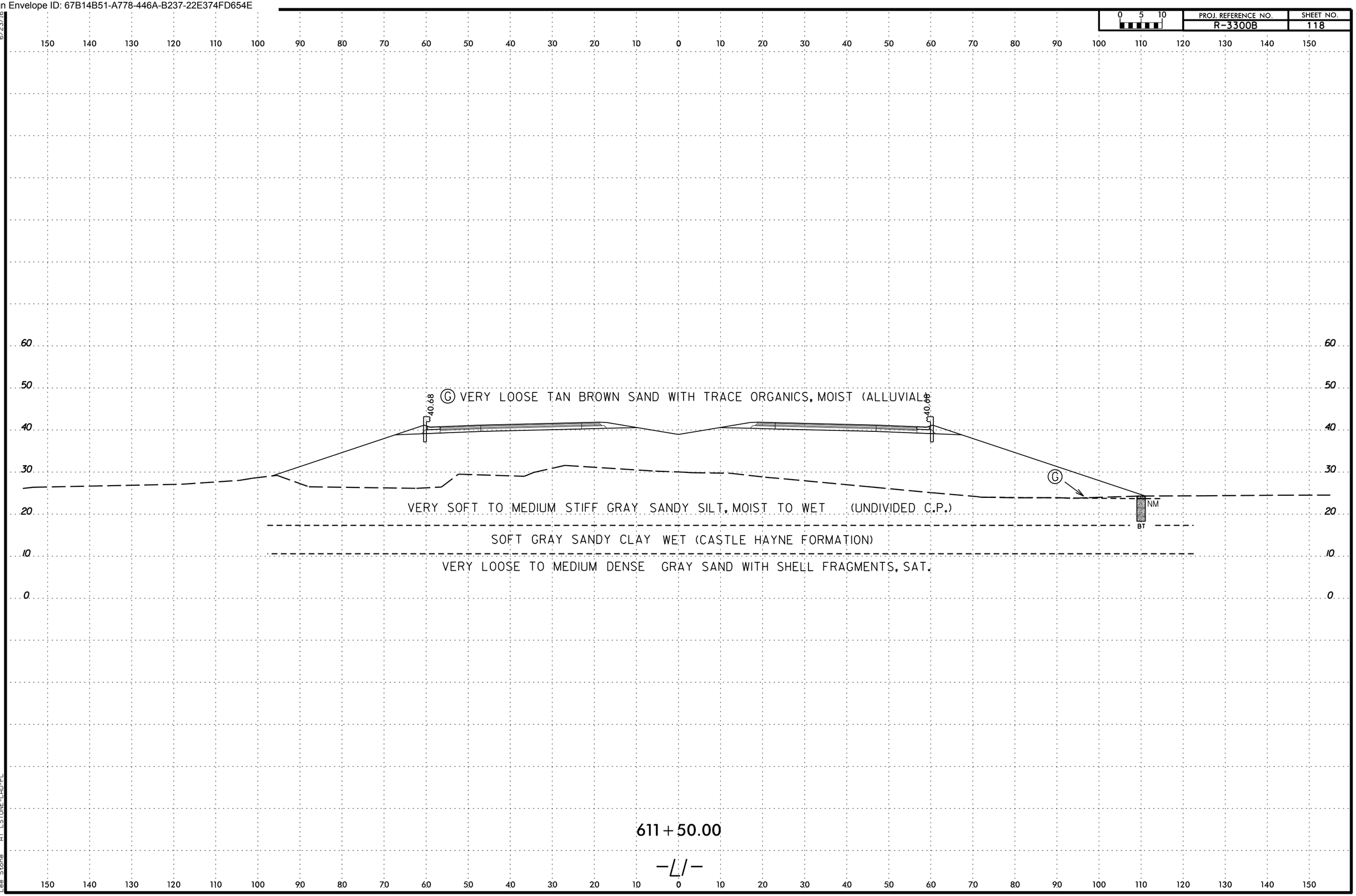
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	117



6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLL159050-59800.dgn
Lee Stone AT LSTONE_CAD_PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	118

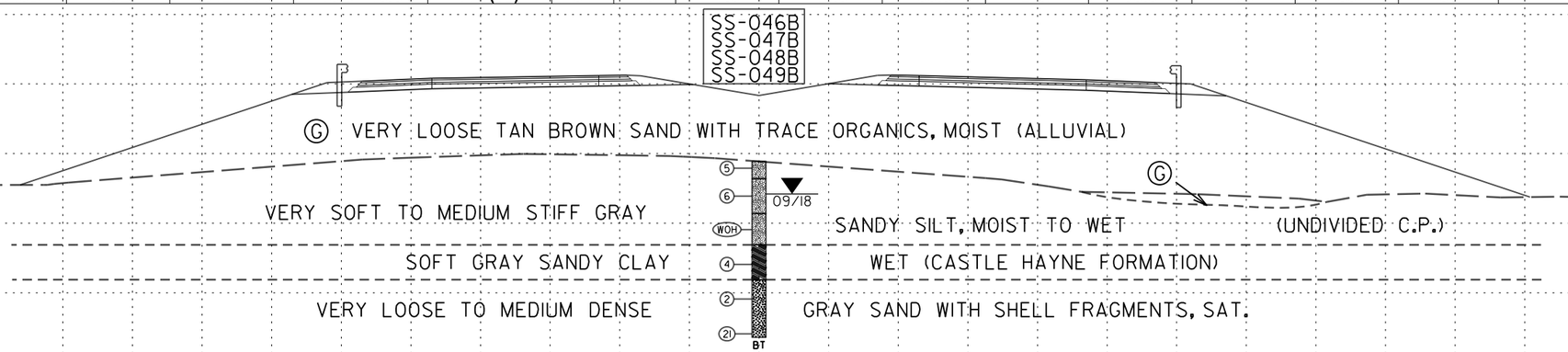


6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL161150.dgn
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-046B	CL	612+00	0.0 - 1.5	A-4(0)	NP	NP	14.2	48.0	22.4	15.4	99.5	95	44	-	-
SS-047B	CL	612+00	4.0 - 5.5	A-4(0)	NP	NP	25.0	25.7	14.3	35.0	99.7	89	51	36	-
SS-048B	CL	612+00	8.8 - 10.3	A-4(0)	26	5	2.7	74.0	5.8	17.5	99.6	99	37	48	-
SS-049B	CL	612+00	13.8 - 15.3	A-6(12)	34	16	7.6	18.9	50.8	22.7	99.6	95	83	56	-



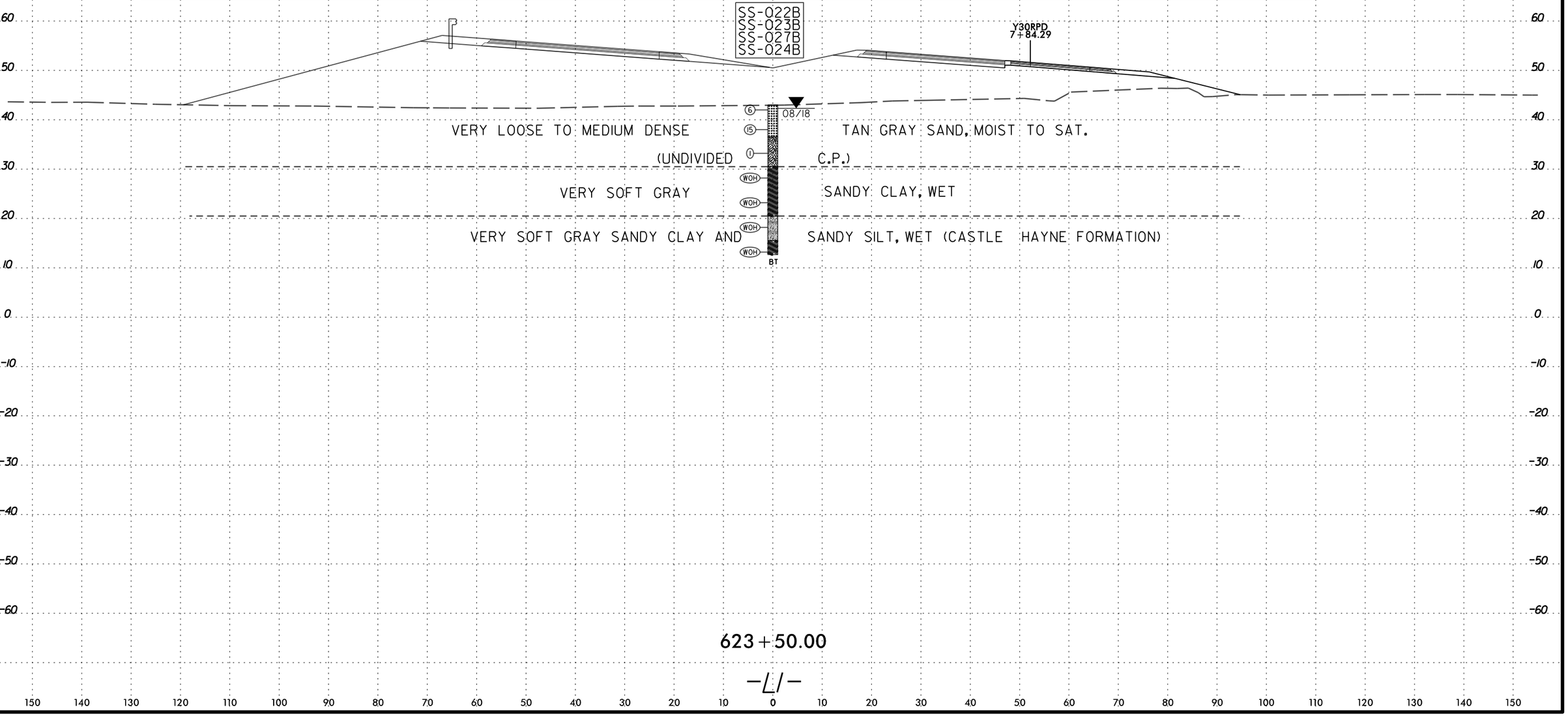
612+00.00

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL161200.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-022B	CL	623+50	8.8 - 10.3	A-2-4(0)	18	NP	38.2	41.3	6.3	14.2	100	88	27	29	-
SS-023B	CL	623+50	13.8 - 16.3	A-6(9)	32	19	13.4	29.1	27.6	29.8	99.6	98	63	44	-
SS-027B	CL	623+50	23.8 - 25.3	A-4(0)	21	NP	1.8	66.0	21.9	10.3	99.8	99	44	35	-
SS-024B	CL	623+50	28.8 - 30.3	A-6(13)	35	16	4.7	18.6	58.1	18.7	99.8	97	87	44	-

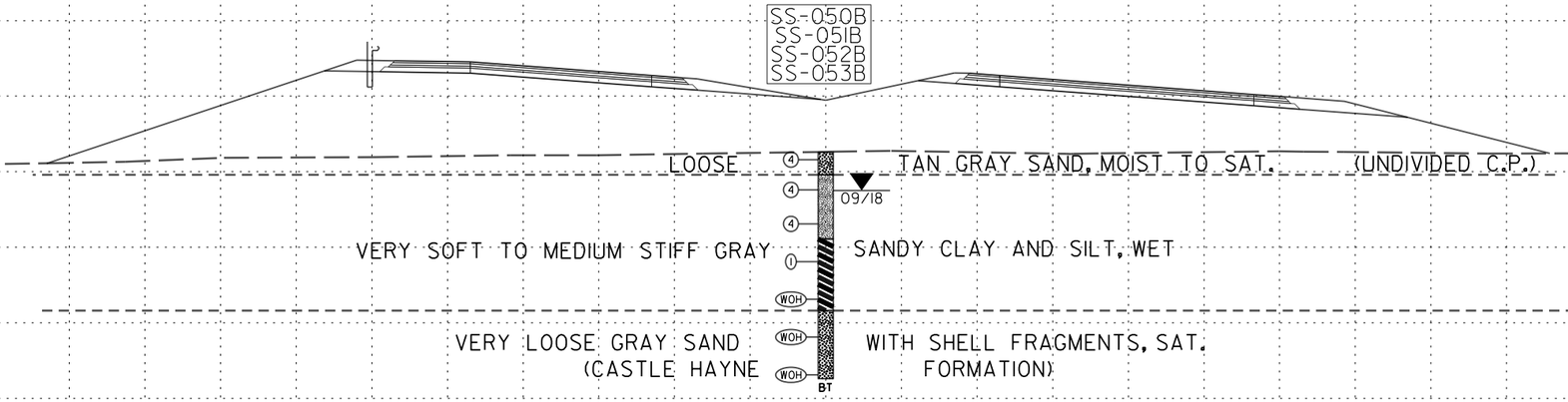


6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LL1_B\R3300B_Geo_XSLL162350.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-050B	CL	630+00	0.0 - 1.5	A-2-4(0)	NP	NP	4.7	79.9	12.1	3.3	99.9	97	28	-	-
SS-051B	CL	630+00	4.0 - 5.5	A-4(1)	25	7	0.5	71.5	13.6	14.4	100	100	47	45	-
SS-052B	CL	630+00	13.5 - 15.0	A-7-5(13)	44	14	10.1	12.2	58.3	19.3	100	94	82	64	-
SS-053B	CL	630+00	23.5 - 25.0	A-2-4(0)	NP	NP	1.1	75.7	16.5	6.7	100	99	31	-	-



630+00.00

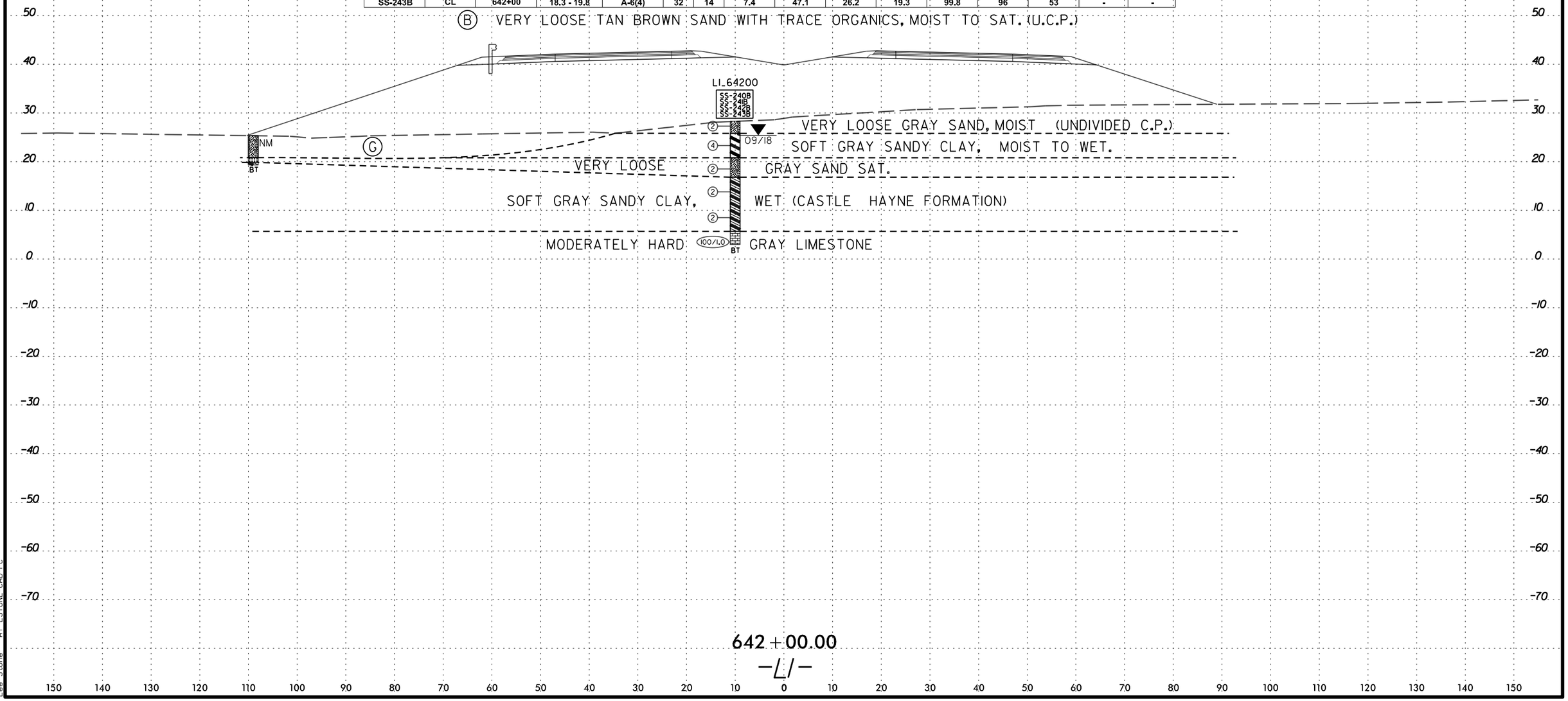
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsec\LL_B\R3300B_Geo_XSLL_163000.dgn
Lee Stone AT LSTONE-CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	122

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-240B	CL	642+00	3.9 - 5.4	A-7-6(14)	42	25	4.0	33.5	28.4	34.0	99.7	99	66	-	-
SS-241B	CL	642+00	8.3 - 9.8	A-2-4(0)	NP	NP	3.7	71.0	18.2	7.1	99.9	98	35	-	-
SS-242B	CL	642+00	13.3 - 14.8	A-6(16)	37	18	1.3	19.0	54.3	25.4	99.8	99	89	-	-
SS-243B	CL	642+00	18.3 - 19.8	A-6(4)	32	14	7.4	47.1	26.2	19.3	99.8	96	53	-	-



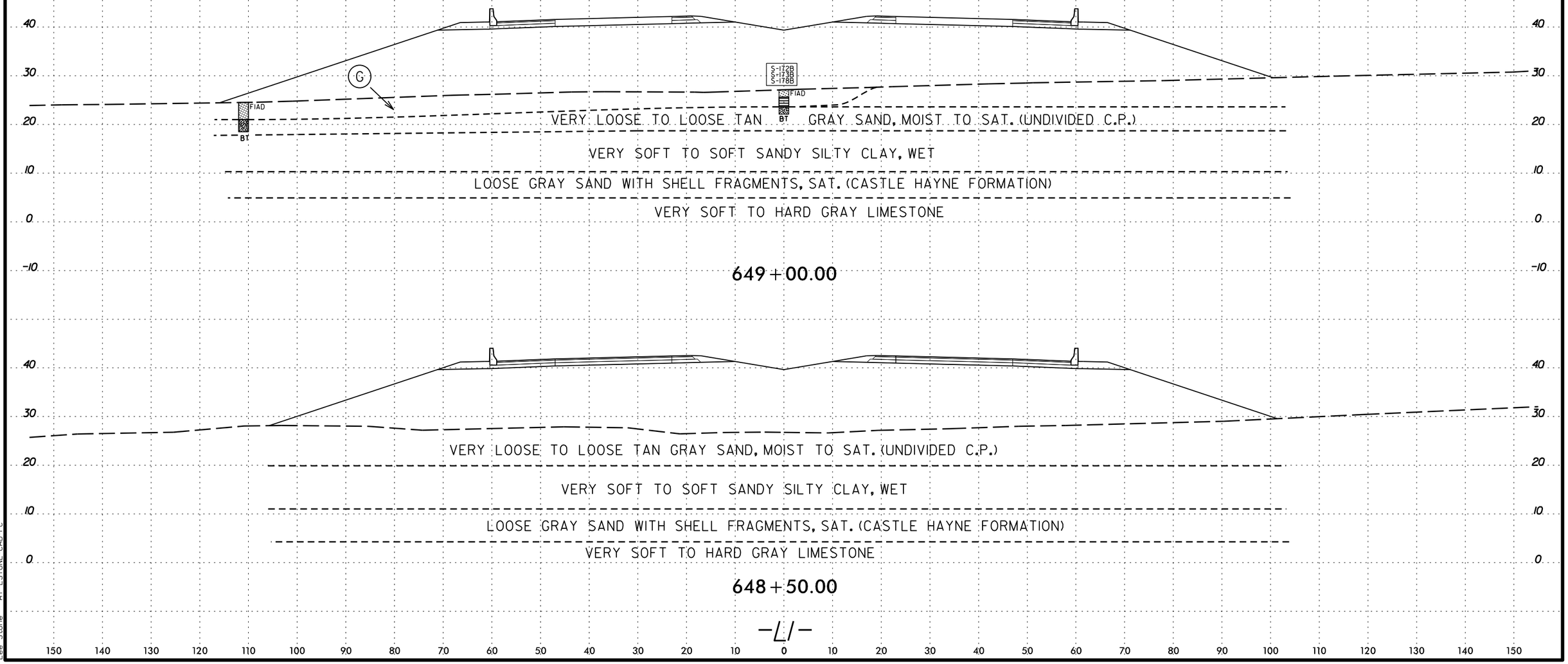
6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LI_B\R3300B_Geo_XSLI_LI64200.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-172B	CL	649+00	0.5 - 1.5	A-2-4(0)	NP	NP	17.8	64.5	10.9	7.0	99.7	94	22	-	4.0
S-173B	CL	649+00	1.5 - 2.5	A-6(0)	26	11	13.9	54.5	9.4	22.1	99.6	94	35	-	-
S-178B	CL	649+00	3.5 - 4.5	A-2-4(0)	NP	NP	18.7	69.3	5.2	6.8	99.9	95	14	-	-

(G) VERY LOOSE BROWN SAND, AND VERY SOFT BROWN SANDY CLAY WITH LITTLE TO MODERATE ORGANICS, MOIST (ALLUVIAL)



-L/-

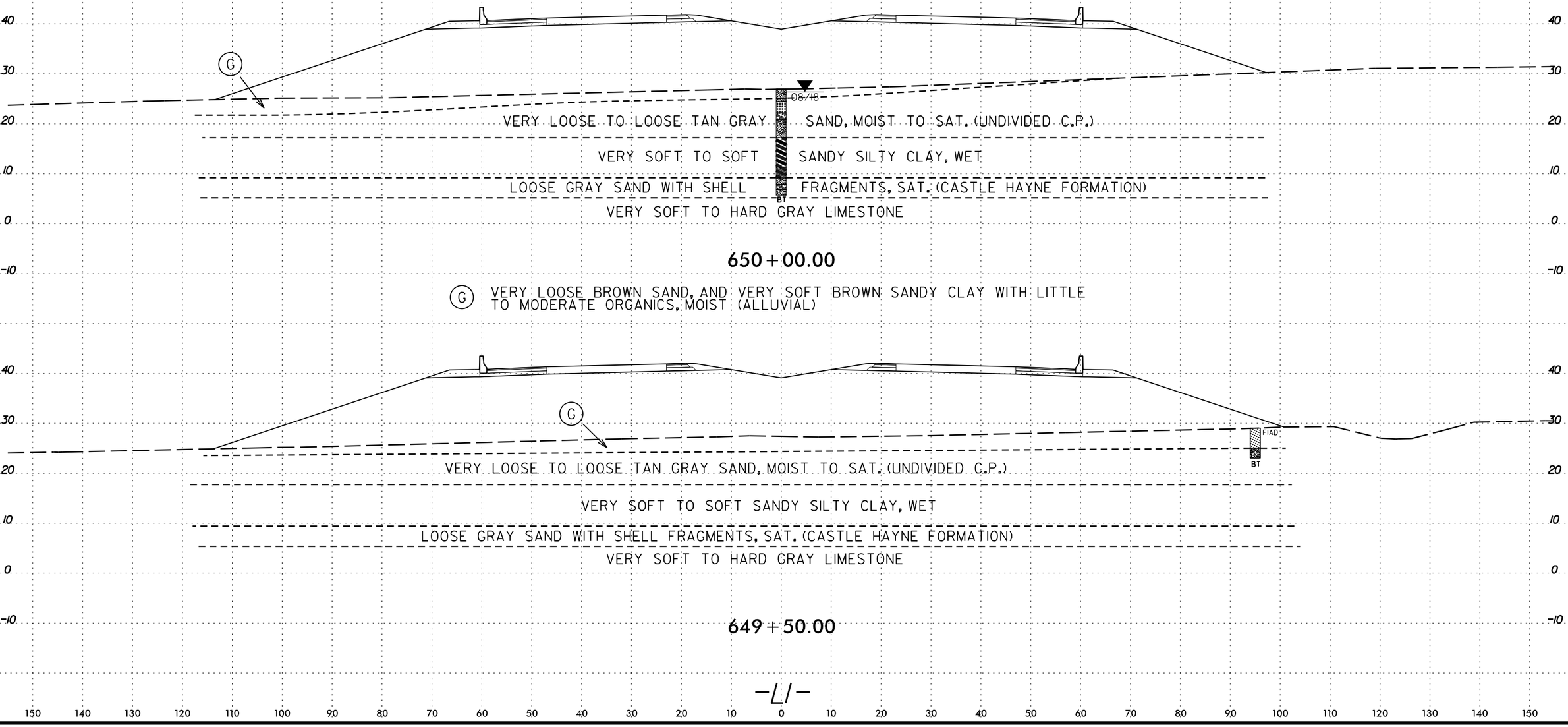
6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLL164850-65800.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	124

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Ⓖ VERY LOOSE BROWN SAND, AND VERY SOFT BROWN SANDY SILT WITH LITTLE TO MODERATE ORGANICS, MOIST (ALLUVIAL)



650+00.00

Ⓖ VERY LOOSE BROWN SAND, AND VERY SOFT BROWN SANDY CLAY WITH LITTLE TO MODERATE ORGANICS, MOIST (ALLUVIAL)

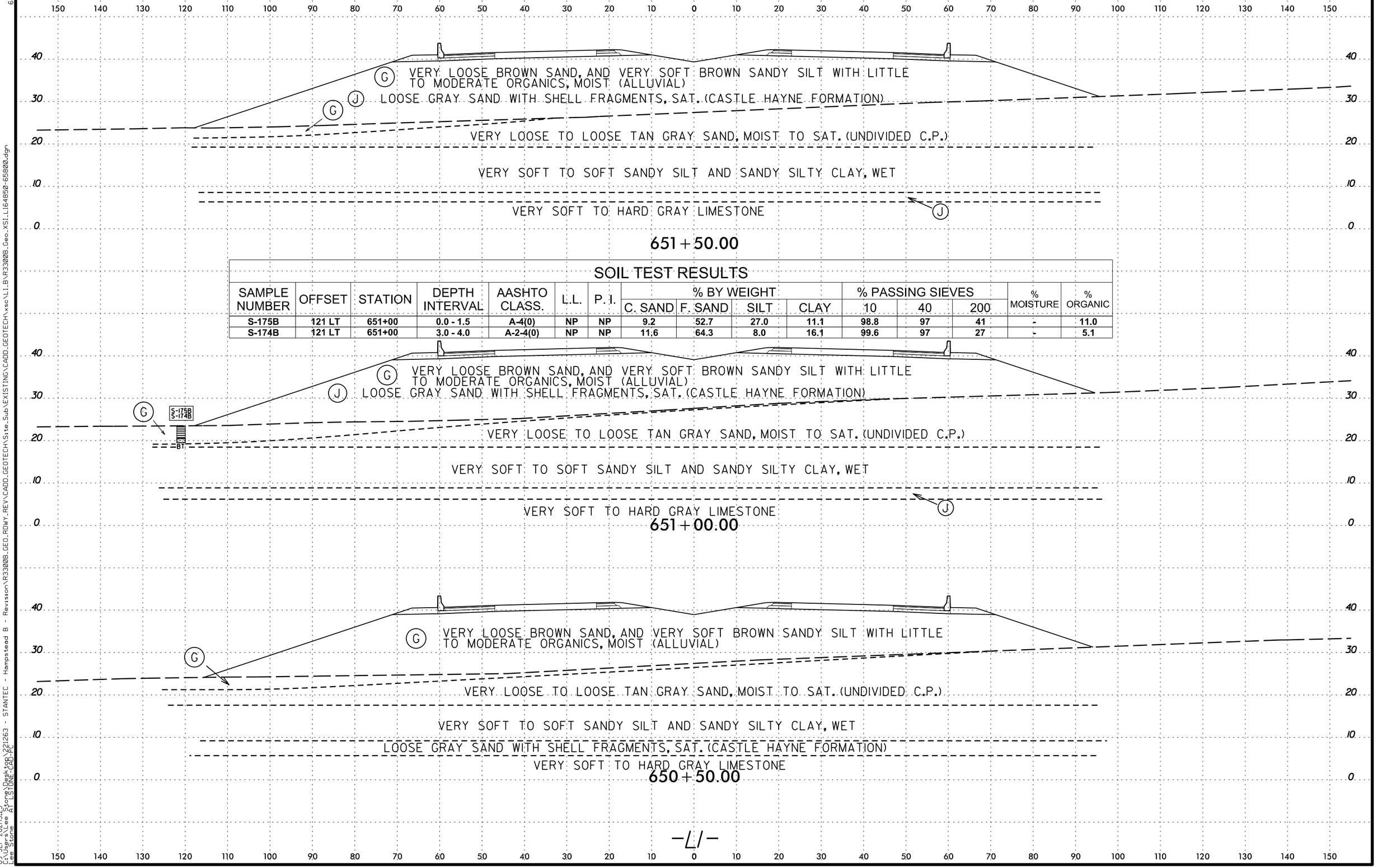
649+50.00

-L/-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL164850-65800.dgn
09-SEP-2021 15:23
Lee Stone
ATLSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



SOIL TEST RESULTS

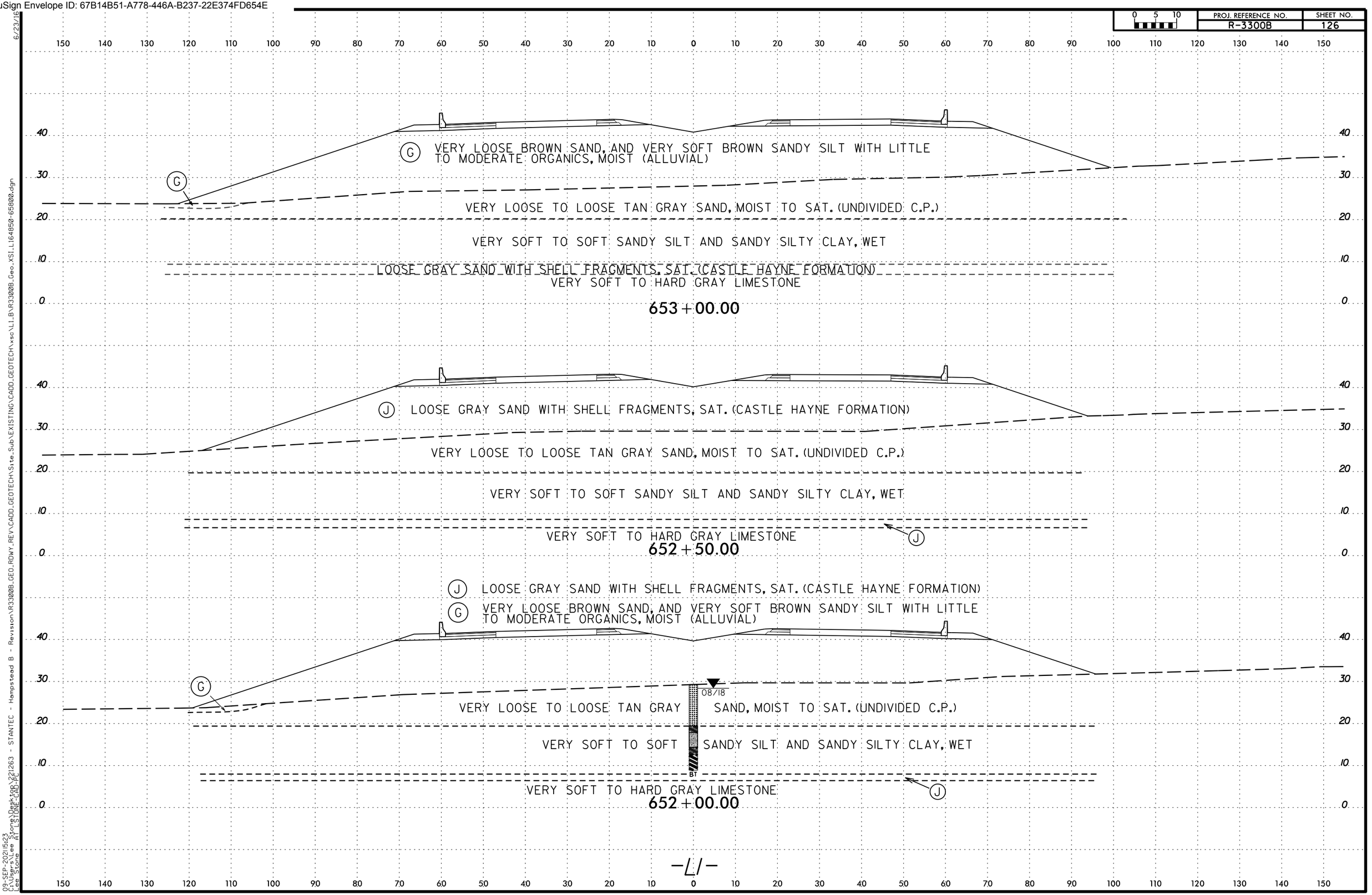
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-175B	121 LT	651+00	0.0 - 1.5	A-4(0)	NP	NP	9.2	52.7	27.0	11.1	98.8	97	41	-	11.0
S-174B	121 LT	651+00	3.0 - 4.0	A-2-4(0)	NP	NP	11.6	64.3	8.0	16.1	99.6	97	27	-	5.1

-L/-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LL_B\R3300B_Geo_XSLL164850-65800.dgn
Lee Stone AT LSTONE CAD PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	126



09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL164850-65800.dgn
Lee Stone AT LSTONE-CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	127

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

40
30
20
10
0

G VERY LOOSE BROWN SAND, AND VERY SOFT BROWN SANDY SILT WITH LITTLE TO MODERATE ORGANICS, MOIST (ALLUVIAL)

ARTESIAN 08/18

G

VERY LOOSE (3) (6) TO LOOSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT TO SOFT (2) (1) SANDY SILTY CLAY, WET

LOOSE GRAY SAND WITH SHELL (5) FRAGMENTS, SAT. (CASTLE HAYNE FORMATION)

VERY SOFT TO HARD GRAY LIMESTONE

100/0.5

60

BT

654+00.00

G VERY LOOSE BROWN SAND, AND VERY SOFT BROWN SANDY SILT WITH LITTLE TO MODERATE ORGANICS, MOIST (ALLUVIAL)

G

NM

BT

VERY LOOSE TO LOOSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT TO SOFT SANDY SILT AND SANDY SILTY CLAY, WET

LOOSE GRAY SAND WITH SHELL FRAGMENTS, SAT. (CASTLE HAYNE FORMATION)

VERY SOFT TO HARD GRAY LIMESTONE

653+50.00

-L/-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL164850-65800.dgn
09-SEP-2021 15:23
Lee Stone AT STONE CAD PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	128

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

50
40
30
20
10
0

G VERY LOOSE BROWN SAND, AND VERY SOFT BROWN SANDY SILT WITH LITTLE TO MODERATE ORGANICS, MOIST (ALLUVIAL)

G

NM

BT

VERY LOOSE TO LOOSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT TO SOFT SANDY SILTY CLAY, WET

LOOSE GRAY SAND WITH SHELL FRAGMENTS, SAT. (CASTLE HAYNE FORMATION)

VERY SOFT TO HARD GRAY LIMESTONE

655+00.00

G VERY LOOSE BROWN SAND, AND VERY SOFT BROWN SANDY SILT WITH LITTLE TO MODERATE ORGANICS, MOIST (ALLUVIAL)

G

VERY LOOSE TO LOOSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT TO SOFT SANDY SILTY CLAY, WET

LOOSE GRAY SAND WITH SHELL FRAGMENTS, SAT. (CASTLE HAYNE FORMATION)

VERY SOFT TO HARD GRAY LIMESTONE

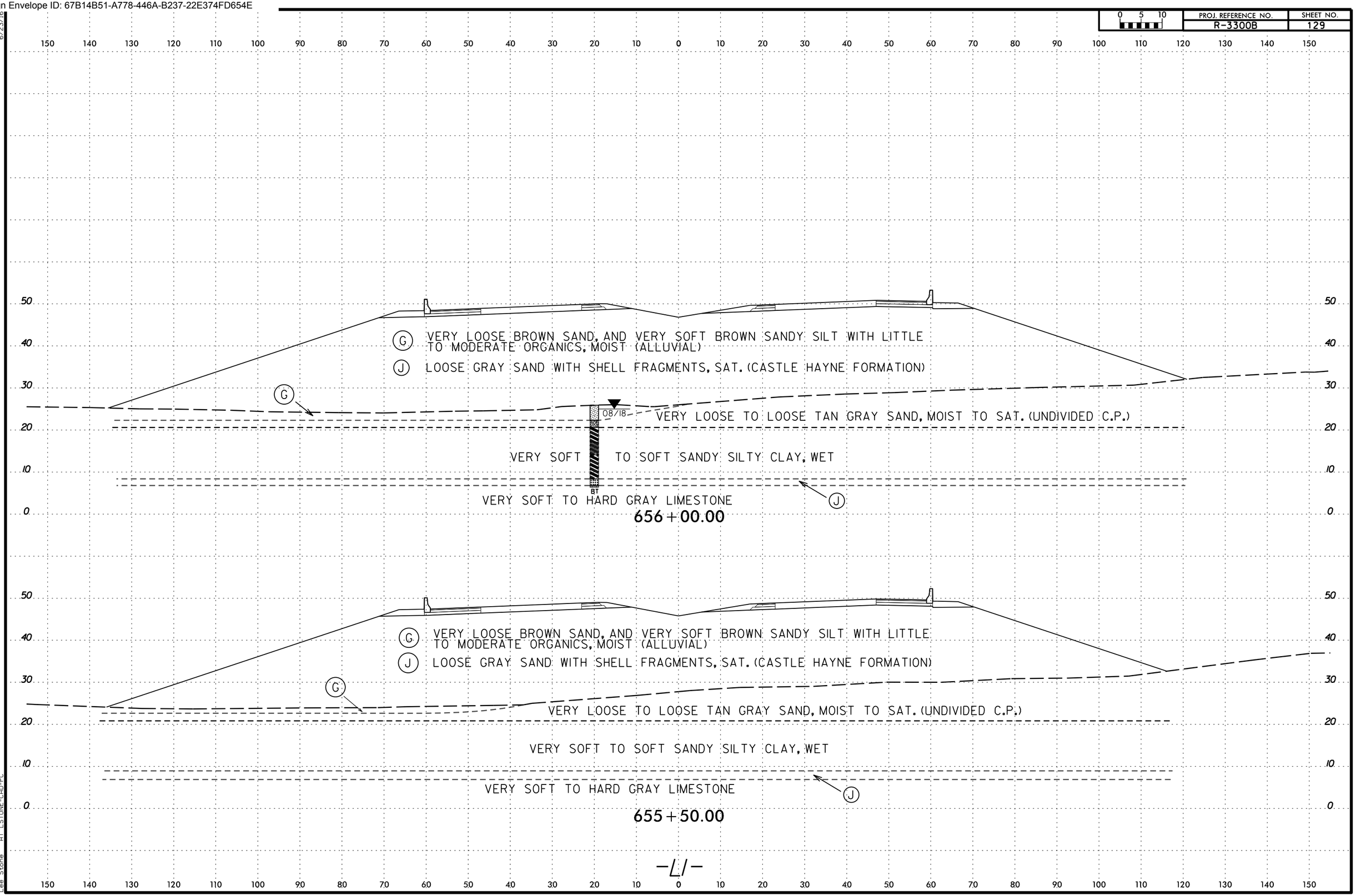
654+50.00

-L/-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL164850-65800.dgn
Lee Stone
ATTESTONE_CAD_PE

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

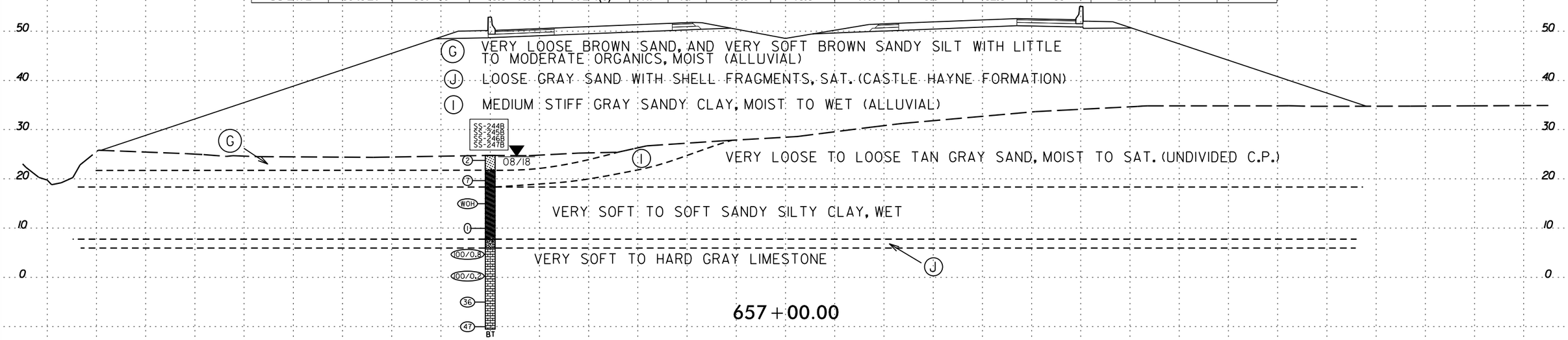
6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\LLLB\R3300B_Geo_XSLLL164850-65800.dgn
Lee Stone
AT STONE CAD PC



DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

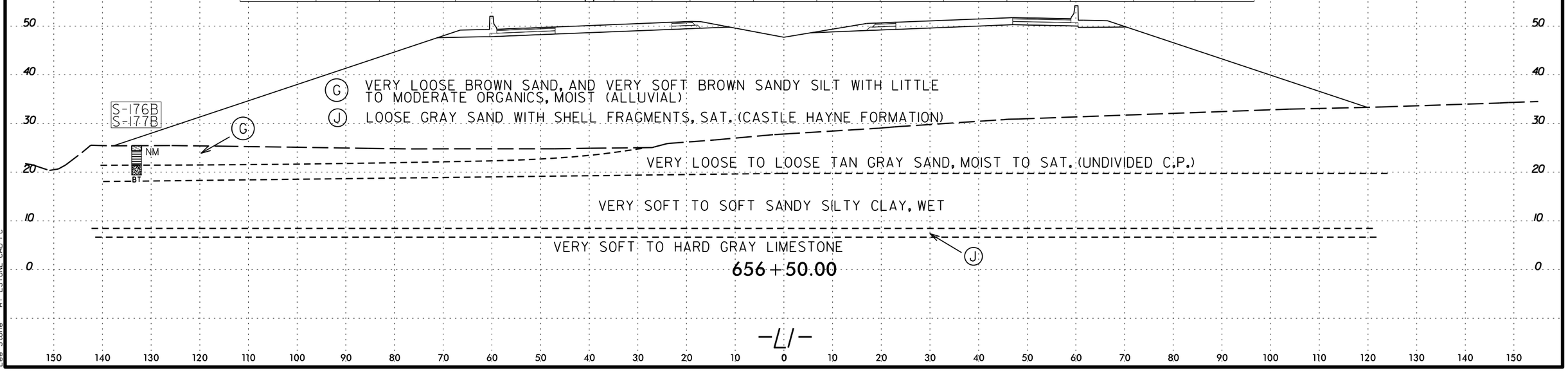
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-244B	60 ft LT	657+00	0.0 - 1.5	A-2-4(0)	NP	NP	3.7	70.8	12.4	13.1	99.4	99	29	-	5.1
SS-245B	60 ft LT	657+00	8.8 - 10.3	A-6(20)	39	20	0.2	10.0	61.2	28.6	100	100	96	-	-
SS-246B	60 ft LT	657+00	13.8 - 15.3	A-6(3)	30	13	14.3	45.9	23.6	16.2	99.7	91	46	-	-
SS-247B	60 ft LT	657+00	18.8 - 19.6	A-2-4(0)	NP	NP	58.9	18.3	17.0	5.8	52.5	59	25	-	-



SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-176B	133 LT	656+00	1.0 - 2.0	A-4(0)	NP	NP	1.7	65.9	17.5	15.0	99.9	100	37	-	6.3
S-177B	133 LT	656+00	4.0 - 5.0	A-2-4(0)	NP	NP	13.4	75.4	5.3	5.8	100	99	14	-	-



-L/-

09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL164850-65800.dgn
Lee Stone AT LSTONE CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	131

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

50
40
30
20
10
0

G VERY LOOSE BROWN SAND, AND VERY SOFT BROWN SANDY SILT WITH LITTLE TO MODERATE ORGANICS, MOIST (ALLUVIAL)

NM
BT
G
08/18
VERY LOOSE TO LOOSE TAN GRAY SAND, MOIST TO SAT. SAT. (UNDIVIDED C.P.)
VERY SOFT TO SOFT SANDY SILTY CLAY, WET
LOOSE GRAY SAND WITH SHELL FRAGMENTS, SAT. (CASTLE HAYNE FORMATION)
BT
VERY SOFT TO HARD GRAY LIMESTONE

658+00.00

G VERY LOOSE BROWN SAND, AND VERY SOFT BROWN SANDY SILT WITH LITTLE TO MODERATE ORGANICS, MOIST (ALLUVIAL)
I MEDIUM STIFF GRAY SANDY CLAY, MOIST TO WET (ALLUVIAL)

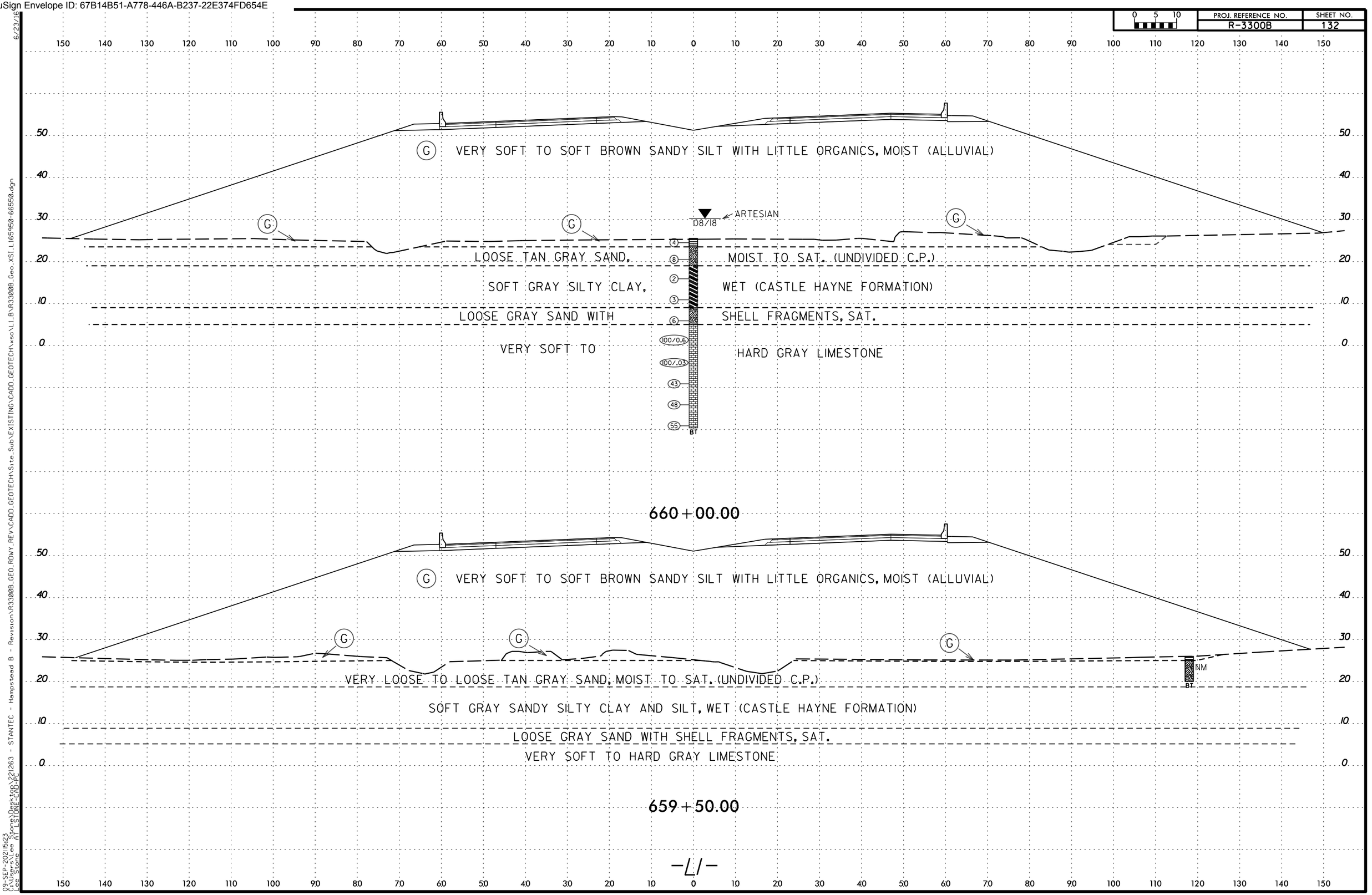
G
I
VERY LOOSE TO LOOSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)
VERY SOFT TO SOFT SANDY SILTY CLAY, WET
LOOSE GRAY SAND WITH SHELL FRAGMENTS, SAT. (CASTLE HAYNE FORMATION)
VERY SOFT TO HARD GRAY LIMESTONE

657+50.00

—L/—

6/23/16
09-SEP-2021 5:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL164850-65800.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



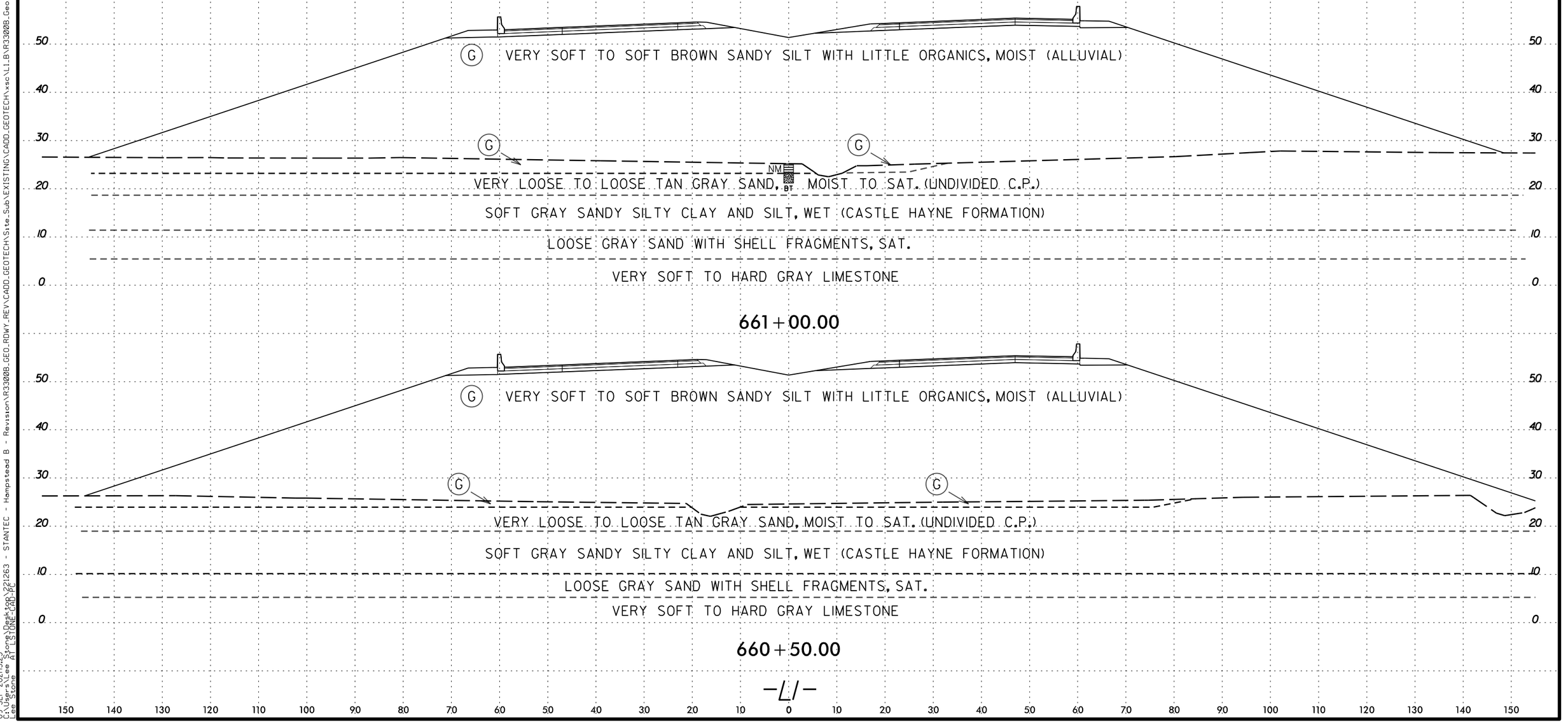
-11-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLL165950-66550.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-179B	CL	661+00	0.0 - 1.0	A-4(0)	NP	NP	2.5	45.0	37.5	15.1	99.6	99	57	-	10.9
S-180B	CL	661+00	2.0 - 3.0	A-2-4(0)	NP	NP	6.1	66.5	15.5	11.9	99.7	99	32	-	-



6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL165950-66550.dgn
Lee Stone AT LSTONE_CAD_PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	134

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

50 40 30 20 10 0

G VERY SOFT TO SOFT BROWN SANDY SILT WITH LITTLE ORGANICS, MOIST (ALLUVIAL)

G

VERY LOOSE TO LOOSE TAN GRAY SAND, MOIST (UNDIVIDED C.P.)

08/18

SOFT GRAY SANDY SILTY CLAY AND SILT, WET (CASTLE HAYNE FORMATION)

LOOSE GRAY SAND WITH SHELL FRAGMENTS, SAT.

SOFT GRAY SILTY CLAY, WET

BT

VERY SOFT TO HARD GRAY LIMESTONE

662+00.00

G VERY SOFT TO SOFT BROWN SANDY SILT WITH LITTLE ORGANICS, MOIST (ALLUVIAL)

NM

BT

G

G

VERY LOOSE TO LOOSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

SOFT GRAY SANDY SILTY CLAY AND SILT, WET (CASTLE HAYNE FORMATION)

LOOSE GRAY SAND WITH SHELL FRAGMENTS, SAT.

SOFT GRAY SILTY CLAY, WET

VERY SOFT TO HARD GRAY LIMESTONE

661+50.00

-L/-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL165950-665500.dgn
Lee Stone
ATLESTONE_CAD_PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL165950-666500.dgn
Lee Stone
ATLESTONE_CAD_PC

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

50
40
30
20
10
0

G VERY SOFT TO SOFT BROWN SANDY SILT WITH LITTLE ORGANICS, MOIST (ALLUVIAL)

G

VERY LOOSE TO LOOSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

NM

BT

G

SOFT GRAY SANDY SILTY CLAY AND SILT, WET (CASTLE HAYNE FORMATION)

LOOSE GRAY SAND WITH SHELL FRAGMENTS, SAT.

VERY SOFT TO HARD GRAY LIMESTONE

663+00.00

G VERY SOFT TO SOFT BROWN SANDY SILT WITH LITTLE ORGANICS, MOIST (ALLUVIAL)

G

VERY LOOSE TO LOOSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

G

SOFT GRAY SANDY SILTY CLAY AND SILT, WET (CASTLE HAYNE FORMATION)

LOOSE GRAY SAND WITH SHELL FRAGMENTS, SAT.

SOFT GRAY SILTY CLAY, WET

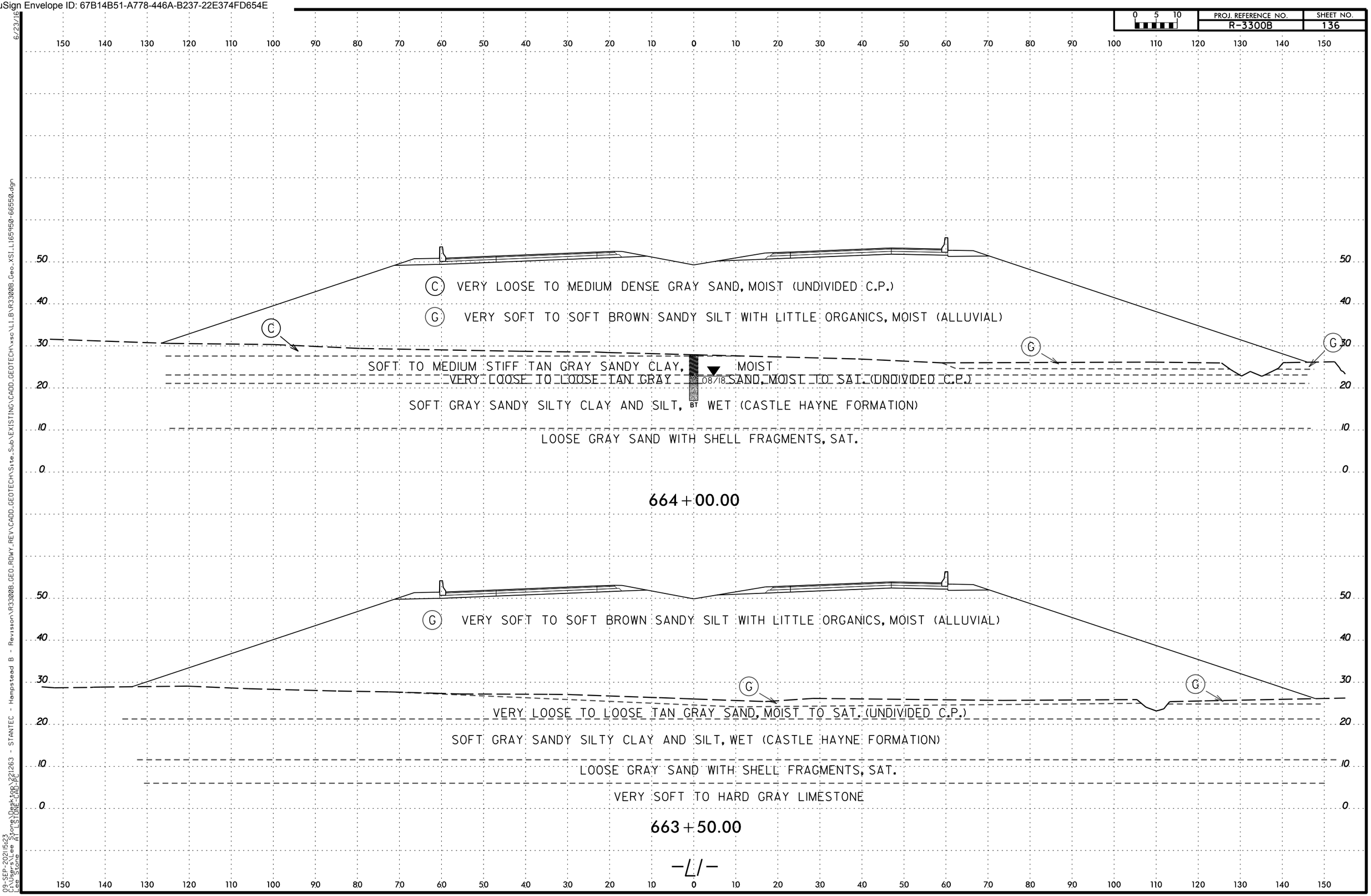
VERY SOFT TO HARD GRAY LIMESTONE

662+50.00

-L/-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



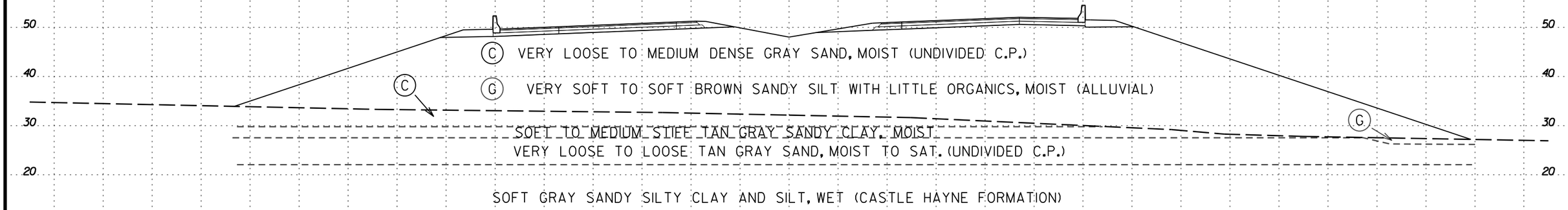
6/23/16
C:\Site-Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL165950-666500.dgn
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	137

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

50
40
30
20
10
0

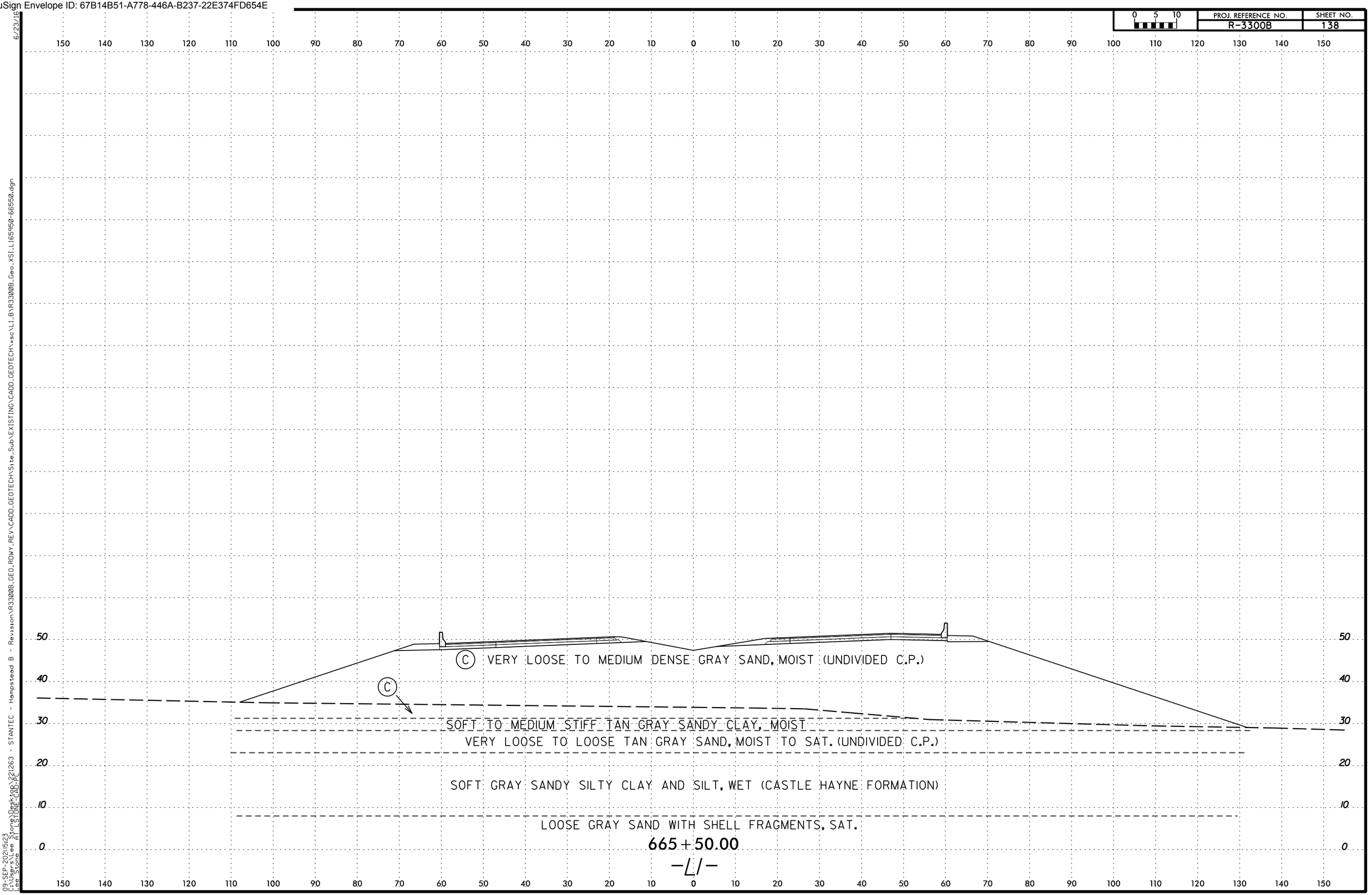


-L/-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL165950-666500.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	138



6/23/16
C:\Users\Lee Stone\Desktop\22I263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLL165950-66550.dgn
09-SEP-2021 15:23
Lee Stone AT LSTONE_CAD_PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL167700-67750.dgn
Lee Stone AT LSTONE-CAD-PC

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

50 40 30 20

677+36
NM
BT

VERY LOOSE TO MEDIUM DENSE GRAY SAND, MOIST (U.C.P.)

WATER SURFACE 10/18

VERY SOFT TO MEDIUM STIFF GRAY SANDY SILT, MOIST TO WET (U.C.P.)

BT

LOOSE GRAY SAND, SAT. (UNDIVIDED C.P.)

SOFT GRAY SANDY CLAY, WET (CASTLE HAYNE FORMATION)

677+50.00

60 50 40 30 20

(C) VERY LOOSE TO MEDIUM DENSE GRAY SAND, MOIST (U.C.P.)

(C)

WATER SURFACE 10/18

WATER SURFACE 10/18

VERY SOFT TO MEDIUM STIFF GRAY SANDY SILT, MOIST TO WET (U.C.P.)

BT

LOOSE GRAY SAND, SAT. (UNDIVIDED C.P.)

SOFT GRAY SANDY CLAY, WET (CASTLE HAYNE FORMATION)

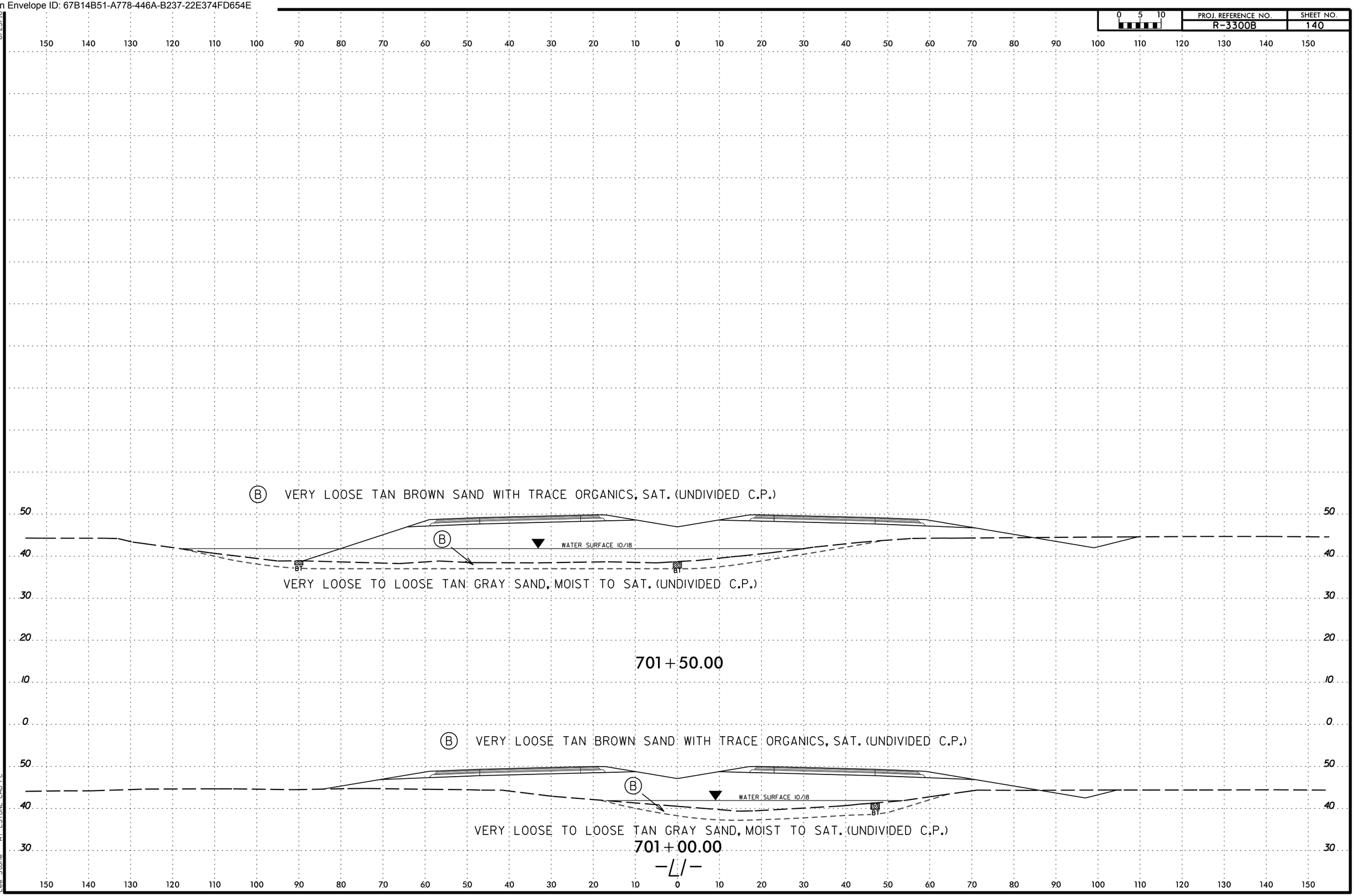
677+00.00

$-L/-$

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	140

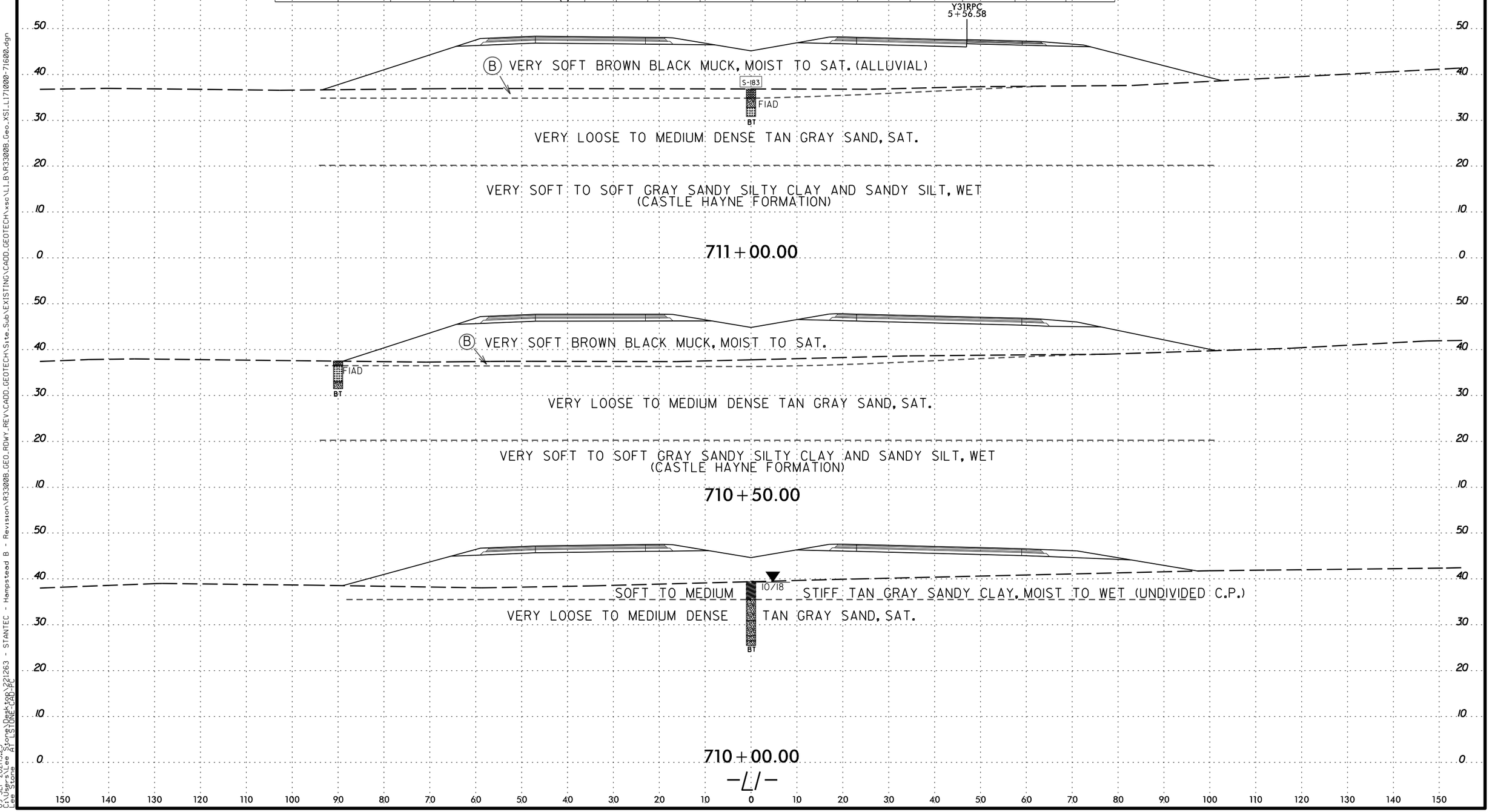


6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\22I263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLL170100-70150.dgn
Lee Stone
AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-183B	CL	711+00	0.0 - 1.0	A-2-4(0)	NP	NP	12.5	57.8	20.2	9.5	99.8	97	33	-	12.5

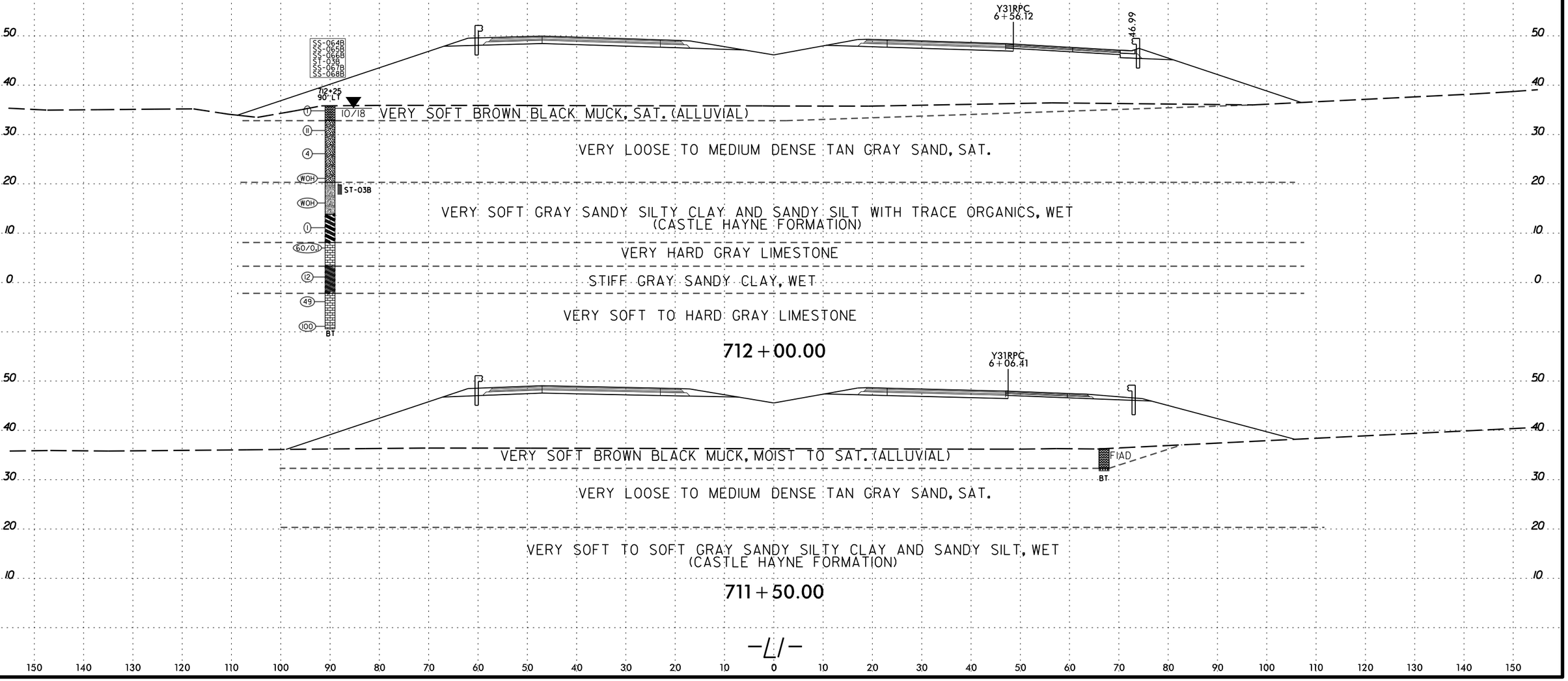


6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL171000-716000.dgn
Lee Stone AT STONE CAD PE

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-064B	90 ft LT	712+25	0.0 - 1.5	A-4(0)	NP	NP	25.1	40.5	30.5	3.9	93.7	85	37	-	21.7
SS-065B	90 ft LT	712+25	4.0 - 5.5	A-2-4(0)	NP	NP	0.2	81.1	6.6	12.1	100	100	25	-	-
SS-066B	90 ft LT	712+25	13.7 - 15.2	A-2-4(0)	NP	NP	10.9	69.7	15.3	4.1	99.8	96	32	-	-
ST-03B	90 ft LT	712+25	16.0 - 18.0	A-4(0)	27	5	0.7	47.9	37.69	13.6	100	99	66	66	-
SS-067B	90 ft LT	712+25	23.7 - 25.2	A-7-6(17)	43	22	4.7	29.4	47.4	18.5	99.8	96	80	-	-
SS-068B	90 ft LT	712+25	33.7 - 35.2	A-6(3)	30	11	23.2	31.1	19.4	26.3	100	84	52	-	-

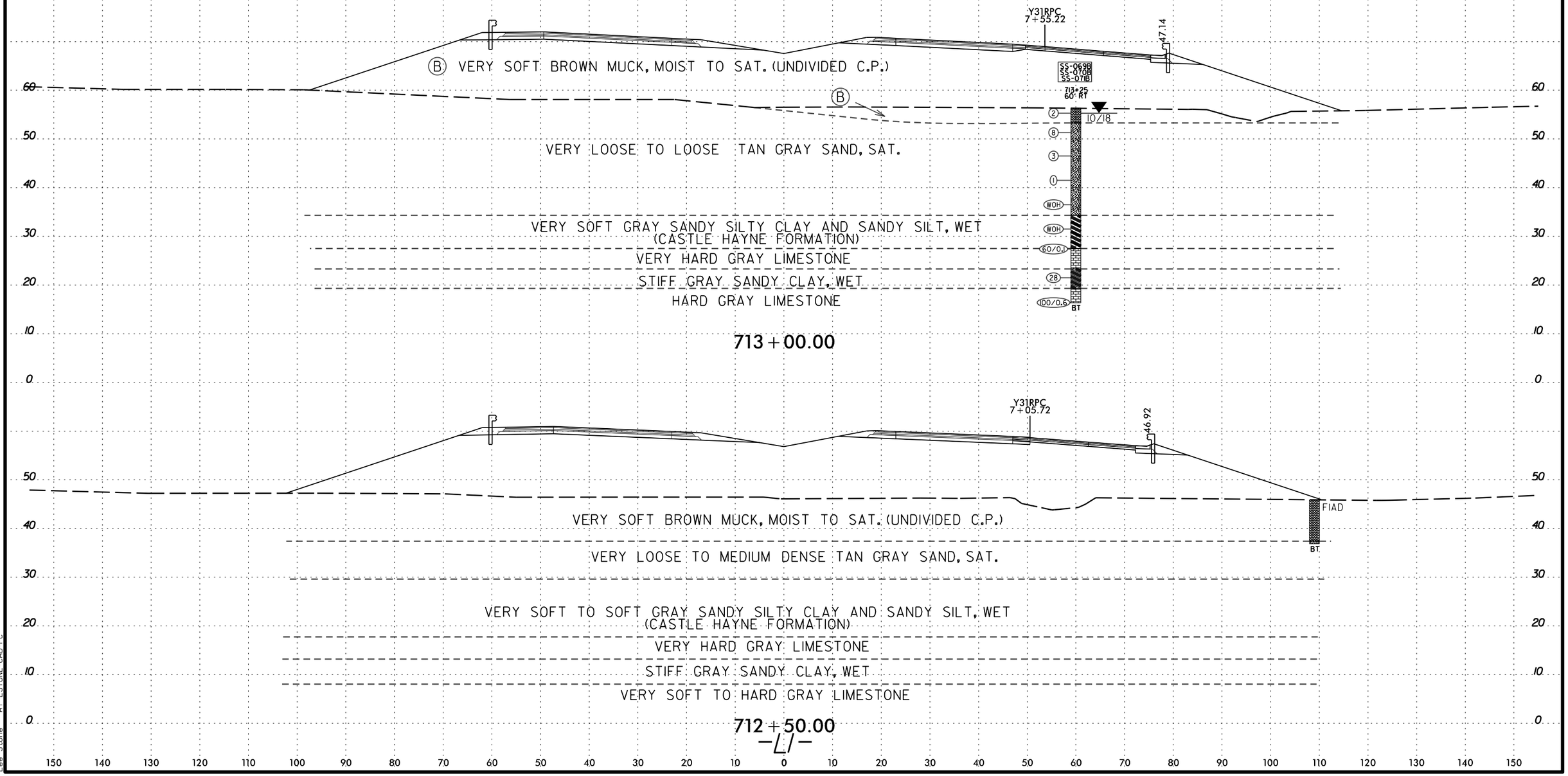


6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL171000-716000.dgn
09-SEP-2021 15:23
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-069B	60 ft RT	713+25	4.0 - 5.5	A-2-4(0)	NP	NP	15.5	71.2	4.3	9.0	100	98	17	21	-
SS-070B	60 ft RT	713+25	13.8 - 15.3	A-2-4(0)	NP	NP	22.1	61.6	11.3	5.0	99.3	90	23	32	-
SS-071B	60 ft RT	713+25	23.8 - 25.3	A-7-6(17)	45	24	9.4	32.6	39.6	18.3	100	93	75	65	-

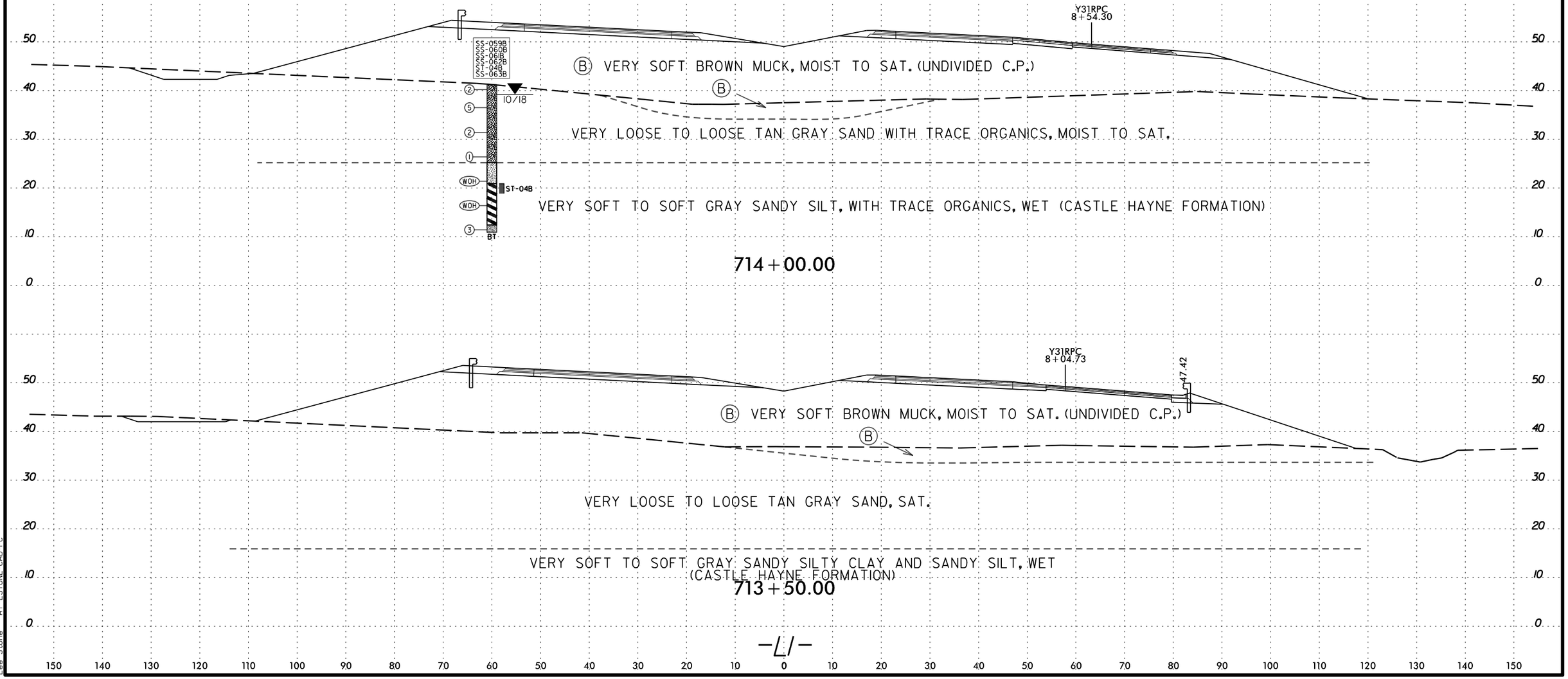


6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL171000-716000.dgn
09-SEP-2021 15:23
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-059B	60 ft LT	714+00	0.0 - 1.5	A-2-4(0)	NP	NP	39.5	49.0	9.5	2.0	99.8	86	14	-	2.8
SS-060B	60 ft LT	714+00	3.7 - 5.2	A-2-4(0)	NP	NP	13.8	66.8	6.3	13.0	99.8	98	23	-	-
SS-061B	60 ft LT	714+00	13.8 - 15.3	A-2-4(0)	NP	NP	0.1	82.7	7.2	10.1	100	100	24	-	-
SS-062B	60 ft LT	714+00	18.8 - 20.3	A-4(0)	NP	NP	1.9	54.3	34.6	9.2	100	99	58	-	-
ST-04B	60 ft LT	714+00	20.3 - 22.3	A-7-6(39)	54	36	0.5	16.5	56.9	26.2	100	99	92	56	1.8
SS-063B	60 ft LT	714+00	28.8 - 30.3	A-4(0)	NP	NP	1.3	64.6	21.8	12.3	100	99	48	-	-

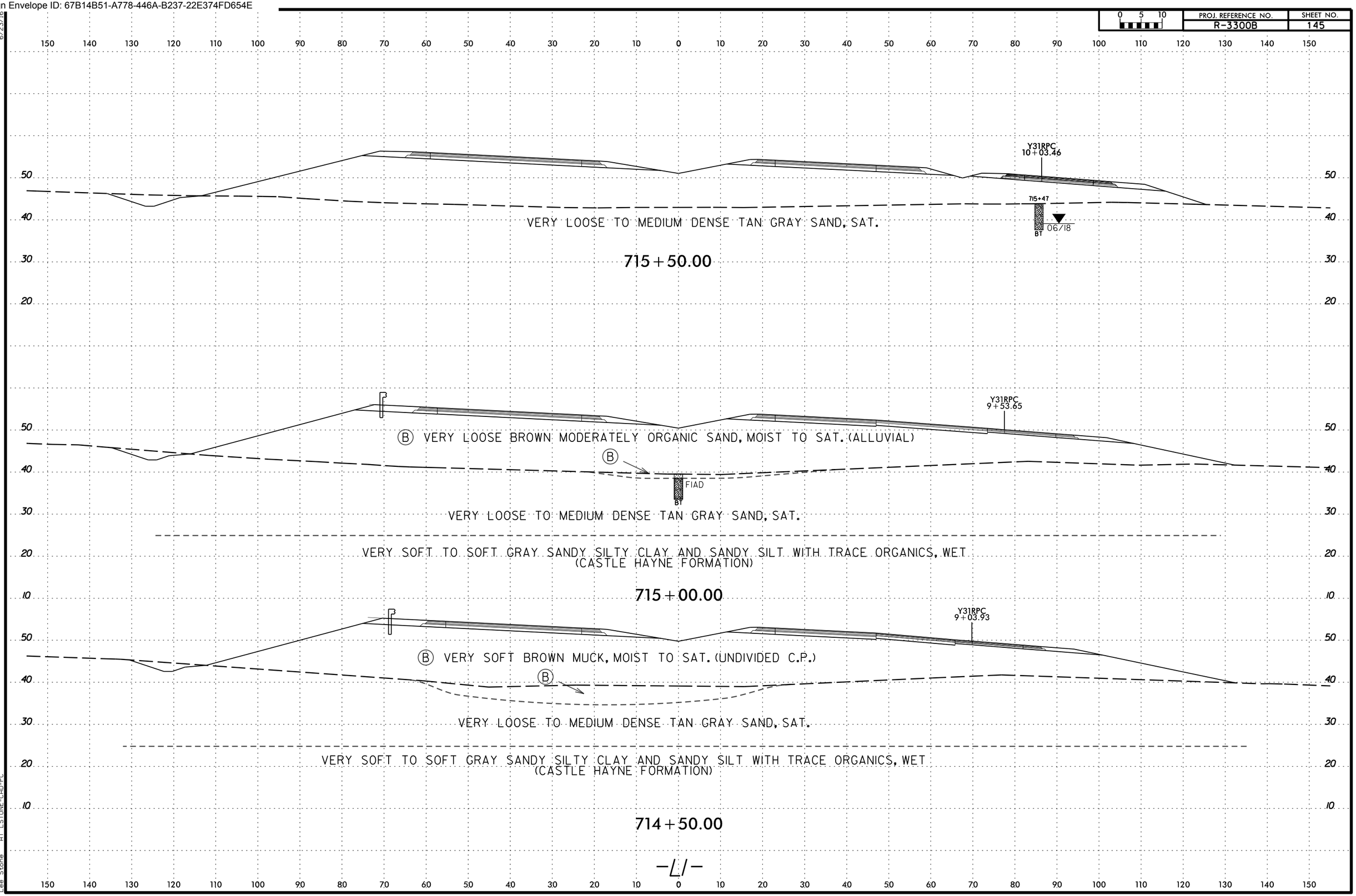


-L/-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LL_B\R3300B_Geo_XSLL171000-716000.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	145

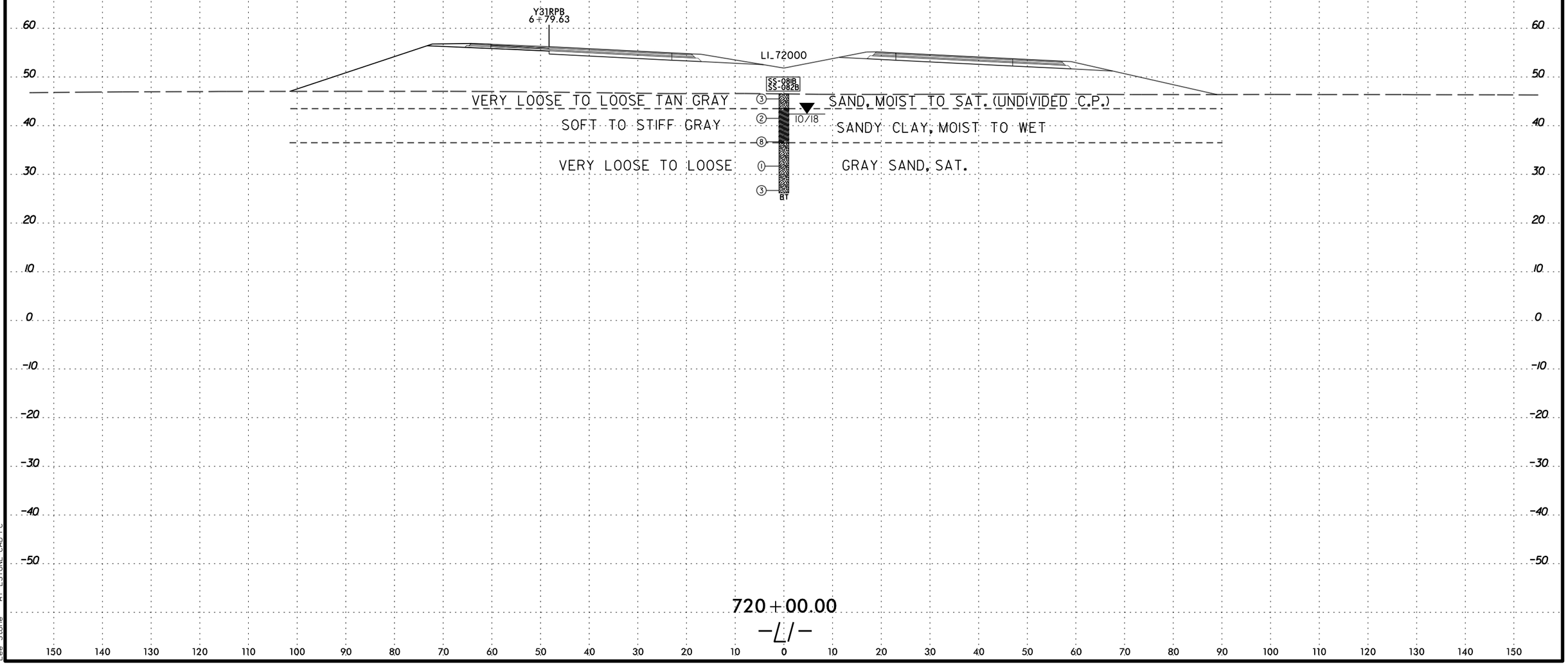


6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL171000-716000.dgn
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

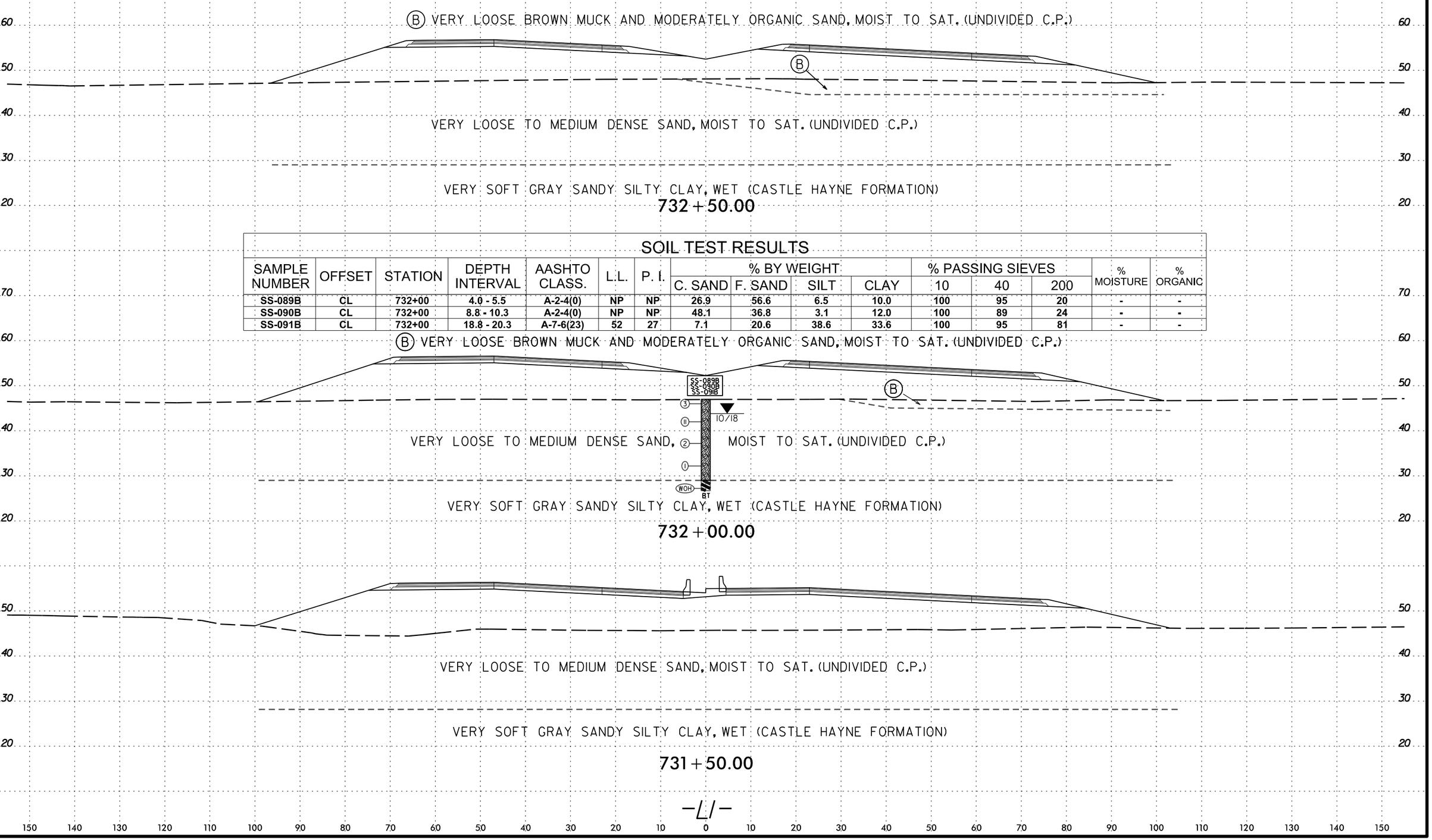
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-081B	CL	720+00	4.0 - 5.5	A-6(3)	28	15	11.4	44.6	15.5	28.5	100	97	47	-	-
SS-082B	CL	720+00	13.8 - 15.3	A-2-4(0)	NP	NP	12.7	70.8	4.3	12.3	100	99	31	-	-



6/23/16
09-SEP-2021|5:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\LI_R3300B_Geo_XSLI_L172000.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



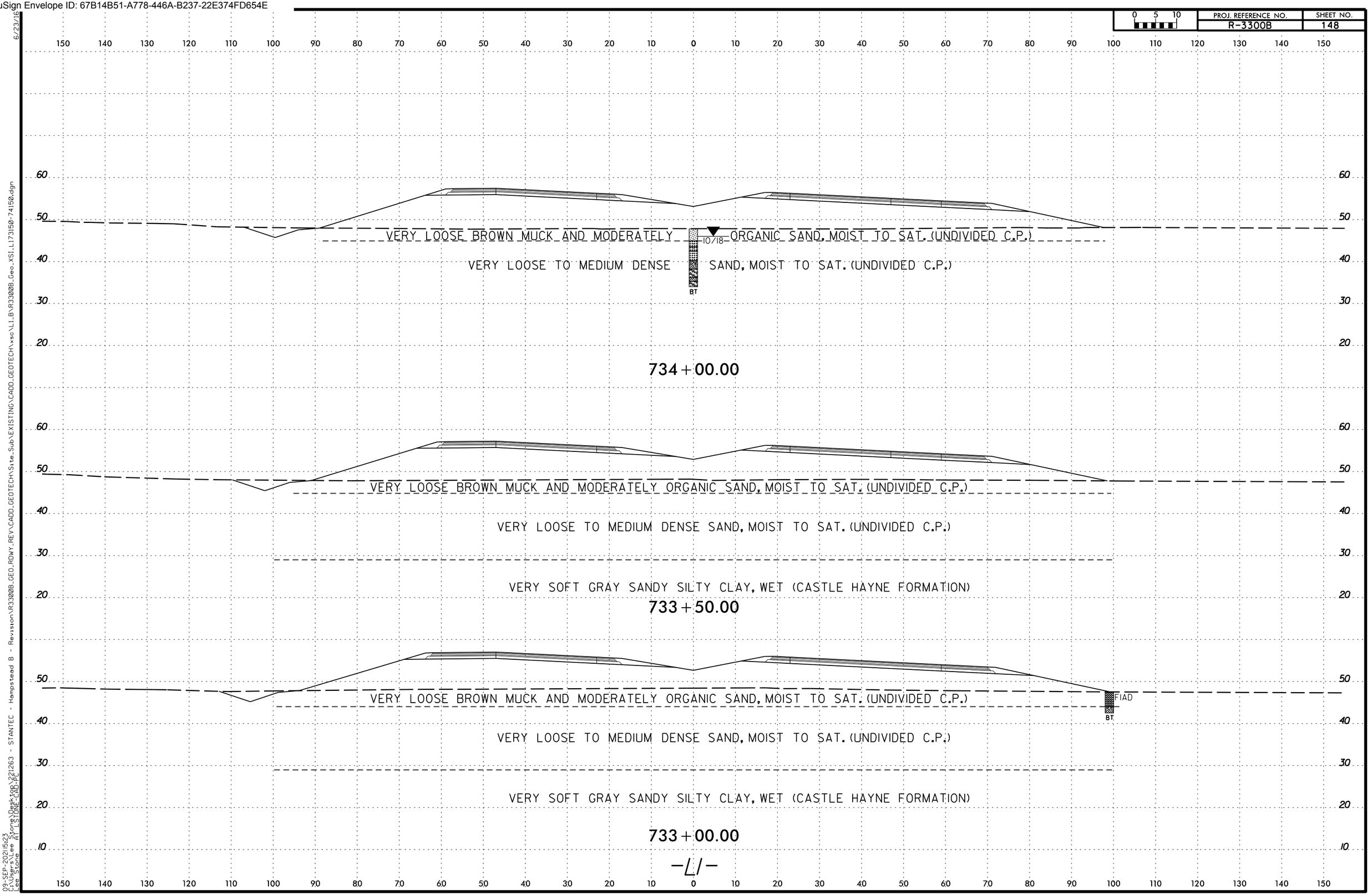
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-089B	CL	732+00	4.0 - 5.5	A-2-4(0)	NP	NP	26.9	56.6	6.5	10.0	100	95	20	-	-
SS-090B	CL	732+00	8.8 - 10.3	A-2-4(0)	NP	NP	48.1	36.8	3.1	12.0	100	89	24	-	-
SS-091B	CL	732+00	18.8 - 20.3	A-7-6(23)	52	27	7.1	20.6	38.6	33.6	100	95	81	-	-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LL_B\R3300B_Geo_XSLL_173150-74150.dgn
Lee Stone
ALLSTONE_CAD_PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	148



-L1-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLL173150-74150.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

60 50 40 30

VERY LOOSE BROWN MUCK AND MODERATELY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)

10/18

VERY LOOSE TO MEDIUM DENSE SAND, MOIST TO SAT. (UNDIVIDED C.P.)

BT

736+00.00

Ⓑ VERY LOOSE BROWN MUCK AND MODERATELY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓑ

VERY LOOSE TO MEDIUM DENSE SAND, MOIST TO SAT. (UNDIVIDED C.P.)

735+50.00

Ⓑ VERY LOOSE BROWN MUCK AND MODERATELY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓑ

FIAD

BT

VERY LOOSE TO MEDIUM DENSE SAND, MOIST TO SAT. (UNDIVIDED C.P.)

735+00.00

VERY LOOSE BROWN MUCK AND MODERATELY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE TO MEDIUM DENSE SAND, MOIST TO SAT. (UNDIVIDED C.P.)

734+50.00

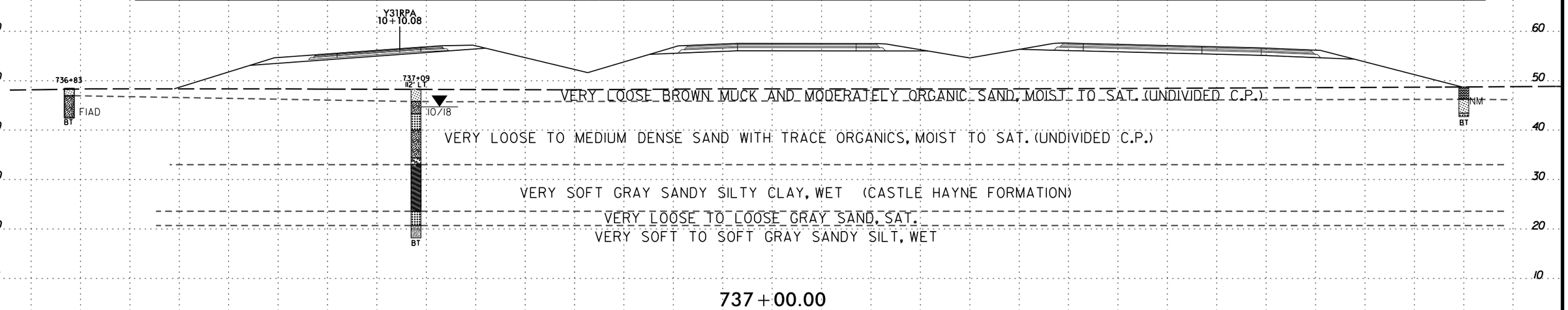
-L/-

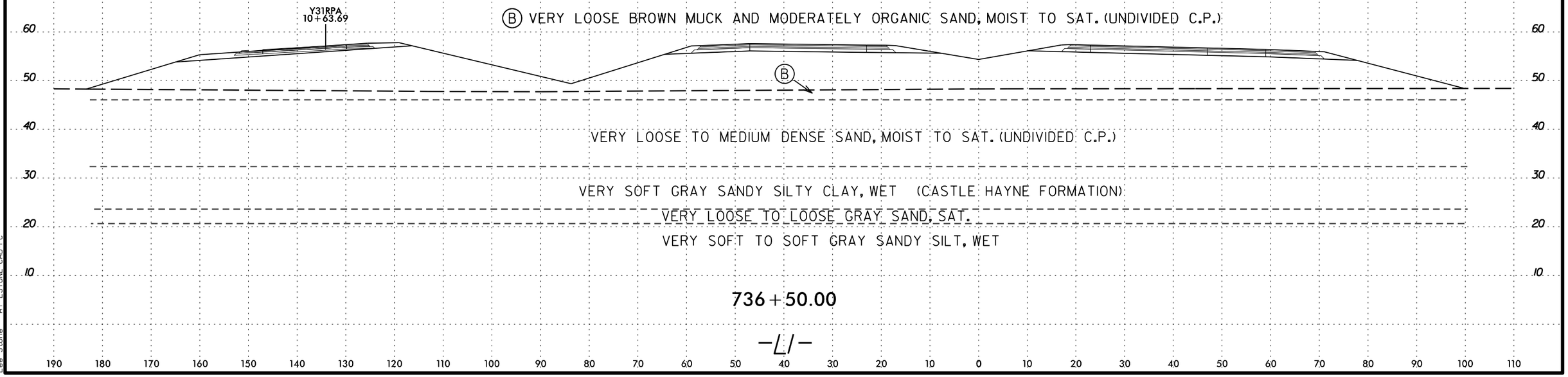
6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL173150-74150.dgn
09-SEP-2021 15:23
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-184B	100' RT	737+00	0.5 - 1.5	A-2-4(0)	NP	NP	24.8	49.1	16.6	9.5	99.7	94	29	-	10.7
S-185B	100' RT	737+00	2.5 - 3.5	A-2-4(0)	NP	NP	21.4	53.0	10.2	15.4	100	96	28	-	2.4
S-186B	100' RT	737+00	5.3 - 6.0	A-3(0)	NP	NP	46.9	45.5	0.3	7.3	100	93	9	-	-





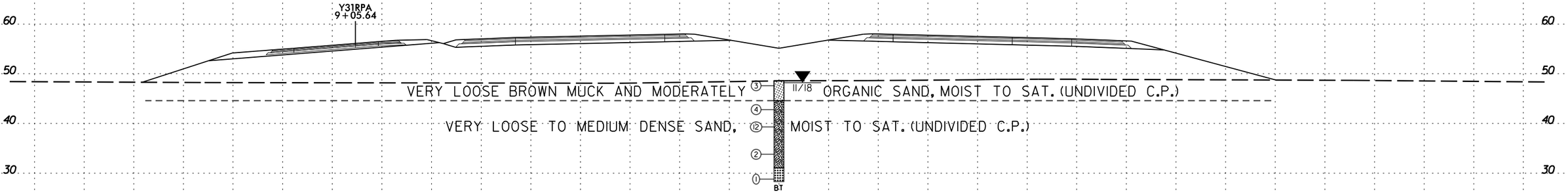
-L/-

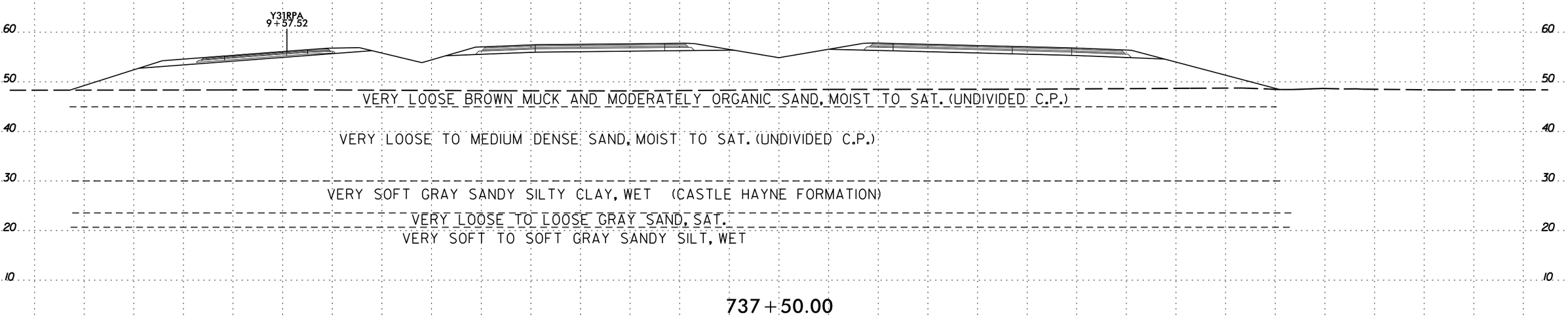
6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\22I263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LL_B\R3300B_Geo_XSLL173150-74150.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

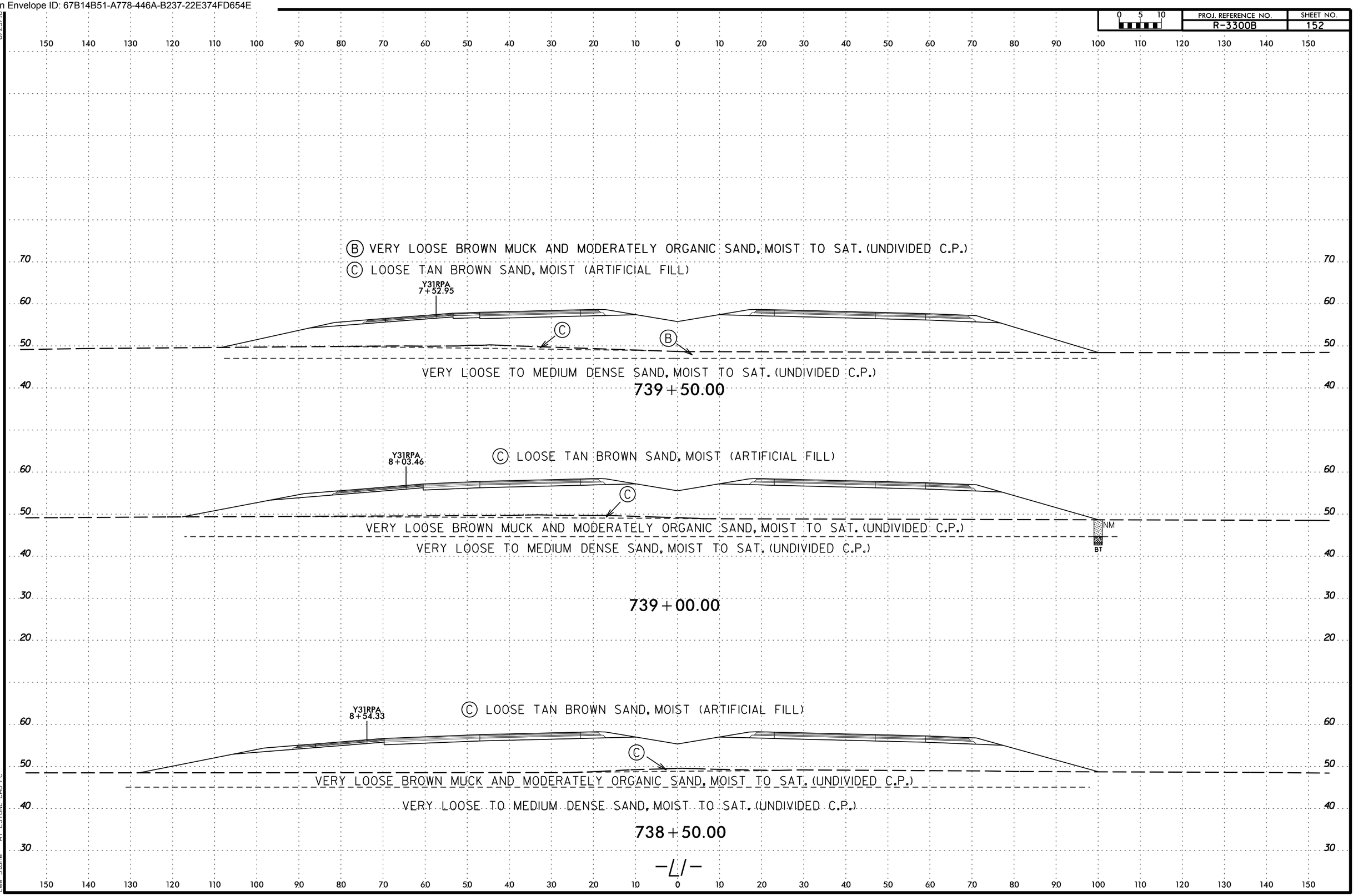
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-112B	CL	738+00	0.5 - 1.5	A-2-4(0)	NP	NP	15.5	53.9	25.4	5.2	99.8	97	34	-	5.1
SS-113B	CL	738+00	4.8 - 6.3	A-2-4(0)	NP	NP	11.4	60.0	18.1	10.5	100	98	34	-	-
SS-114B	CL	738+00	18.8 - 20.3	A-3(0)	NP	NP	56.3	40.3	3.2	0.2	99.7	86	4	-	-





6/23/16
I:\Site-Sub\EXISTING\CADD_GEOTECH\xsc\LL\R3300B_Geo_XSLL173150-74150.dgn
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\
Lee Stone
AT STONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



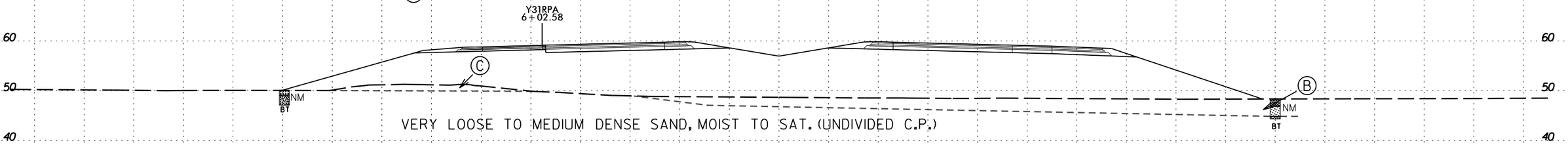
6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LL_B\R3300B_Geo_XSLL173150-74150.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	153

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

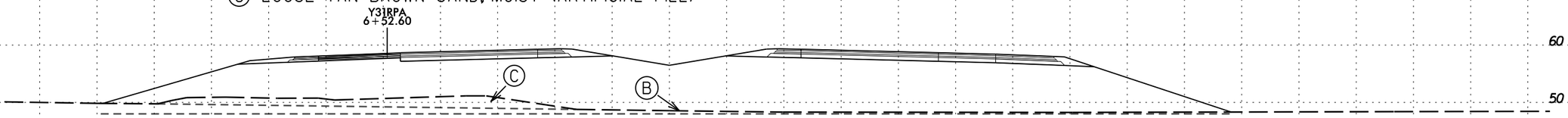
Ⓑ VERY LOOSE BROWN MUCK AND MODERATELY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)
Ⓒ LOOSE TAN BROWN SAND, MOIST (ARTIFICIAL FILL)



VERY LOOSE TO MEDIUM DENSE SAND, MOIST TO SAT. (UNDIVIDED C.P.)

741+00.00

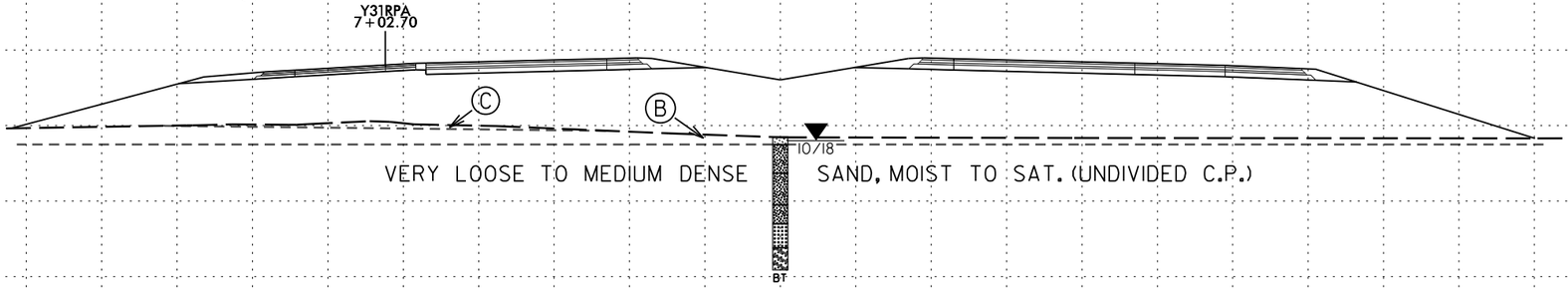
Ⓑ VERY LOOSE BROWN MUCK AND MODERATELY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)
Ⓒ LOOSE TAN BROWN SAND, MOIST (ARTIFICIAL FILL)



VERY LOOSE TO MEDIUM DENSE SAND, MOIST TO SAT. (UNDIVIDED C.P.)

740+50.00

Ⓑ VERY LOOSE BROWN MUCK AND MODERATELY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)
Ⓒ LOOSE TAN BROWN SAND, MOIST (ARTIFICIAL FILL)



VERY LOOSE TO MEDIUM DENSE SAND, MOIST TO SAT. (UNDIVIDED C.P.)

740+00.00

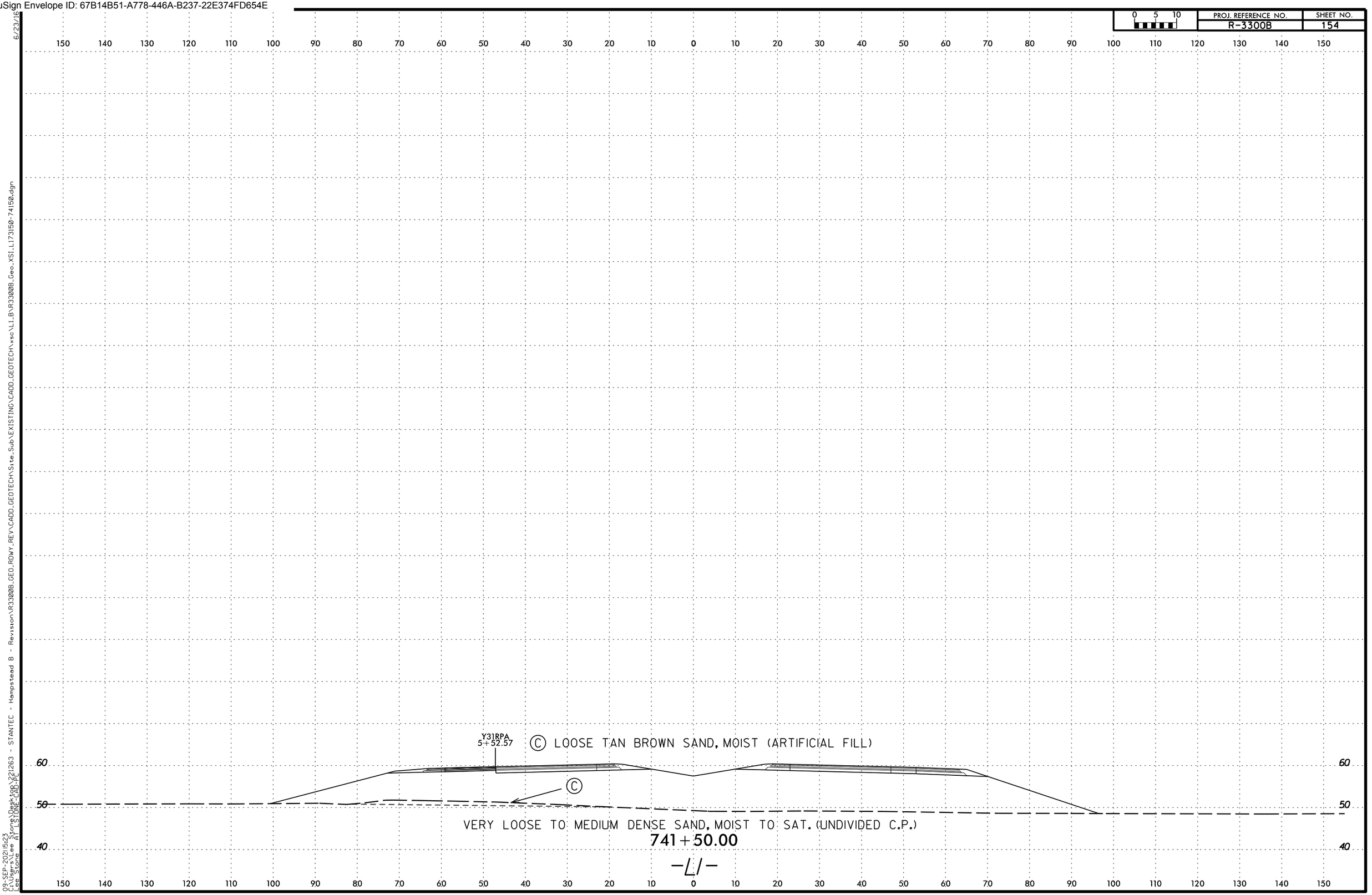
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

-L/-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL173150-74150.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	154



-L/-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\22263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLL173150-74150.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	155

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

70
60
50
40
30

Ⓑ VERY LOOSE BLACK MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓑ

VERY LOOSE TO MEDIUM DENSE TAN GRAY SAND, MOIST TO SAT. (UNDIVDED C.P.)

NM

BT

780+00.00

Ⓑ VERY LOOSE BLACK MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓑ

VERY LOOSE TO MEDIUM DENSE TAN GRAY SAND, MOIST TO SAT. (UNDIVDED C.P.)

NM

BT

779+50.00

VERY LOOSE TO MEDIUM DENSE TAN GRAY SAND, MOIST TO SAT. (UNDIVDED C.P.)

779+00.00

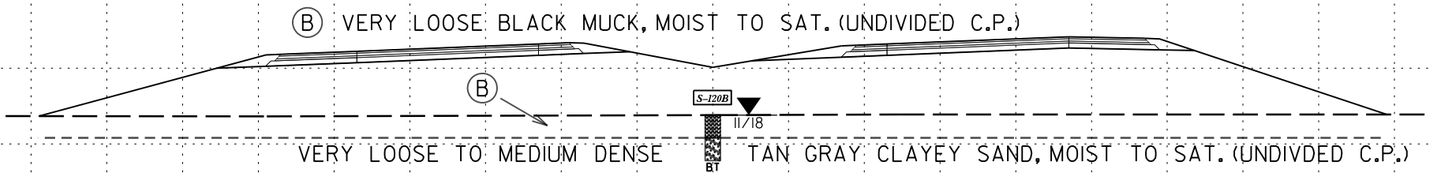
-L/-

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-820000.dgn
09-SEP-2021 15:23
Lee Stone
AT STONE CAD-PC

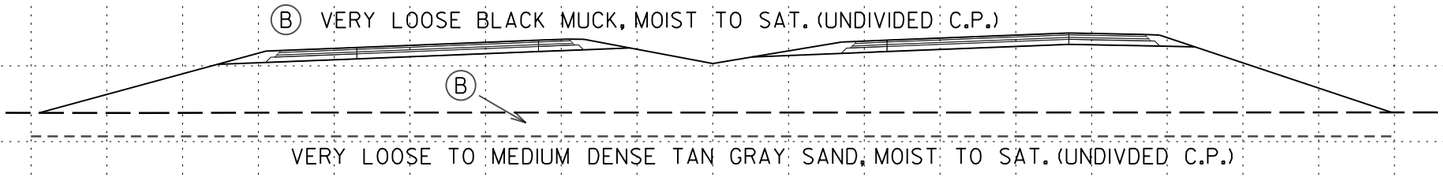
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-120B	CL	781+50	0.0 - 1.0	A-2-4(0)	NP	NP	26.0	41.5	27.6	4.9	99.6	89	34	45	12.4



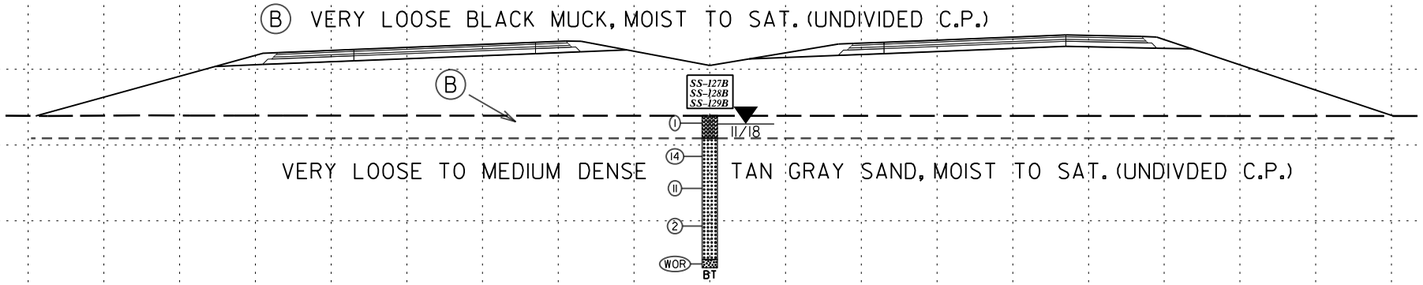
781+50.00



781+00.00

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-127B	CL	780+50	4.4 - 5.9	A-3(0)	NP	NP	53.8	37.2	2.5	6.4	100	84	9	-	-
SS-128B	CL	780+50	13.6 - 15.1	A-3(0)	NP	NP	83.4	9.6	1.9	5.1	97	44	7	-	-
SS-129B	CL	780+50	19.0 - 20.1	A-2-4(0)	19	6	40.3	30.6	11.7	17.4	100	91	33	-	-



780+50.00

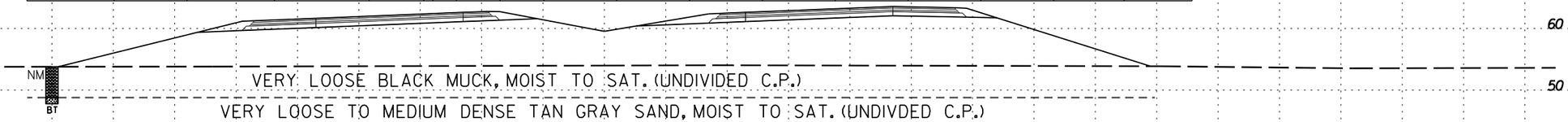
-11-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-82000.dgn
Lee Stone AT LSTONE_CAD_PC

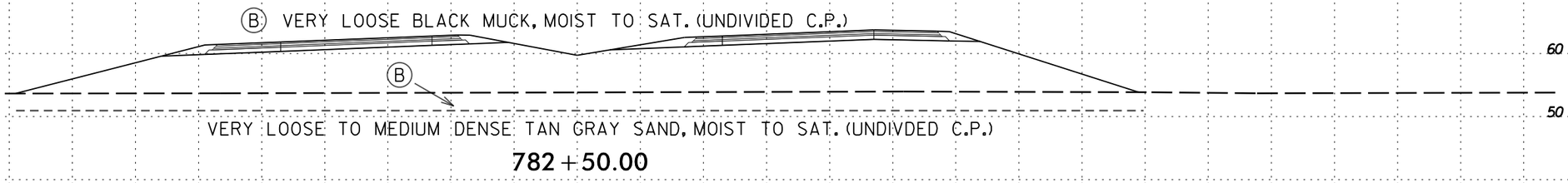
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

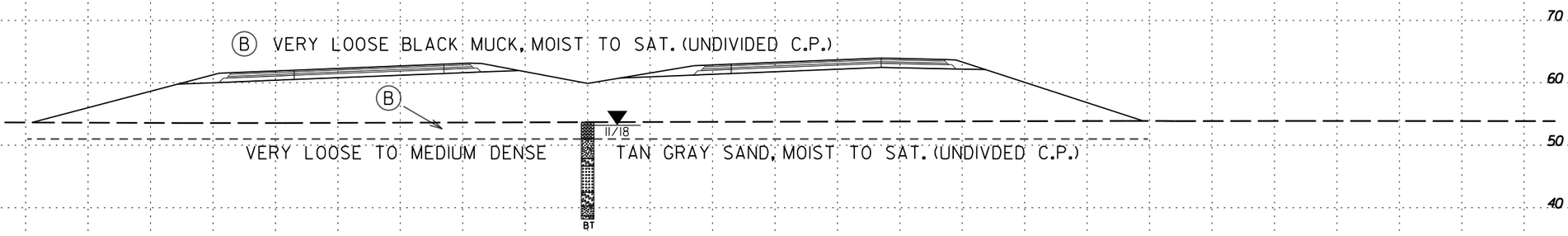
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-146B	90 ft LT	783+00	0.0 - 5.0	A-2-4(0)	NP	NP	44.6	41.0	13.8	0.6	88.8	79	17	-	51.6



783+00.00



782+50.00



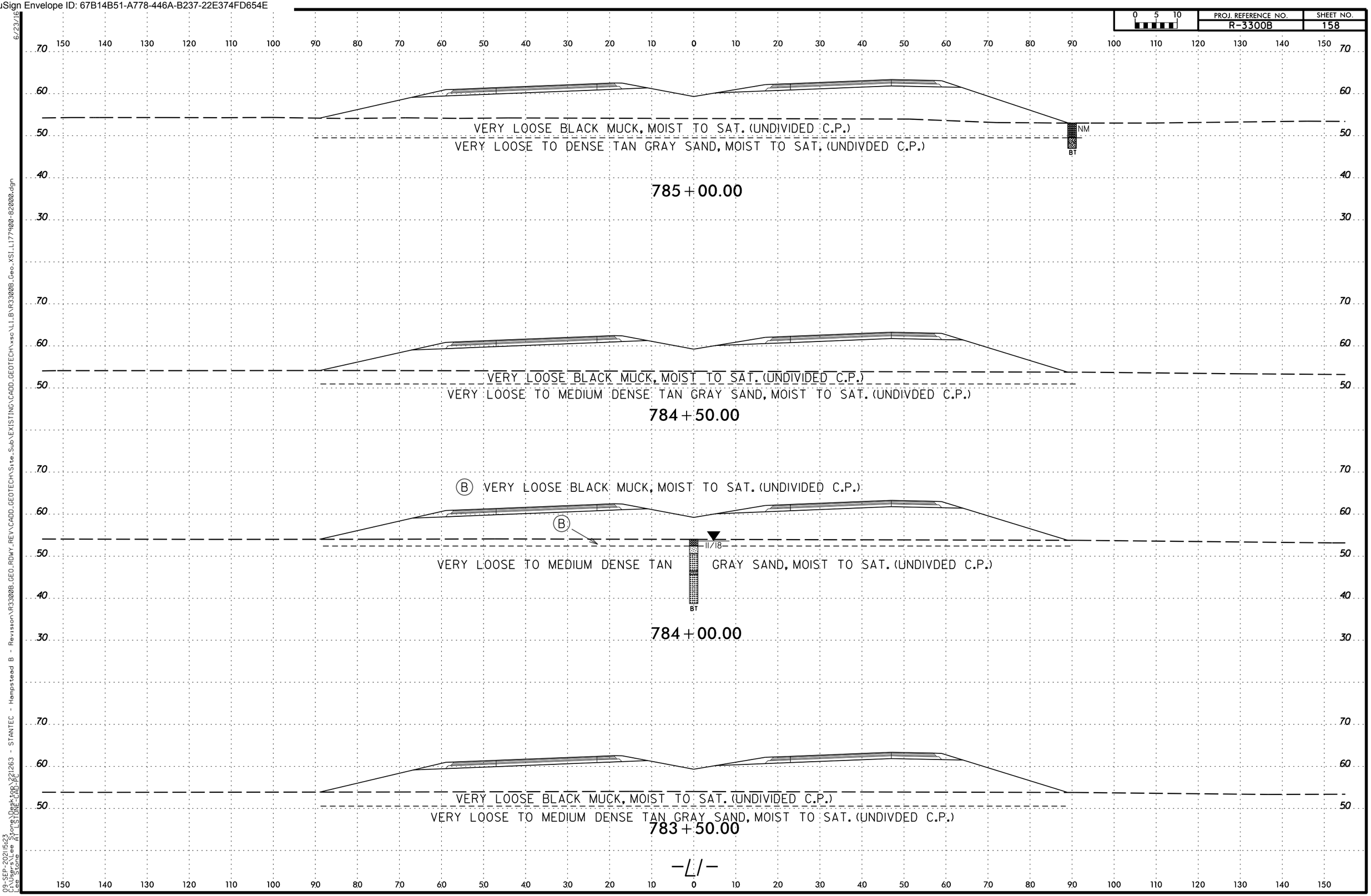
782+00.00

-//-

09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\21263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-820000.dgn
Lee Stone AT LSTONE-CAD-PC
6/23/16

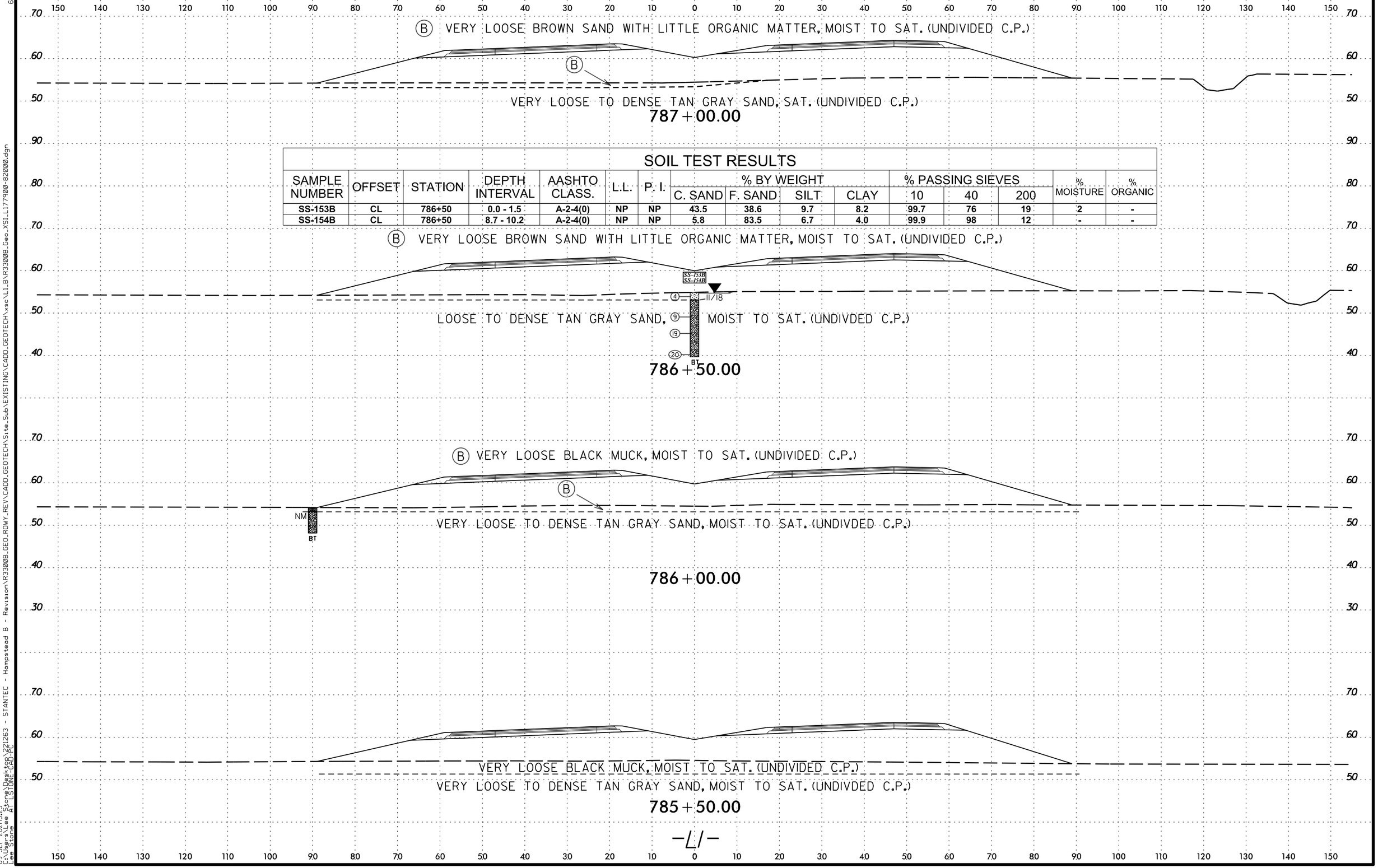
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	158



6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-82000.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



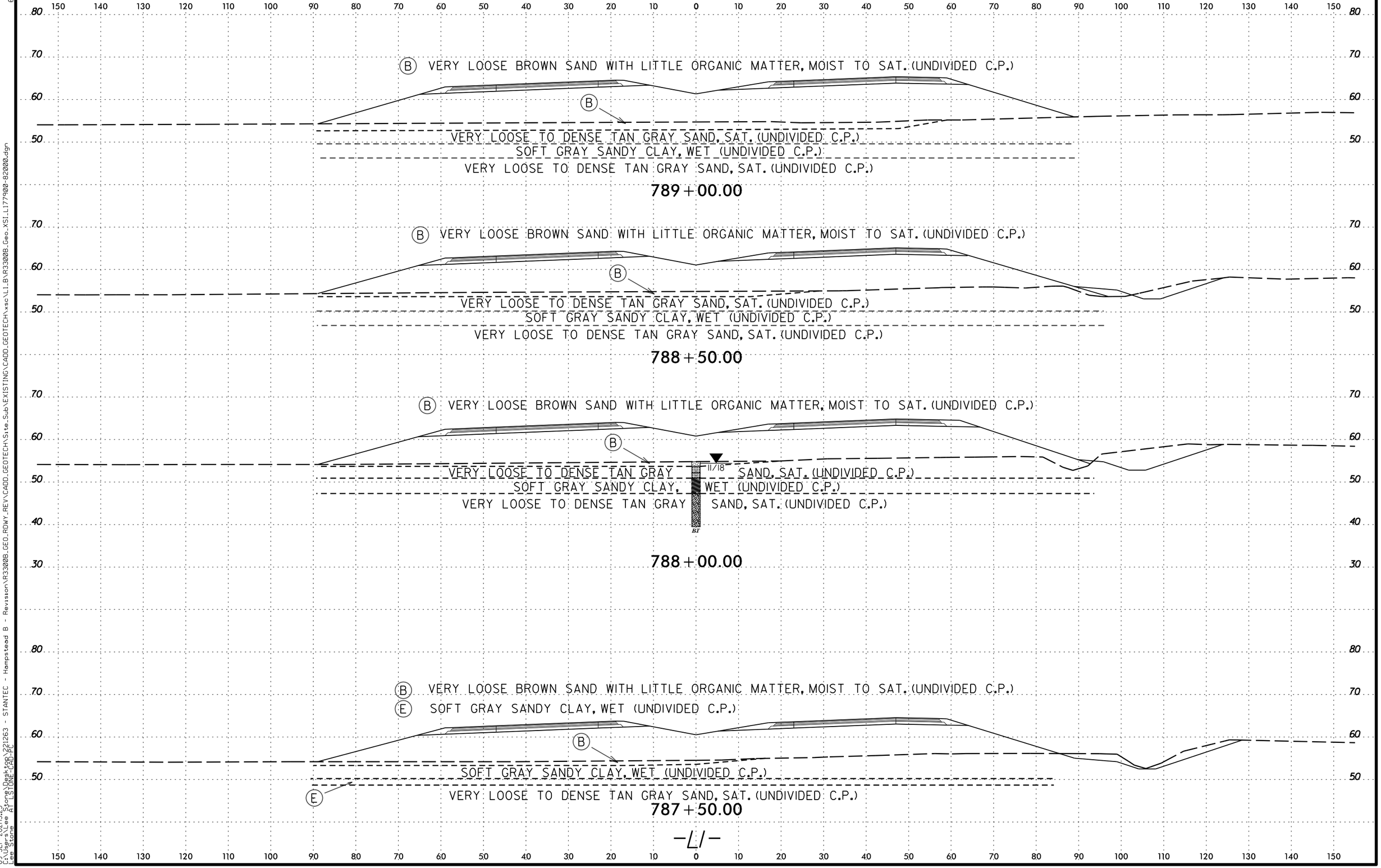
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-153B	CL	786+50	0.0 - 1.5	A-2-4(0)	NP	NP	43.5	38.6	9.7	8.2	99.7	76	19	2	-
SS-154B	CL	786+50	8.7 - 10.2	A-2-4(0)	NP	NP	5.8	83.5	6.7	4.0	99.9	98	12	-	-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\22263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL77900-82000.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	160



6/23/16
09-SEP-2021 5:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsLLB\R3300B_Geo_XSLLL177900-82000.dgn
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	161

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

80 70 60 50 70 60 50 40 30 70 60 50

Ⓑ VERY LOOSE BROWN SAND WITH LITTLE ORGANIC MATTER, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓑ

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)
SOFT GRAY SANDY CLAY, WET (UNDIVIDED C.P.)
VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

790+50.00

Ⓑ VERY LOOSE BROWN SAND WITH LITTLE ORGANIC MATTER, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓑ

11/18

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)
SOFT GRAY SANDY CLAY, WET (UNDIVIDED C.P.)
VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

BT

790+00.00

Ⓑ VERY LOOSE BROWN SAND WITH LITTLE ORGANIC MATTER, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓑ

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)
SOFT GRAY SANDY CLAY, WET (UNDIVIDED C.P.)
VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

789+50.00

-L/-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

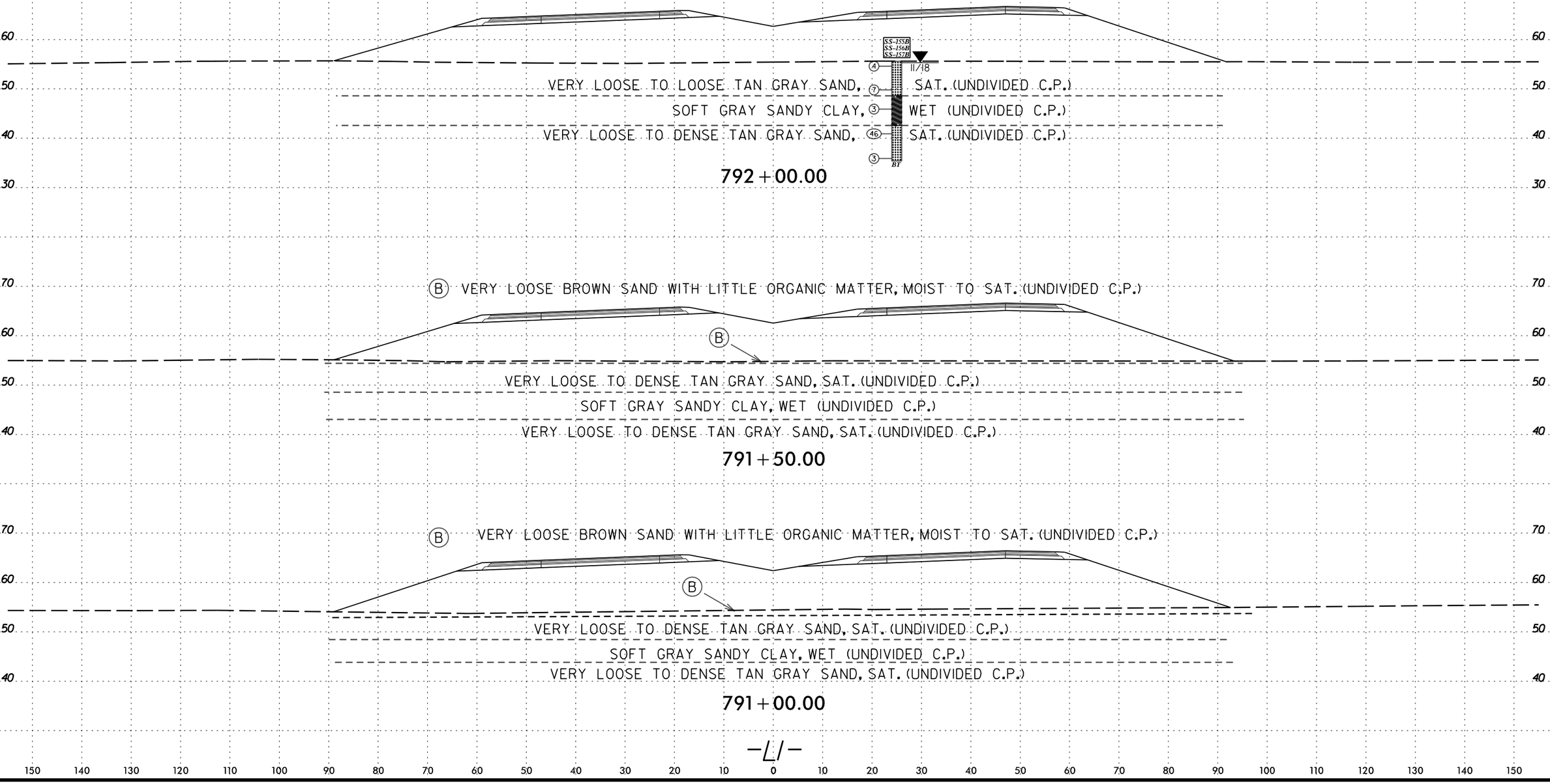
6/23/16

09-SEP-2021|5:23
C:\Users\Lee Stone\Desktop\212263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LL\B\R3300B_Geo_XSLL177900-820000.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING SIEVES 10	40	200	% MOISTURE	% ORGANIC
SS-155B	25 ft RT	792+00	0.0 - 1.5	A-3(0)	NP	NP	40.7	52.9	6.4	0.0	99.9	88	7	-	-
SS-156B	25 ft RT	792+00	8.7 - 10.2	A-6(5)	37	15	17.9	31.9	15.6	34.6	99.9	89	51	-	-
SS-157B	25 ft RT	792+00	18.7 - 20.2	A-3(0)	NP	NP	90.5	5.8	-0.3	3.9	98.0	29	4	-	-



-L/-

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-820000.dgn
09-SEP-2021 15:23
Lee Stone
AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	163

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

80
70
60
50
40

B VERY LOOSE BROWN BLACK MODERATELY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)

B

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

SOFT GRAY SANDY CLAY, WET (UNDIVIDED C.P.)

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

793+50.00

70
60
50
40

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

SOFT GRAY SANDY CLAY, WET (UNDIVIDED C.P.)

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

793+00.00

70
60
50
40

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

SOFT GRAY SANDY CLAY, WET (UNDIVIDED C.P.)

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

792+50.00

-L/-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LL_B\R3300B_Geo_XSLL177900-82000.dgn
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LL_B\R3300B_Geo_XSLL177900-82000.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	164

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

80 70 60 50 40

Ⓑ VERY LOOSE BROWN BLACK MODERATELY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓑ

11/18

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

SOFT GRAY SANDY CLAY, WET (UNDIVIDED C.P.)

BT

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

795+00.00

70 60 50 40 30

Ⓑ VERY LOOSE BROWN BLACK MODERATELY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓑ

11/18

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

SOFT GRAY SANDY CLAY, WET (UNDIVIDED C.P.)

BT

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

794+50.00

70 60 50 40

Ⓑ VERY LOOSE BROWN BLACK MODERATELY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓑ

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

SOFT GRAY SANDY CLAY, WET (UNDIVIDED C.P.)

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

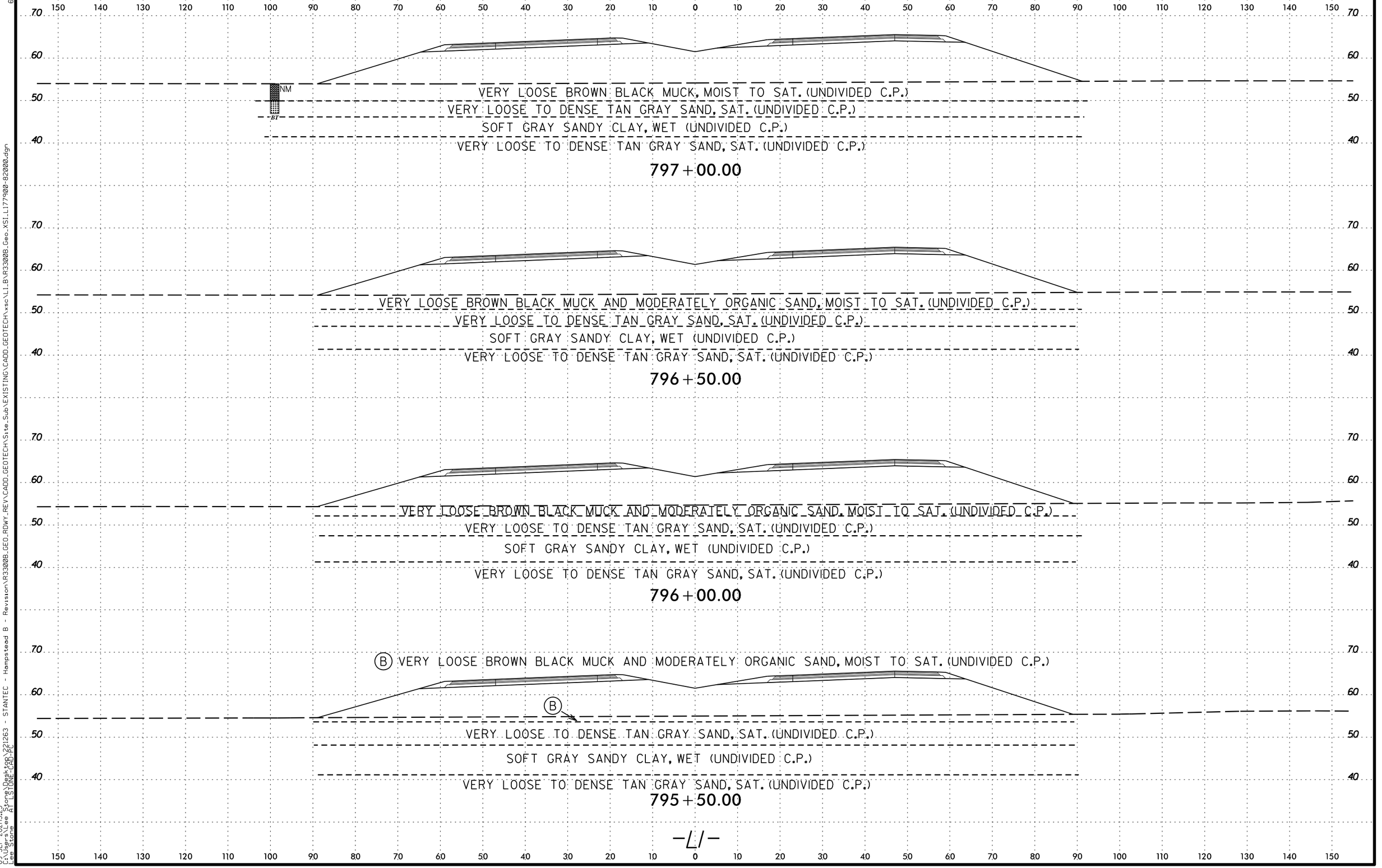
794+00.00

$-L/-$

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL77900-82000.dgn
Lee Stone AT LSTONE-CAD-PC

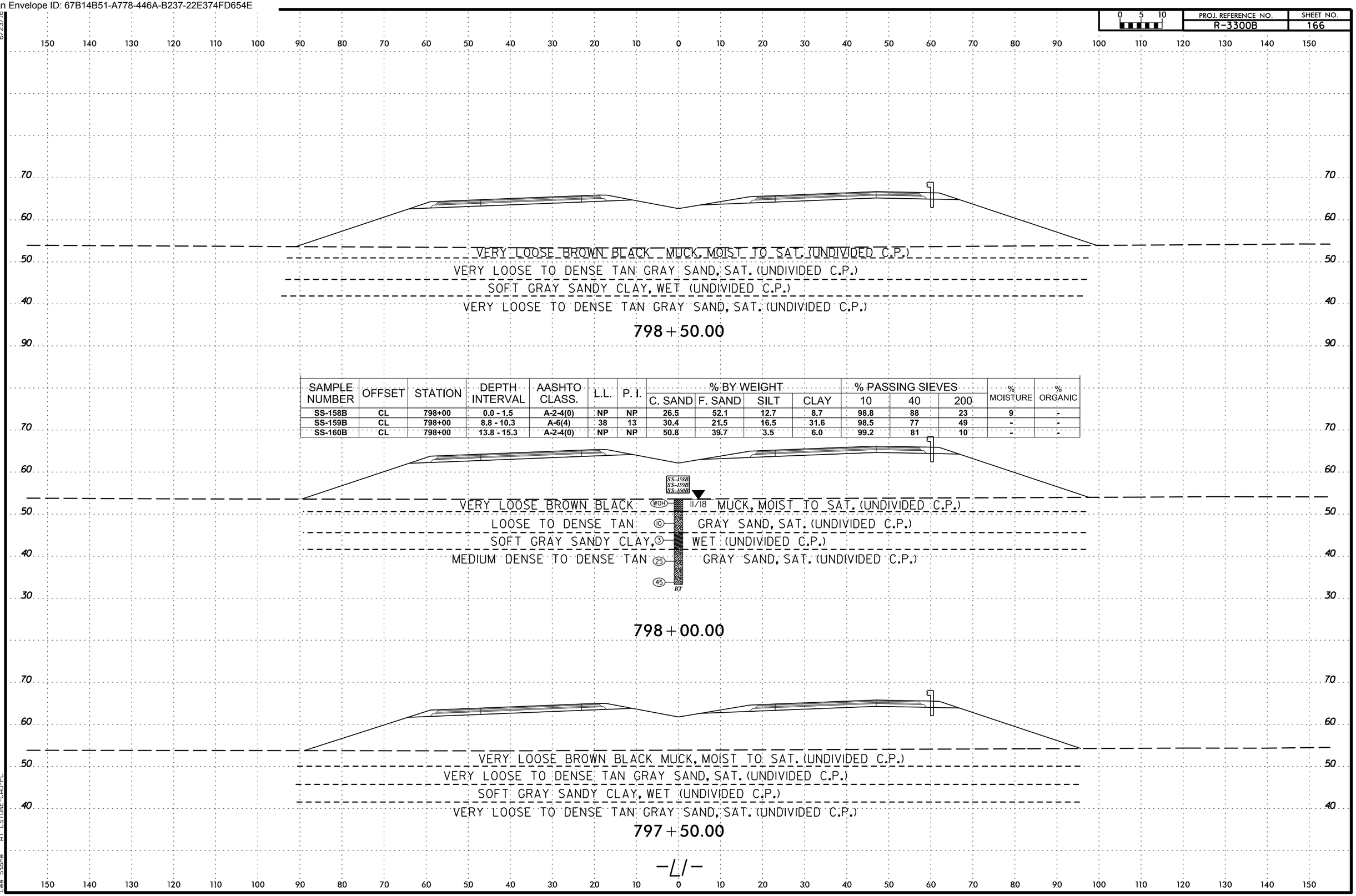
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



-L/-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-82000.dgn
Lee Stone AT LSTONE-CAD-PC

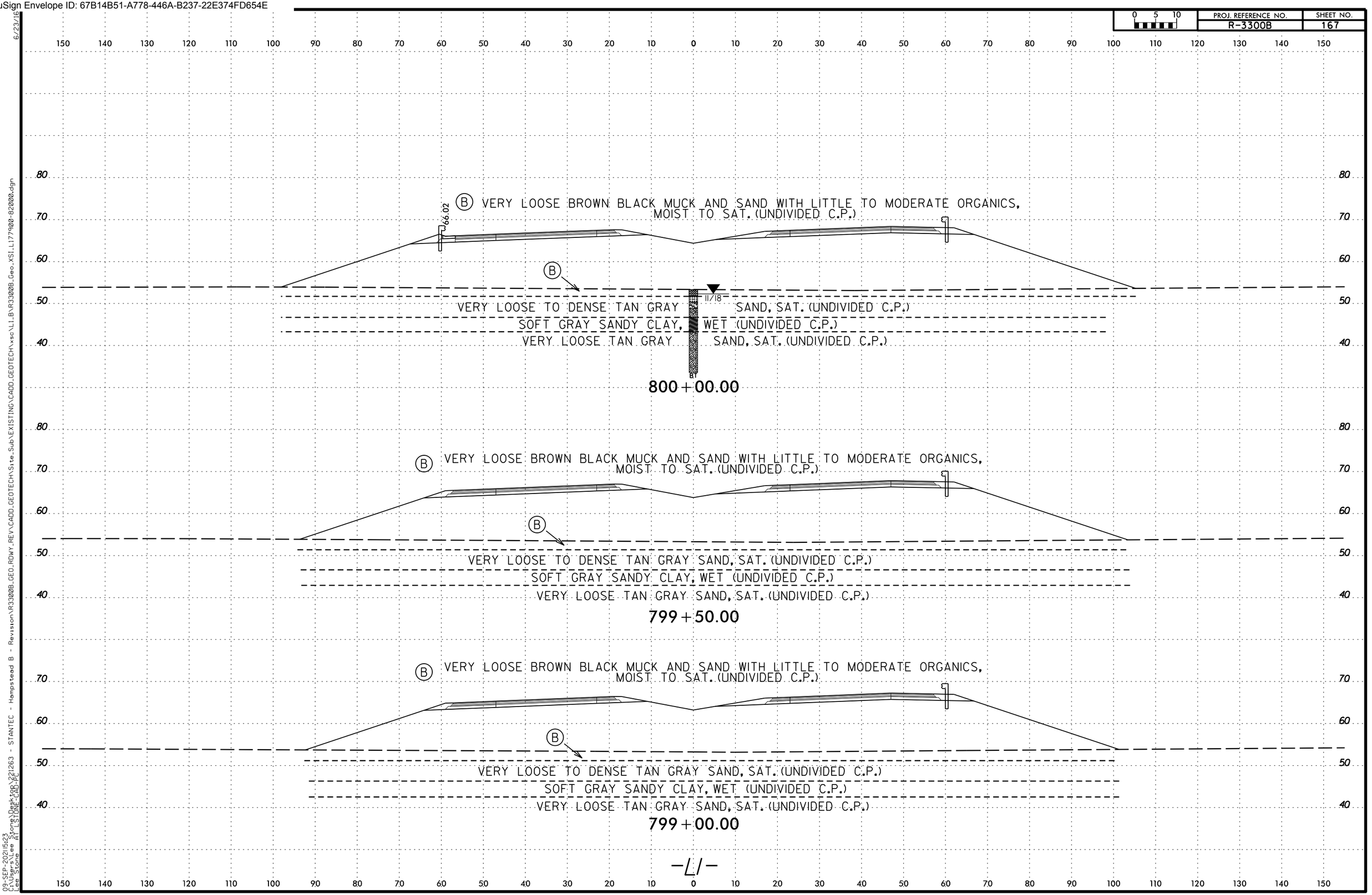
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-158B	CL	798+00	0.0 - 1.5	A-2-4(0)	NP	NP	26.5	52.1	12.7	8.7	98.8	88	23	9	-
SS-159B	CL	798+00	8.8 - 10.3	A-6(4)	38	13	30.4	21.5	16.5	31.6	98.5	77	49	-	-
SS-160B	CL	798+00	13.8 - 15.3	A-2-4(0)	NP	NP	50.8	39.7	3.5	6.0	99.2	81	10	-	-

6/23/16
09-SEP-2021|5:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL17900-82000.dgn
Lee Stone RT LSTONE CAD PC

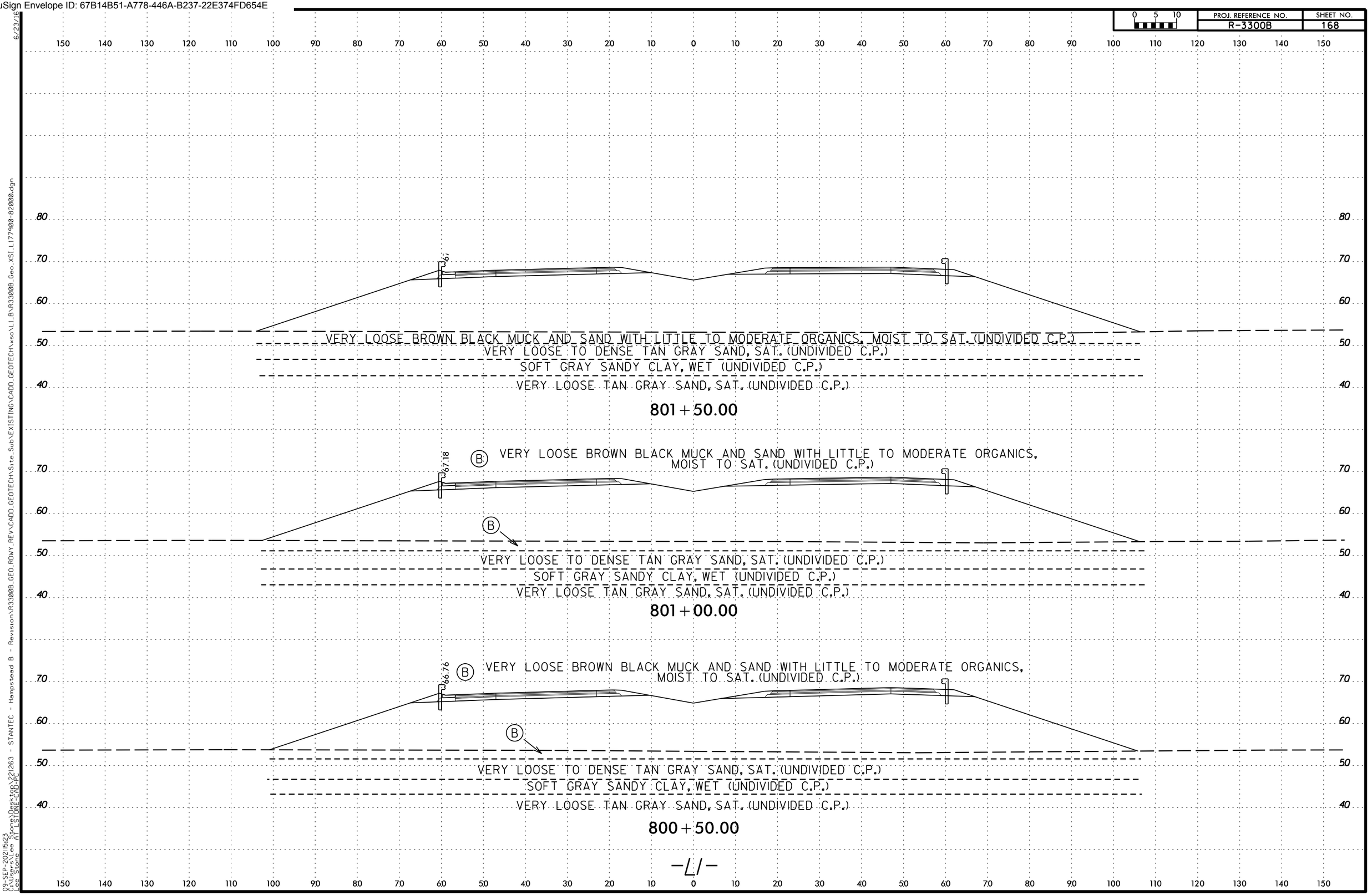
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



-L/-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-82000.dgn
Lee Stone AT LSTONE-CAD-PC

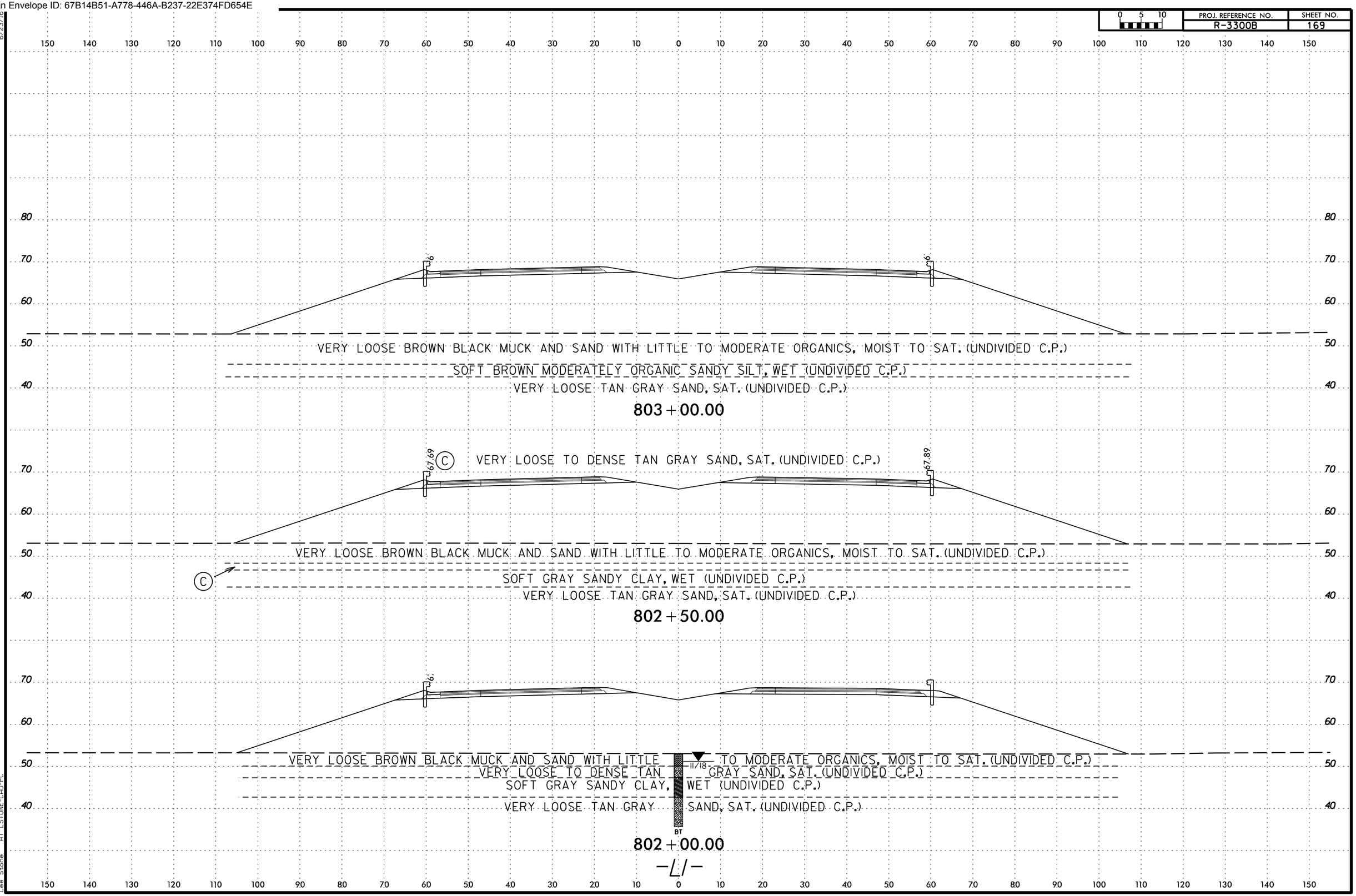
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



-L/-

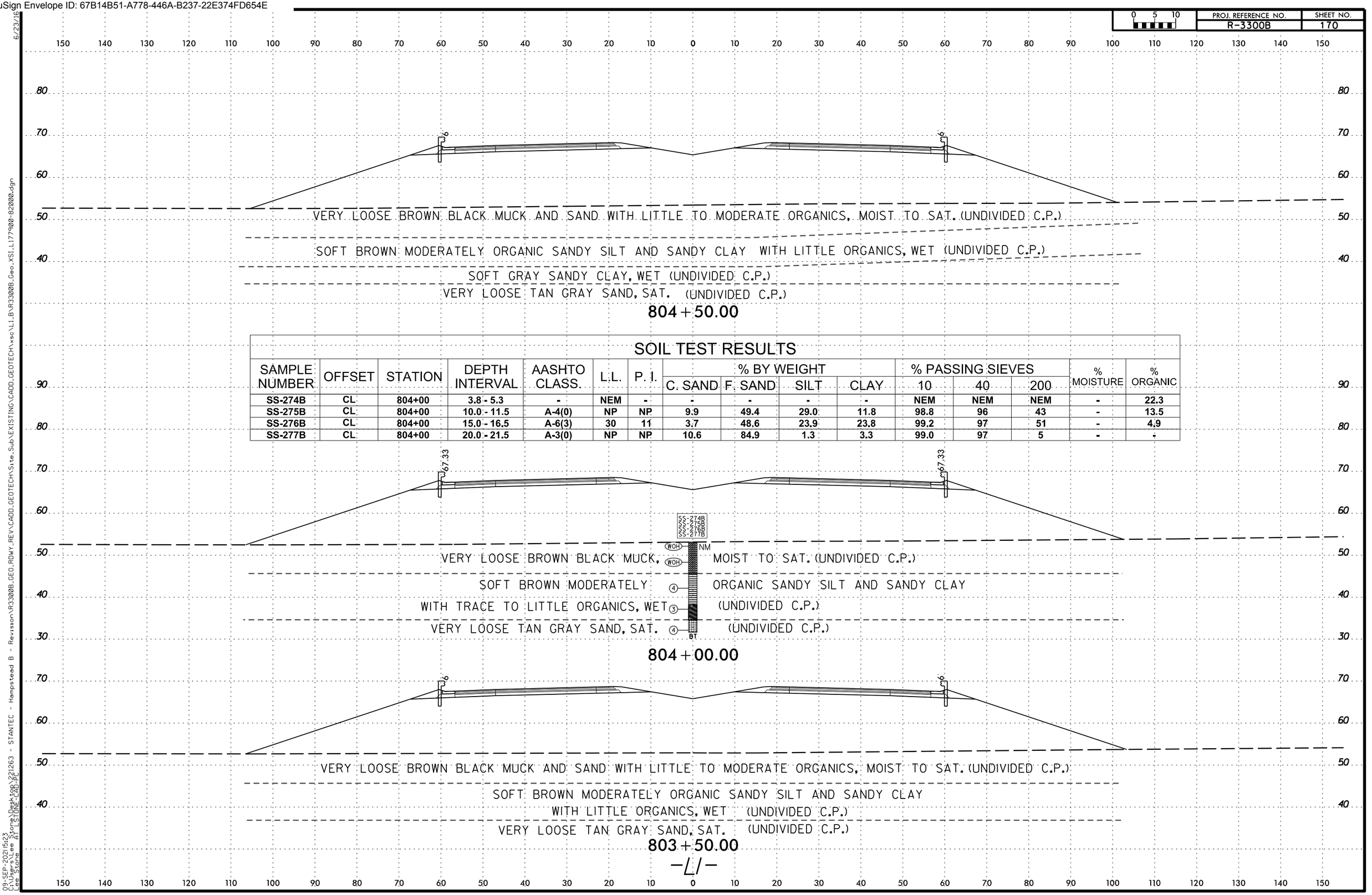
6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-820000.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsec\LLB\R3300B_Geo_XSLLL177900-82000.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

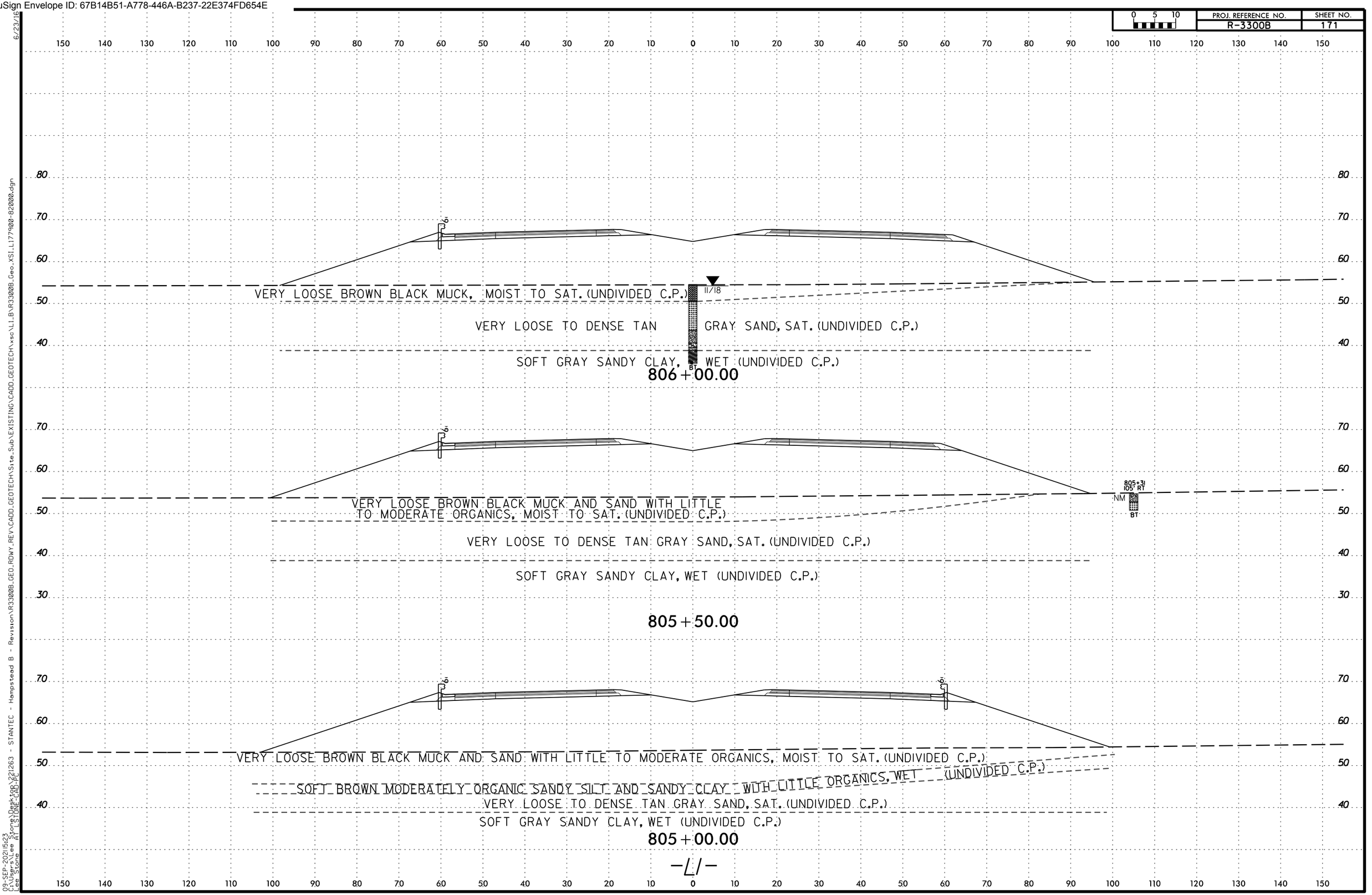


SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-274B	CL	804+00	3.8 - 5.3	-	NEM	-	-	-	-	-	NEM	NEM	NEM	-	22.3
SS-275B	CL	804+00	10.0 - 11.5	A-4(0)	NP	NP	9.9	49.4	29.0	11.8	98.8	96	43	-	13.5
SS-276B	CL	804+00	15.0 - 16.5	A-6(3)	30	11	3.7	48.6	23.9	23.8	99.2	97	51	-	4.9
SS-277B	CL	804+00	20.0 - 21.5	A-3(0)	NP	NP	10.6	84.9	1.3	3.3	99.0	97	5	-	-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-82000.dgn
Lee Stone AT LSTONE_CAD_PC

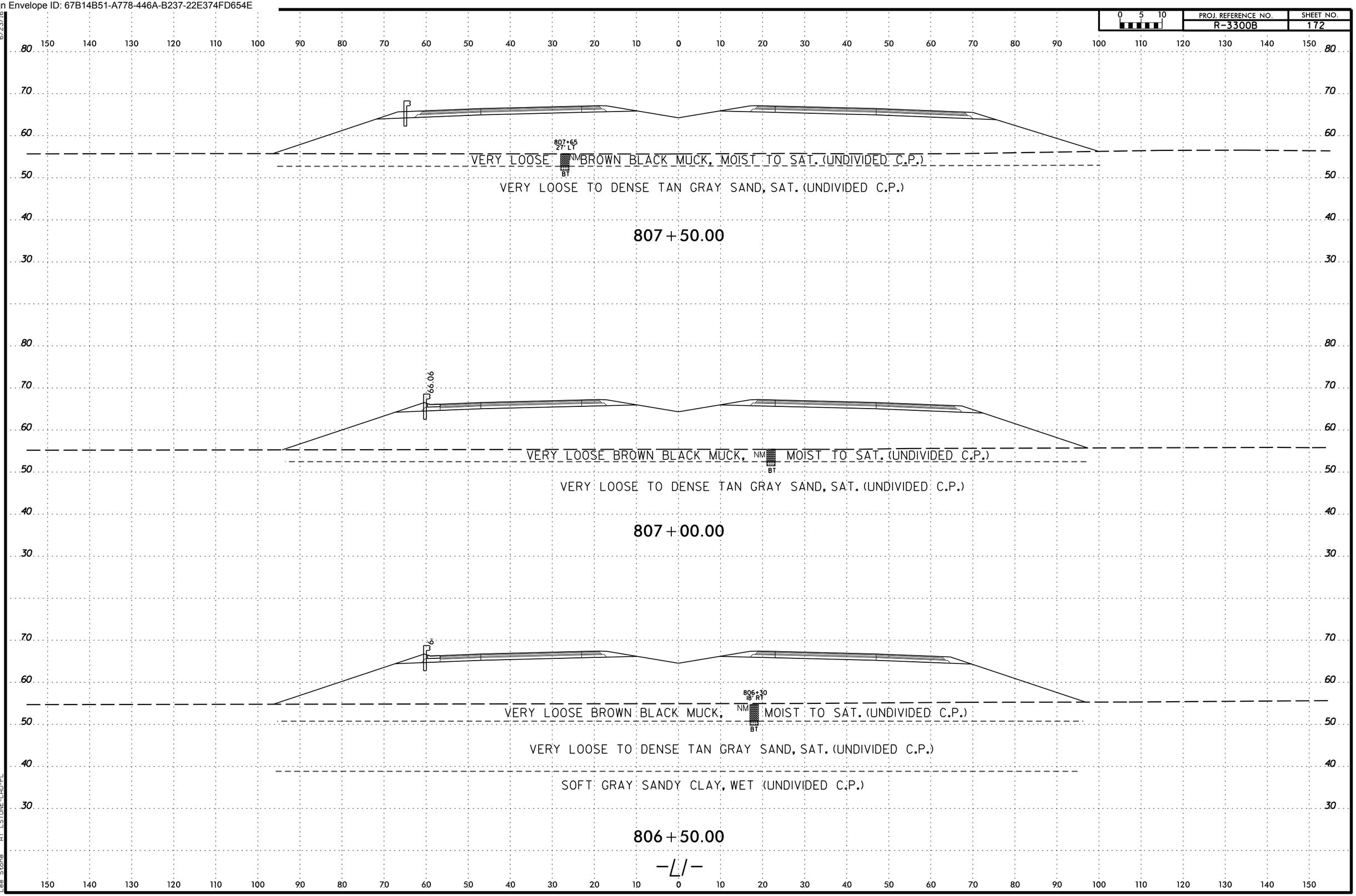
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-82000.dgn
Lee Stone AT STONE-CAD-PC

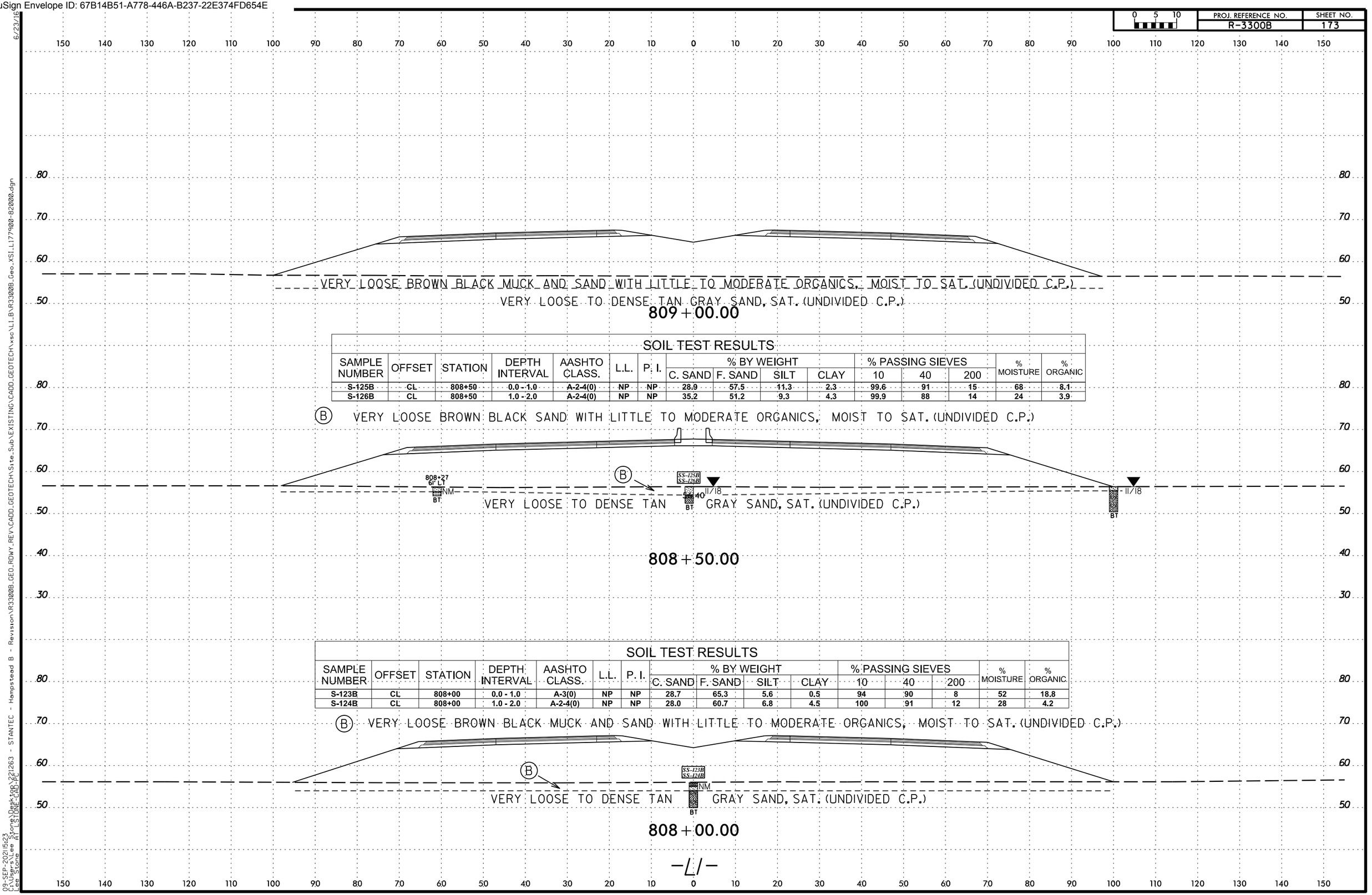
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	172



6/23/16
09-SEP-2021|5:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLLB\R3300B_Geo_XSLLL177900-820000.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-125B	CL	808+50	0.0 - 1.0	A-2-4(0)	NP	NP	28.9	57.5	11.3	2.3	99.6	91	15	68	8.1
S-126B	CL	808+50	1.0 - 2.0	A-2-4(0)	NP	NP	35.2	51.2	9.3	4.3	99.9	88	14	24	3.9

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-123B	CL	808+00	0.0 - 1.0	A-3(0)	NP	NP	28.7	65.3	5.6	0.5	94	90	8	52	18.8
S-124B	CL	808+00	1.0 - 2.0	A-2-4(0)	NP	NP	28.0	60.7	6.8	4.5	100	91	12	28	4.2

-L/-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-820000.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	174

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

80 70 60 50

VERY LOOSE BROWN BLACK MUCK AND SAND WITH LITTLE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)
VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

811+00.00

Ⓑ VERY LOOSE BROWN BLACK MUCK AND SAND WITH LITTLE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓑ

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

810+50.00

Ⓑ VERY LOOSE BROWN BLACK MUCK AND SAND WITH LITTLE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓑ

11/18

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

BT

810+00.00

809+56
11' RT

VERY LOOSE BROWN BLACK MUCK AND SAND WITH LITTLE TO NM MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)
VERY LOOSE TO DENSE TAN GRAY SAND, BT SAT. (UNDIVIDED C.P.)

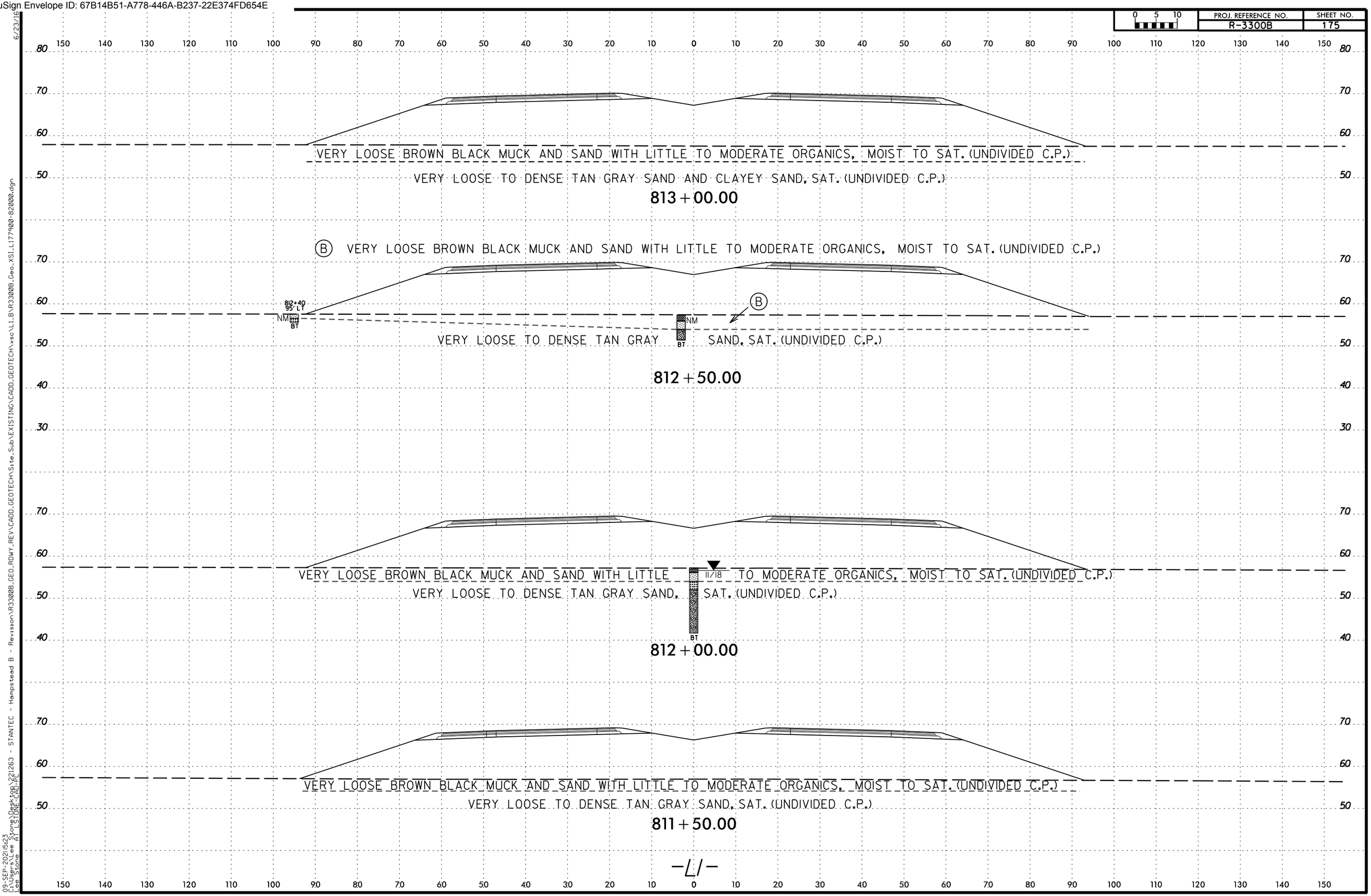
809+50.00

-L/-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-820000.dgn
Lee Stone AT LSTONE CAD-PC

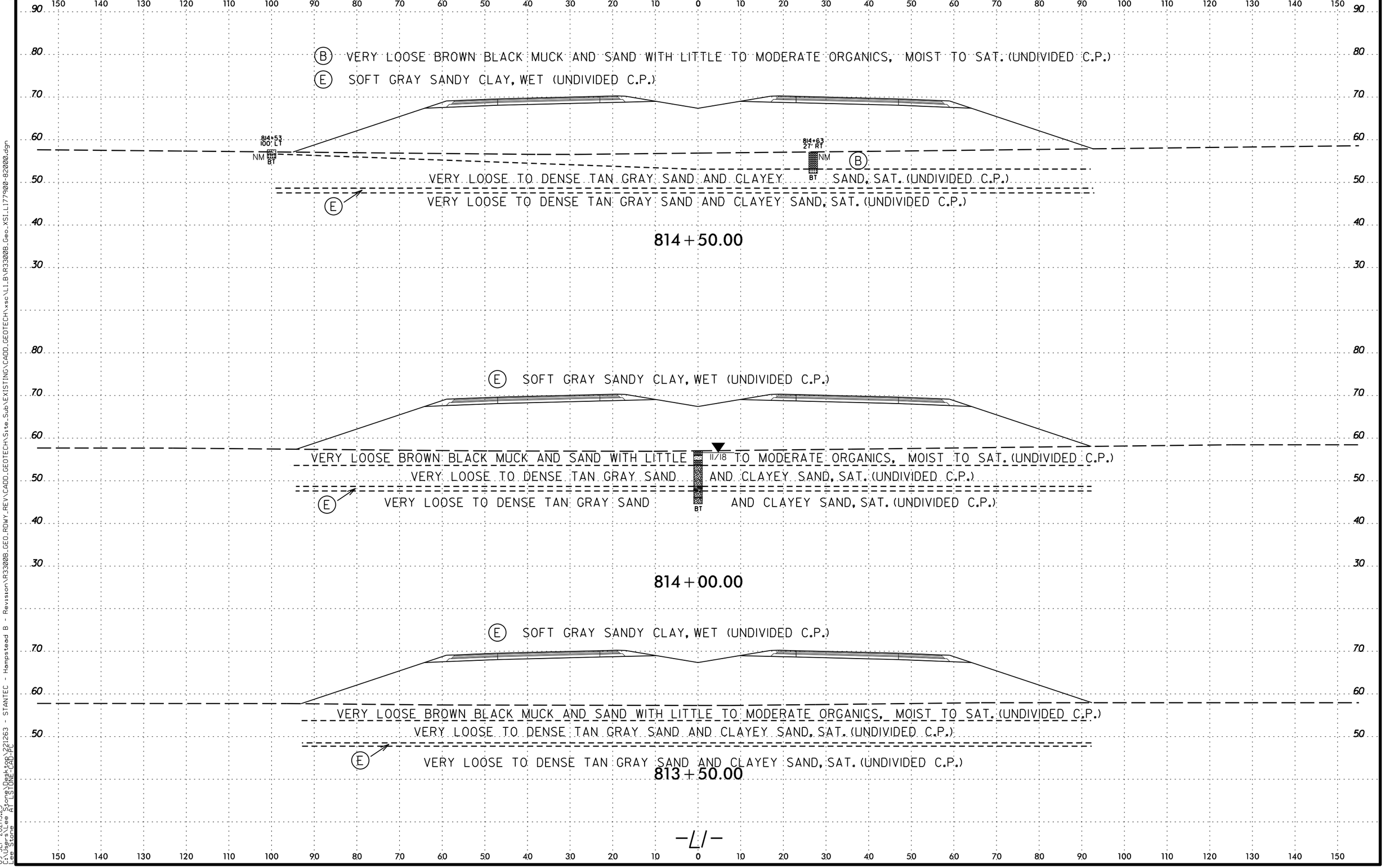
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-820000.dgn
09-SEP-2021 15:23
Lee Stone
AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

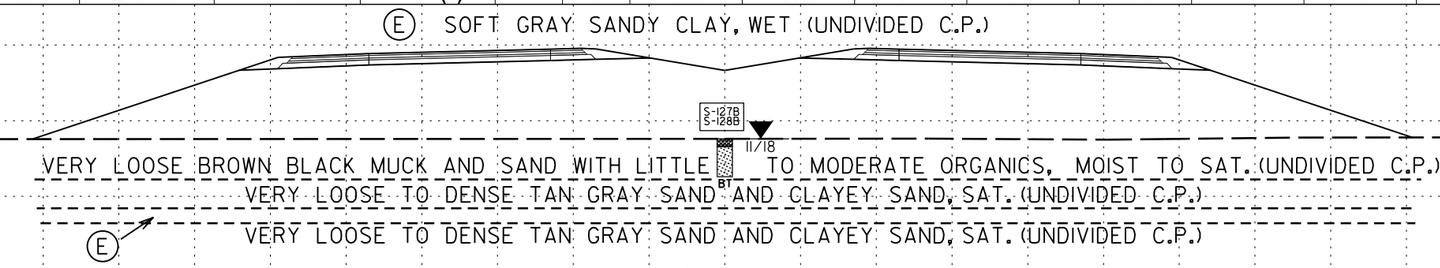
6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_Geo_XSLL177900-82000.dgn
Lee Stone
ALLSTONE-CAD-PC
I:\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\

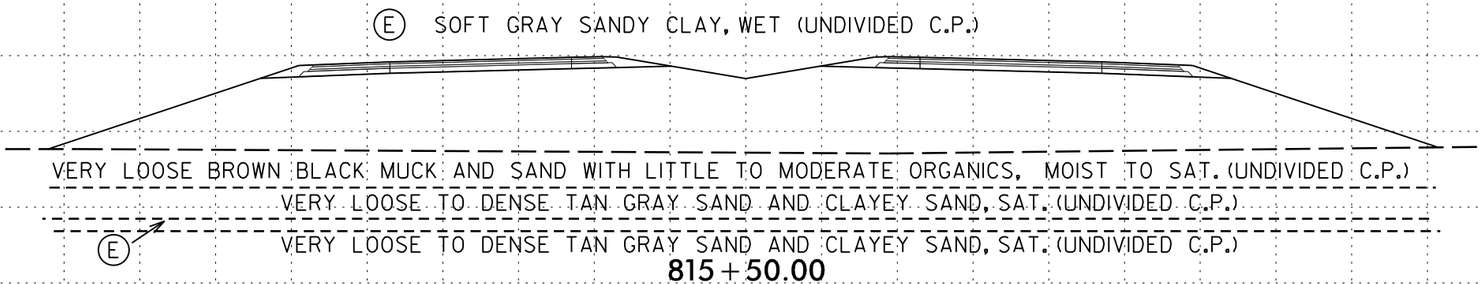


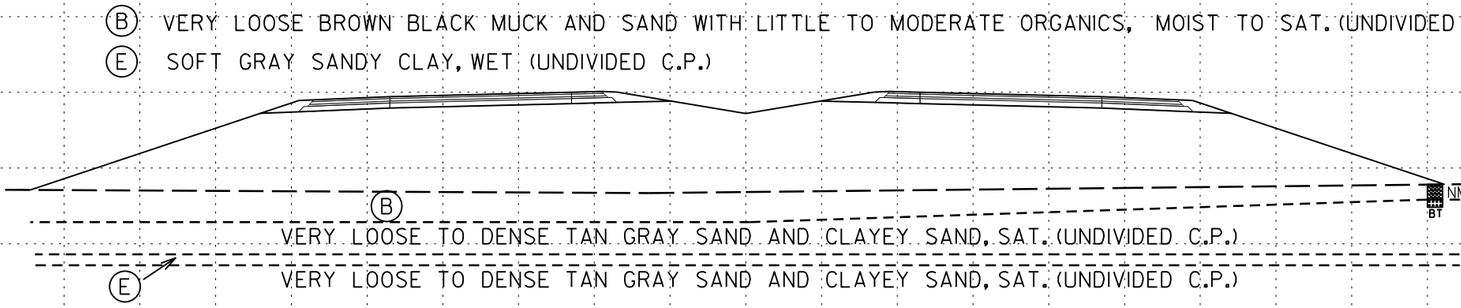
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-127B	CL	816+00	0.0 - 1.0	A-2-4(0)	NP	NP	31.6	58.5	8.6	1.3	99.4	89	11	57	15.1
S-128B	CL	816+00	1.0 - 2.0	A-2-4(0)	NP	NP	35.2	53.2	8.3	3.3	99.5	85	12	23	3.4



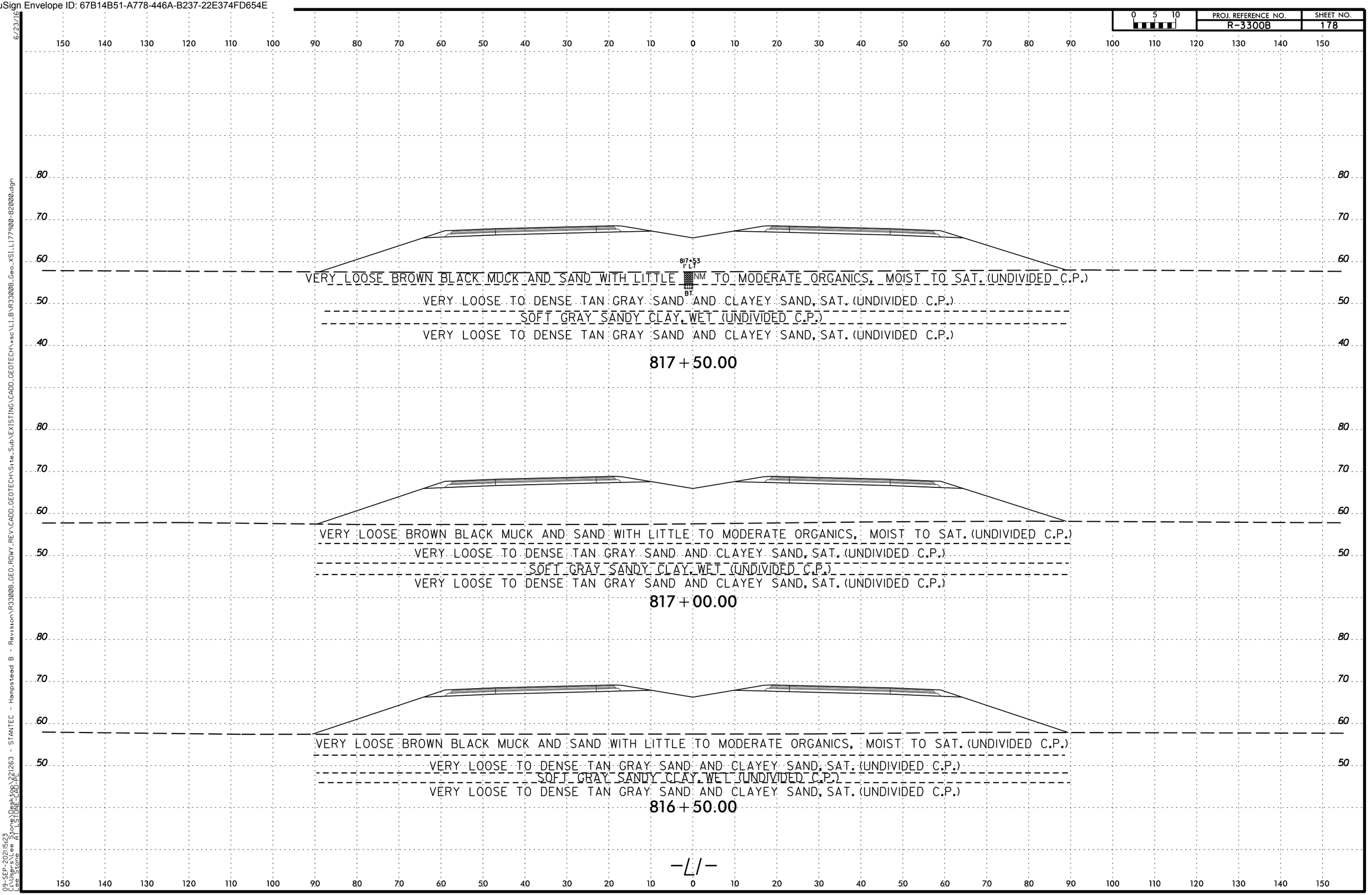




-//-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-82000.dgn
Lee Stone AT STONE CAD PC

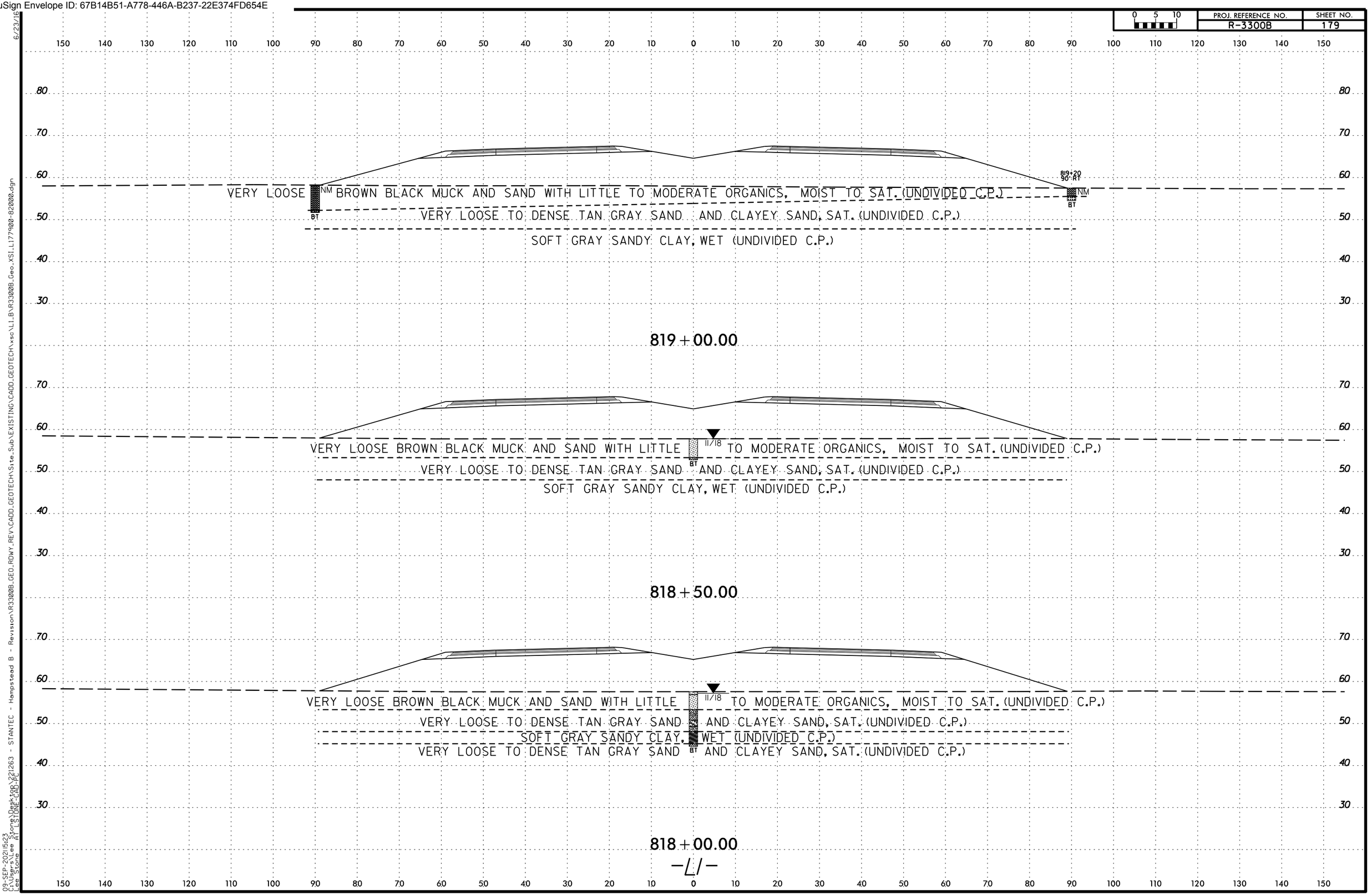
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



-//-

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-820000.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-82000.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	180

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

70
60
50
40
30

VERY LOOSE BROWN BLACK MUCK AND SAND WITH LITLE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE TO DENSE TAN GRAY SAND AND CLAYEY SAND, SAT. (UNDIVIDED C.P.)

SOFT GRAY SANDY CLAY, WET (UNDIVIDED C.P.)

11/18

BT

820+00.00

70
60
50

VERY LOOSE BROWN BLACK MUCK AND SAND WITH LITLE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE TO DENSE TAN GRAY SAND AND CLAYEY SAND, SAT. (UNDIVIDED C.P.)

SOFT GRAY SANDY CLAY, WET (UNDIVIDED C.P.)

819+50.00

-L/-

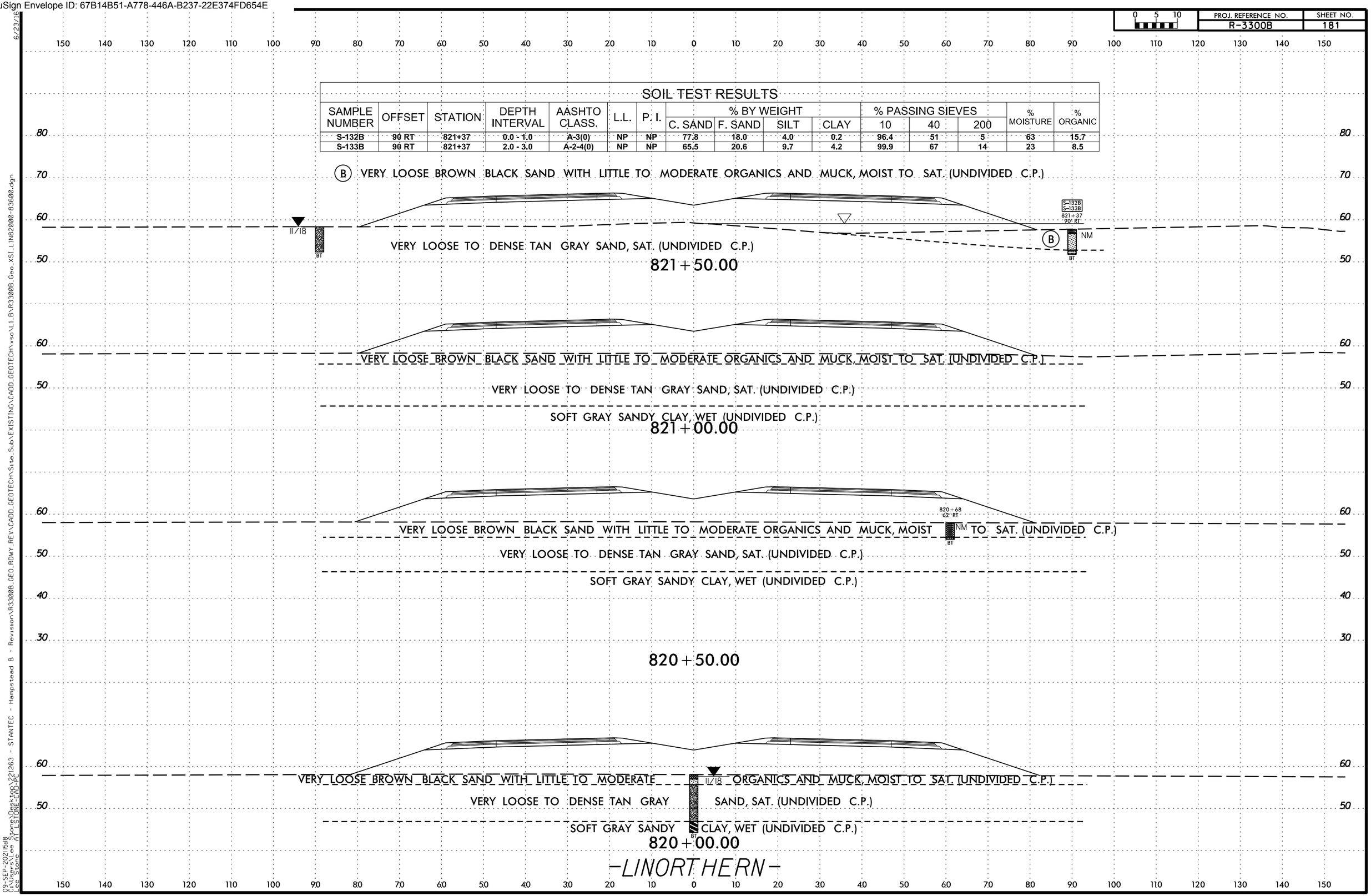
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16
09-SEP-2021 15:23
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLL177900-820000.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-132B	90 RT	821+37	0.0 - 1.0	A-3(0)	NP	NP	77.8	18.0	4.0	0.2	96.4	51	5	63	15.7
S-133B	90 RT	821+37	2.0 - 3.0	A-2-4(0)	NP	NP	65.5	20.6	9.7	4.2	99.9	67	14	23	8.5



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_Geo_XSLLINE2000-B3600.dgn
09-SEP-2021 15:18
C:\Users\Lee Stone\AppData\Local\Temp\acad-PC
C:\Users\Lee Stone\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_RDWY_REV\CADD_GEOTECH\Site_Sub

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

70 60 50

(B) VERY LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANICS AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

(B)

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

823+50.00

(B) VERY LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANICS AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

823+22 9' RT

823+22 114' RT

(B)

BT.

BT

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

823+00.00

(B) VERY LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANICS AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

(B)

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

822+50.00

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-130B	CL	822+00	0.0 - 1.0	A-2-4(0)	NP	NP	9.1	81.8	8.1	1.0	100	97	11	40	-
S-131B	CL	822+00	4.0 - 5.0	A-2-4(0)	NP	NP	22.2	49.1	18.4	10.3	99.3	89	31	-	-

(B) VERY LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANICS AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

S-130B S-131B

11.7/8

(B)

BT

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

822+00.00

80 70 60 50 40 30

-LINORTHERN-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLIN82000-83600.dgn
09-SEP-2021 15:18
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	183

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

70 60 50 40

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

MEDIUM STIFF GRAY SILTY CLAY AND SANDY SILT, WET (UNDIVIDED C.P.)

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

825+50.00

70 60 50 40

VERY LOOSE TO DENSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.) 02/20

MEDIUM STIFF GRAY SILTY CLAY AND SANDY SILT, WET (UNDIVIDED C.P.)

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

BT

825+00.00

70 60 50 40 30

07/18

BT

VERY LOOSE TO DENSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

MEDIUM STIFF GRAY SILTY CLAY AND SANDY SILT, WET (UNDIVIDED C.P.)

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

824+50.00

Ⓑ VERY LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANICS AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

823+95
57' LT

Ⓑ NM

BT

11/18

BT

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

824+00.00

-LINORTHERN-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLINE2000-83600.dgn
09-SEP-2021 15:18
Lee Stone
AT LSTONE_CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

(B) VERY LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANIC CONTENT AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

826+87 32' RT

NM BT (B) NM BT

VERY LOOSE TO LOOSE TAN GRAY SAND WITH TRACE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

MEDIUM STIFF SANDY SILTY CLAY, WET (UNDIVIDED C.P.)

70 60 50 40 30

827+00.00

11/18

VERY LOOSE TO LOOSE TAN GRAY SAND WITH TRACE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

MEDIUM STIFF SANDY SILTY CLAY, WET (UNDIVIDED C.P.)

BT

826+50.00

07/18

VERY LOOSE TO DENSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

MEDIUM STIFF GRAY SILTY CLAY AND SANDY SILT, WET (UNDIVIDED C.P.)

826+00.00

-LINORTHERN-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLLB\R3300B_Geo_XSLLINE2000-B3600.dgn
09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLLB\R3300B_Geo_XSLLINE2000-B3600.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

70
60
50

VERY LOOSE TO LOOSE TAN GRAY SAND WITH TRACE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.) — 07/18

MEDIUM STIFF SANDY SILTY CLAY, WET (UNDIVIDED C.P.)

828+50.00

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-161B	18 ft RT	828+00	0.0 - 1.5	A-2-4(0)	NP	NP	40.3	39.3	12.5	8.0	99.4	83	21	-	5.8
SS-162B	18 ft RT	828+00	8.8 - 10.3	A-7-6(13)	41	14	6.7	10.6	41.1	41.7	94.4	97	84	-	-

80
70
60
50
40
30

(B) VERY LOOSE BROWN BLACK SAND WITH MODERATE ORGANIC CONTENT MOIST TO SAT. (UNDIVIDED C.P.)

SS-161B
SS-162B
(3) 11/18 — (3) VERY LOOSE TO LOOSE TAN GRAY SAND WITH TRACE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)
(5) MEDIUM STIFF SANDY SILTY CLAY, WET (5) (UNDIVIDED C.P.)
BT

828+00.00

(C) VERY LOOSE TO LOOSE TAN GRAY SAND WITH TRACE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

(C) VERY LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANIC CONTENT AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.) — NM — BT

MEDIUM STIFF SANDY SILTY CLAY, WET (UNDIVIDED C.P.)

827+50.00

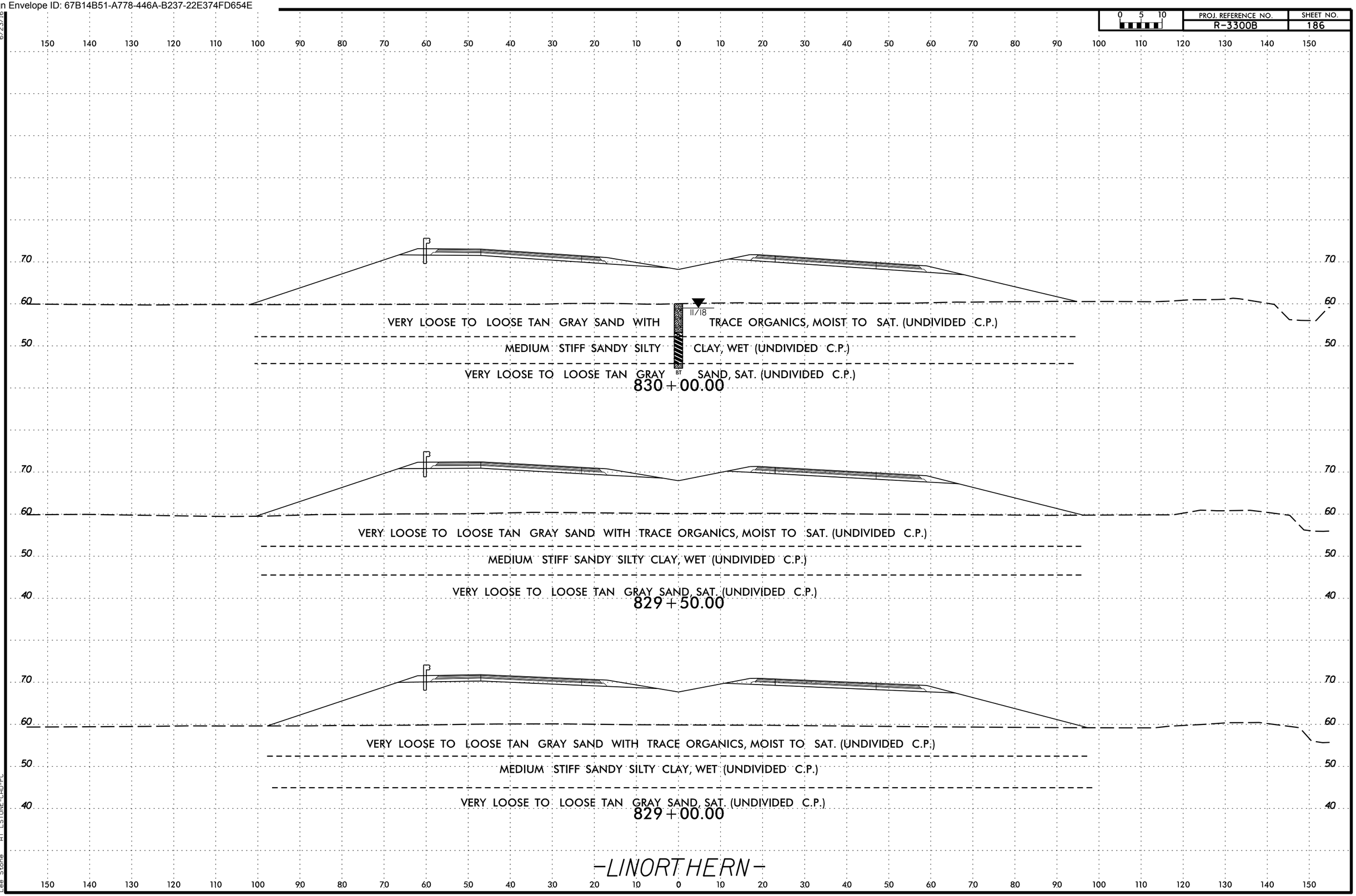
-LINORTHERN-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLINE2000-B3600.dgn
Lee Stone AT STONE CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	186



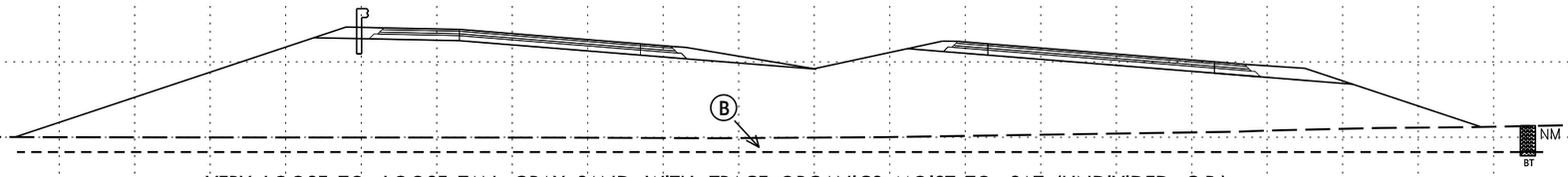
6/23/16
09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLIN82000-83600.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

80 70 60 50 40 30

(B) VERY LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANIC CONTENT AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)



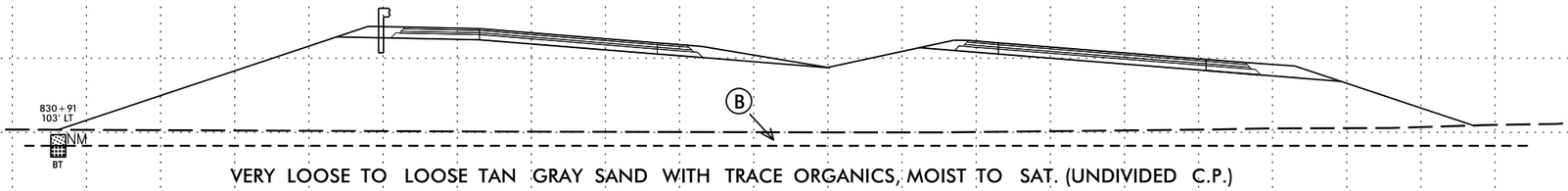
VERY LOOSE TO LOOSE TAN GRAY SAND WITH TRACE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

MEDIUM STIFF SANDY SILTY CLAY, WET (UNDIVIDED C.P.)

VERY LOOSE TO LOOSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

831+50.00

(B) VERY LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANIC CONTENT AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

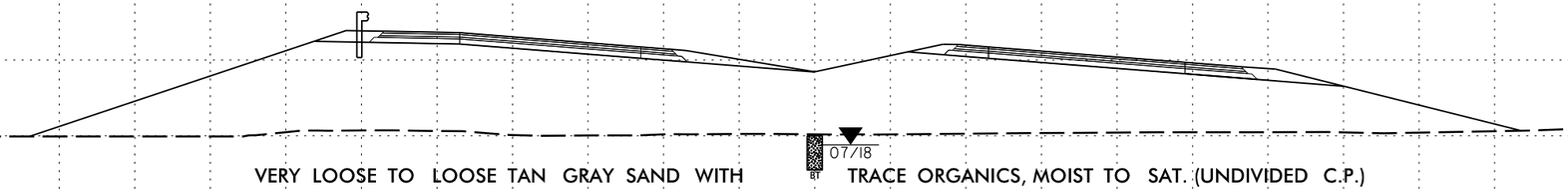


VERY LOOSE TO LOOSE TAN GRAY SAND WITH TRACE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

MEDIUM STIFF SANDY SILTY CLAY, WET (UNDIVIDED C.P.)

VERY LOOSE TO LOOSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

831+00.00



VERY LOOSE TO LOOSE TAN GRAY SAND WITH TRACE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

MEDIUM STIFF SANDY SILTY CLAY, WET (UNDIVIDED C.P.)

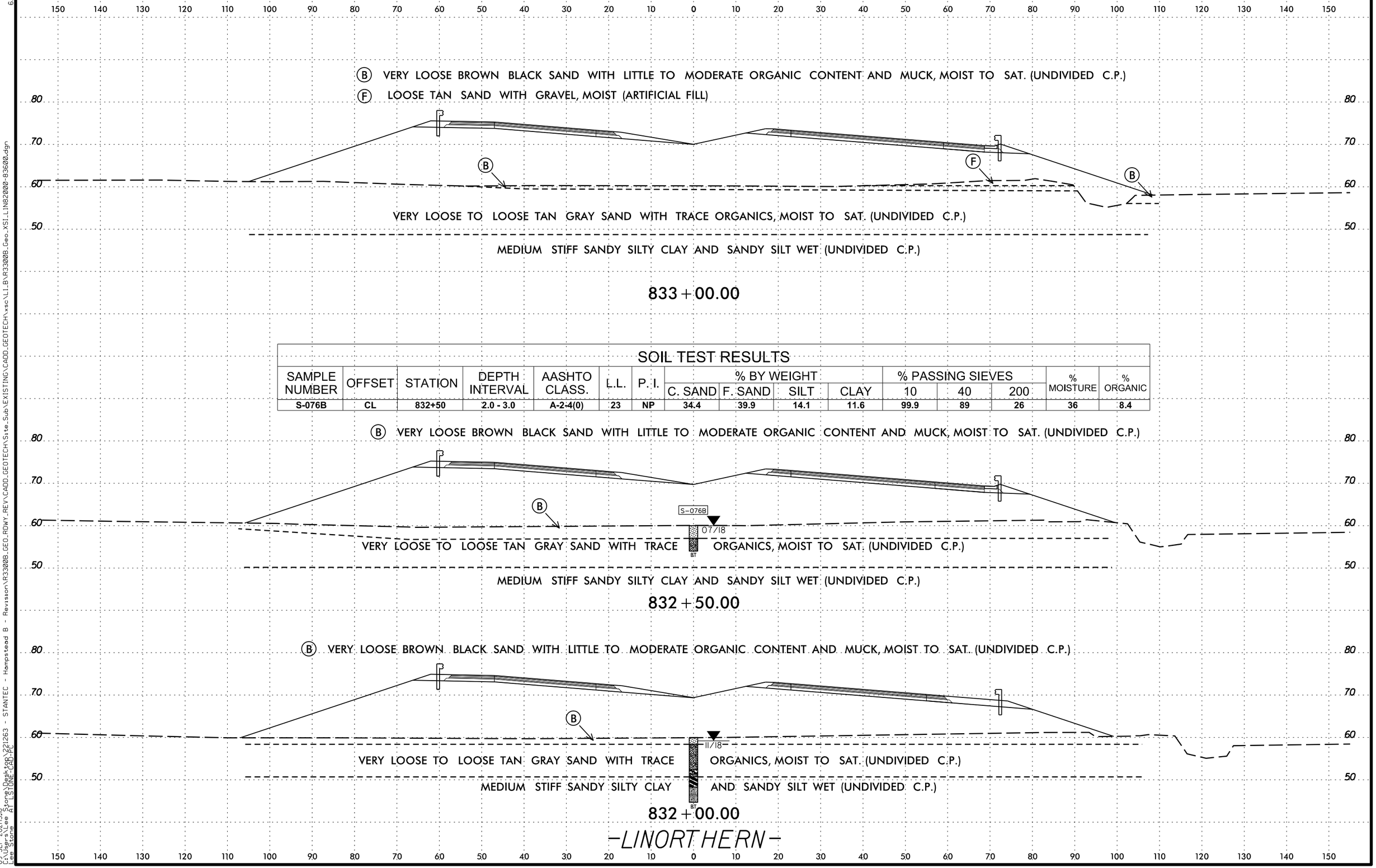
VERY LOOSE TO LOOSE TAN GRAY SAND, SAT. (UNDIVIDED C.P.)

830+50.00

-LINORTHERN-

6/23/16
09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLINE2000-B3600.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



SOIL TEST RESULTS

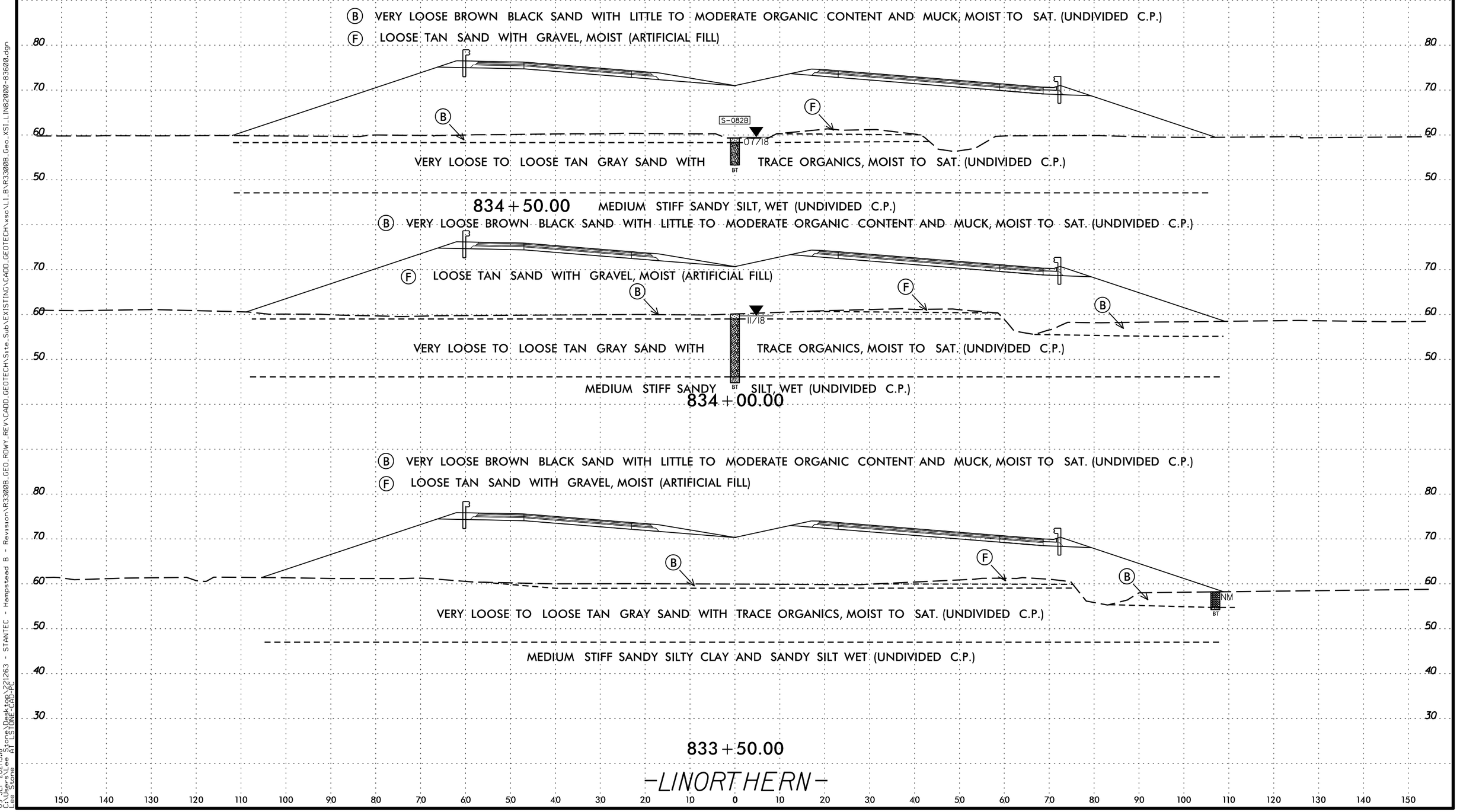
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-076B	CL	832+50	2.0 - 3.0	A-2-4(0)	23	NP	34.4	39.9	14.1	11.6	99.9	89	26	36	8.4

6/23/16
09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLINE2000-83600.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-082B	CL	834+50	4.5 - 6.0	A-2-4(0)	15	NP	50.1	37.3	5.5	7.1	100	86	13	23	-



6/23/16
09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\21263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLINE2000-83600.dgn
Lee Stone AT LSTONE-CAD-PC

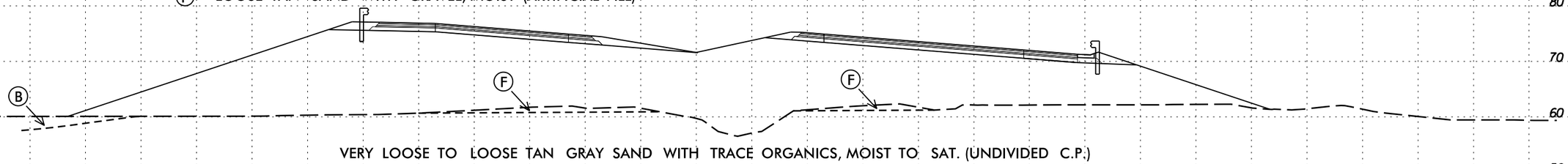
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	190

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Ⓑ VERY LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANIC CONTENT AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓕ LOOSE TAN SAND WITH GRAVEL, MOIST (ARTIFICIAL FILL)



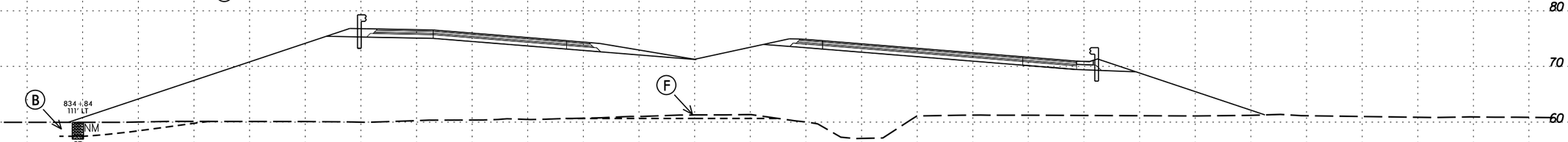
VERY LOOSE TO LOOSE TAN GRAY SAND WITH TRACE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

MEDIUM STIFF SANDY SILT, WET (UNDIVIDED C.P.)

835+50.00

Ⓑ VERY LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANIC CONTENT AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓕ LOOSE TAN SAND WITH GRAVEL, MOIST (ARTIFICIAL FILL)



VERY LOOSE TO LOOSE TAN GRAY SAND WITH TRACE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

MEDIUM STIFF SANDY SILT, WET (UNDIVIDED C.P.)

835+00.00

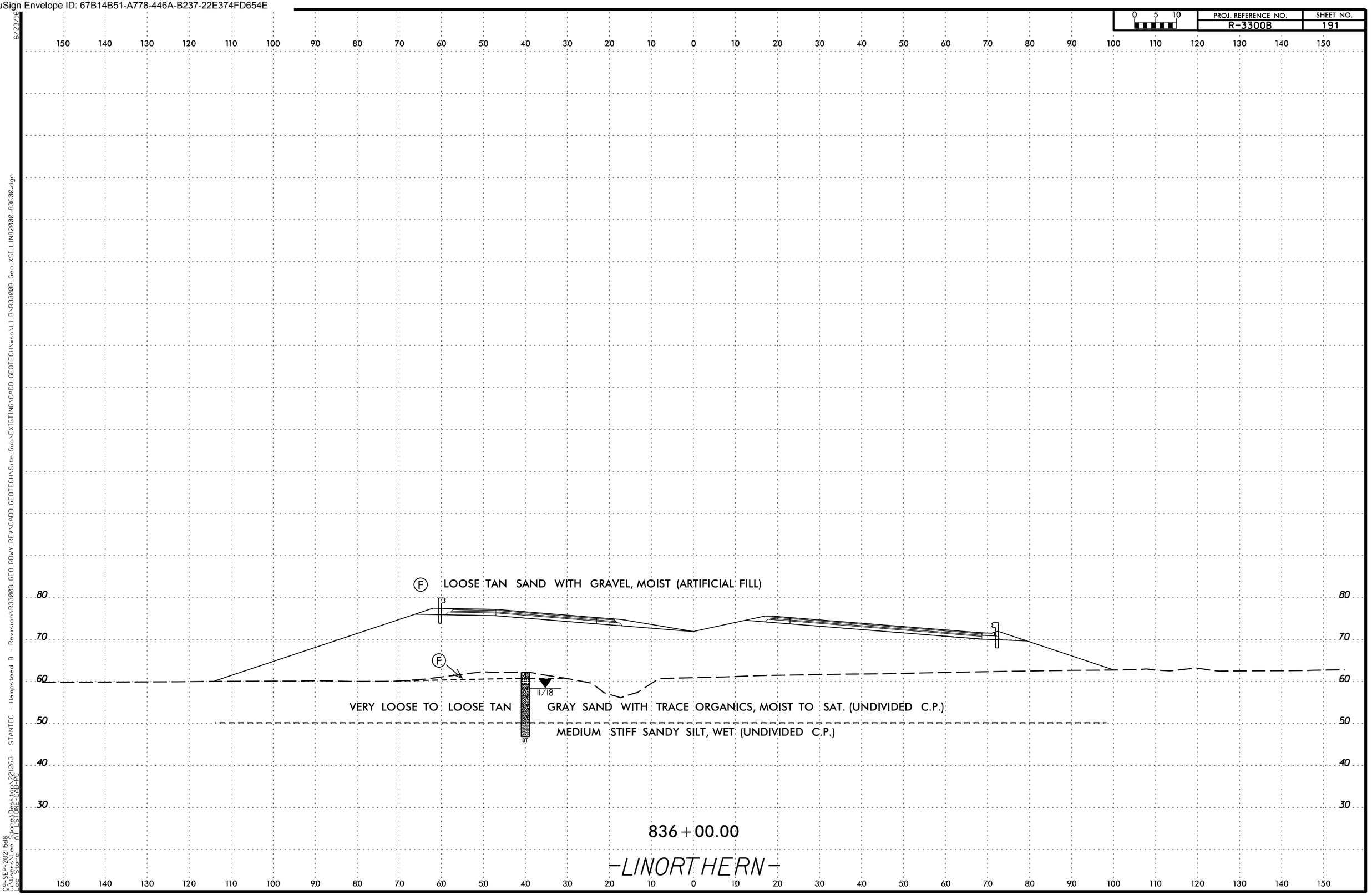
-LINORTHERN-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLIN82000-83600.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	191



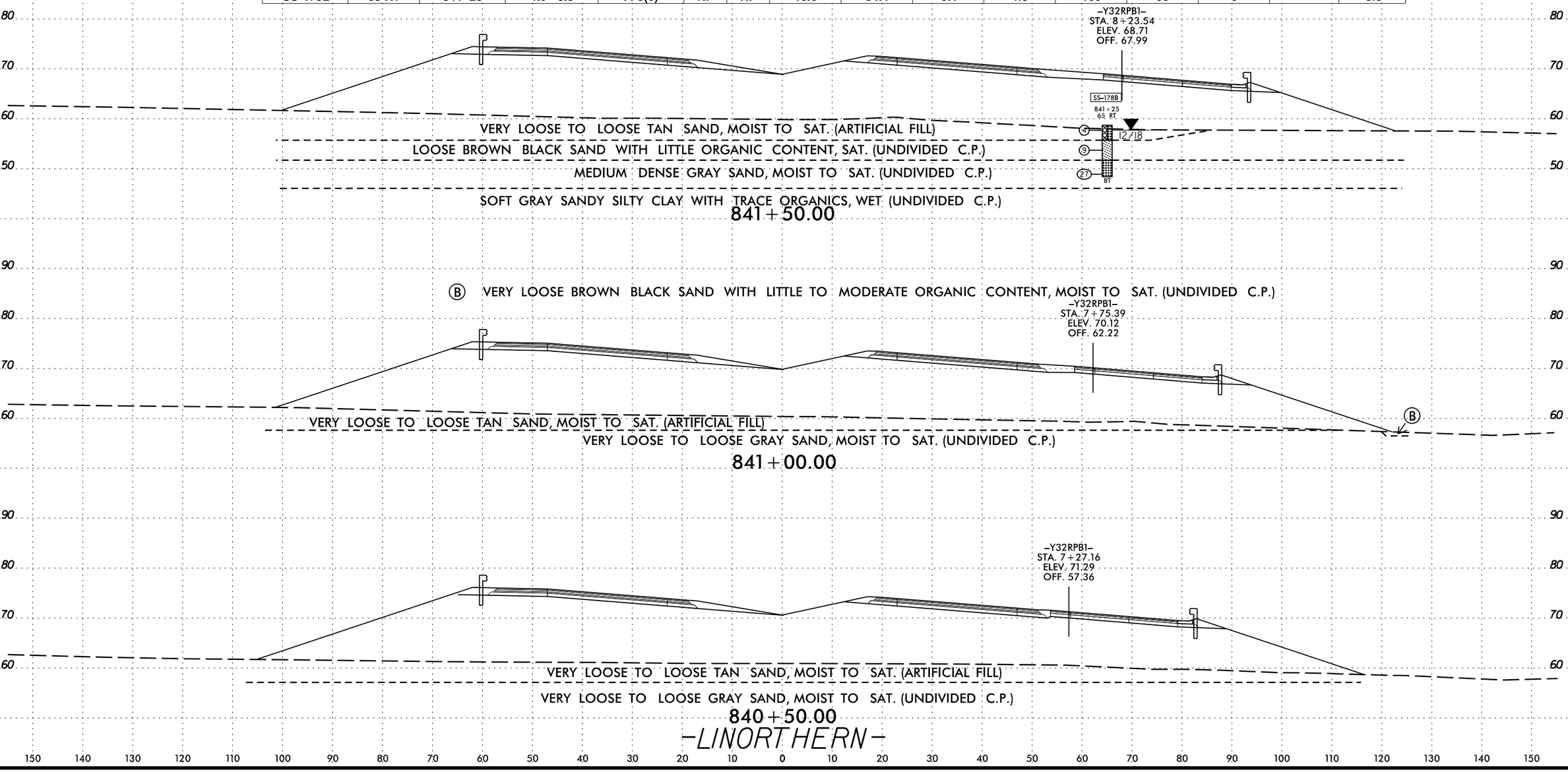
6/23/16

09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLIN82000-83600.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

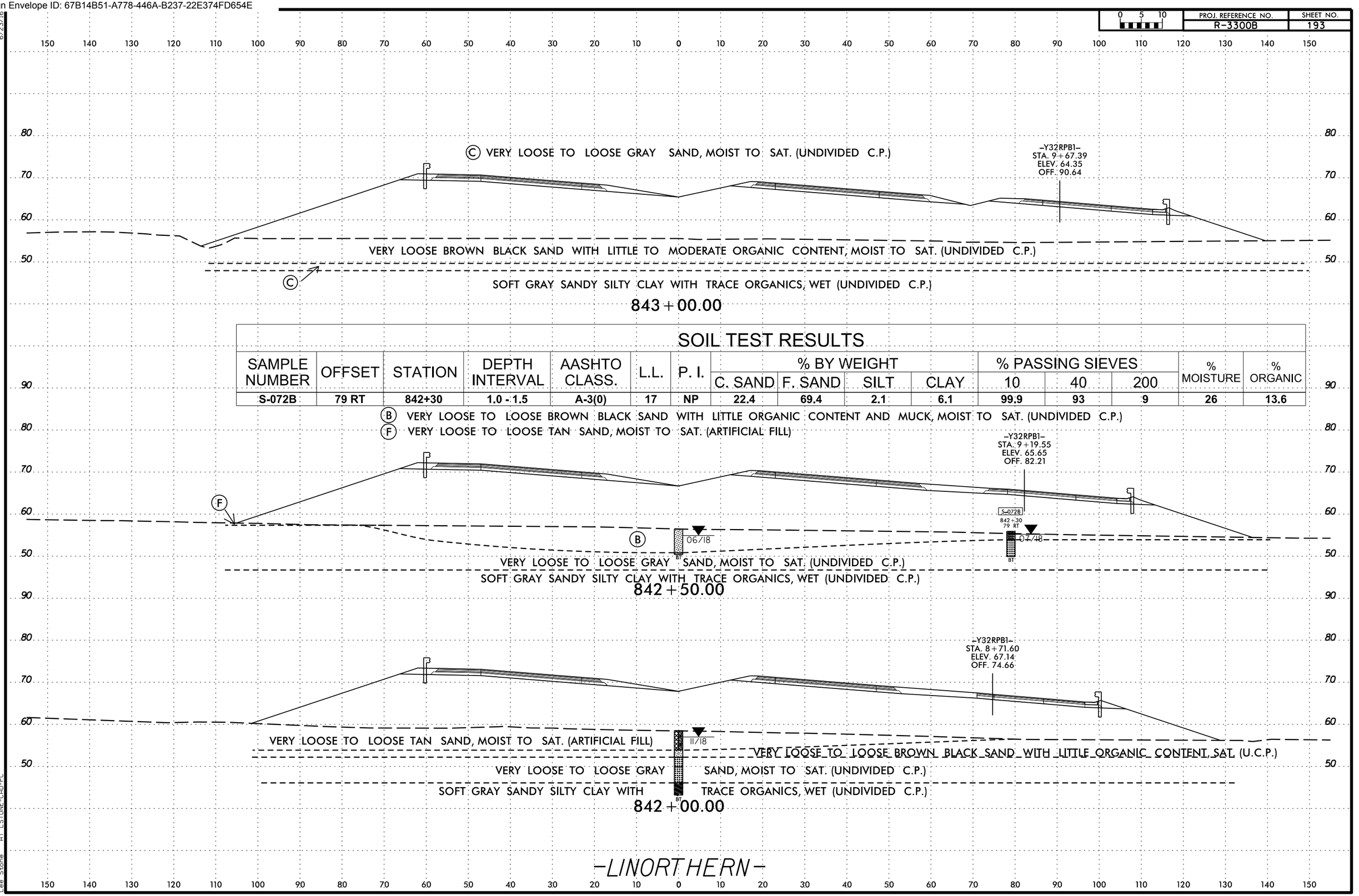
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-178B	65 RT	841+25	4.0 - 5.5	A-3(0)	NP	NP	10.6	84.4	3.1	1.8	100	99	6	-	3.6



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_Geo_XSLLIN84050-84350.dgn
09-SEP-2021 15:18
Lee Stone
AT STONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



SOIL TEST RESULTS

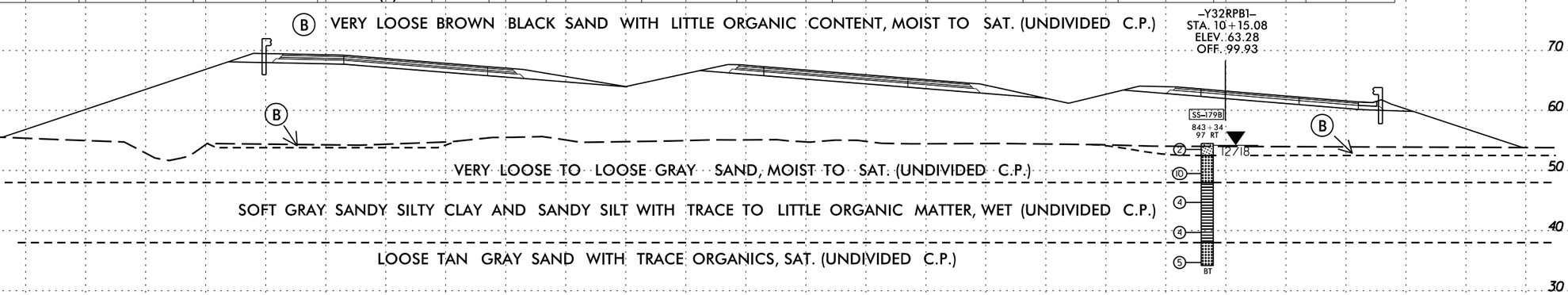
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-072B	79 RT	842+30	1.0 - 1.5	A-3(0)	17	NP	22.4	69.4	2.1	6.1	99.9	93	9	26	13.6

6/23/16
09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLLIN84050-84350.dgn
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-179B	97 RT	843+34	8.8 - 10.3	A-4(0)	NP	NP	0.7	31.0	56.3	11.9	100	100	69	28	6.4



843+50.00

–LINORTHERN–

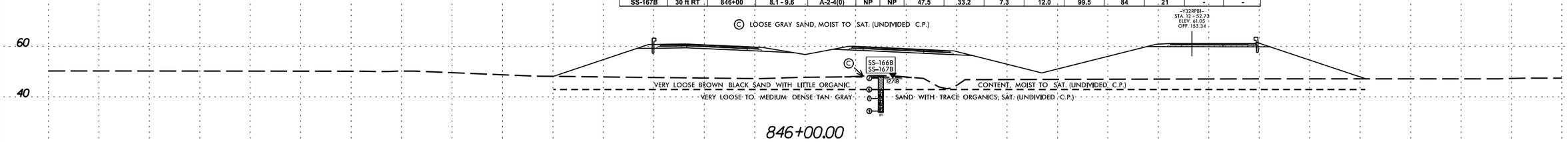
6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLIN84050-84350.dgn
09-SEP-2021 15:18
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

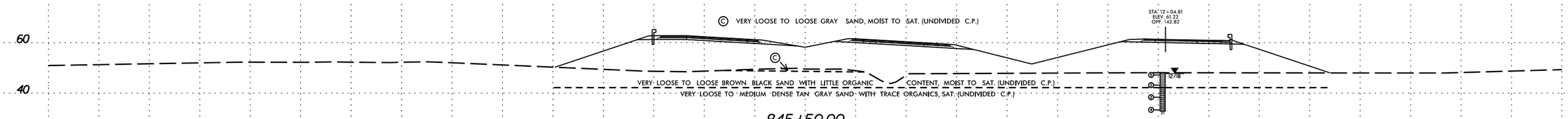
300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

SOIL TEST RESULTS

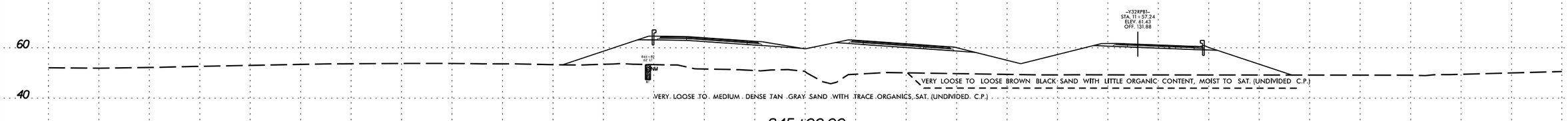
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-166B	30 ft RT	846+00	0.5 - 1.5	A-2-4(0)	NP	NP	23.7	65.9	9.2	1.2	99.9	94	12	-	4
SS-167B	30 ft RT	846+00	8.1 - 9.6	A-2-4(0)	NP	NP	47.5	33.2	7.3	12.0	99.5	84	21	-	-



846+00.00



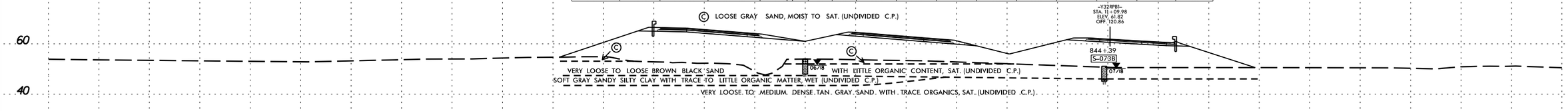
845+50.00



845+00.00

SOIL TEST RESULTS

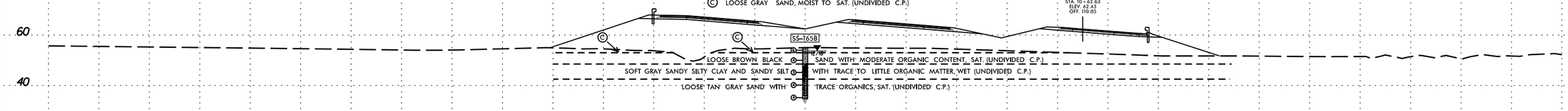
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-073B	119 RT	844+39	4.0 - 4.5	A-3(0)	24	NP	20.1	71.3	5.5	3.0	99.8	94	10	43	5.8



844+50.00

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-165B	CL	844+50	4.0 - 5.5	A-3(0)	NP	NP	22.9	69.8	4.3	3.0	99.7	95	8	-	6.0



844+00.00

-LINORT HERN-

09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLIN84400-84600.dgn
Lee Stone AT LSTONE-CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	196

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

70
60
50
40

Ⓒ LOOSE GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE BROWN BLACK SAND WITH LITTLE ORGANIC CONTENT, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE TO MEDIUM DENSE TAN GRAY SAND WITH TRACE ORGANICS, SAT. (UNDIVIDED C.P.)

847+50.00

70
60
50
40

Ⓒ LOOSE GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANIC CONTENT, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE TO MEDIUM DENSE TAN GRAY SAND WITH TRACE ORGANICS, SAT. (UNDIVIDED C.P.)

847+00.00

80
70
60
50
40
30
20

Ⓑ VERY LOOSE TO LOOSE BROWN BLACK SAND WITH LITTLE ORGANIC CONTENT, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓒ LOOSE GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

06/18

VERY LOOSE TO MEDIUM DENSE TAN GRAY SAND WITH TRACE ORGANICS, SAT. (UNDIVIDED C.P.)

846+50.00

-LINORTHERN-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16
09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLLIN84650-85150.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	197

VERY LOOSE BROWN BLACK SAND WITH MODERATE ORGANIC CONTENT, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE TO MEDIUM DENSE TAN GRAY SAND WITH TRACE ORGANICS, SAT. (UNDIVIDED C.P.)

849+50.00

VERY LOOSE TO LOOSE BROWN BLACK SAND WITH MODERATE ORGANIC CONTENT, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE TO MEDIUM DENSE TAN GRAY SAND WITH TRACE ORGANICS, SAT. (UNDIVIDED C.P.)

849+00.00

Ⓒ VERY LOOSE TO LOOSE GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE BROWN BLACK SAND WITH MODERATE ORGANIC CONTENT, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE TO MEDIUM DENSE TAN GRAY SAND WITH TRACE ORGANICS, SAT. (UNDIVIDED C.P.)

848+50.00

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-061B	48 LT	848+10	1.0 - 1.5	A-2-4(0)	30	NP	26.6	51.2	7.8	14.4	99.8	91	24	23	6.6

Ⓒ VERY LOOSE TO LOOSE GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

S-061B
848+10
48' LT
NM

847+80
14' RT
12/18

VERY LOOSE TO LOOSE BROWN BLACK SAND WITH MODERATE ORGANIC CONTENT, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE TO LOOSE TAN GRAY SAND WITH TRACE ORGANICS, SAT. (UNDIVIDED C.P.)

BT

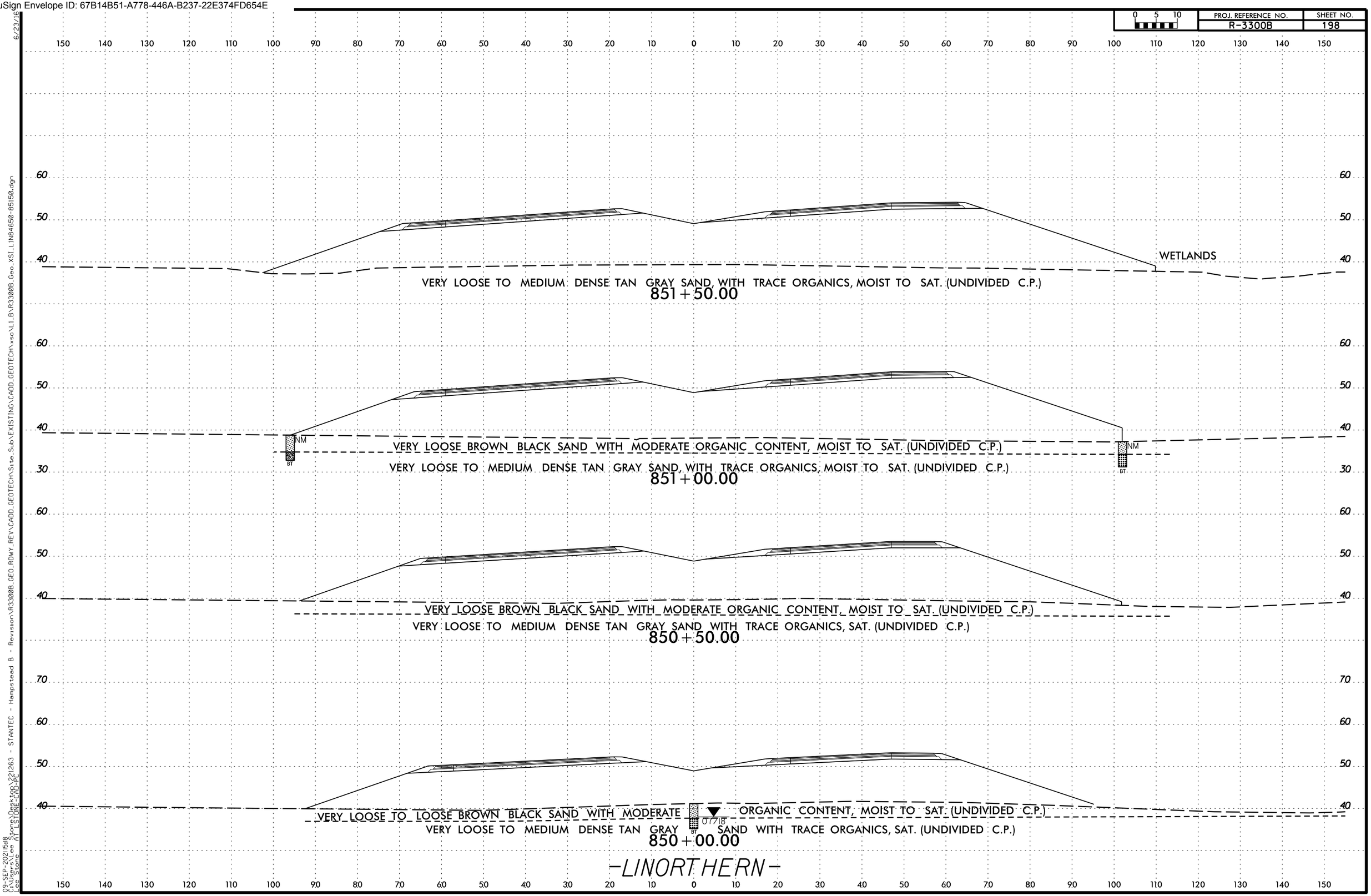
848+00.00

-LINORTHERN-

09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\22I263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLIN84650-85150.dgn
Lee Stone AT LSTONE-CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	198

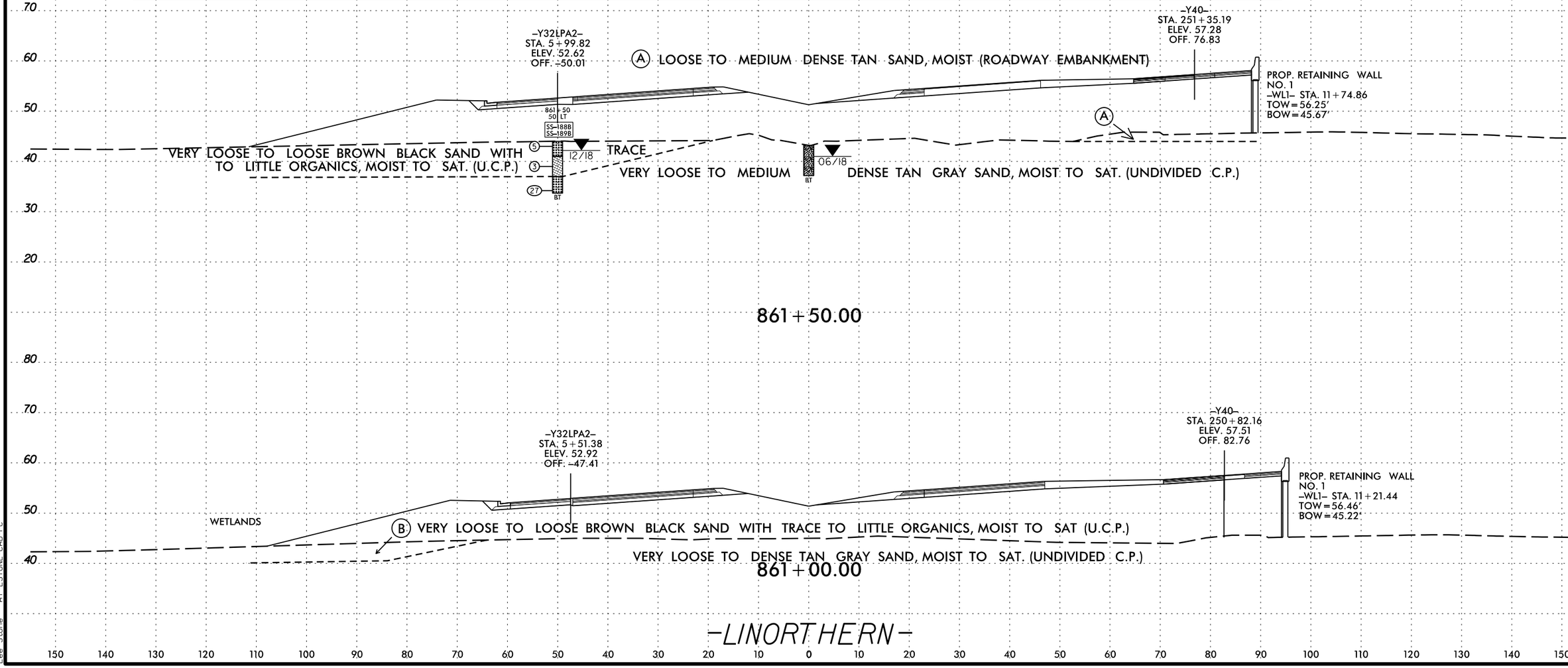


6/23/16
09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLLIN84650-85150.dgn
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

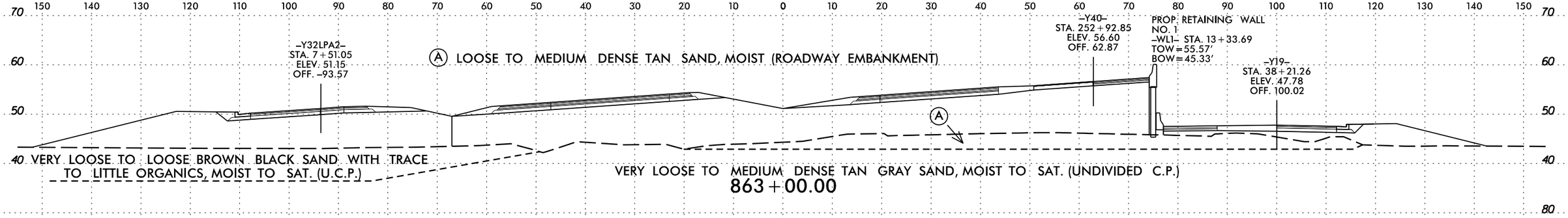
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-188B	50 LT	861+50	0.0 - 1.5	A-3(0)	NP	NP	18.3	73.2	4.3	4.2	99.3	96	9	-	2.9
SS-189B	50 LT	861+50	4.0 - 5.5	A-2-4(0)	NP	NP	10.1	75.6	7.2	7.1	100	99	15	-	3.5



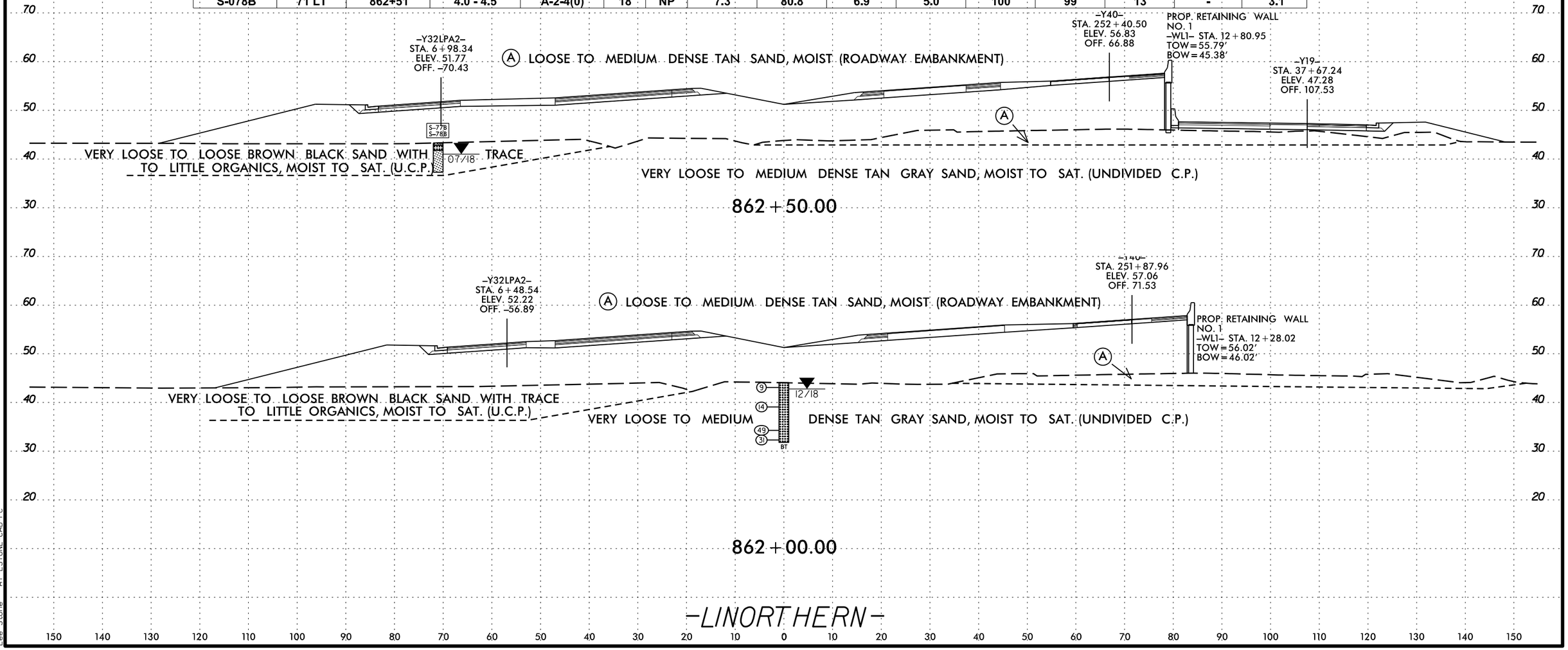
6/23/16
09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REVY\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLIN86100-86300.dgn
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



SOIL TEST RESULTS

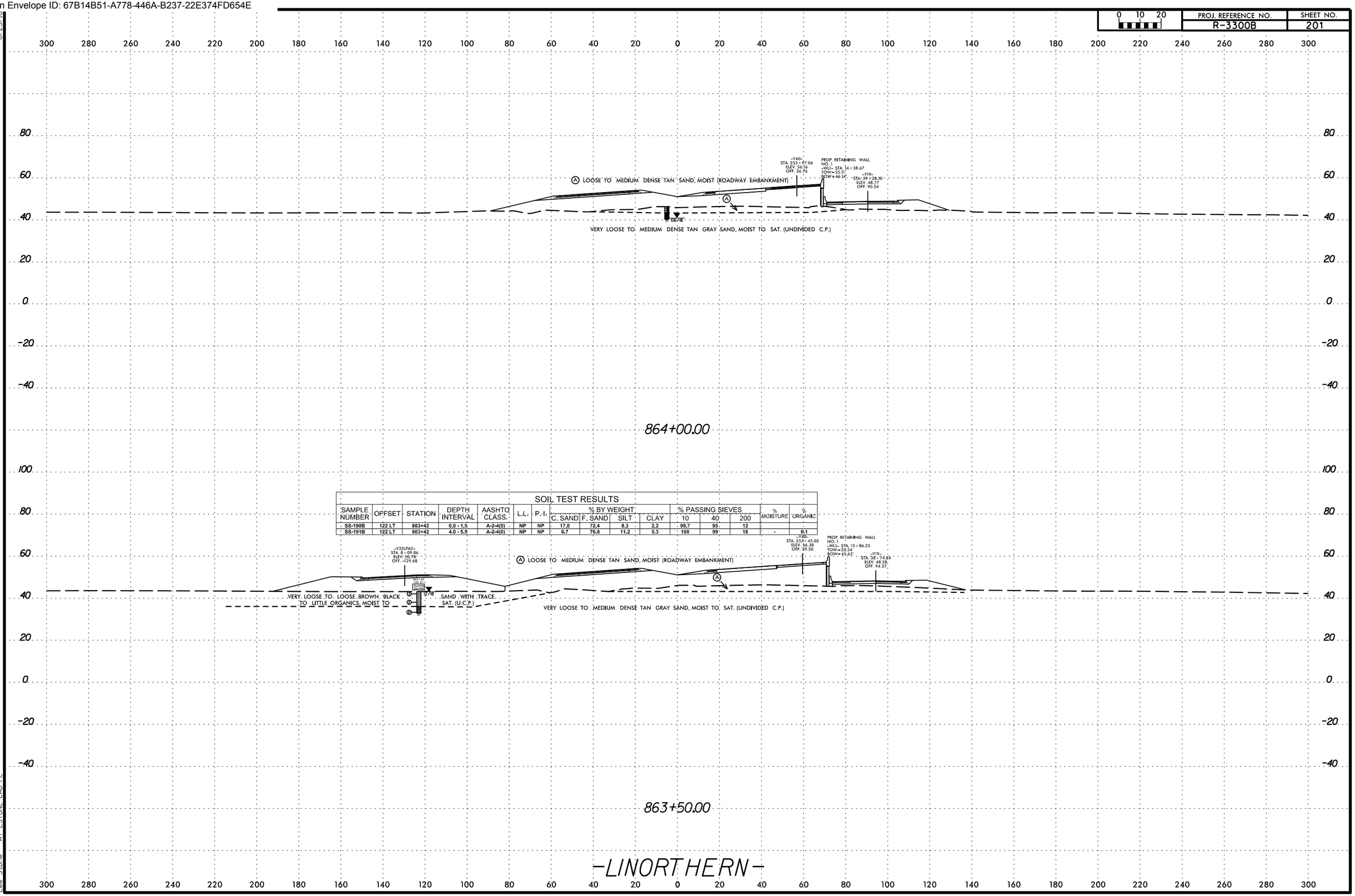
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-077B	71 LT	862+51	2.0 - 2.5	A-2-4(0)	22	NP	12.2	72.2	6.5	9.1	100	98	17	-	5.9
S-078B	71 LT	862+51	4.0 - 4.5	A-2-4(0)	18	NP	7.3	80.8	6.9	5.0	100	99	13	-	3.1



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LL\LBV\R3300B_Geo_XSLLLIN86100-86300.dgn
09-SEP-2021 15:18
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

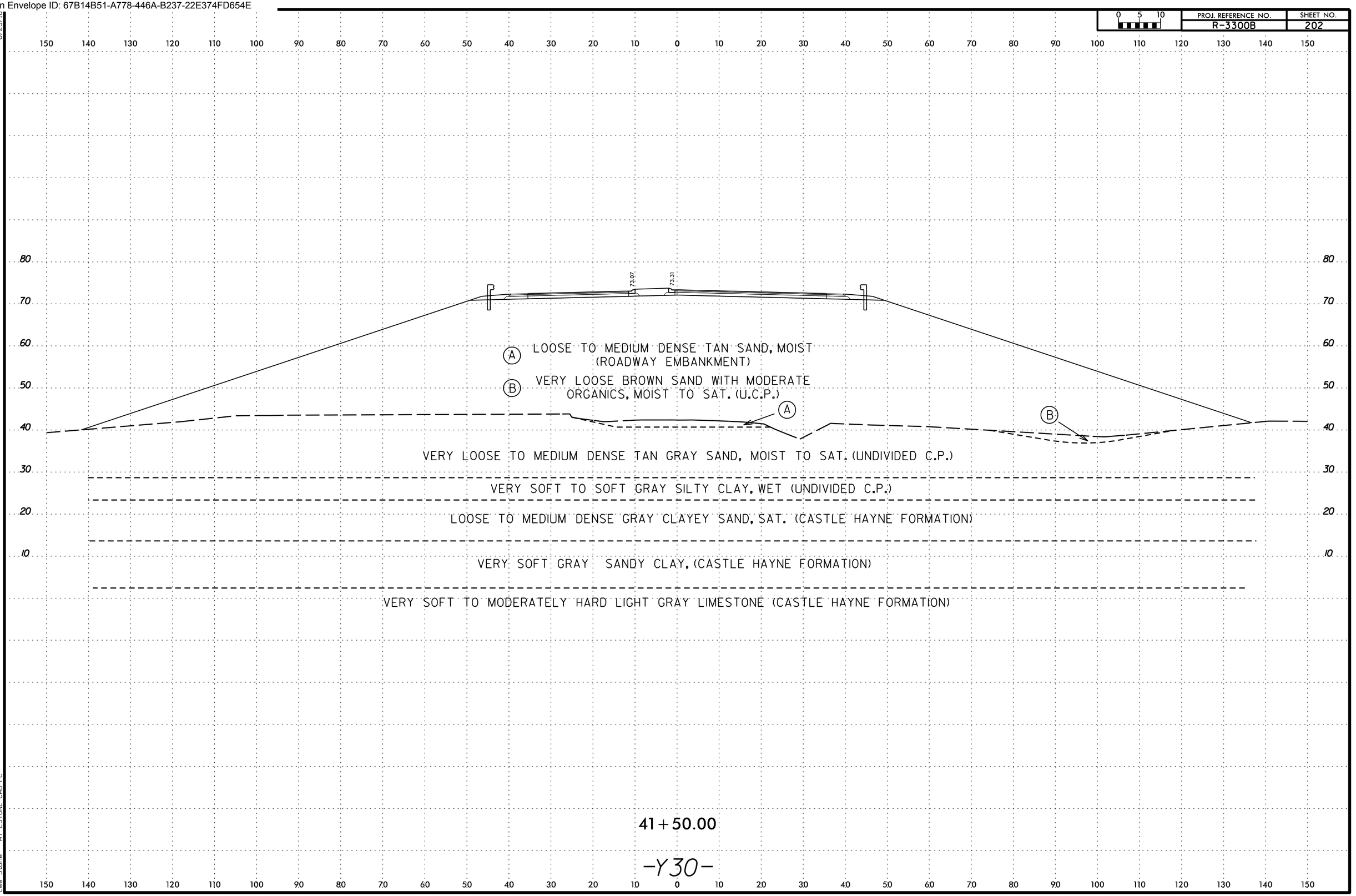
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	201



6/23/16
09-SEP-2021 15:18
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\LLB\R3300B_Geo_XSLLIN86350-86400.dgn
Lee Stone
AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	202



41+50.00

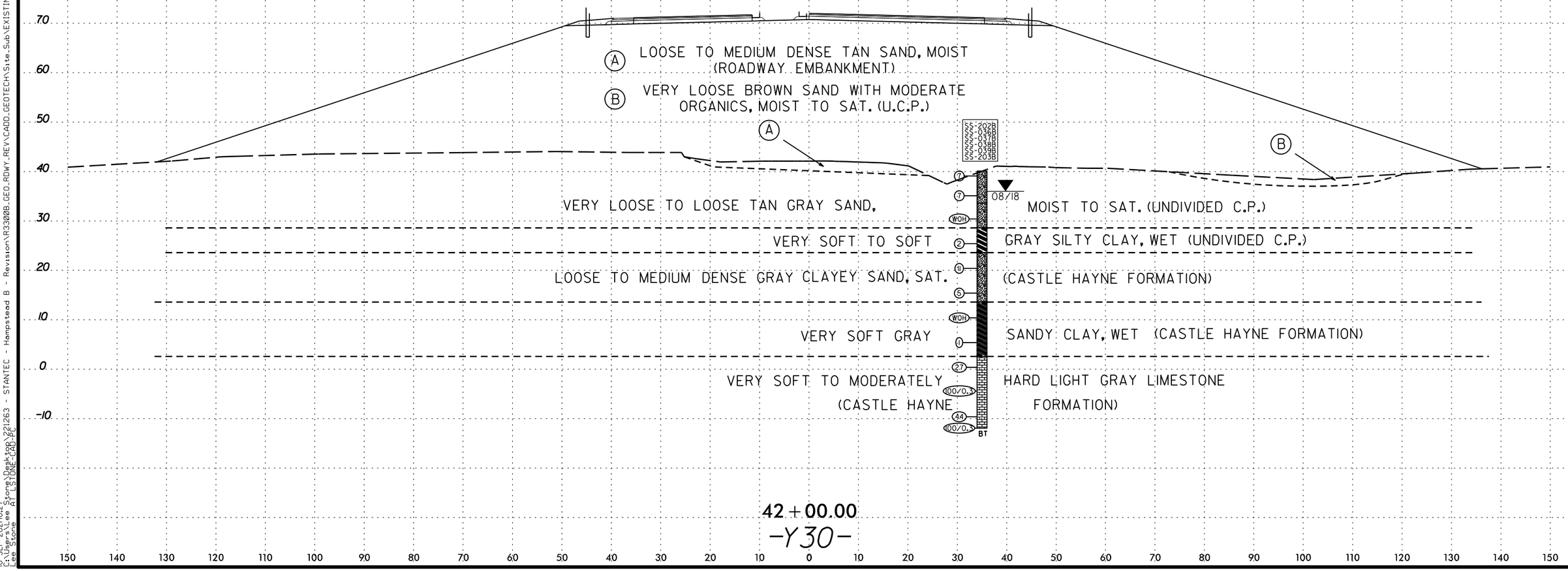
-Y30-

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y304150-4750.dgn
10-SEP-2021 10:27
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-202B	35 ft RT	42+00	0.0 - 1.5	A-2-4(0)	NP	NP	2.6	74.1	18.0	5.3	100	99	24	-	-
SS-036B	35 ft RT	42+00	8.7 - 10.2	A-2-4(0)	20	5	35.6	42.6	6.8	15.0	99.2	78	24	27	-
SS-037B	35 ft RT	42+00	13.7 - 15.2	A-7-6(15)	44	19	4.1	23.4	31.5	41.0	99.4	99	77	62	-
SS-038B	35 ft RT	42+00	18.7 - 20.2	A-2-4(0)	NP	NP	13.4	73.7	9.8	3.0	99.9	93	19	-	-
SS-039B	35 ft RT	42+00	28.7 - 30.2	A-6(16)	37	17	1.2	14.2	67.8	16.8	99.9	99	93	-	-
SS-203B	35 ft RT	42+00	38.7 - 40.2	A-2-4(0)	NP	NP	59.2	17.2	11.6	12.0	100	54	24	-	-

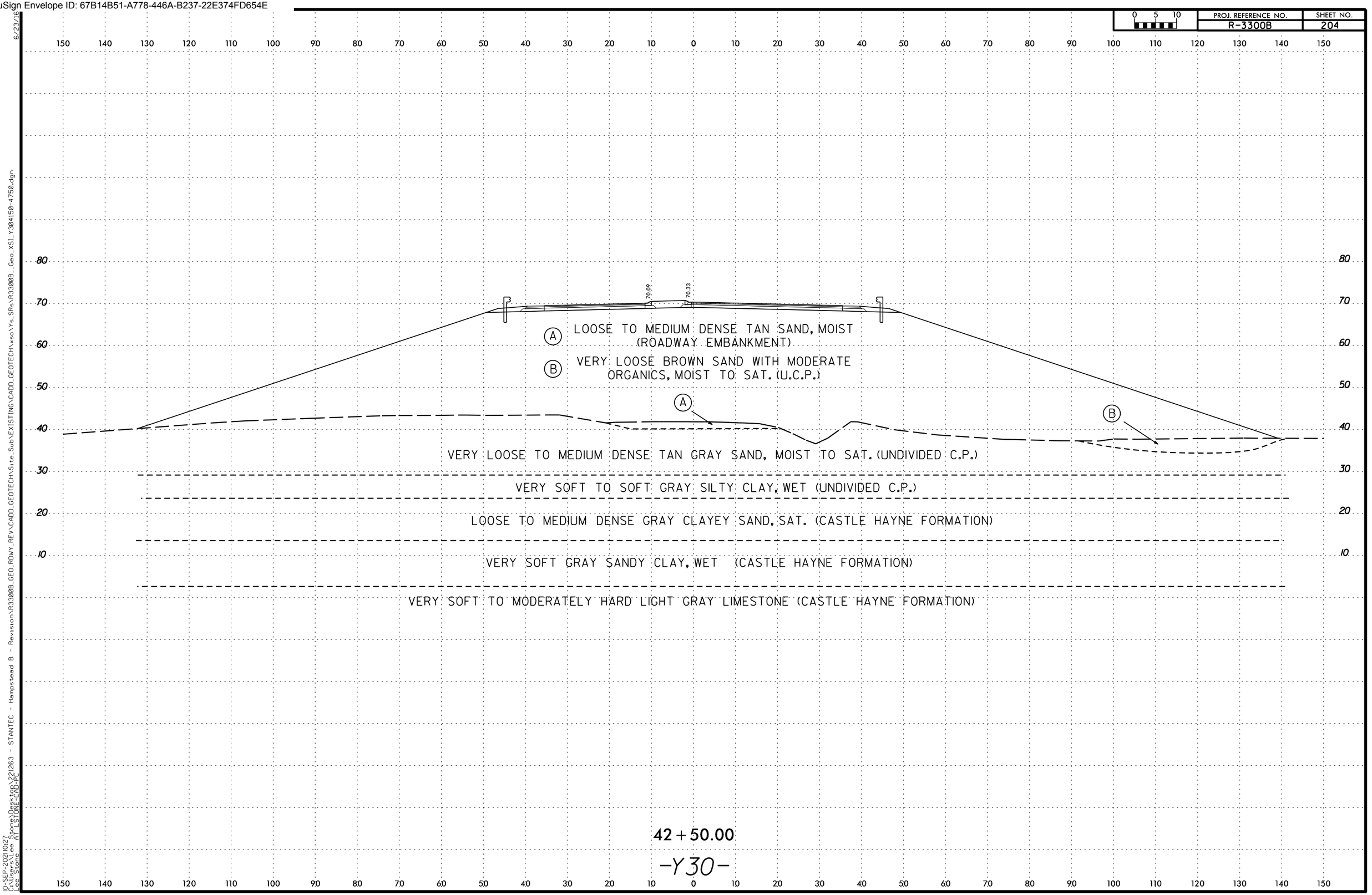


42+00.00
-Y30-

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y304150-4750.dgn
10-SEP-2021 10:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y304150-4750.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

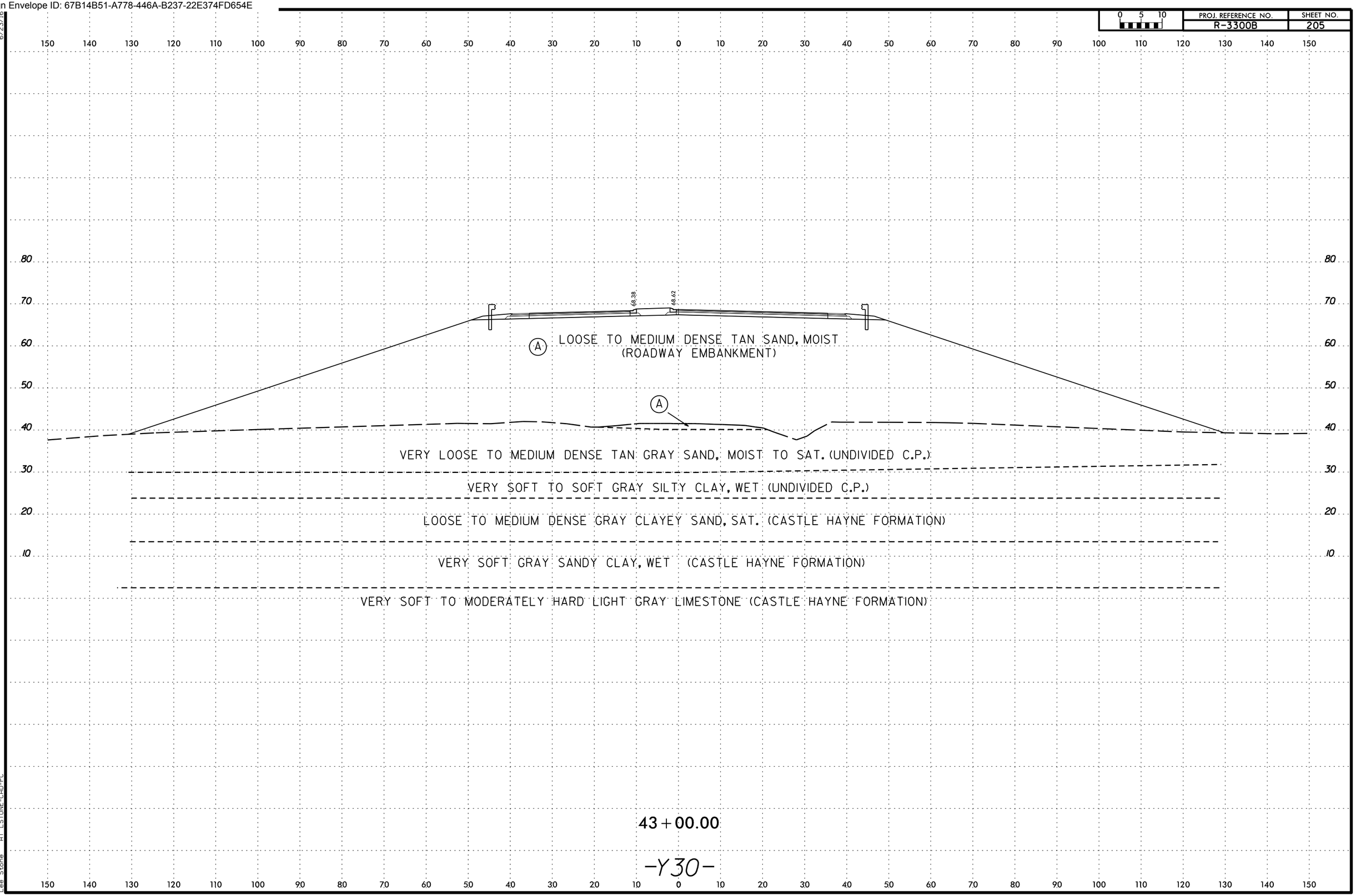
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	204



6/23/16
H:\Site-Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y304150-4750.dgn
10-SEP-2021 10:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

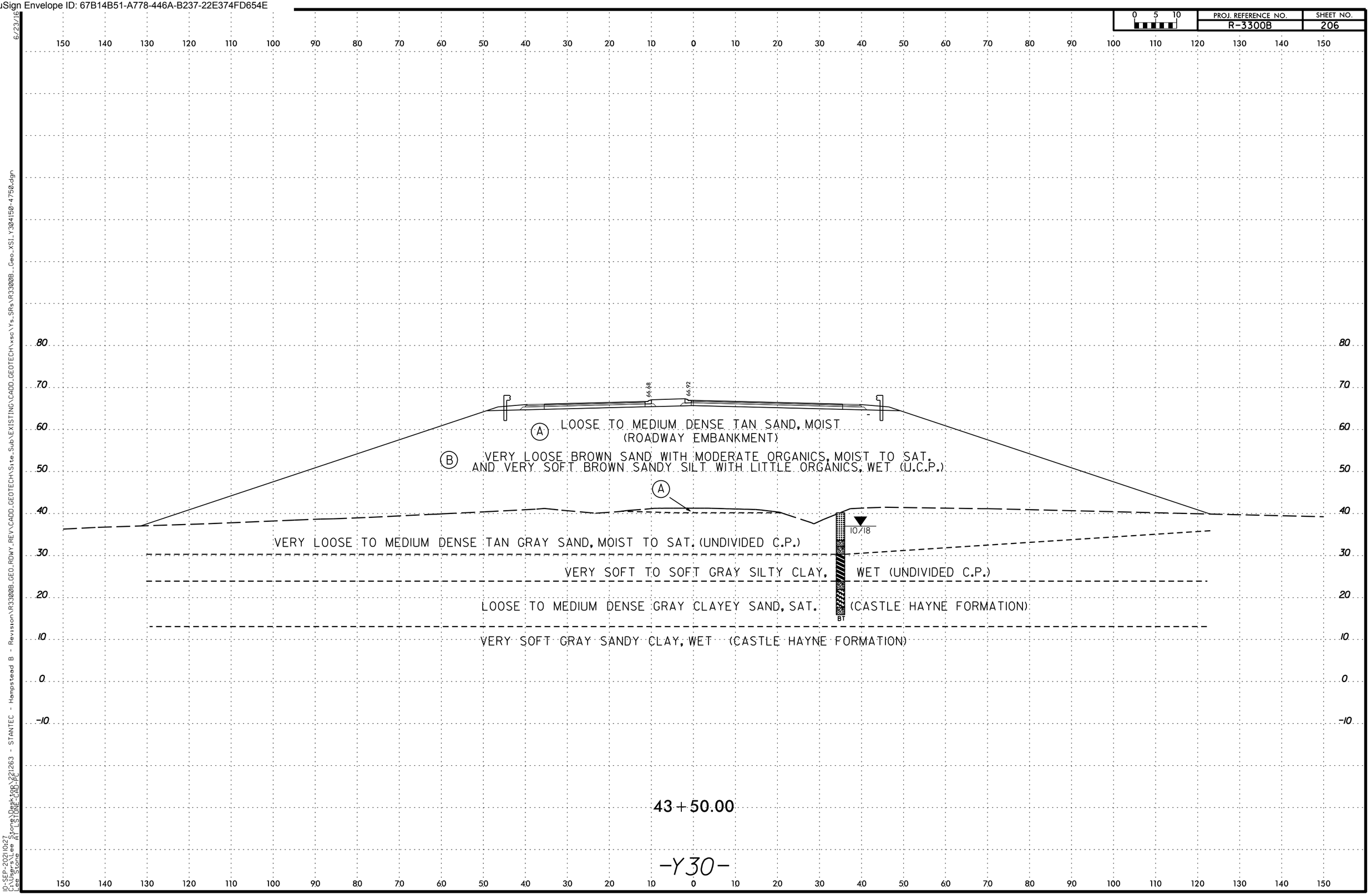
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	205



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y304150-4750.dgn
10-SEP-2021 10:27
Lee Stone AT STONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	206

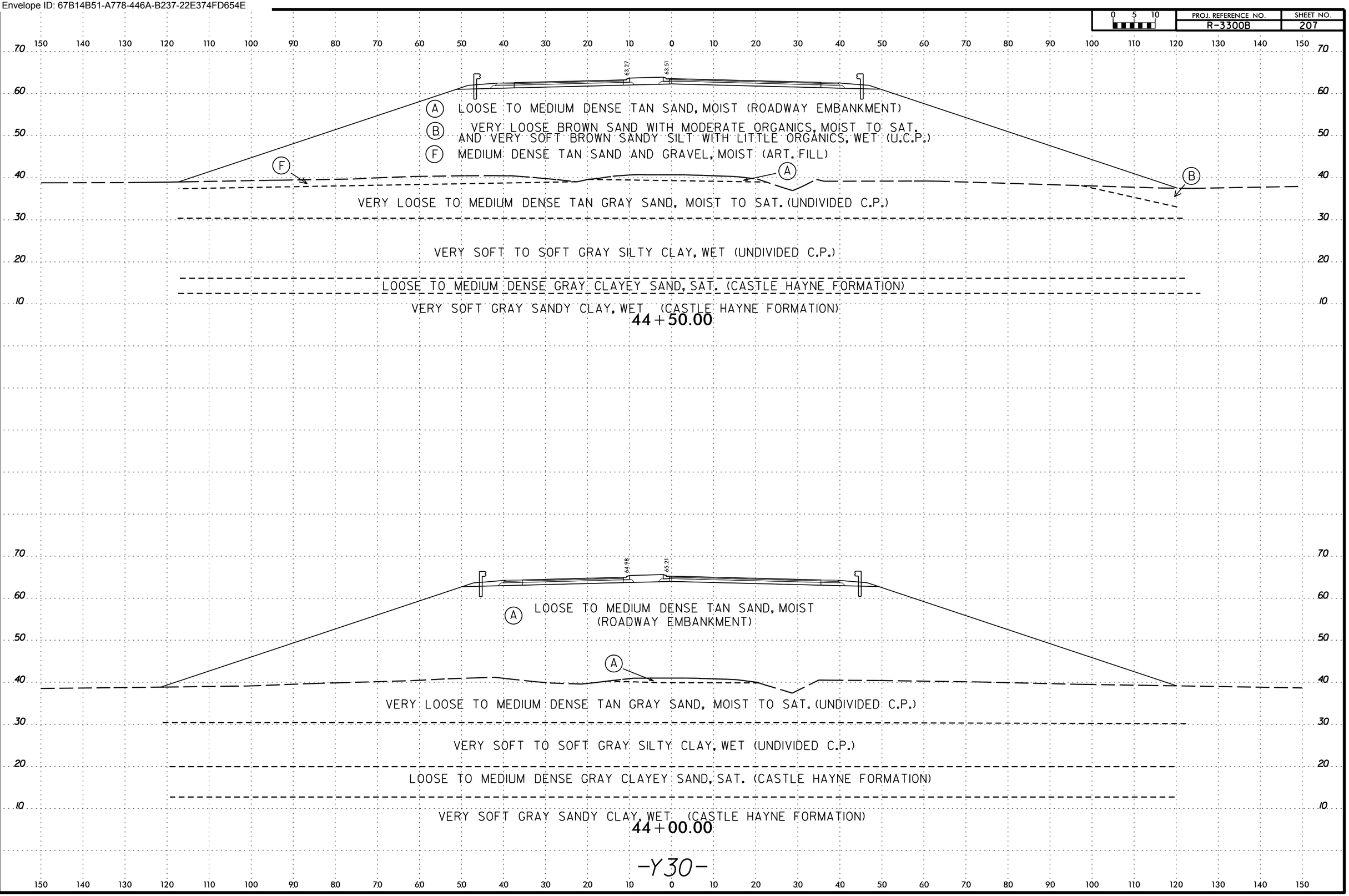


43+50.00

-Y30-

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y304150-4750.dgn
10-SEP-2021 10:27
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

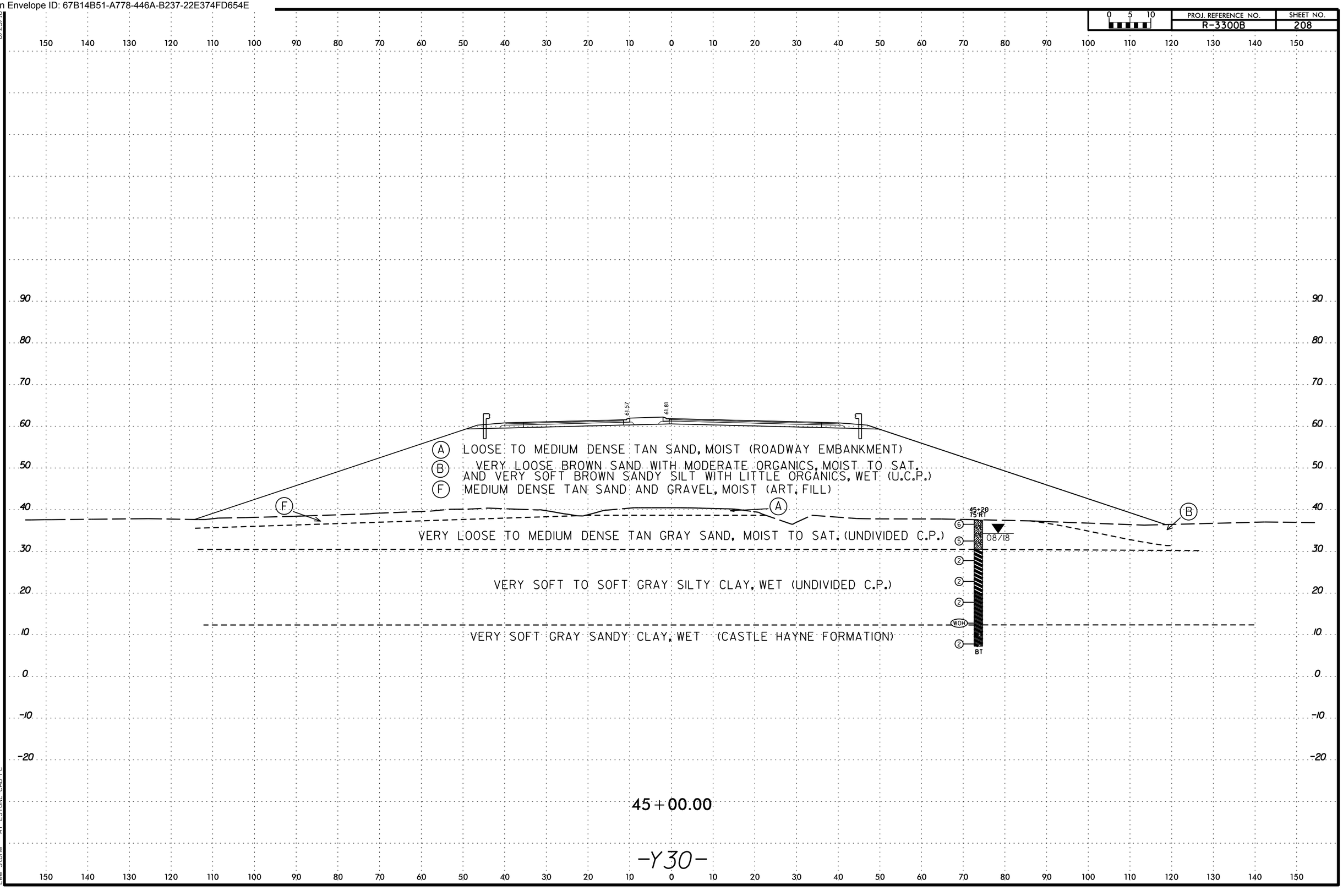


-Y30-

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y304150-4750.dgn
10-SEP-2021 10:27
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	208

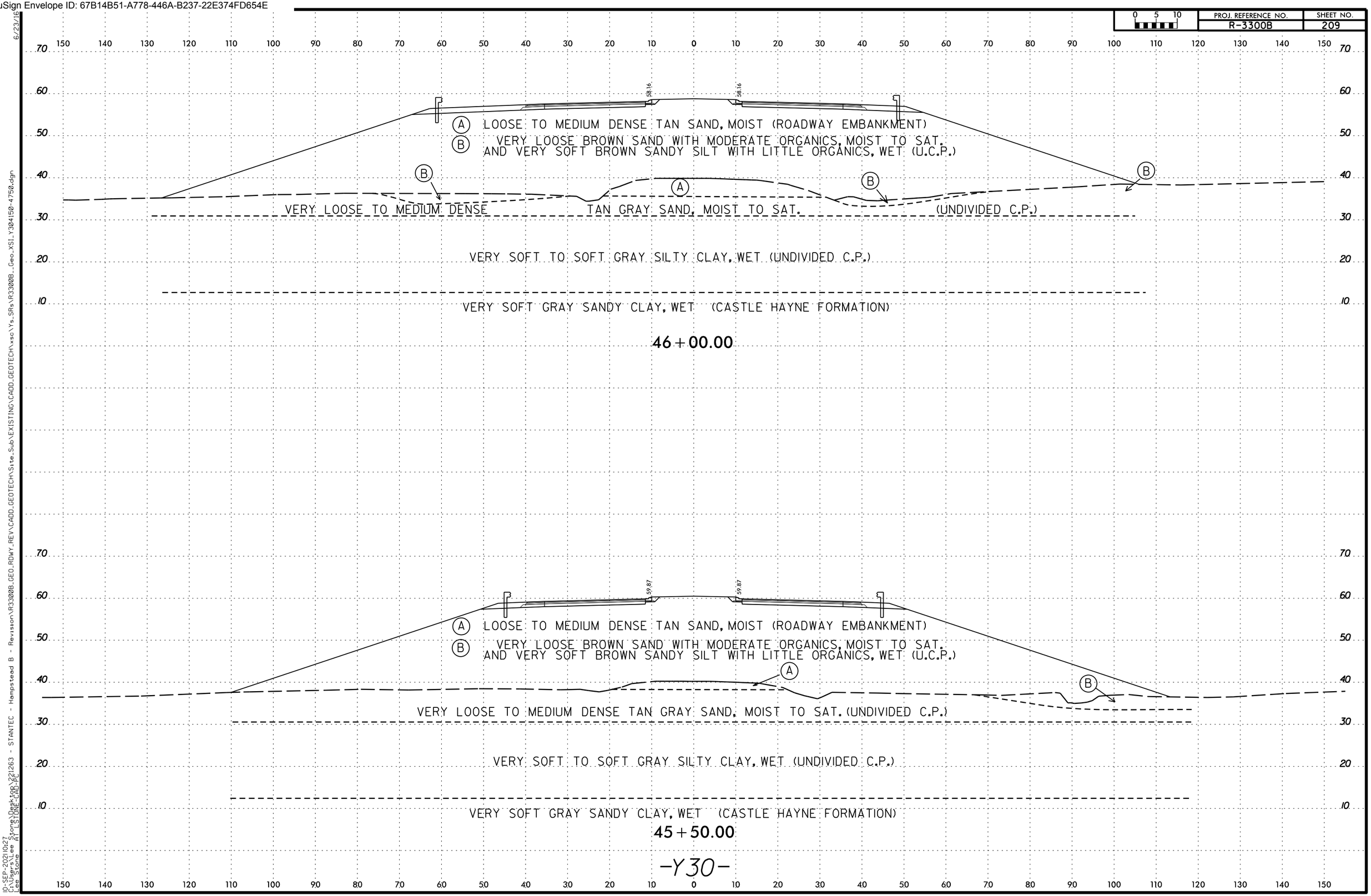


45+00.00

-Y30-

6/23/16
I:\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y304150-4750.dgn
10-SEP-2021 10:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

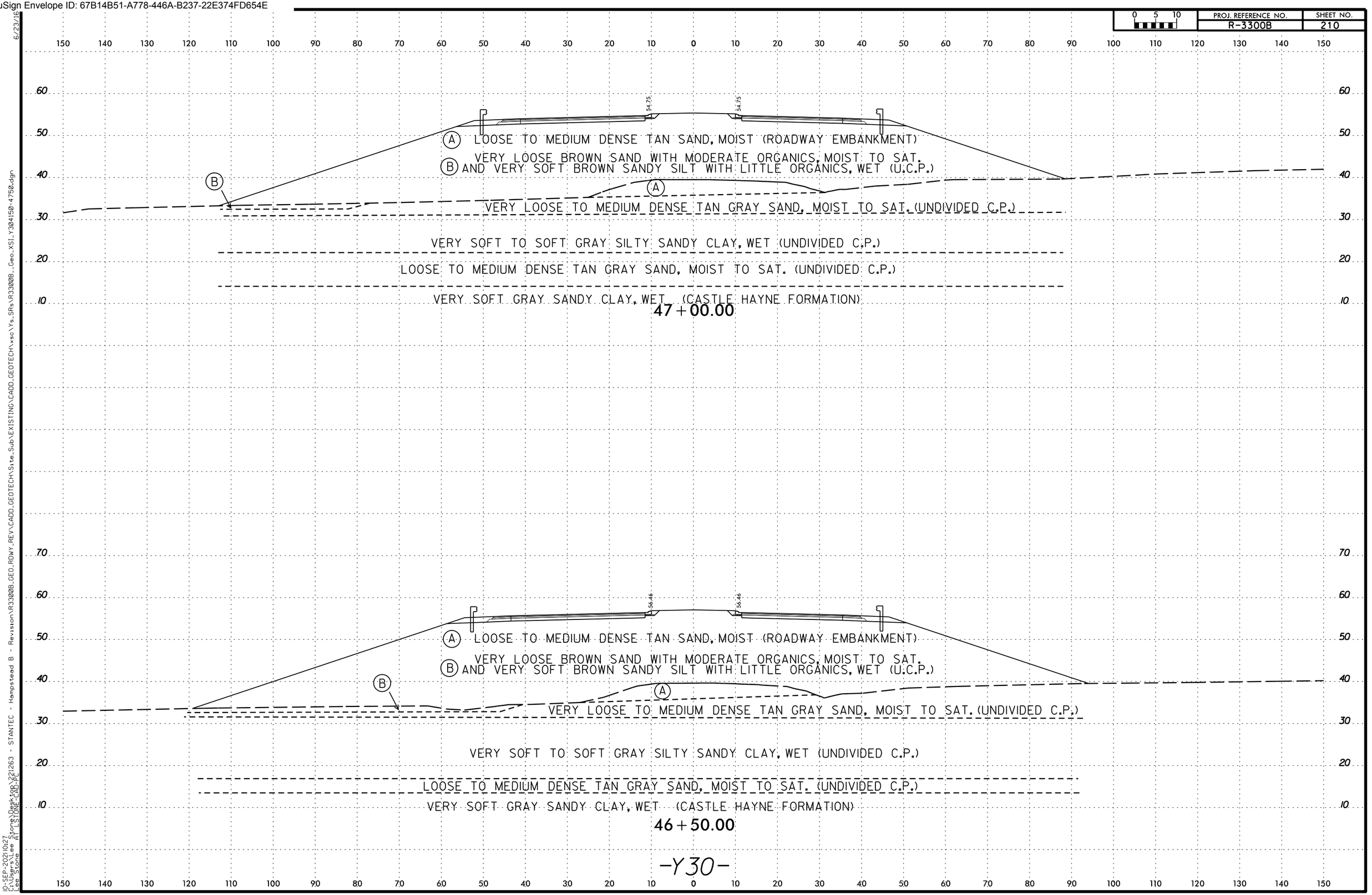


-Y30-

6/23/16
C:\Users\Lee Stone\Site-Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y304150-4750.dgn
10-SEP-2021\0:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y304150-4750.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	210

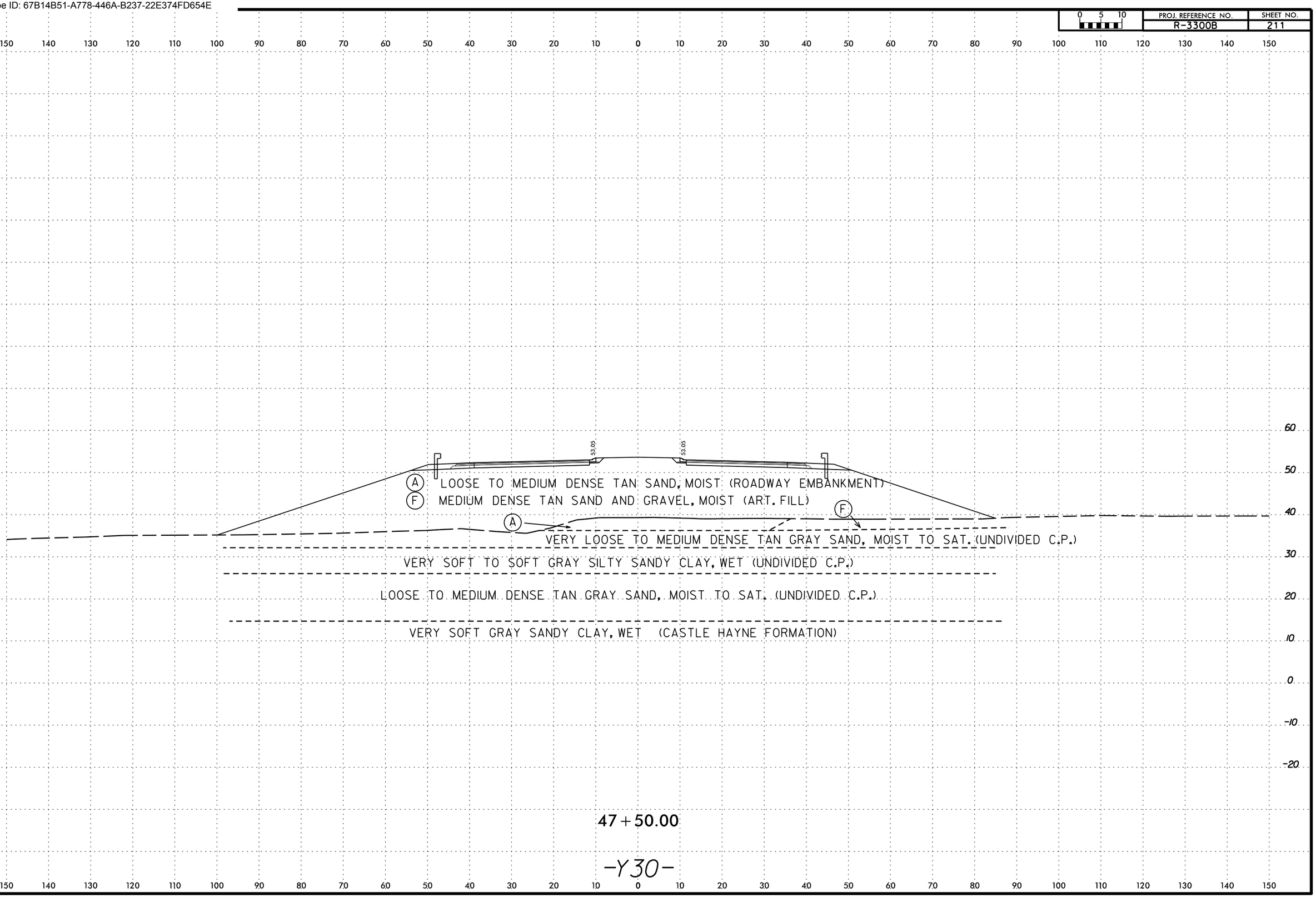


-Y30-

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y304150-4750.dgn
10-SEP-2021 10:27
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	211

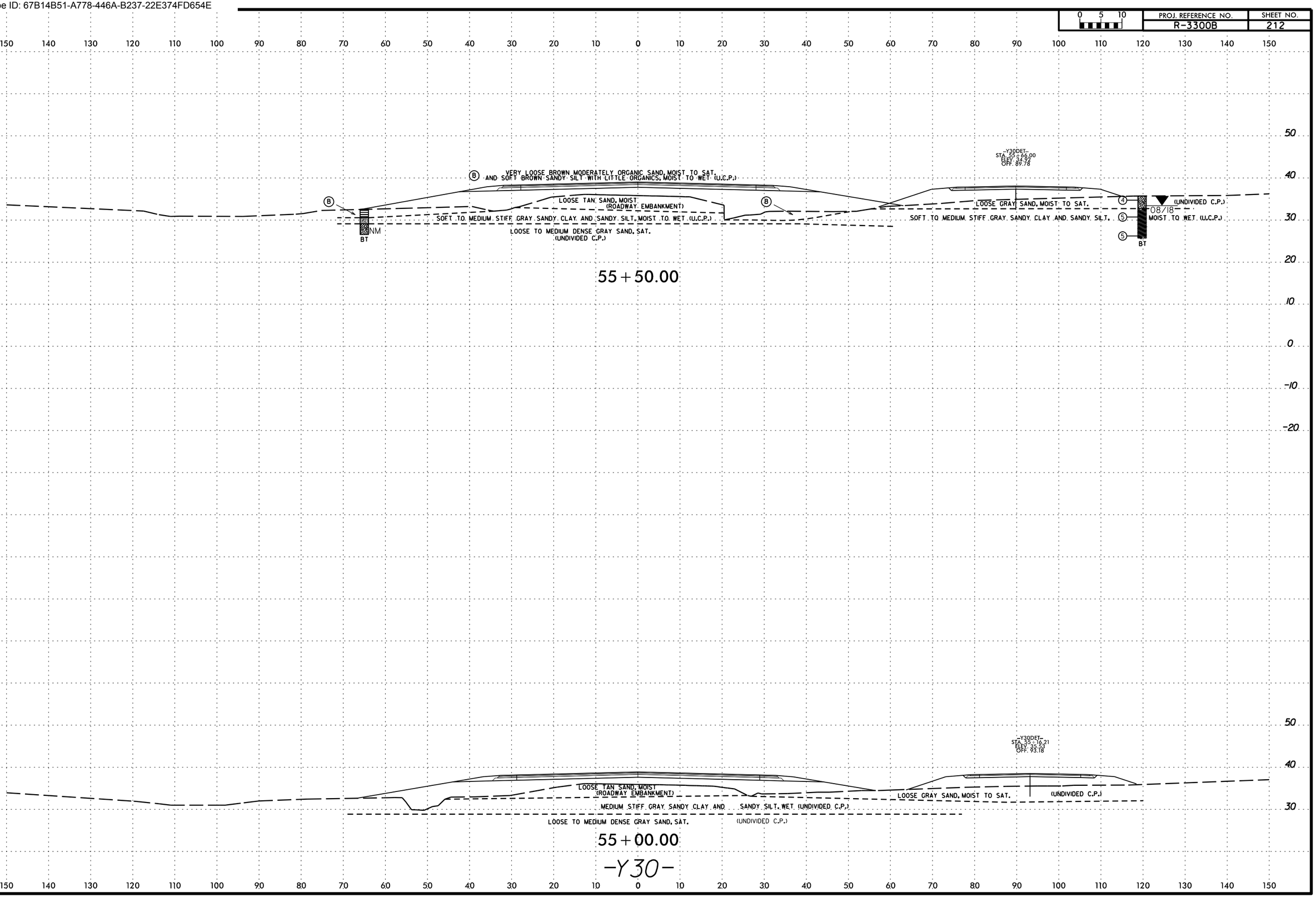


6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y304150-4750.dgn
10-SEP-2021 10:27
Lee Stone
ATLSTONE_CAD_PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJ. REFERENCE NO.	SHEET NO.
R-3300B	212

0 5 10



6/23/16
10-SEP-2021\0:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y305500-5950.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

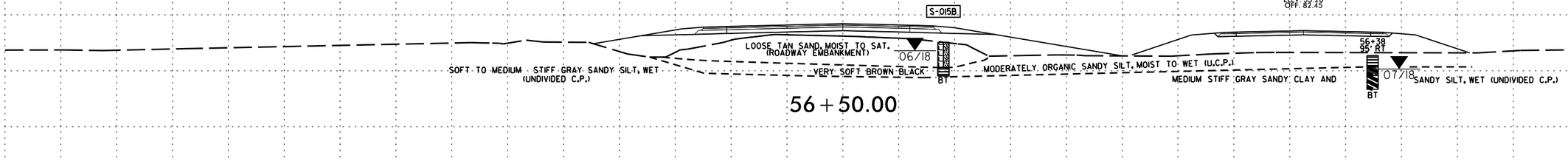
6/23/16
C:\Users\Lee Stone\Desktop\20221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y305500-5950.dgn
10-SEP-2021 10:27
C:\Users\Lee Stone\Desktop\20221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\
Lee Stone AT LSTONE CAD-PC

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

60 50 40 30

SOIL TEST RESULTS

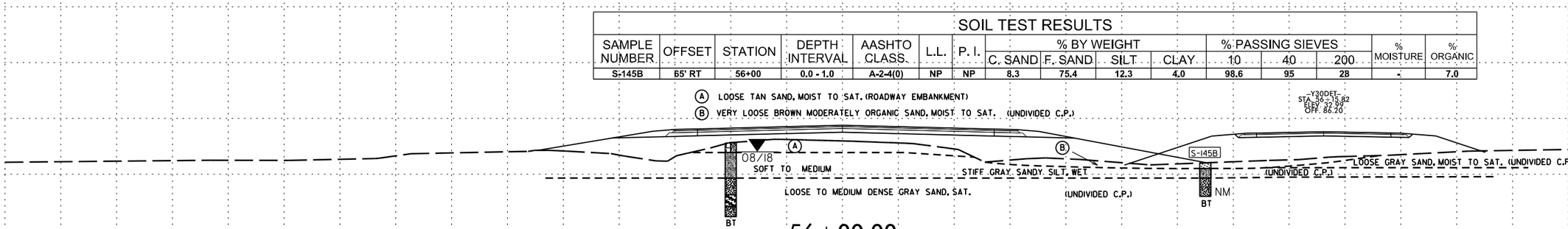
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-015B	18 ft RT	56+50	4.5 - 5.0	A-5(0)	41	NP	6.8	50.7	37.0	5.5	99.6	98	50	-	17.8



56 + 50.00

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-145B	65' RT	56+00	0.0 - 1.0	A-2-4(0)	NP	NP	8.3	75.4	12.3	4.0	98.6	95	28	-	7.0

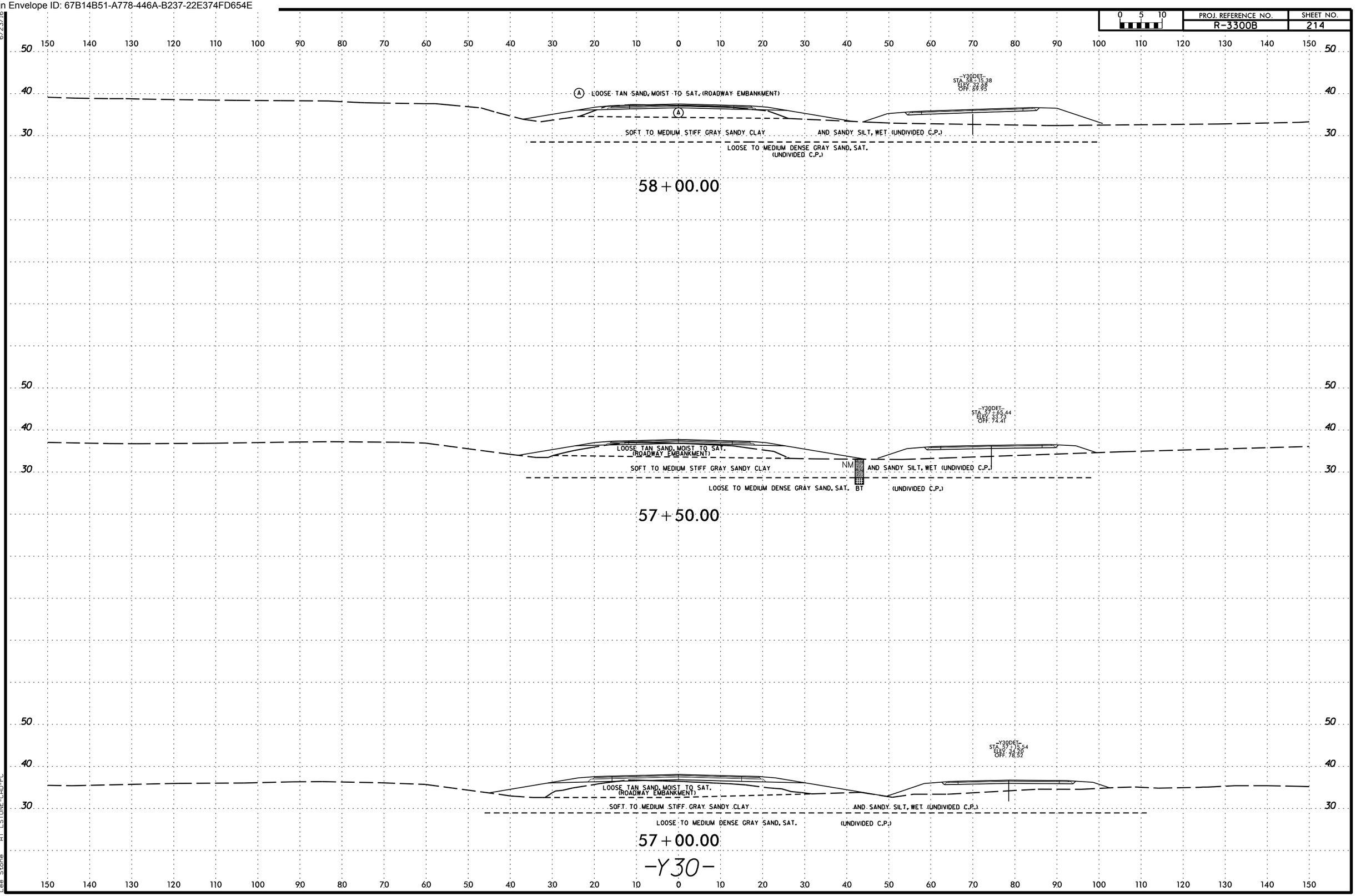


56 + 00.00

-Y30-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
10-SEP-2021 10:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y305500-5950.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	215

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

50
40

-Y30DET-
STA. 59+16.29
ELEV. 35.81
OFF. 53.84

Ⓐ LOOSE TAN SAND, MOIST TO SAT. (ROADWAY EMBANKMENT)

35.37

SOFT TO MEDIUM STIFF GRAY SANDY SILT

59+00.00

60
50

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING SIEVES 10	40	200	% MOISTURE	% ORGANIC
S-016B	18 ft RT.	58+50	3.5 - 4.0	A-4(0)	17	4	6.1	57.2	17.1	19.6	100	98	47	-	-
S-017B	18 ft RT.	58+50	5.5 - 6.0	A-4(15)	40	25	7.4	27.4	22.3	42.9	99.9	98	69	-	-

-Y30DET-
STA. 58+65.60
ELEV. 34.29
OFF. 63.28

Ⓐ LOOSE TAN SAND, MOIST TO SAT. (ROADWAY EMBANKMENT)

S-016B
S-017B

06/18

34.79

SOFT TO MEDIUM STIFF GRAY SANDY CLAY

BT

AND SANDY SILT, WET (UNDIVIDED C.P.)

58+50.00

40
30
20
10
0
-10
-20

-Y30-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

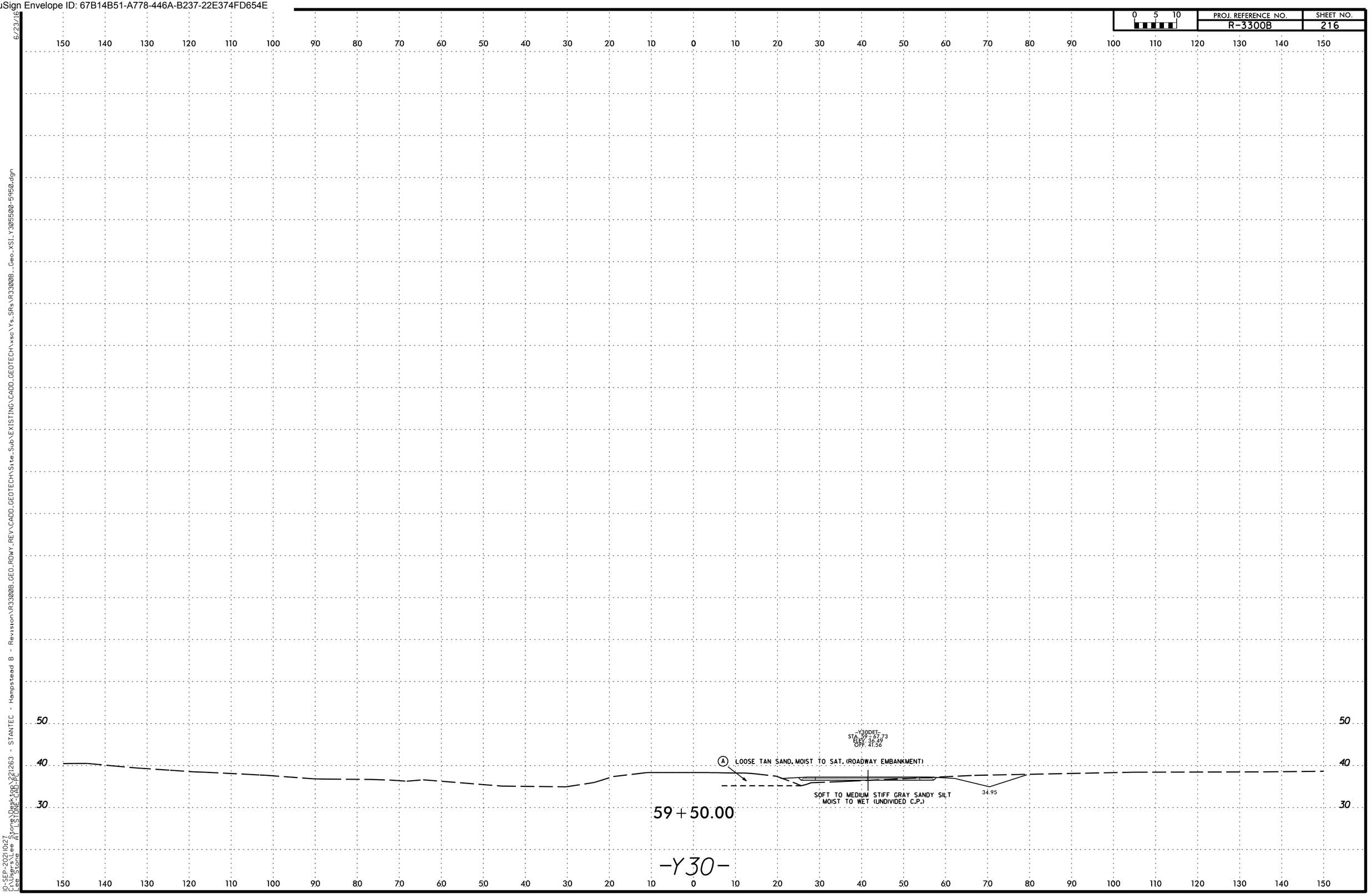
6/23/16

C:\Site-Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y305500-5950.dgn

10-SEP-2021\0:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\
Lee Stone AT LSTONE CAD-PC

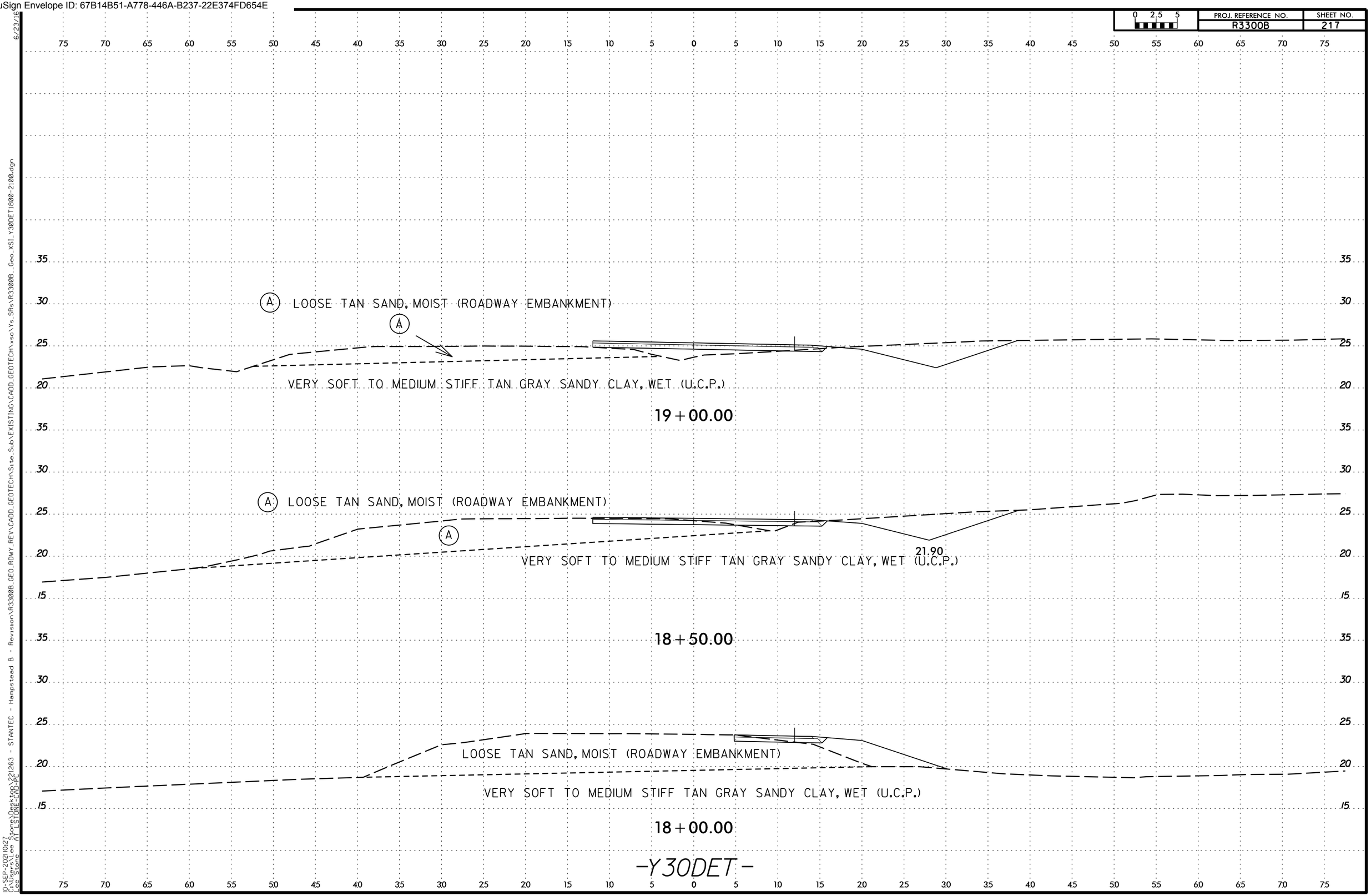
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	216



6/23/16
C:\Users\Lee Stone.AT\STONE CAD-PC
10-SEP-2021\0:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y305500-5950.dgn

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



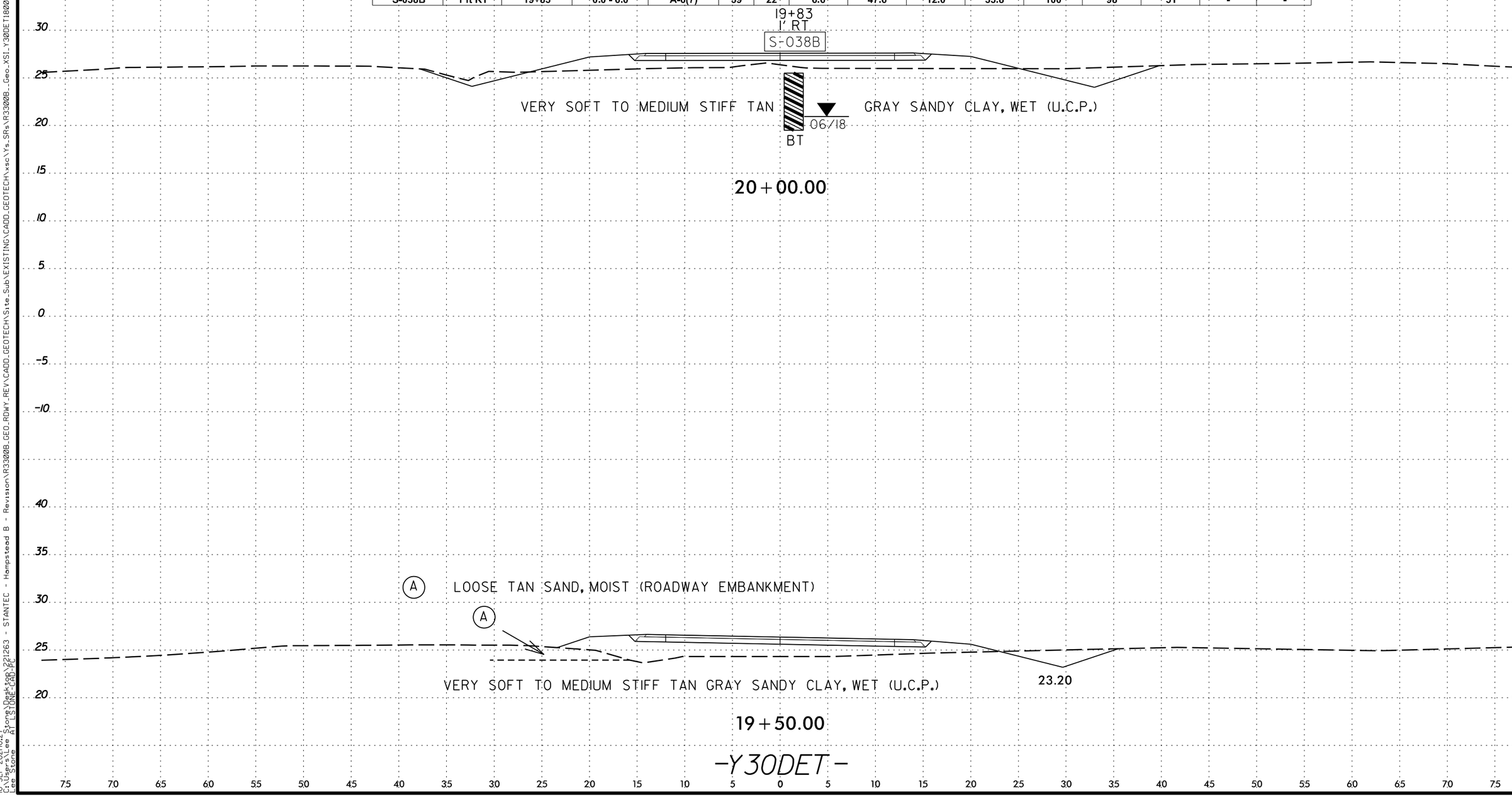
6/23/16
10-SEP-2021\0:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30DET1800-2100.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	218

SOIL TEST RESULTS

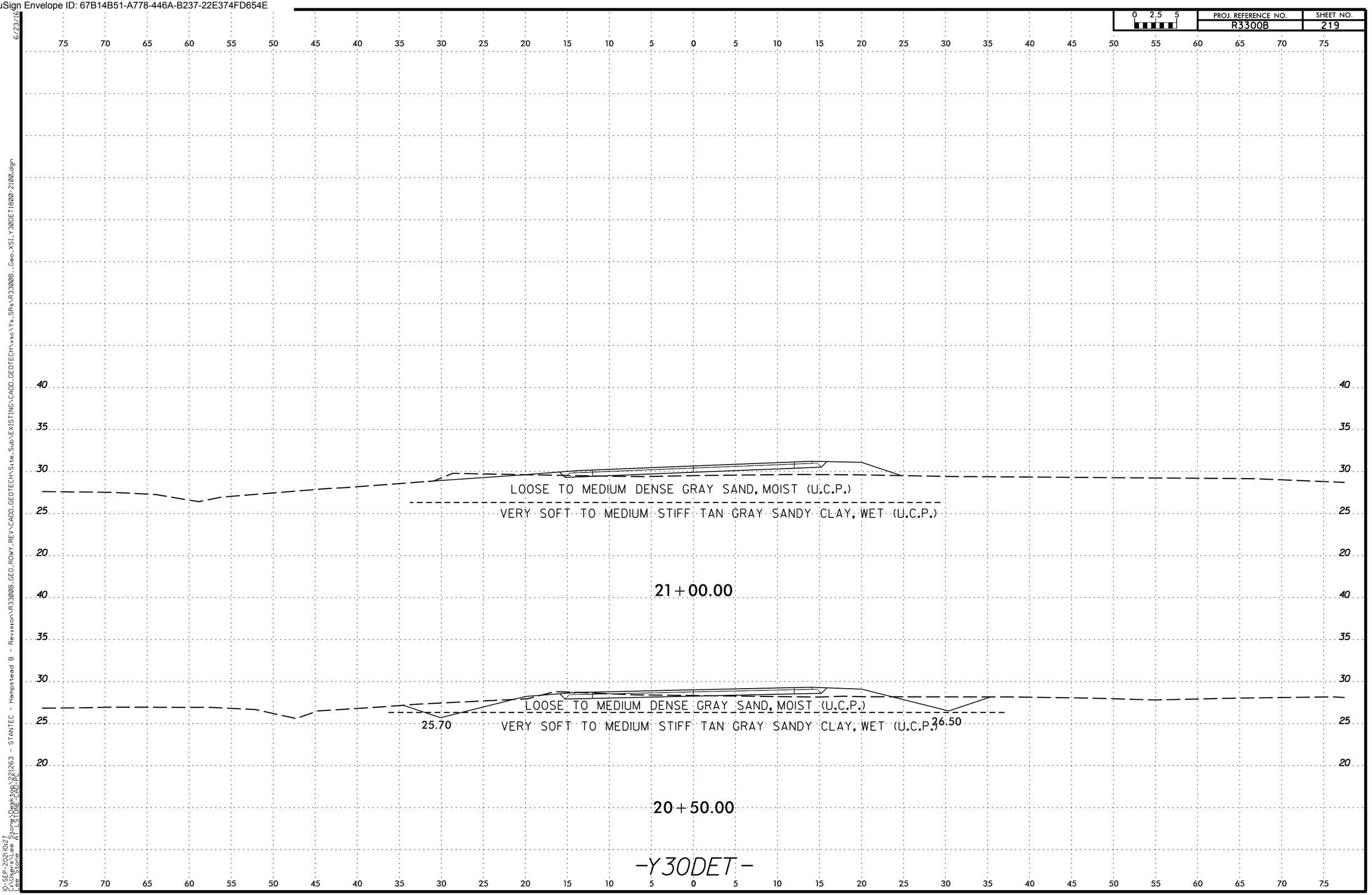
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-038B	1 ft RT	19+83	0.0 - 6.0	A-6(7)	39	22	6.6	47.6	12.0	33.8	100	98	51	-	-



6/23/16
10-SEP-2021\0:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_Y30DET1800-2100.dgn
Lee Stone AT LSTONE-CAD-PC

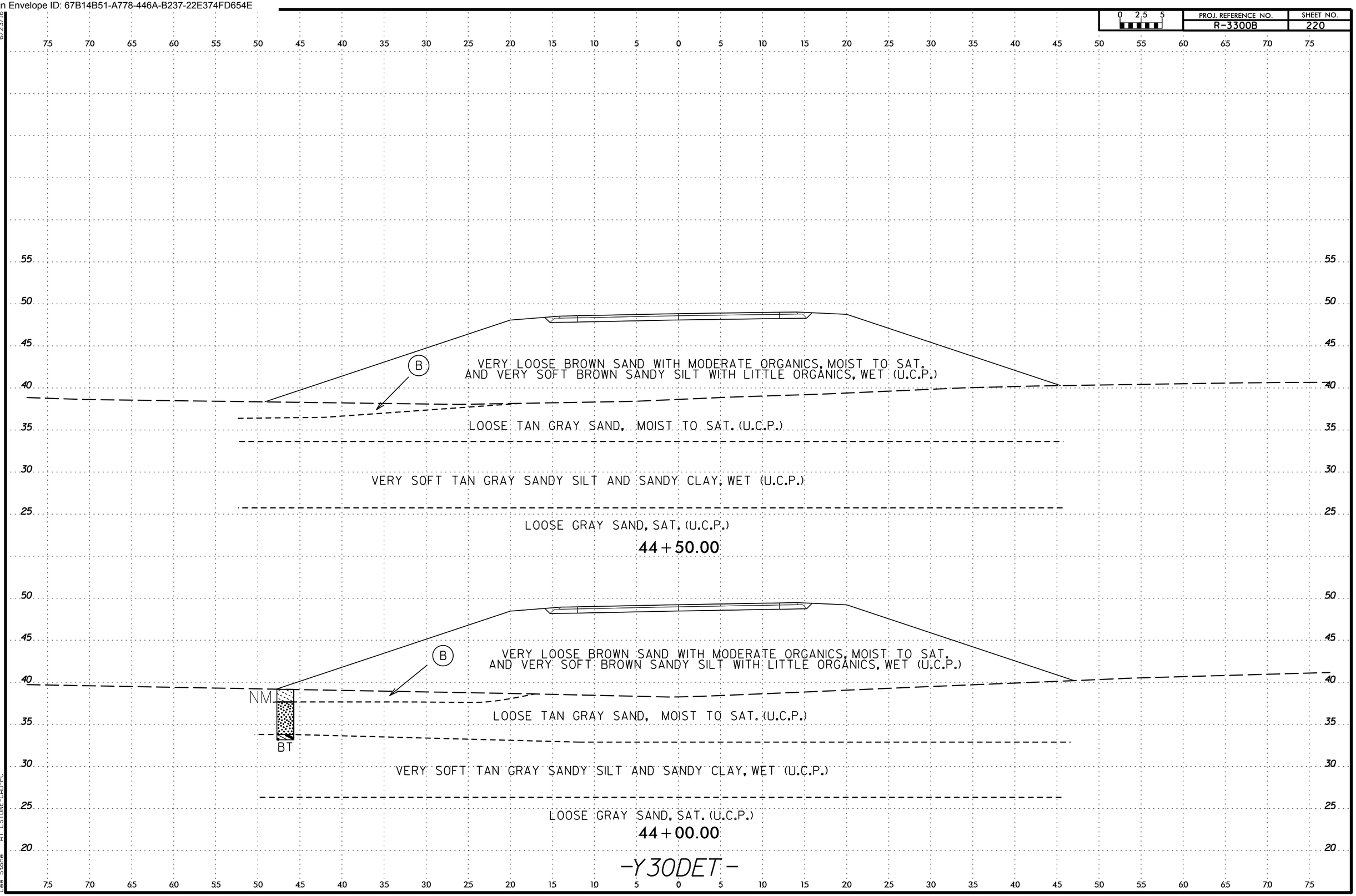
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	219



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30DET1800-2100.dgn
10-SEP-2021\10:27
Lee Stone
AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
10-SEP-2021\0:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30DET4500-4650.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	221

VERY LOOSE BROWN SAND WITH MODERATE ORGANIC MATTER MOIST TO SAT.
AND VERY SOFT BROWN SANDY SILT WITH LITTLE ORGANICS, WET
(UNDIVIDED C.P.)

(B)

(B)

LOOSE TAN GRAY SAND, MOIST TO SAT. (U.C.P.)

37.45

VERY SOFT TAN GRAY SANDY SILT AND SANDY CLAY, WET (U.C.P.)

LOOSE GRAY SAND, SAT. (U.C.P.)

VERY SOFT TO SOFT GRAY SANDY CLAY WITH
SHELL FRAGMENTS, WET (CASTLE HAYNE FORMATION)

SOFT TO HARD GRAY LIMESTONE (CASTLE HAYNE FORMATION)

45+50.00

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-271B	CL	45+00	5.1 - 6.6	A-4(3)	27	9	3.1	49.3	22.4	25.2	99.8	99	63	-	-
SS-272B	CL	45+00	8.8 - 10.3	A-7-6(13)	42	25	8.7	30.6	24.5	36.2	99.9	99	63	-	-
SS-273B	CL	45+00	13.8 - 15.3	A-2-4(0)	NP	NP	5.9	82.6	5.5	6.0	99.9	98	13	-	-

(B) VERY LOOSE BROWN SAND WITH MODERATE ORGANICS, MOIST TO SAT. AND VERY SOFT BROWN SANDY SILT WITH LITTLE ORGANICS, WET (U.C.P.)

SS-271B
SS-272B
SS-273B

NM

(B)

BT

LOOSE TAN GRAY SAND, (4) 07/19 MOIST TO SAT. (U.C.P.)

VERY SOFT TAN GRAY SANDY SILT AND SANDY CLAY, WET (U.C.P.)

WOH

WOH

LOOSE GRAY SAND, (6) SAT. (U.C.P.)

BT

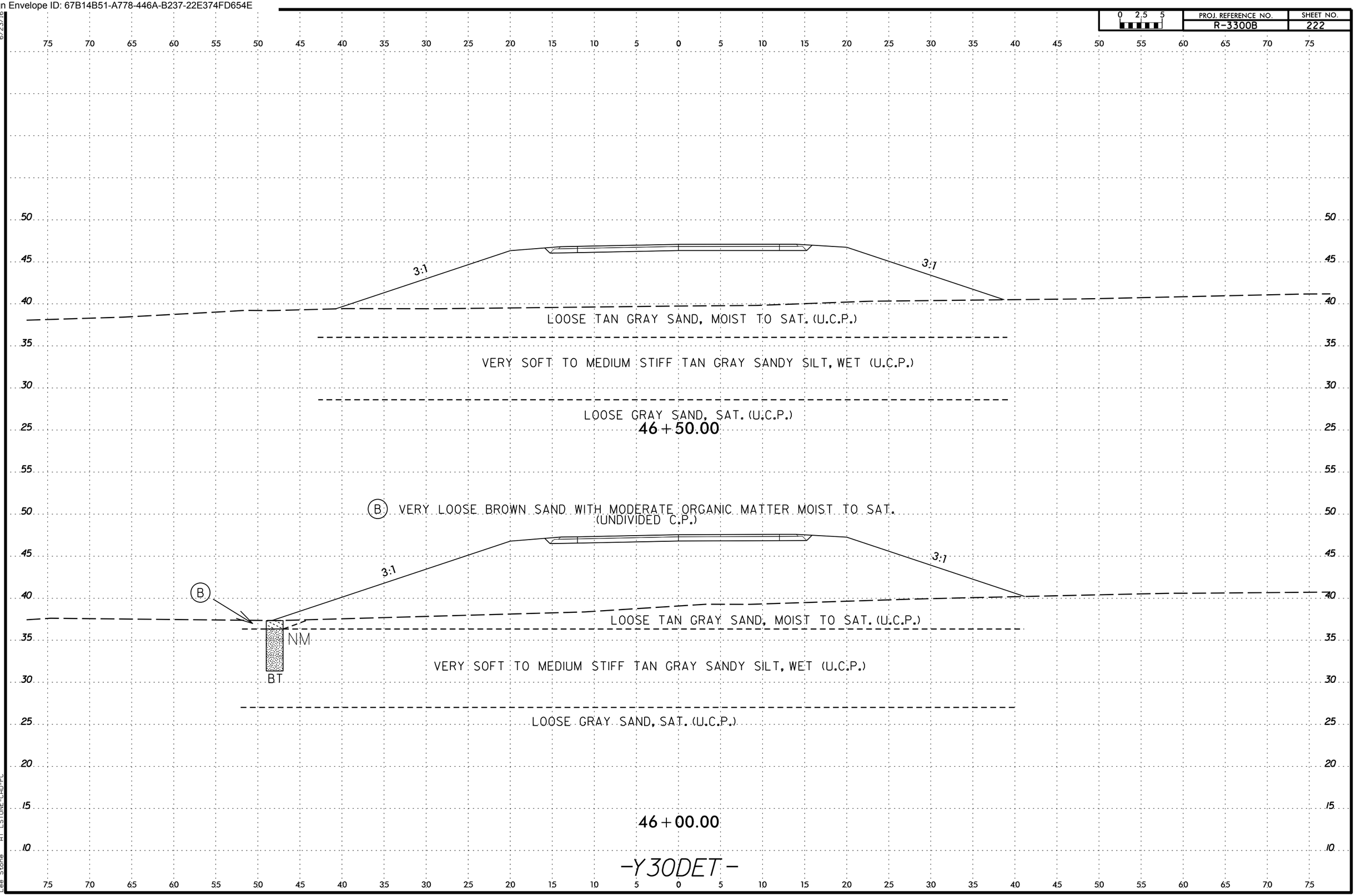
45+00.00

-Y30DET-

6/23/16
10-SEP-2021\0:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30DET4500-4650.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

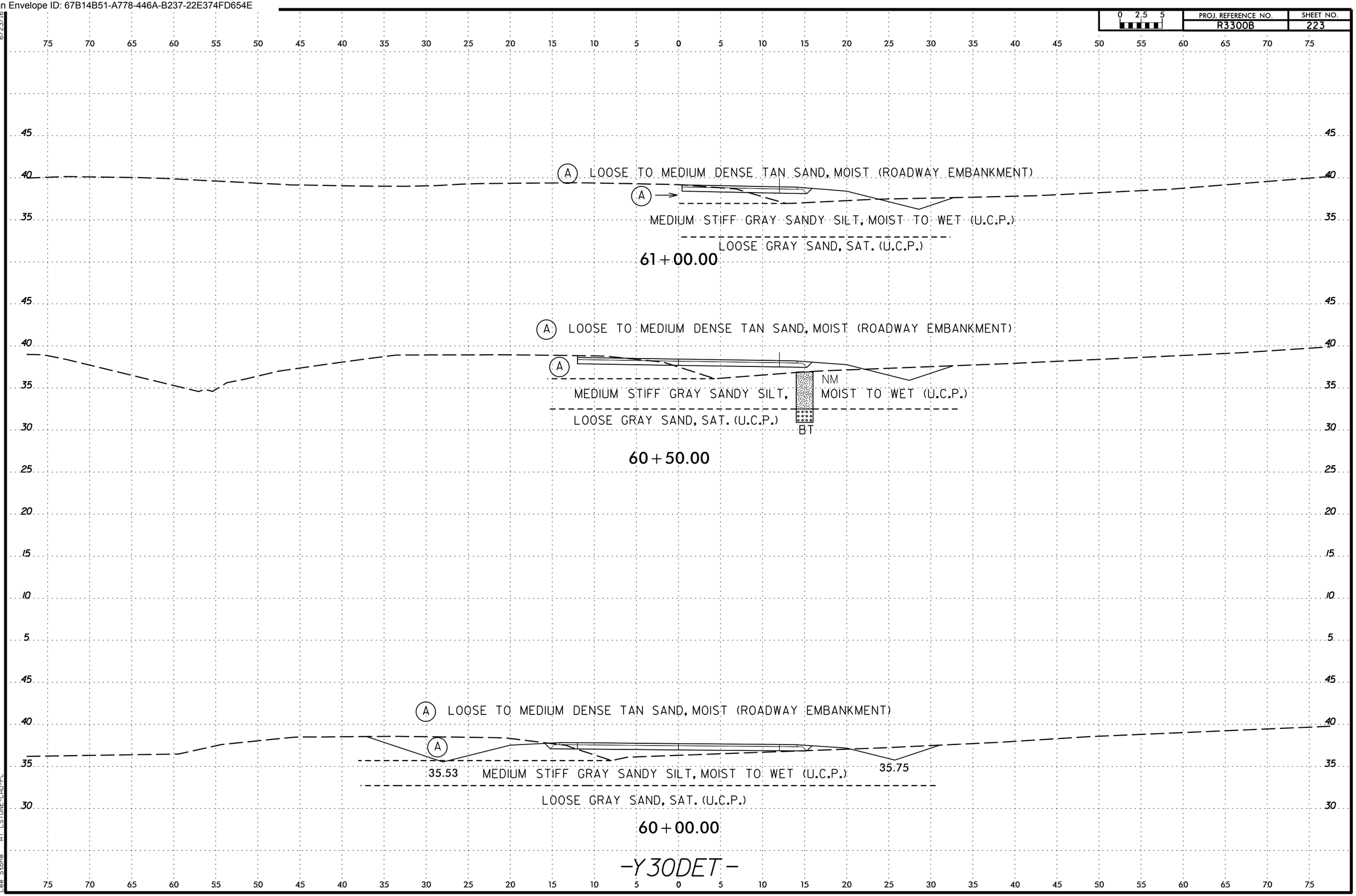
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	222



6/23/16
C:\Users\Lee Stone.AT\STONE CAD-PC
10-SEP-2021\0:27
C:\Site-Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30DET4500-4650.dgn
I:\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

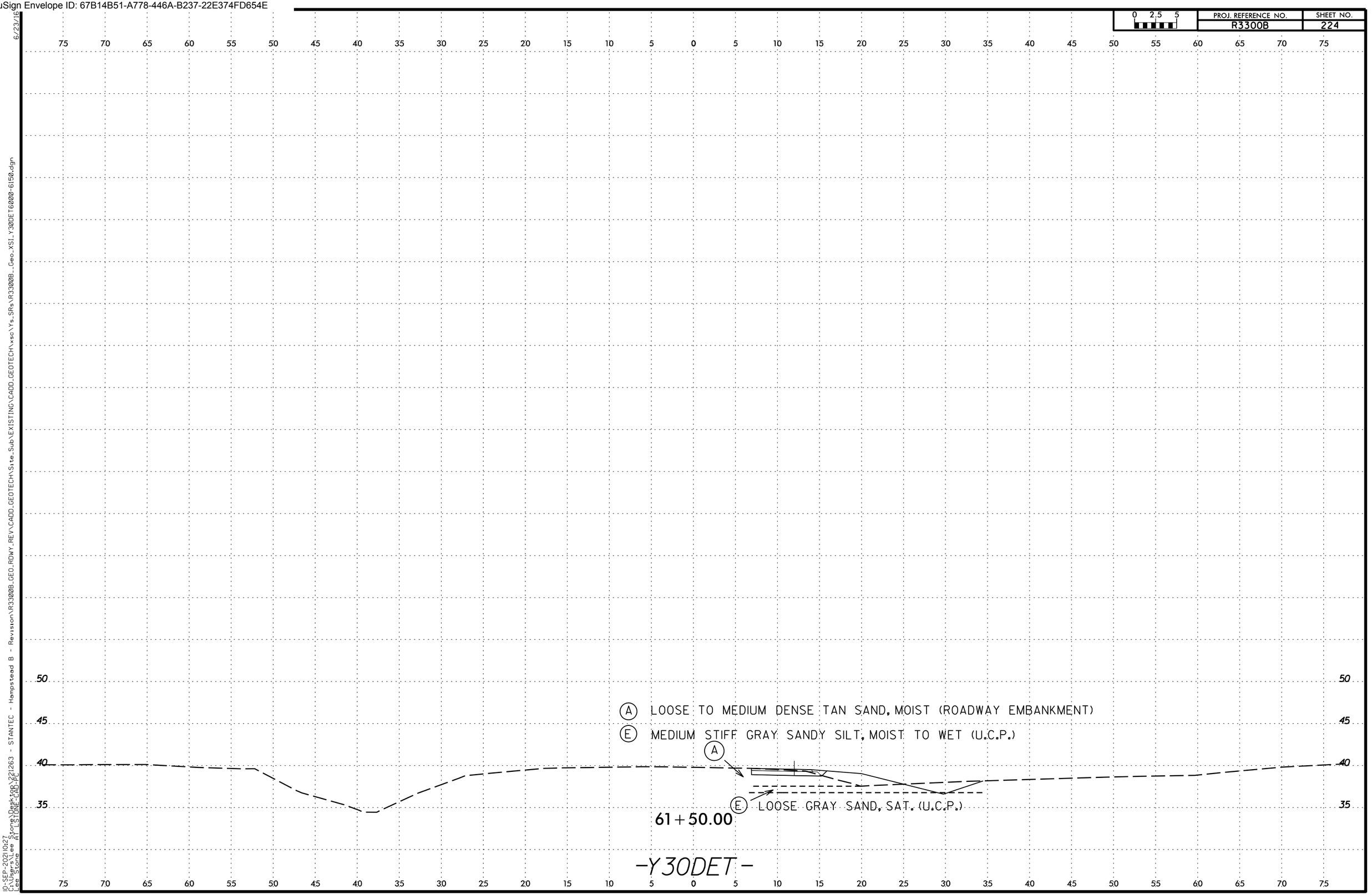
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	223



6/23/16
10-SEP-2021 10:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30DET0000-6150.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	224



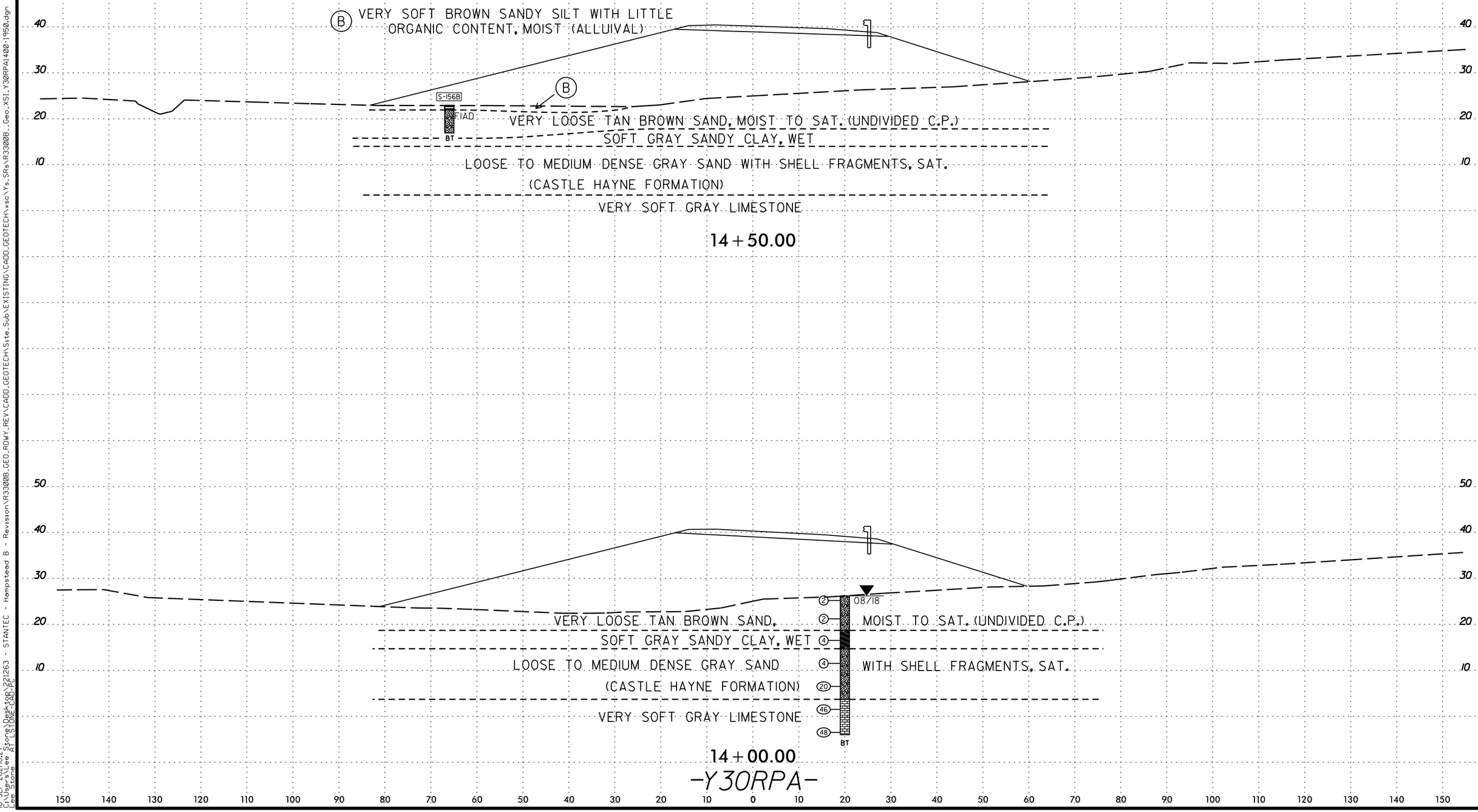
6/23/16
10-SEP-2021\0:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30DET6000-6150.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	225

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-156B	66' LT	14+50	0.5 - 1.0	A-4(0)	NP	NP	8.8	53.4	30.2	7.7	99.0	96	47	-	11.7

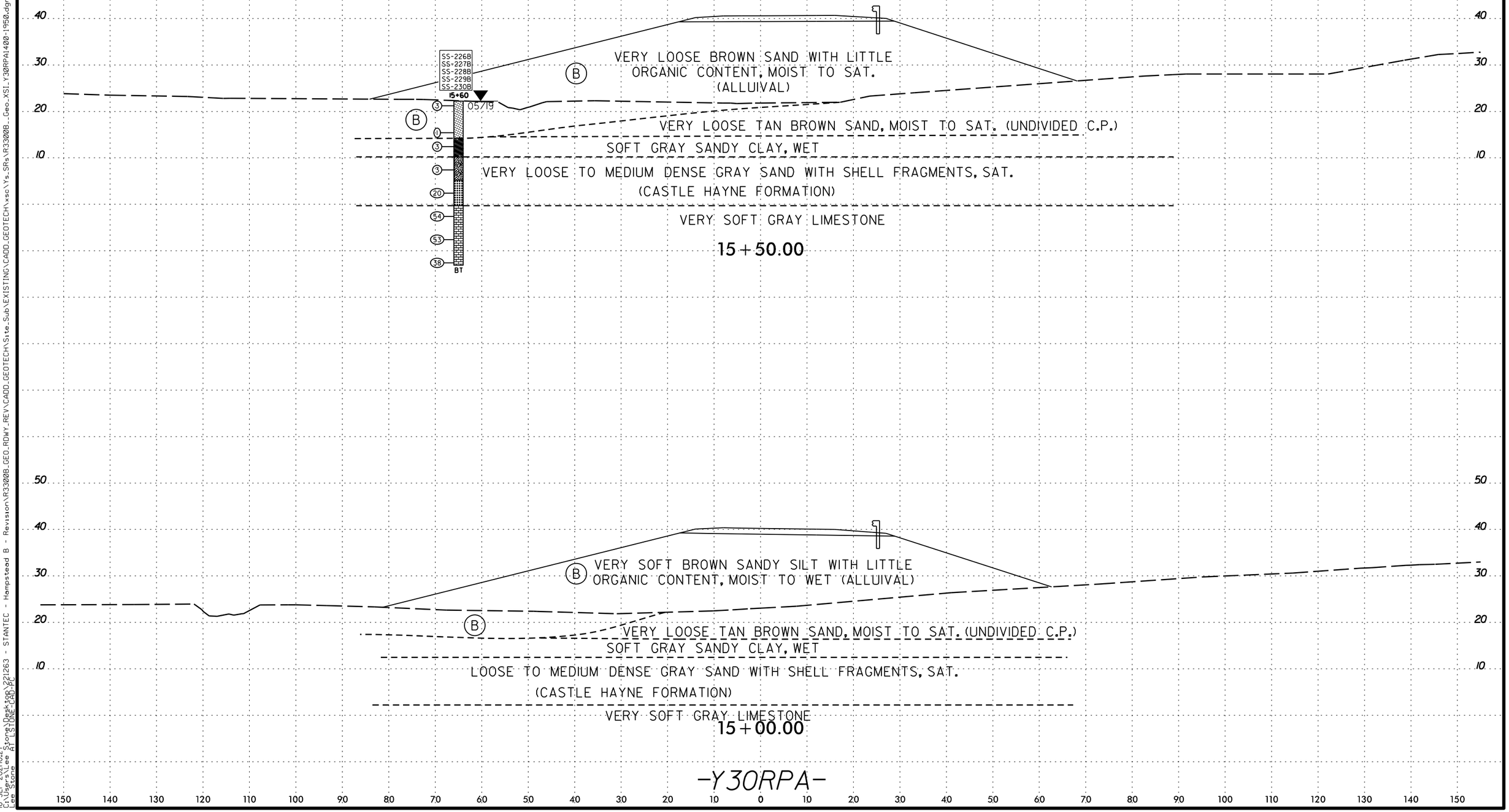


6/23/16
10-SEP-2021\0:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPA1400-1950.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-226B	65 ft LT	15+60	0.0 - 1.5	A-2-4(0)	NP	NP	4.4	80.5	15.1	0.0	99.9	98	27	0	4.9
SS-227B	65 ft LT	15+60	5.8 - 7.3	A-2-4(0)	NP	NP	12.4	62.8	14.8	9.9	99.4	96	31	0	4.8
SS-228B	65 ft LT	15+60	8.8 - 10.3	A-6(5)	30	12	11.1	34.2	30.7	24.0	99.9	94	63	0	-
SS-229B	65 ft LT	15+60	13.8 - 15.3	A-2-4(0)	23	5	52.4	26.5	11.5	9.6	93.7	71	24	0	-
SS-230B	65 ft LT	15+60	18.8 - 20.3	A-3(0)	NP	NP	74.3	19.4	2.5	3.8	95.0	51	7	0	-



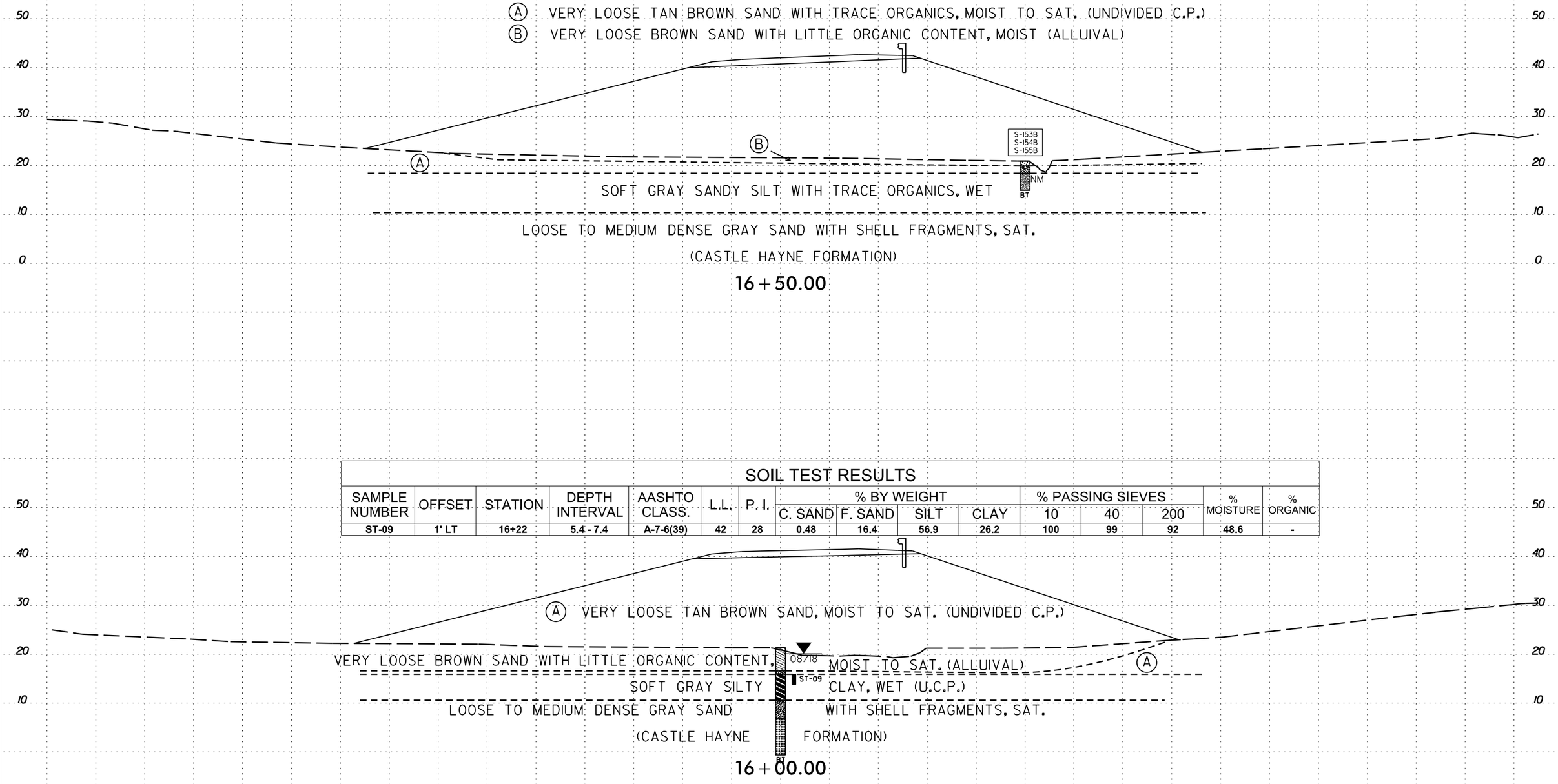
-Y30RPA-

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPA1400-1950.dgn
10-SEP-2021 10:27
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

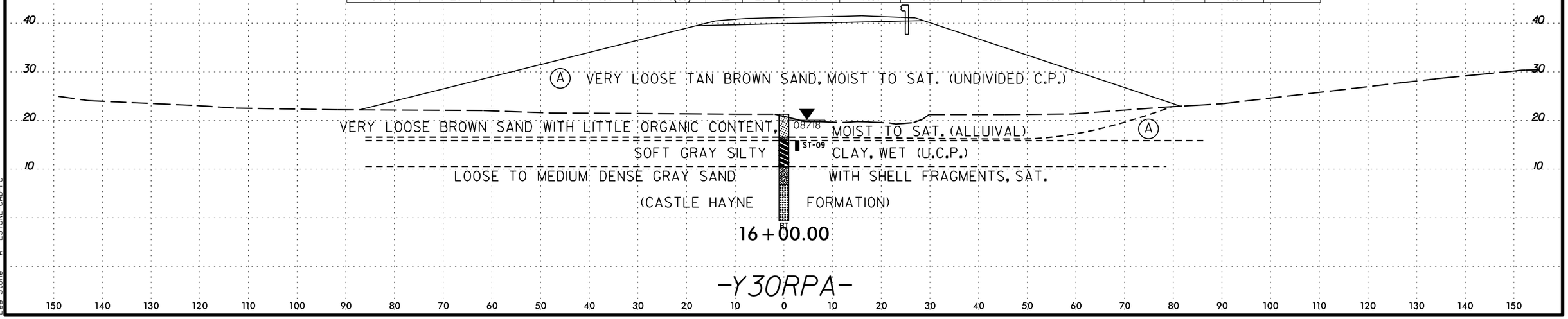
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-153B	50 ft RT	16+50	0.0 - 1.0	A-2-4(0)	NP	NP	18.3	59.1	11.9	10.7	99.6	95	28	-	4.7
S-154B	50 ft RT	16+50	1.0 - 2.0	A-2-4(0)	NP	NP	14.3	63.5	12.2	10.0	99.9	96	28	-	2.8
S-155B	50 ft RT	16+50	3.0 - 4.0	A-4(0)	NP	NP	11.1	57.7	14.1	17.0	99.9	95	39	-	4.1



SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
ST-09	1' LT	16+22	5.4 - 7.4	A-7-6(39)	42	28	0.48	16.4	56.9	26.2	100	99	92	48.6	-



-Y30RPA-

10-SEP-2021\10:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPA1400-1950.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

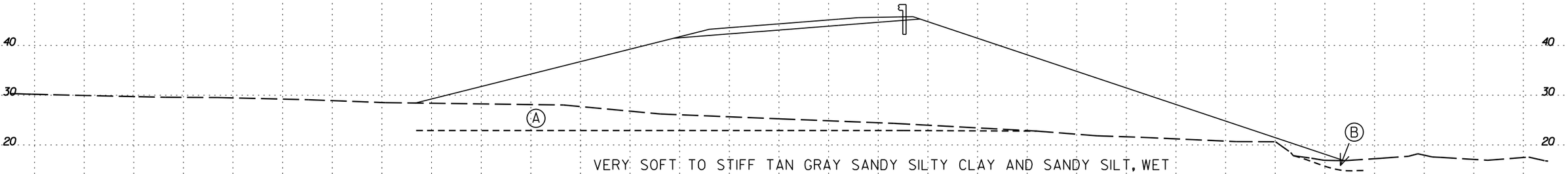
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	228

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Ⓐ VERY LOOSE TAN BROWN SAND, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓑ VERY LOOSE BROWN SAND WITH LITTLE ORGANIC CONTENT, MOIST TO SAT. (ALLUVIAL)

50 40 30 20 10



VERY SOFT TO STIFF TAN GRAY SANDY SILTY CLAY AND SANDY SILT, WET

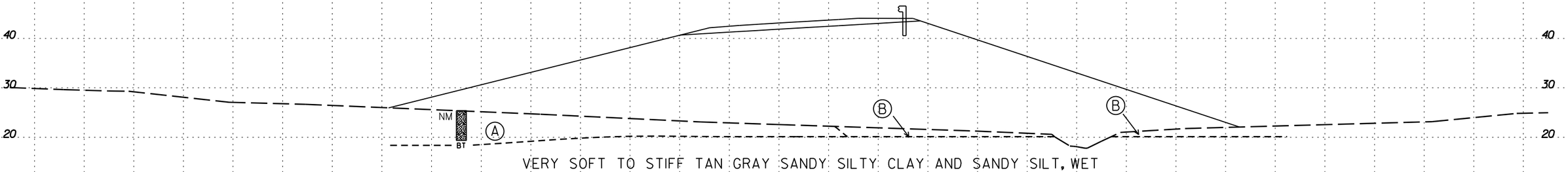
LOOSE TO MEDIUM DENSE GRAY SAND WITH SHELL FRAGMENTS, SAT.
(CASTLE HAYNE FORMATION)

17+50.00

Ⓐ VERY LOOSE TAN BROWN SAND, MOIST TO SAT. (UNDIVIDED C.P.)

Ⓑ VERY LOOSE BROWN SAND WITH LITTLE ORGANIC CONTENT, MOIST TO SAT. (ALLUVIAL)

60 50 40 30 20 10 0



VERY SOFT TO STIFF TAN GRAY SANDY SILTY CLAY AND SANDY SILT, WET

LOOSE TO MEDIUM DENSE GRAY SAND WITH SHELL FRAGMENTS, SAT.
(CASTLE HAYNE FORMATION)

17+00.00

-Y30RPA-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16
10-SEP-2021\0:27
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPA1400-1950.dgn
Lee Stone AT LSTONE_CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	229

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Ⓐ VERY LOOSE TAN BROWN SAND, MOIST TO SAT. (UNDIVIDED C.P.)
Ⓑ VERY LOOSE BROWN SAND WITH LITTLE ORGANIC CONTENT, MOIST TO SAT. (ALLUIVAL)

50 40 30 20 10

Ⓐ

VERY SOFT TO STIFF TAN GRAY SANDY SILTY CLAY AND SANDY SILT, WET

Ⓑ

FIAD

BT

LOOSE TO MEDIUM DENSE GRAY SAND WITH SHELL FRAGMENTS, SAT.
(CASTLE HAYNE FORMATION)

18+50.00

Ⓐ VERY LOOSE TAN BROWN SAND, MOIST TO SAT. (UNDIVIDED C.P.)
Ⓑ VERY LOOSE BROWN SAND WITH LITTLE ORGANIC CONTENT, MOIST TO SAT. (ALLUIVAL)

50 40 30 20 10

Ⓐ

08/18

VERY SOFT TO STIFF TAN GRAY SANDY SILTY CLAY AND SANDY SILT, WET

Ⓑ

LOOSE TO MEDIUM DENSE GRAY SAND WITH SHELL FRAGMENTS, SAT.
(CASTLE HAYNE FORMATION)

BT

18+00.00

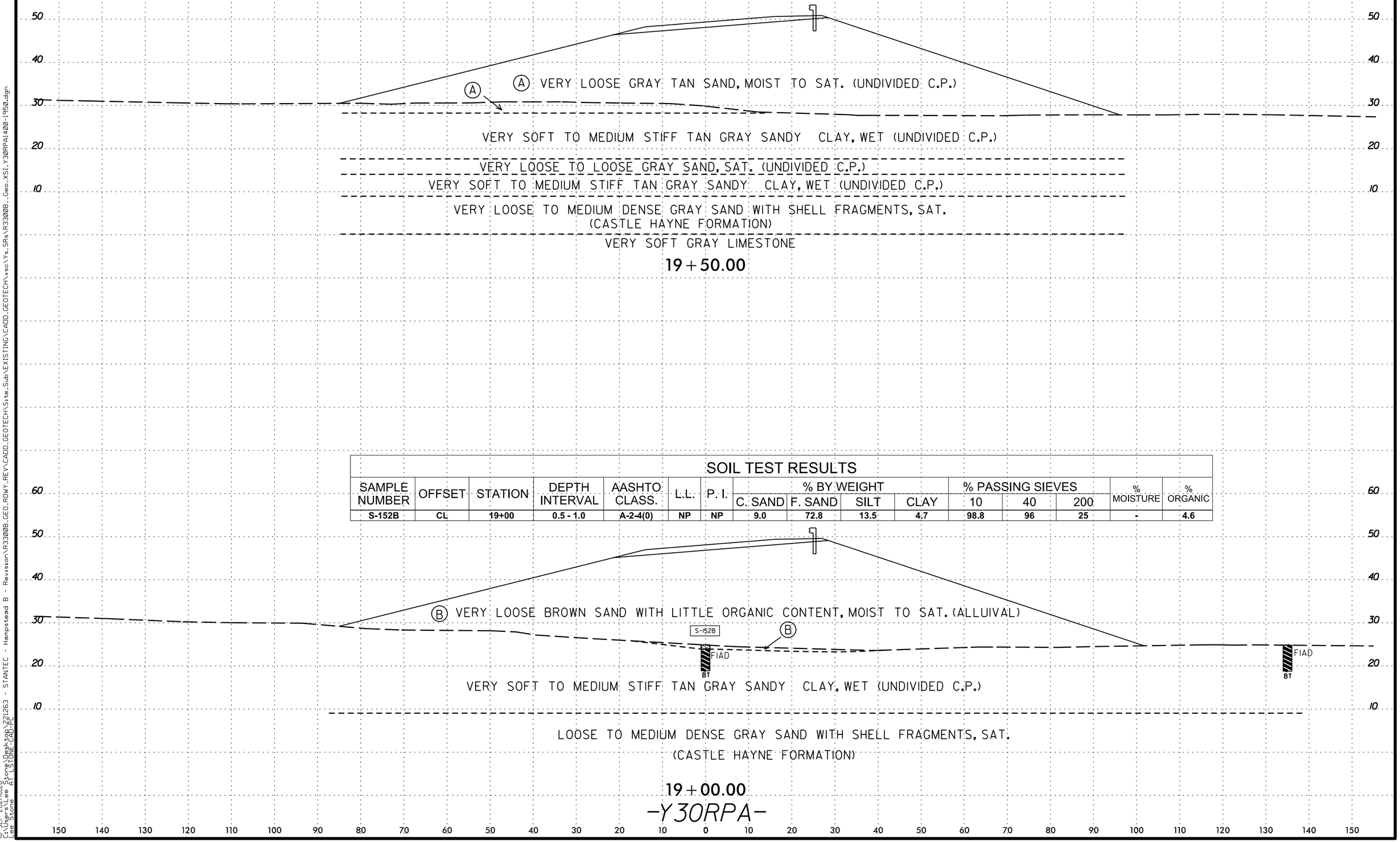
-Y30RPA-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPA1400-1950.dgn
10-SEP-2021 10:28
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	230



SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-152B	CL	19+00	0.5 - 1.0	A-2-4(0)	NP	NP	9.0	72.8	13.5	4.7	98.8	96	25	-	4.6

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPA1400-1950.dgn
10-SEP-2021 10:28
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	231

VERY SOFT BROWN BLACK SANDY SILT WITH LITTLE ORGANIC MATTER, MOIST TO WET

NM

(UNDIVIDED C.P.)

BT

VERY SOFT TO STIFF GRAY SANDY SILT, WET

MEDIUM DENSE GRAY SAND, SAT.

14+00.00

LOOSE TO MEDIUM DENSE GRAY SAND, MOIST TO SAT.

07/18

(UNDIVIDED C.P.)

VERY SOFT TO STIFF GRAY SANDY SILT, WET

BT

13+50.00

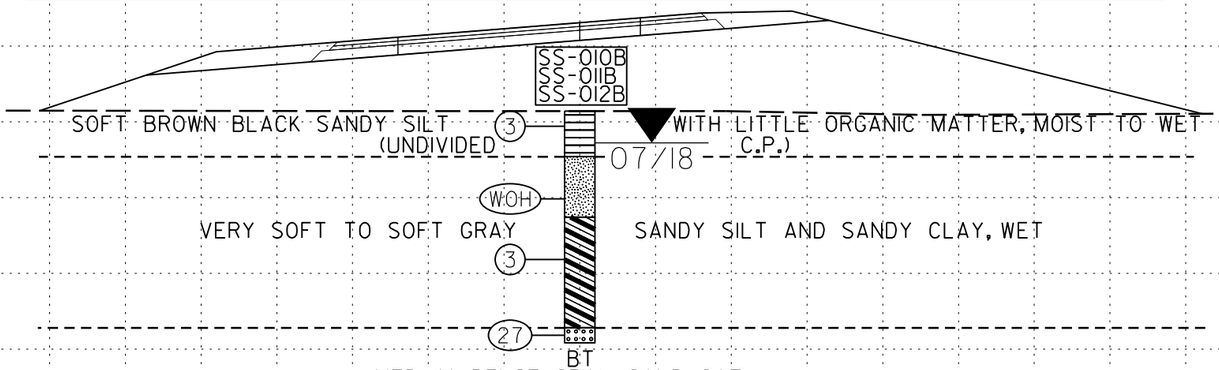
-Y30RPB-

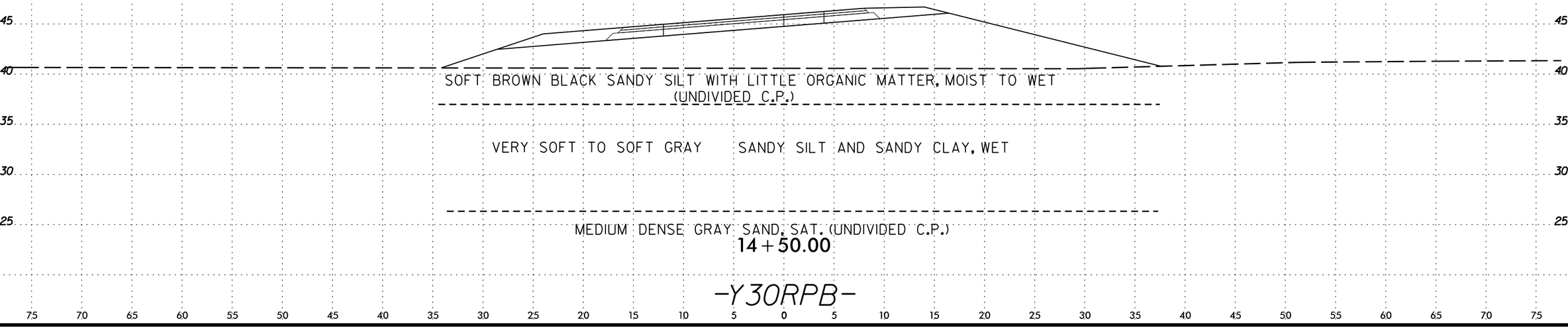
6/23/16
10-SEP-2021\10:28
C:\Users\Lee Stone\Desktop\22I263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPB1350-1750.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING SIEVES 10	40	200	% MOISTURE	% ORGANIC
SS-010B	CL	15+00	0.0 - 1.5	A-4(0)	23	NP	1.7	58.8	25.3	14.2	99.9	99	53	35	5.2
SS-011B	CL	15+00	4.8 - 5.4	A-4(0)	22	NP	6.3	57.0	18.5	18.2	100	98	53	-	-
SS-012B	CL	15+00	8.8 - 10.3	A-6(10)	36	21	7.3	34.6	20.7	37.4	99.9	98	61	33	-





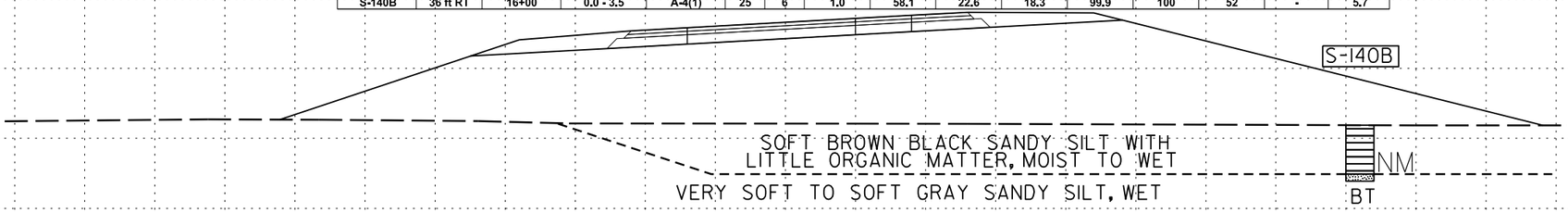
-Y30RPB-

6/23/16
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_Y30RPB1350-1750.dgn
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

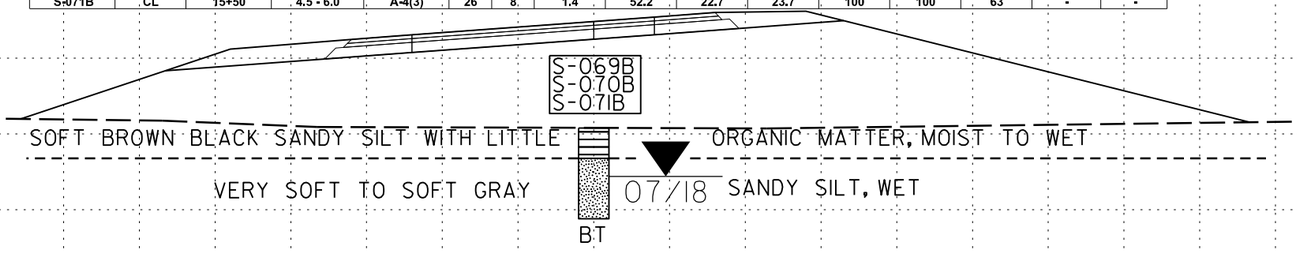
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-140B	36 ft RT	16+00	0.0 - 3.5	A-4(1)	25	6	1.0	58.1	22.6	18.3	99.9	100	52	-	5.7



16+00.00

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-069B	CL	15+50	0.0 - 1.5	A-4(0)	20	NP	1.6	62.2	23.9	12.3	100	99	49	-	-
S-070B	CL	15+50	1.5 - 3.0	A-4(0)	NP	-18	1.2	63.4	17.1	18.4	100	100	48	-	-
S-071B	CL	15+50	4.5 - 6.0	A-4(3)	26	8	1.4	52.2	22.7	23.7	100	100	63	-	-



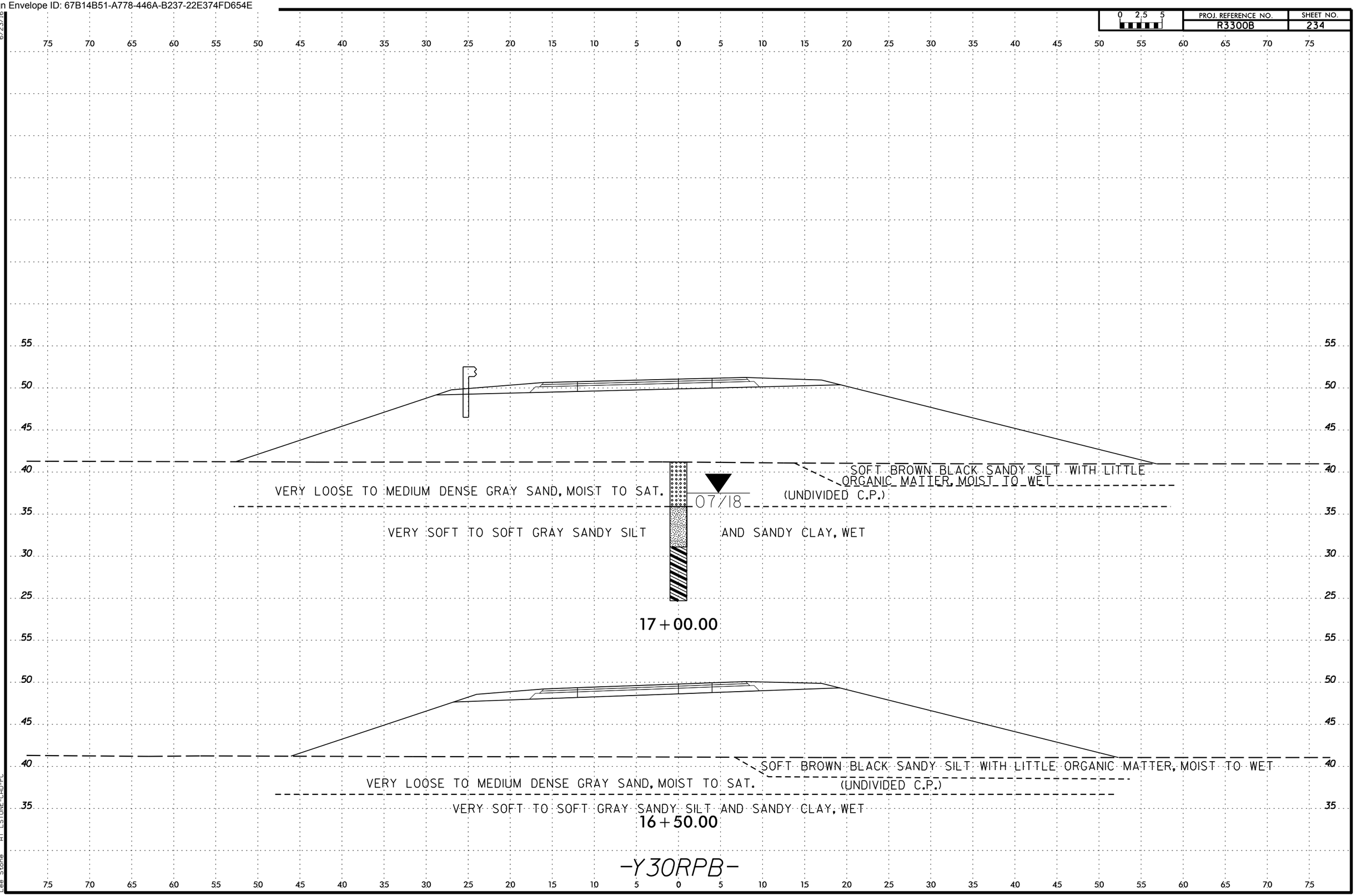
15+50.00

-Y30RPB-

6/23/16
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPB1350-1750.dgn
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

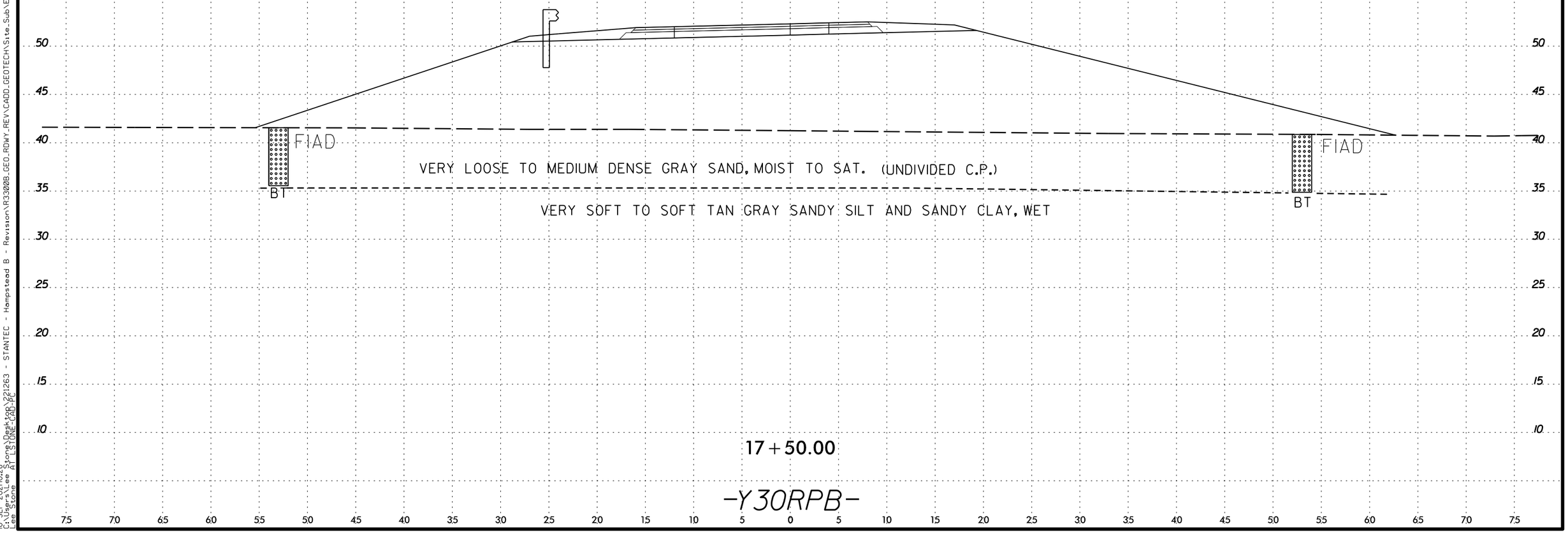
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	234



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPB1350-1750.dgn
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPB1350-1750.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

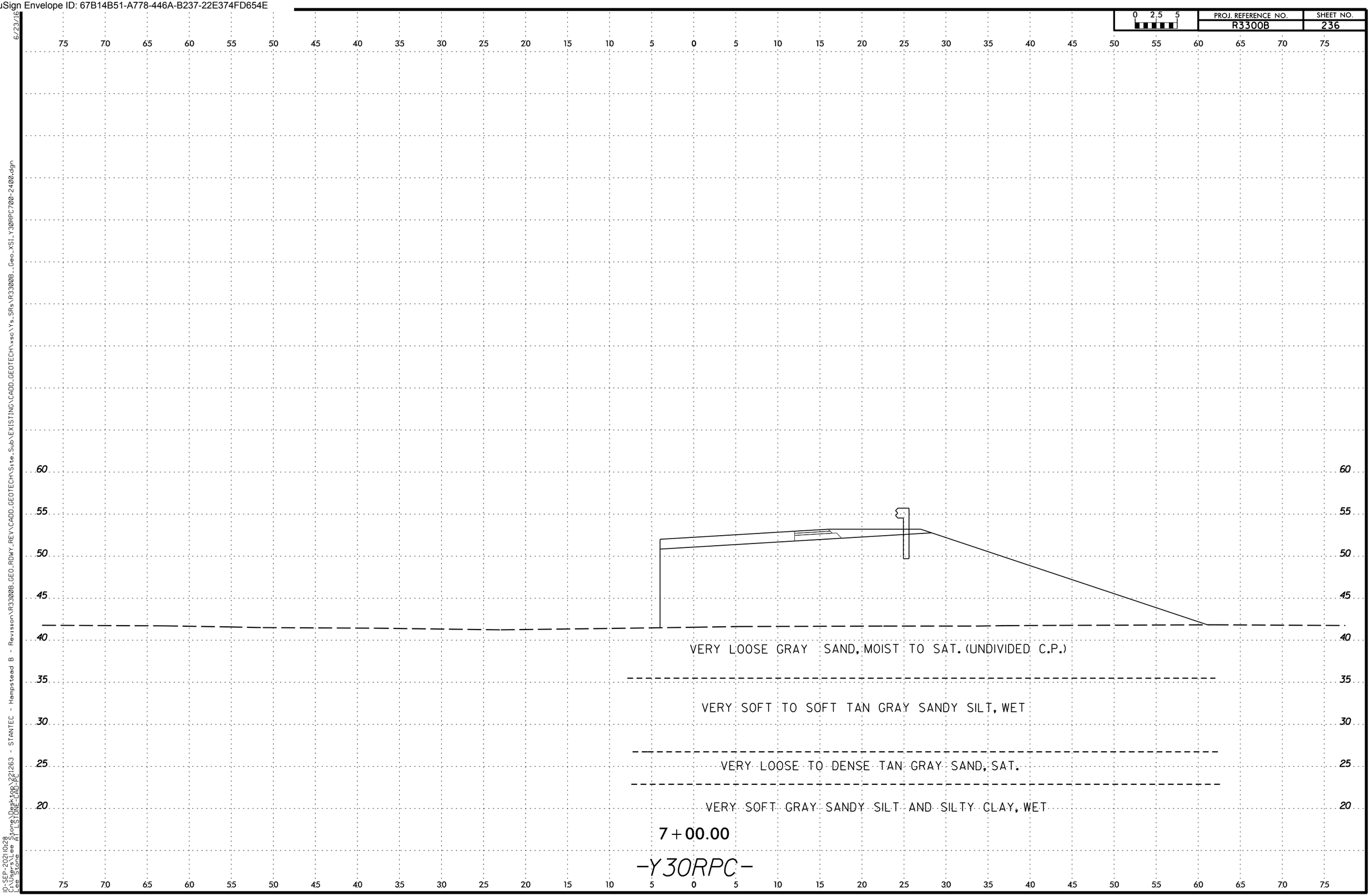
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	235



6/23/16
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\21263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPB1350-1750.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

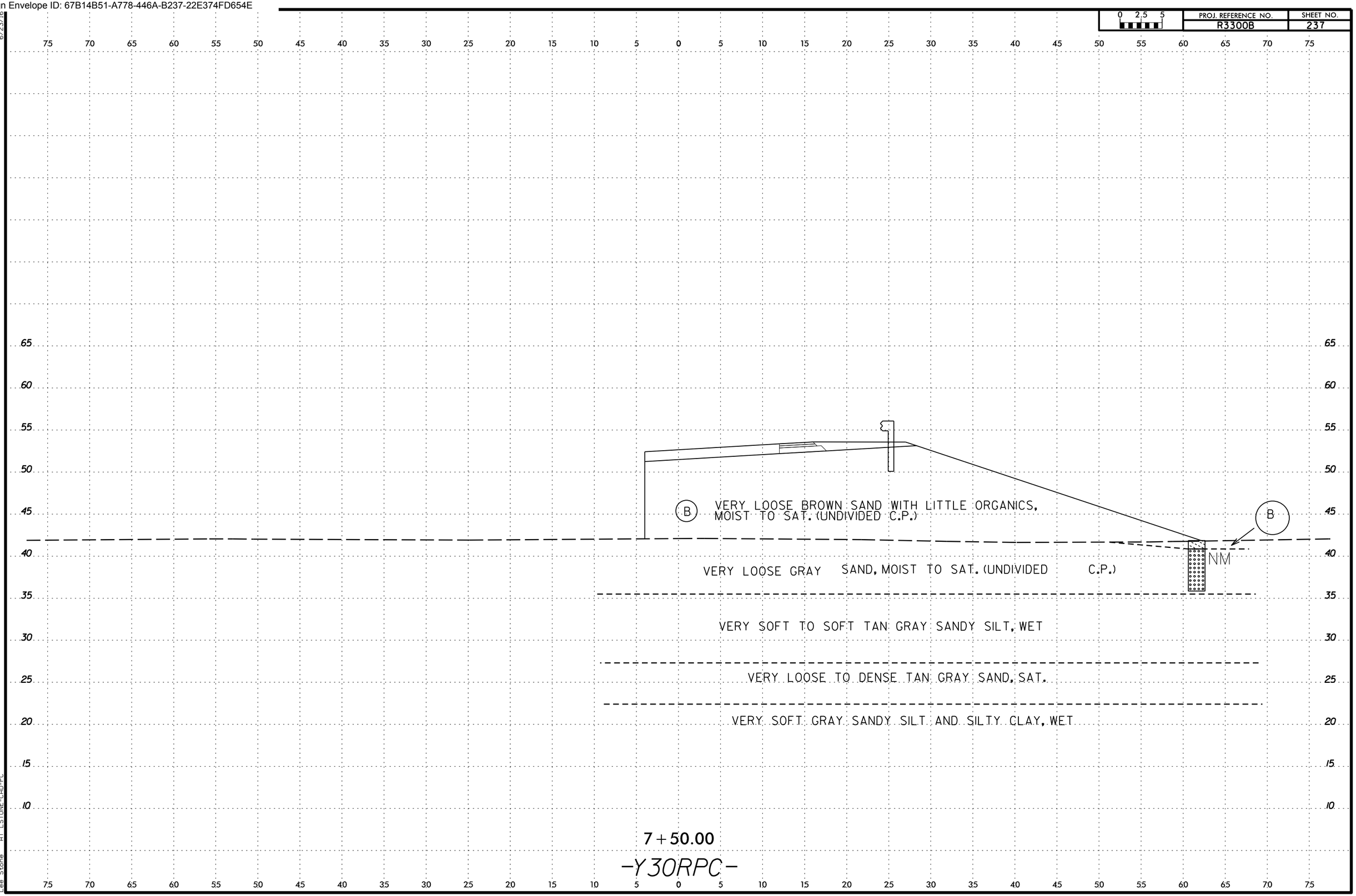
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	236



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
10-SEP-2021\10:28
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

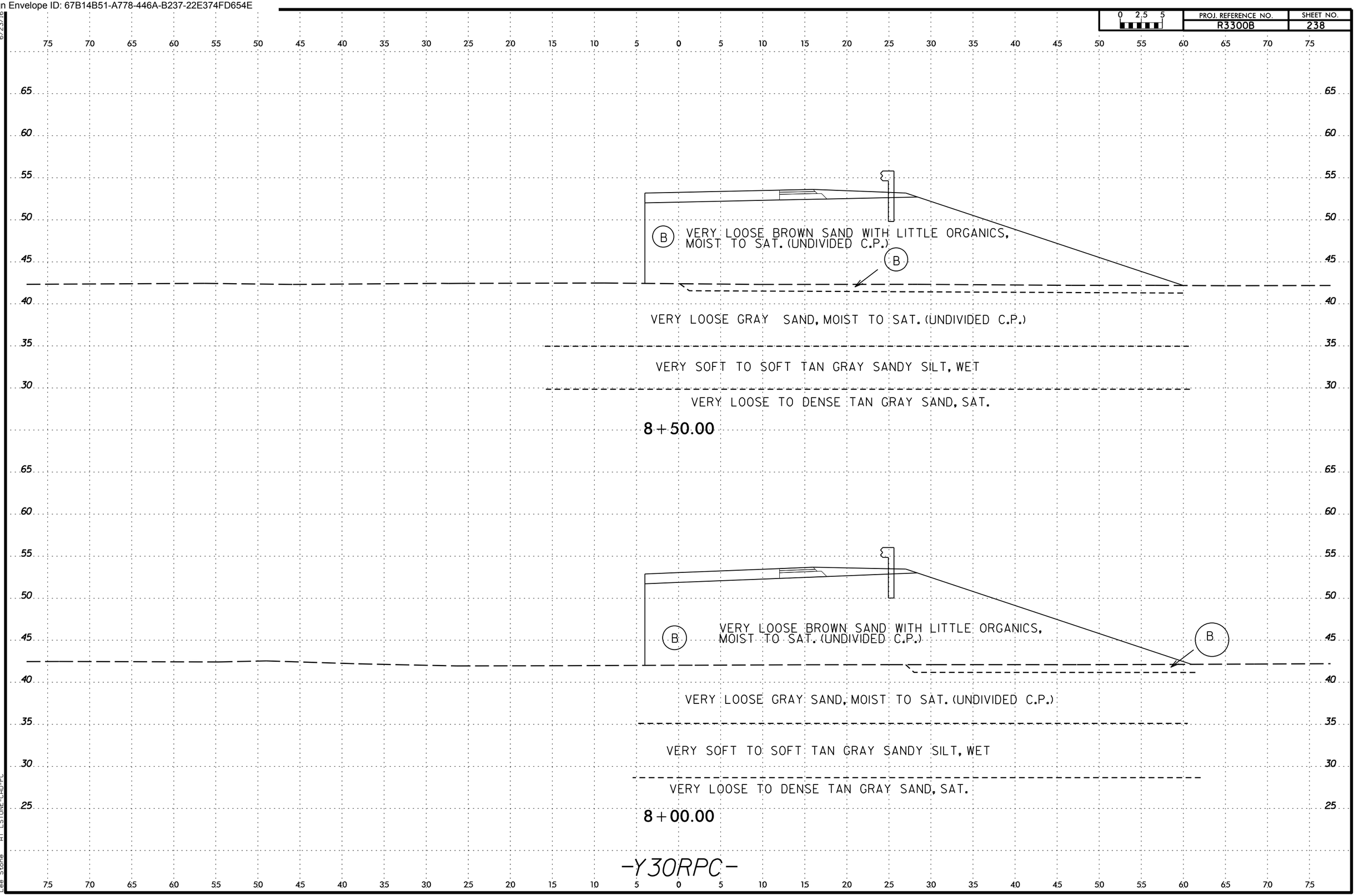
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	237



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
10-SEP-2021 10:28
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

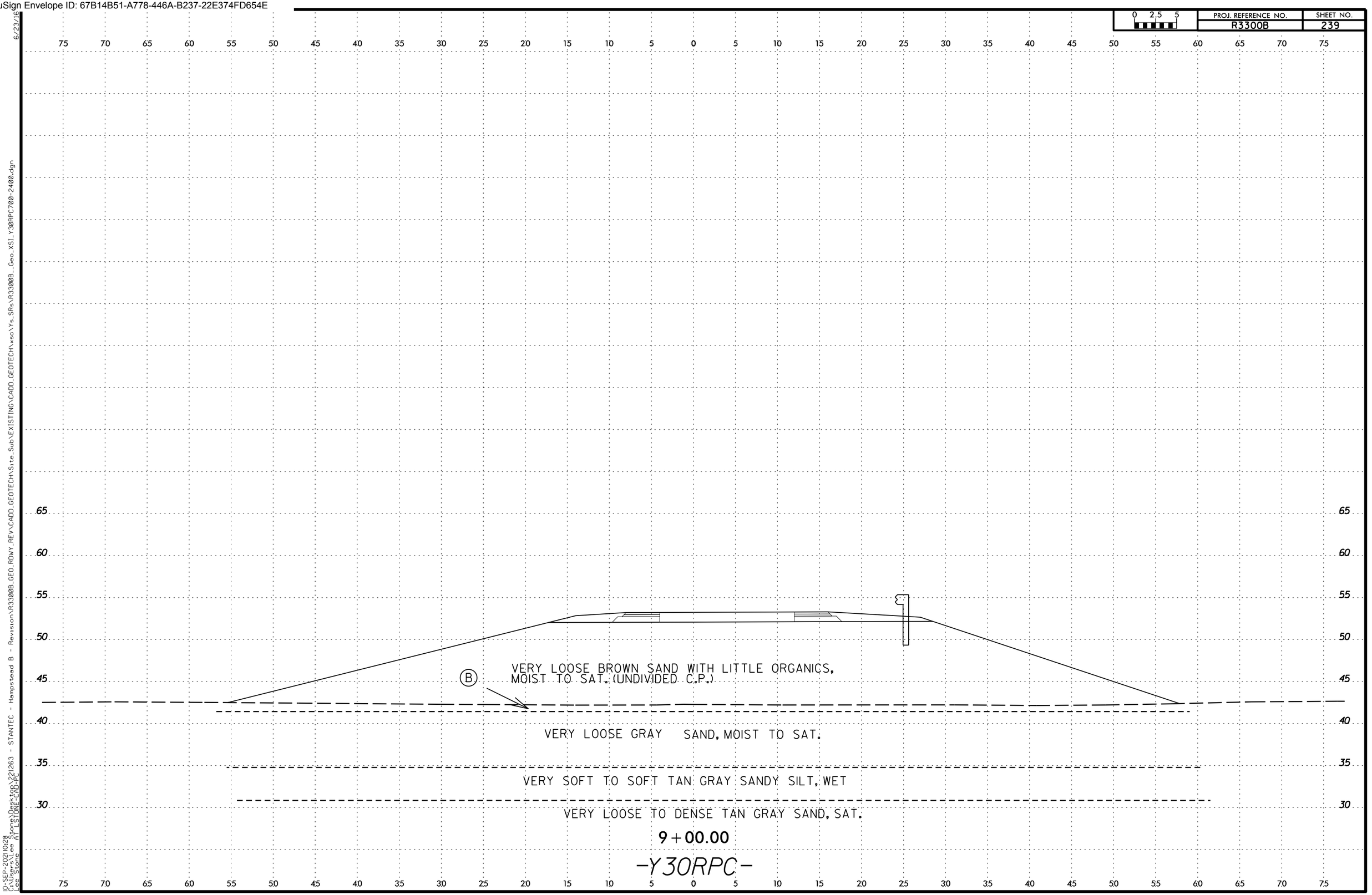
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	238



6/23/16
C:\Users\Lee Stone.AT\STONE CAD-PC\Site-Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
10-SEP-2021\10:28
C:\Users\Lee Stone.AT\STONE CAD-PC\Site-Sub\EXISTING\CADD_GEOTECH\Site_Sub\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\R3300B_Geo_XSI_Y30RPC700-2400.dgn
Lee Stone
Stone Desktop 221263 - STANTEC - Hampstead B - Revision

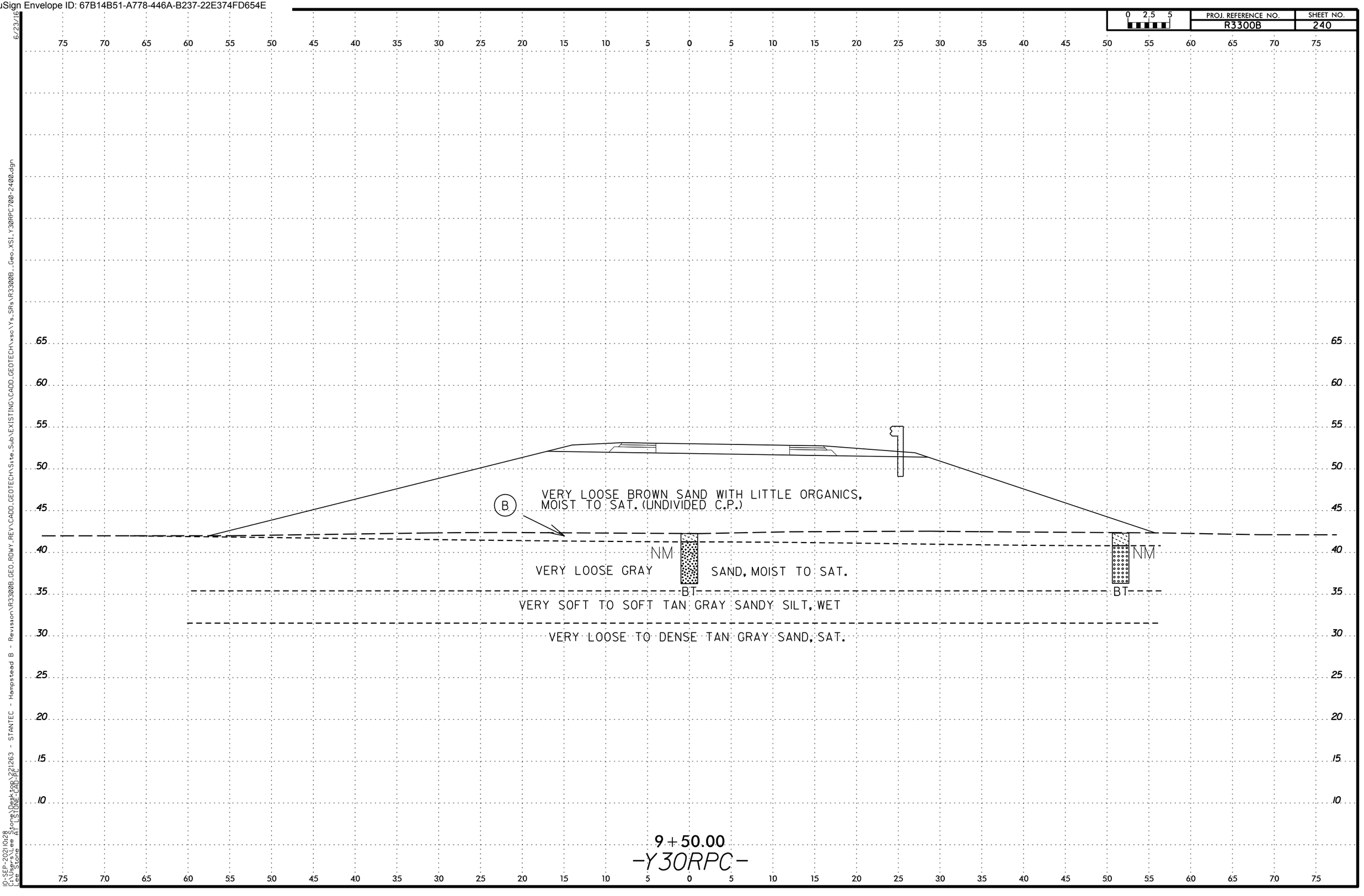
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	239



6/23/16
10-SEP-2021\10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
Lee Stone AT LSTONE-CAD-PC

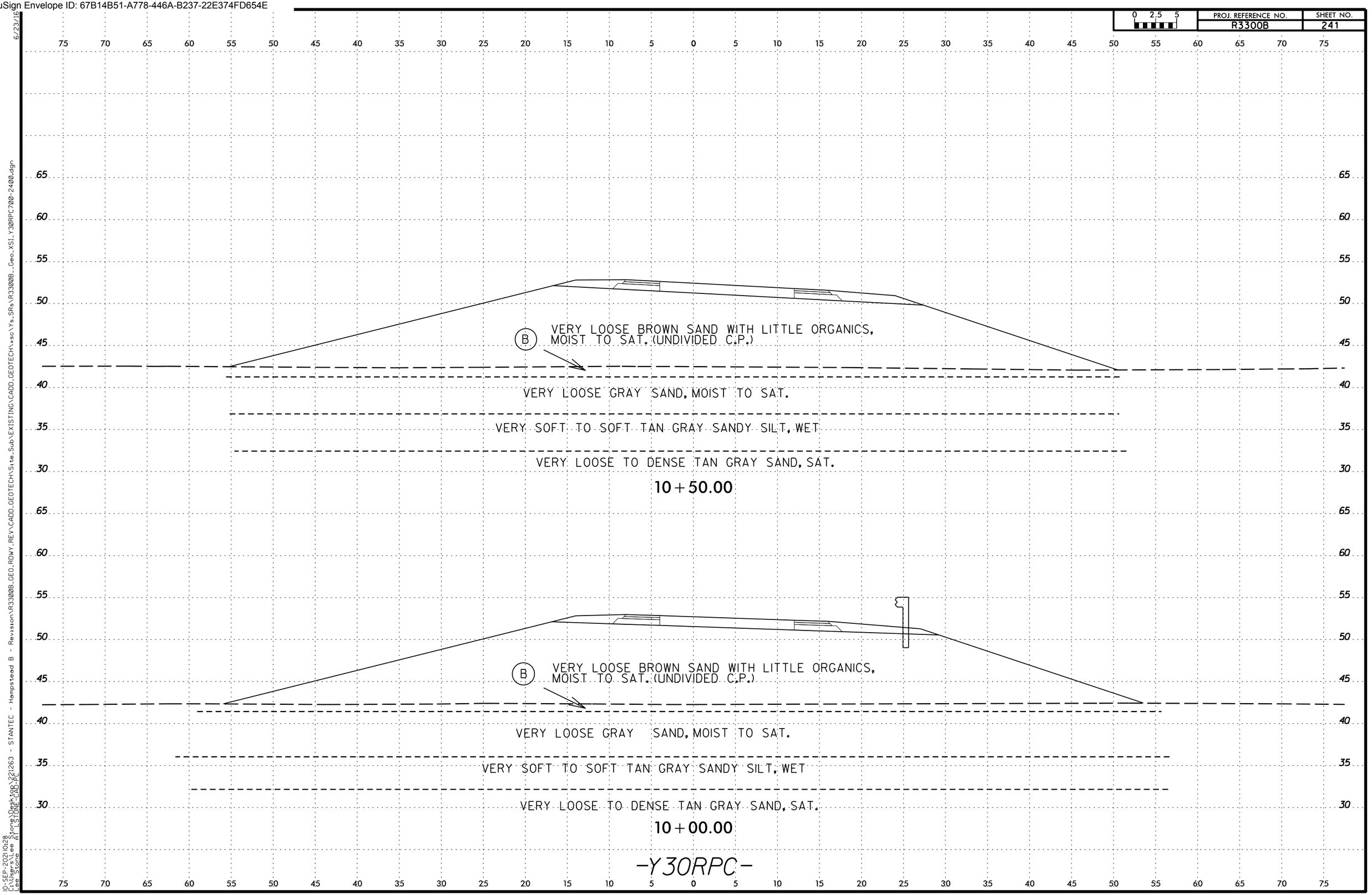
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
10-SEP-2021 10:28
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

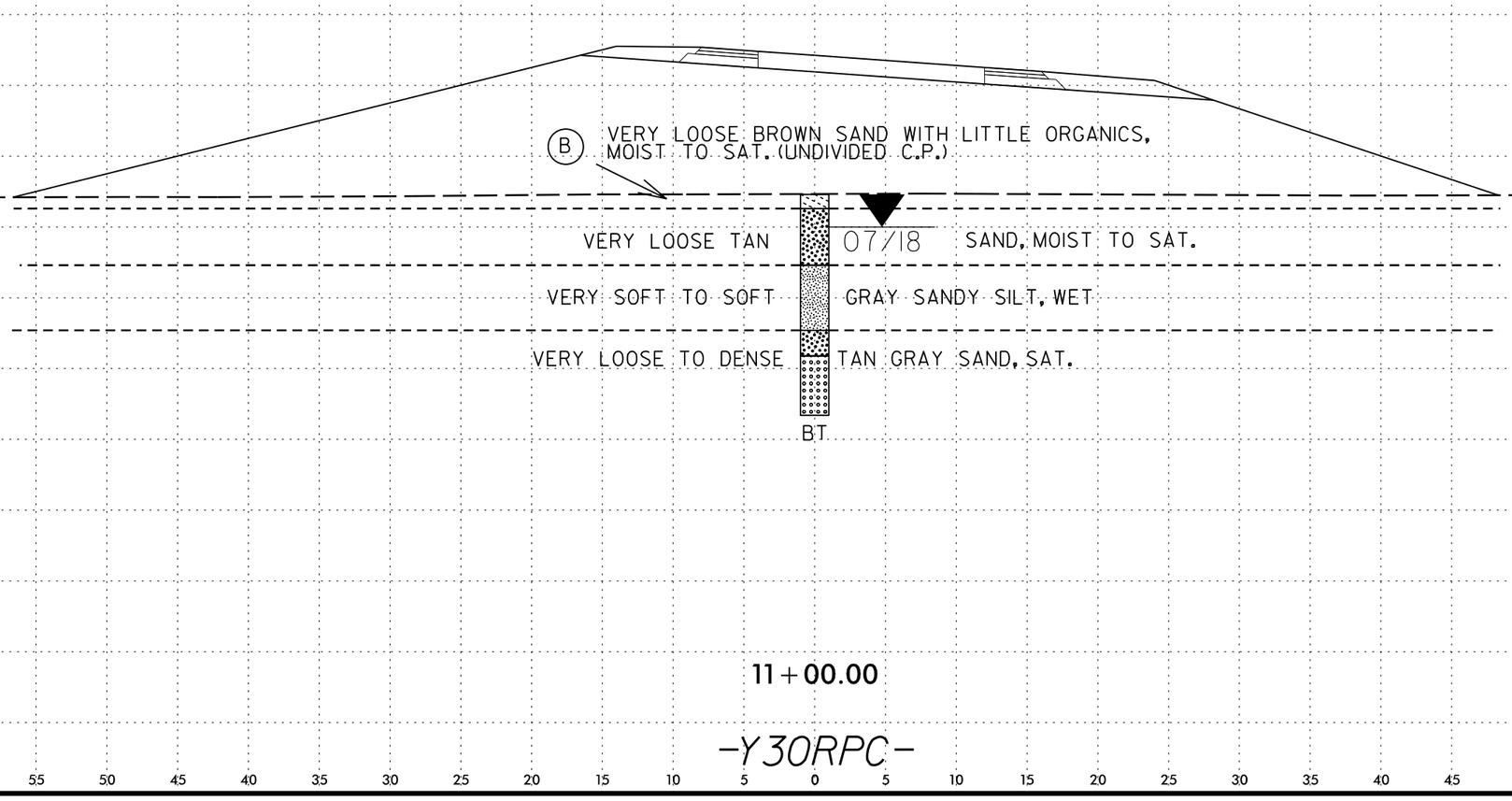
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	241



6/23/16
10-SEP-2021\10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	242

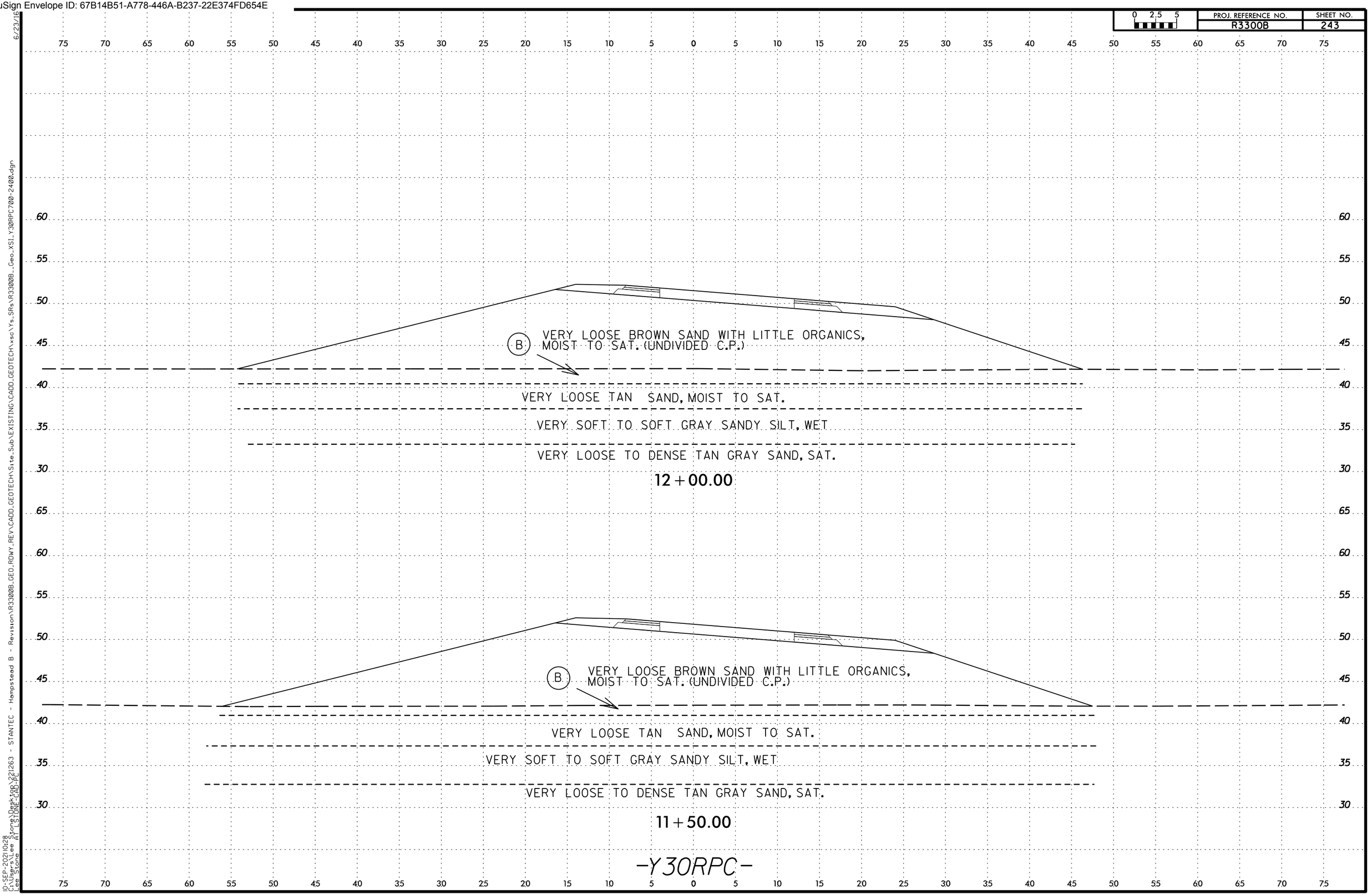


11+00.00

-Y30RPC-

6/23/16
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\21263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

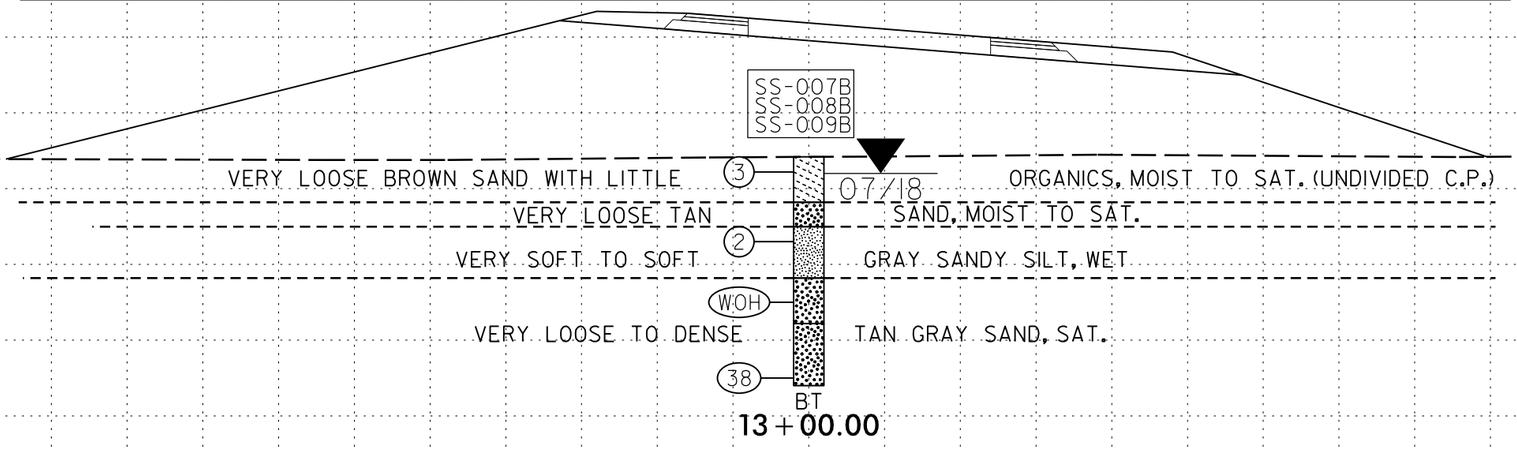


6/23/16
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
Lee Stone AT LSTONE CAD-PC

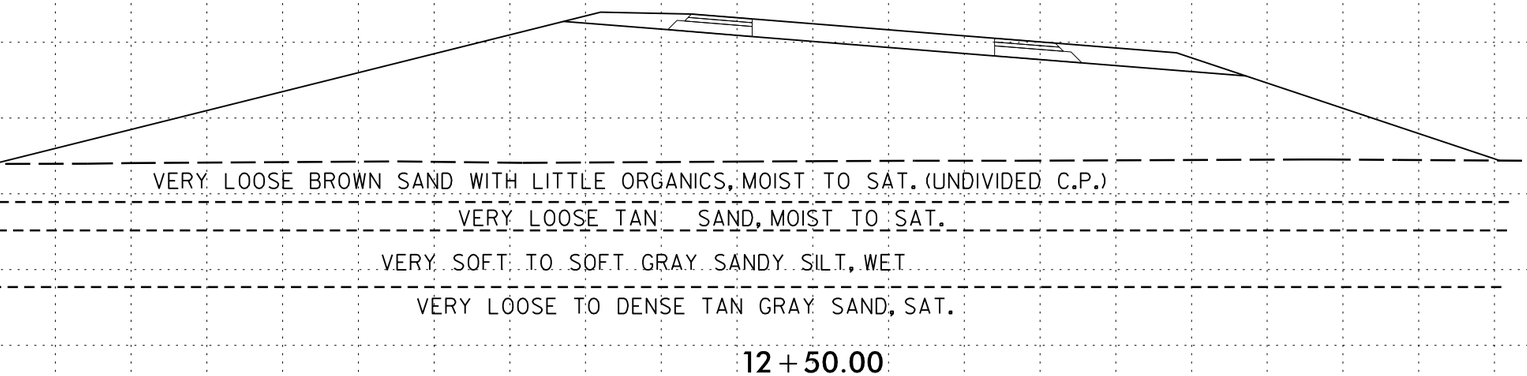
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-007B	CL	13+00	0.0 - 1.5	A-2-4(0)	19	NP	1.8	76.6	11.5	10.1	100	100	28	21	3.1
SS-008B	CL	13+00	4.6 - 5.6	A-4(0)	24	NP	0.4	71.7	12.7	15.1	100	100	48	30	-
SS-009B	CL	13+00	8.6 - 10.1	A-2-4(0)	18	NP	47.9	35.5	4.5	12.0	99.7	78	17	34	-



13+00.00



12+50.00

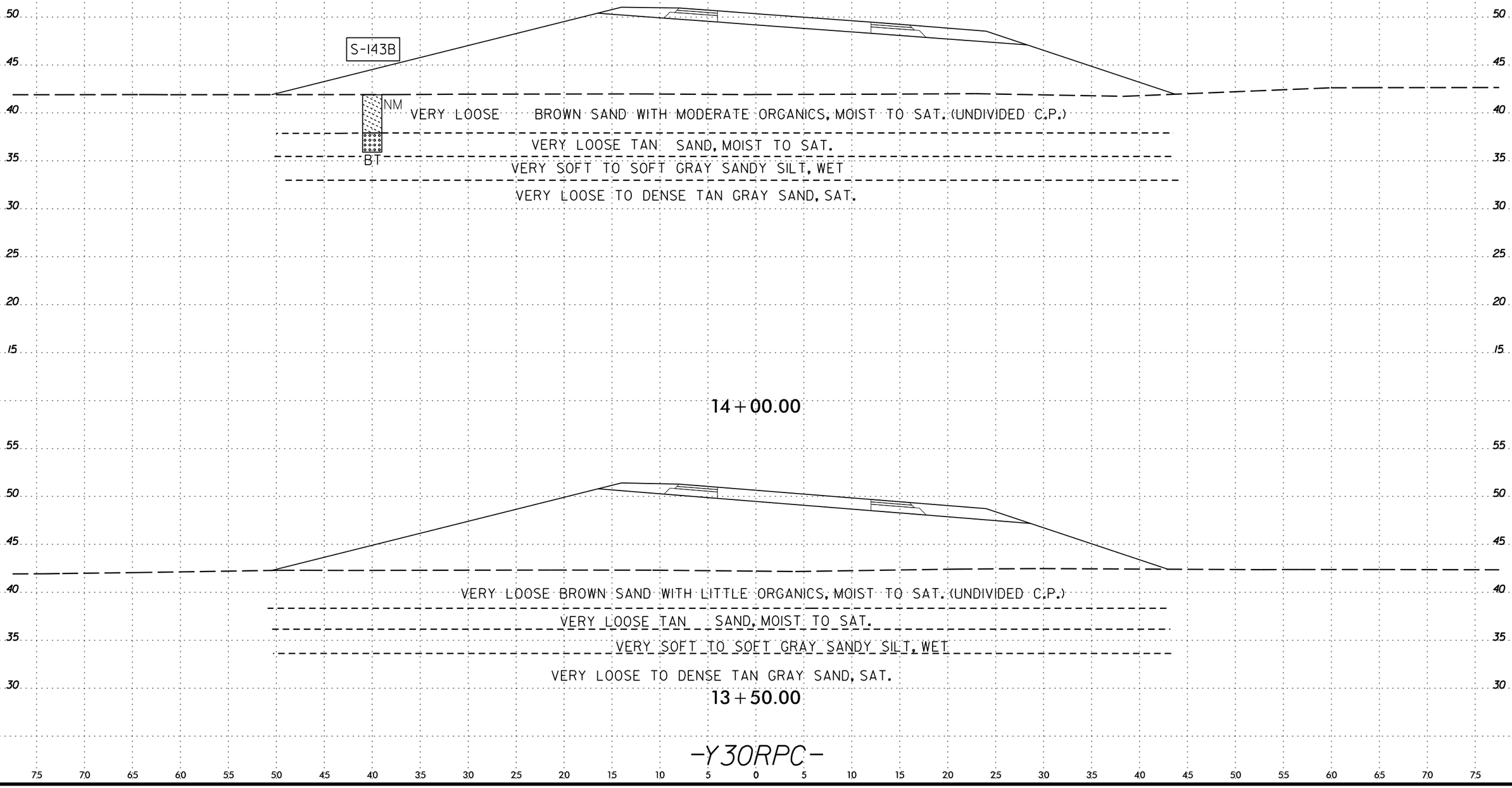
-Y30RPC-

10-SEP-2021|10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
Lee Stone AT LSTONE-CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-143B	40' LT	14+00	0.0 - 4.0	A-2-4(0)	NP	NP	2.2	73.9	17.9	6.0	99.7	99	31	-	7.6

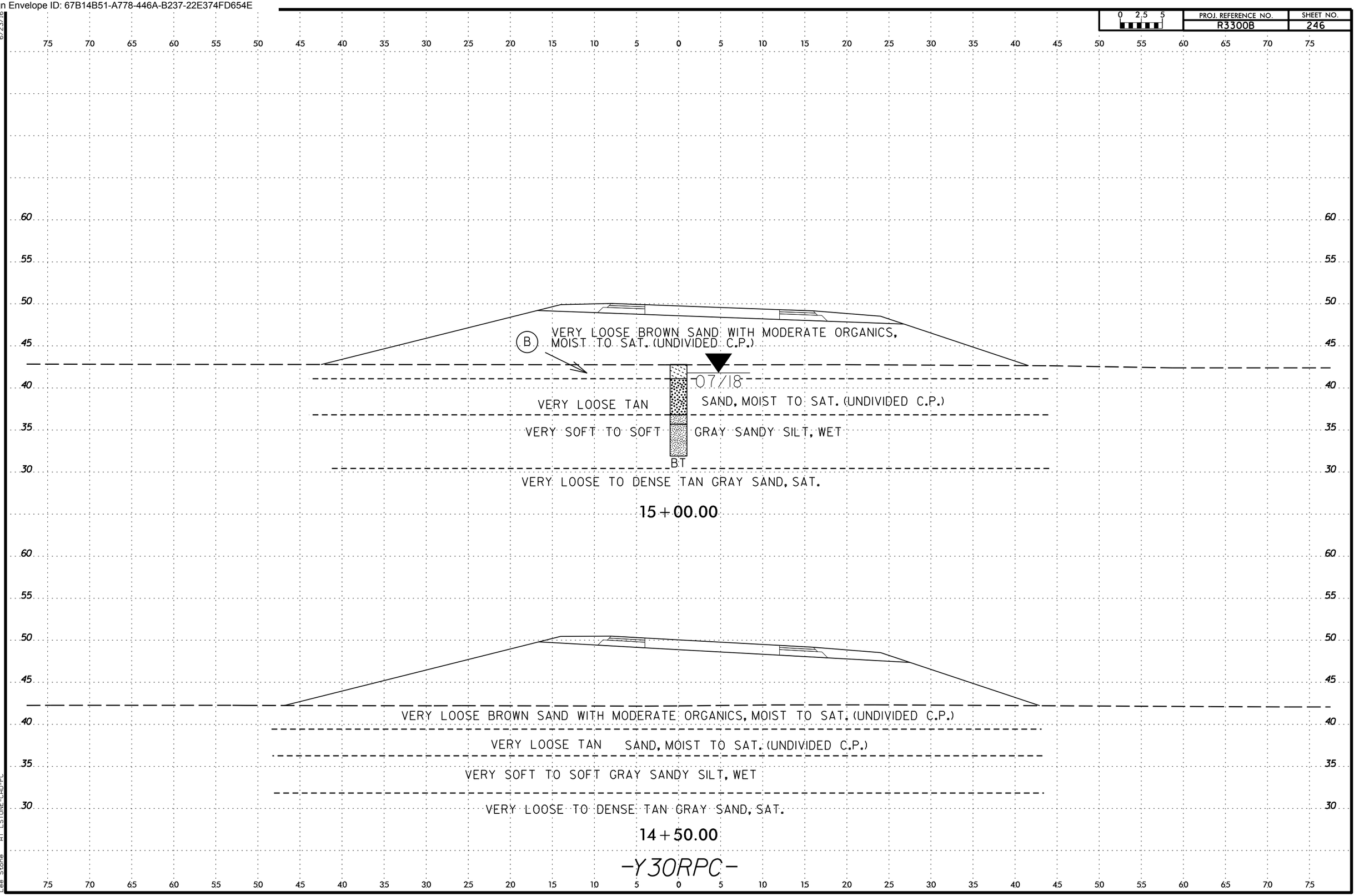


-Y30RPC-

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
10-SEP-2021 10:28
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

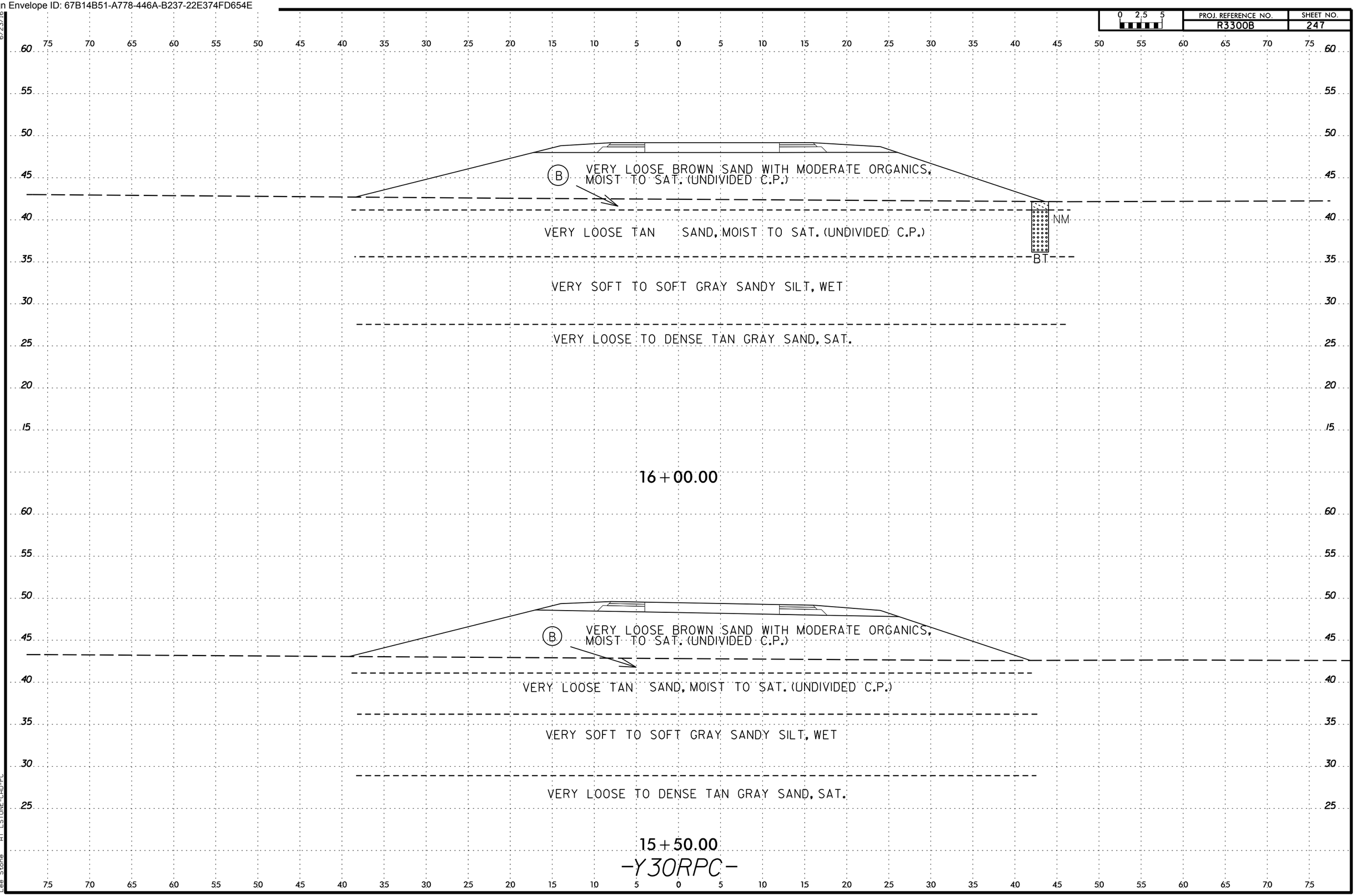
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	246



6/23/16
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

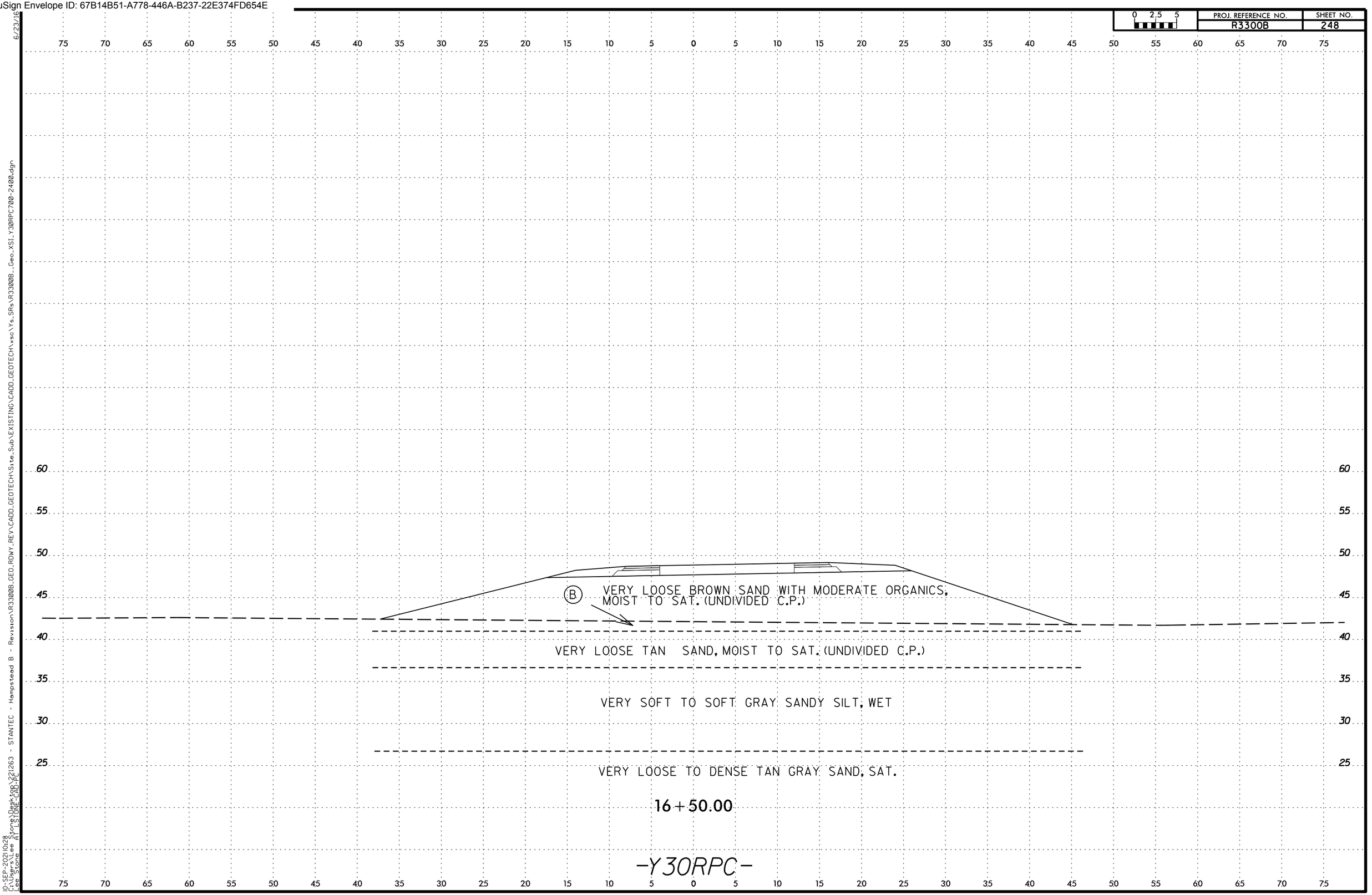
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	247



6/23/16
10-SEP-2021\0:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

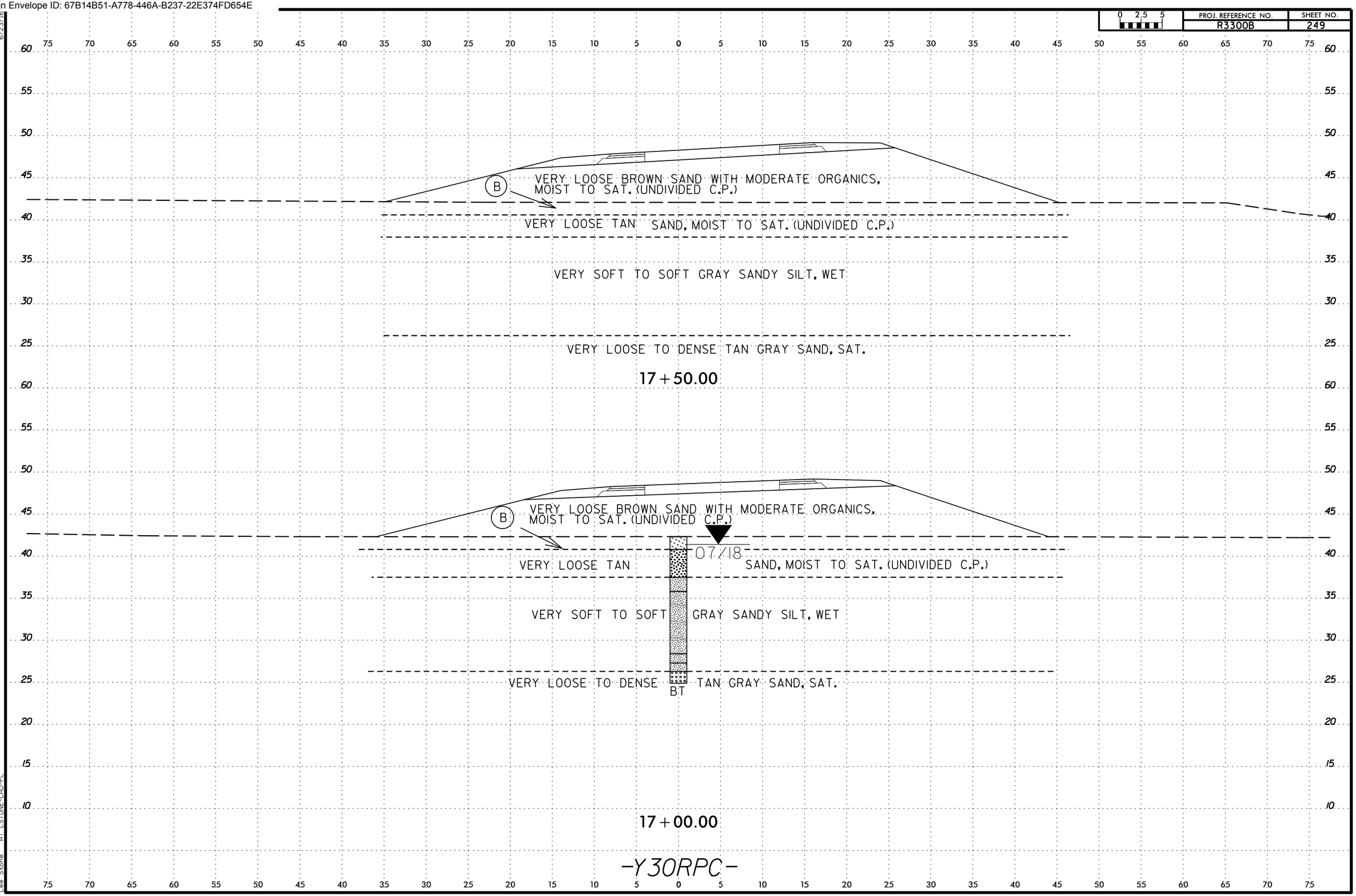
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	248



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
10-SEP-2021\10:28
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	249

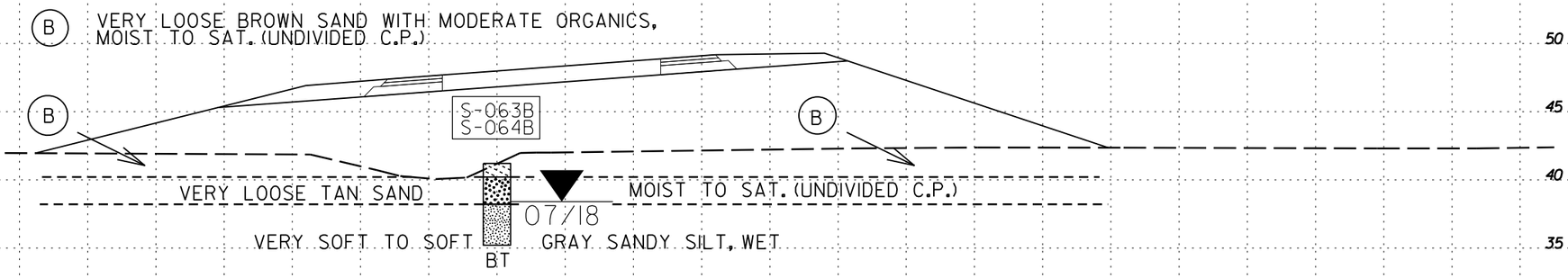


6/23/16
10-SEP-2021\10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-063B	CL	18+00	0.0 - 1.0	A-2-4(0)	30	NP	3.5	75.6	17.8	3.0	99.8	98	28	-	-
S-064B	CL	18+00	3.5 - 4.0	A-4(0)	22	NP	0.5	76.5	12.9	10.0	99.8	100	46	-	-



18+00.00

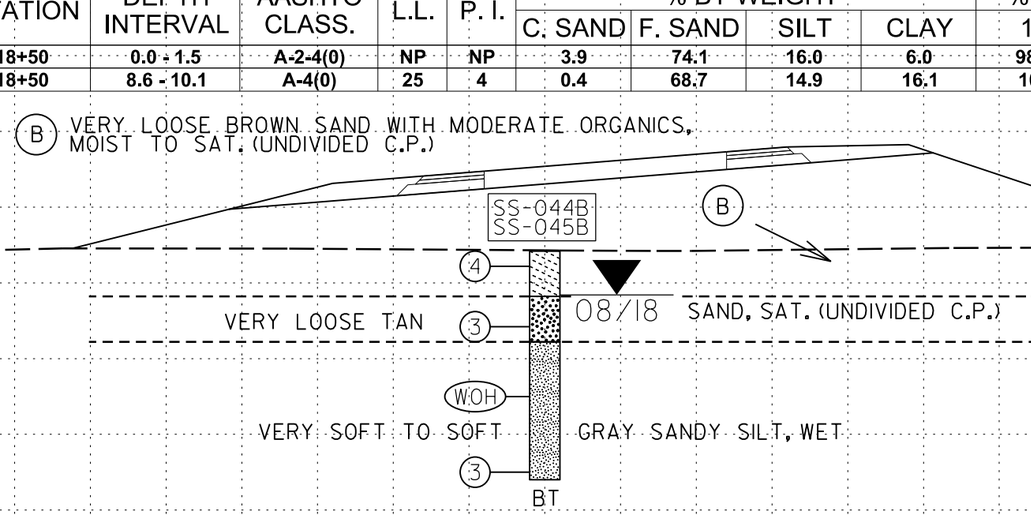
-Y30RPC-

6/23/16
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_Y30RPC700-2400.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-044B	CL	18+50	0.0 - 1.5	A-2-4(0)	NP	NP	3.9	74.1	16.0	6.0	98.8	98	28	-	-
SS-045B	CL	18+50	8.6 - 10.1	A-4(0)	25	4	0.4	68.7	14.9	16.1	100	100	54	-	-



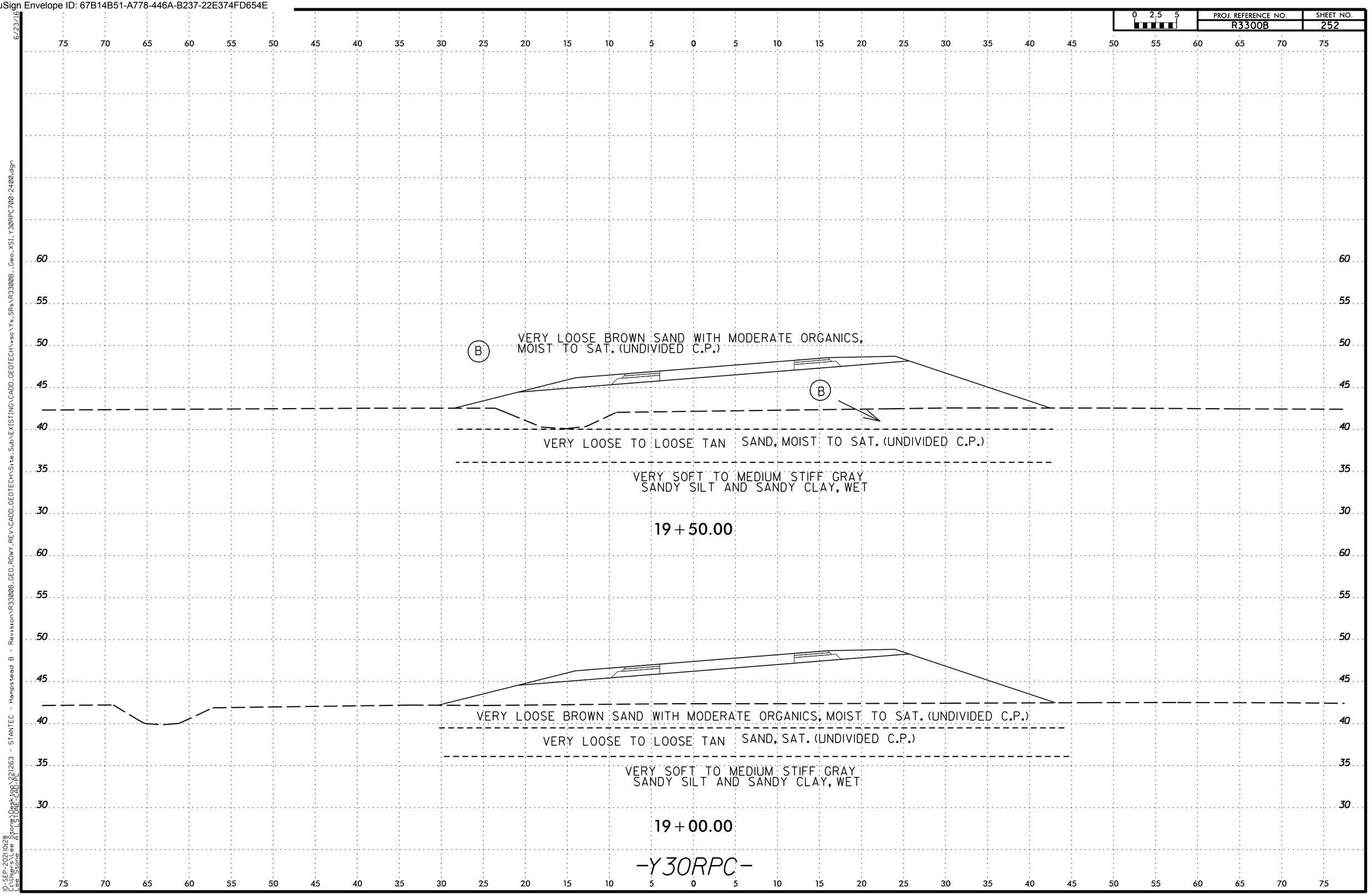
18+50.00

-Y30RPC-

10-SEP-2021\10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
Lee Stone AT LSTONE CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	252



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
10-SEP-2021 10:28
Lee Stone
AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	253

VERY LOOSE BROWN SAND WITH MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE TO LOOSE TAN SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT TO MEDIUM STIFF GRAY SANDY SILT AND SANDY CLAY, WET

20+50.00

(B) VERY LOOSE BROWN SAND WITH MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

(B)

VERY LOOSE TO LOOSE TAN 07/18 SAND, MOIST TO SAT. (UNDIVIDED C.P.)

BT

VERY SOFT TO MEDIUM STIFF GRAY SANDY SILT AND SANDY CLAY, WET

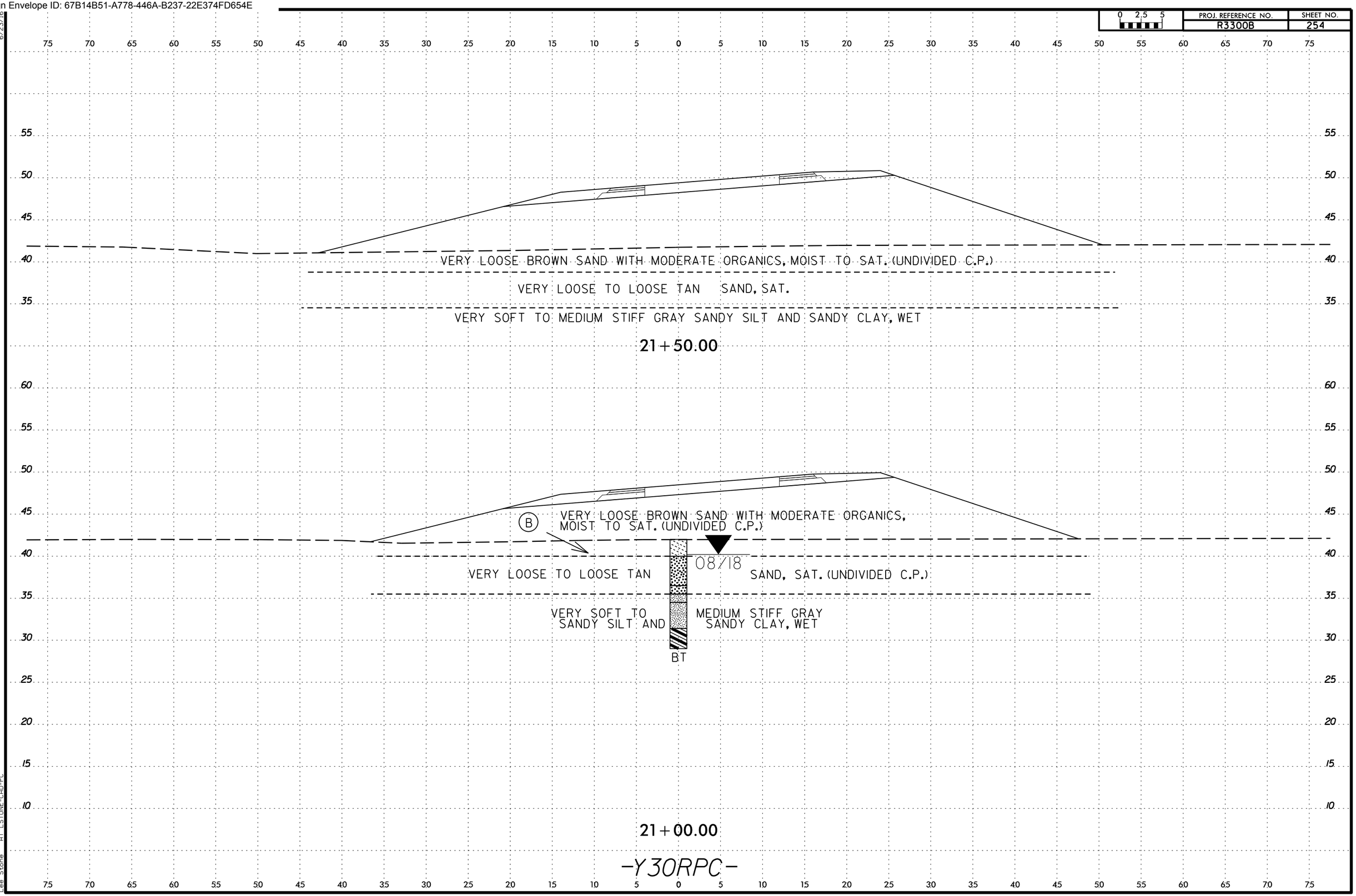
20+00.00

-Y30RPC-

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
10-SEP-2021 10:28
Lee Stone
AT STONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	254

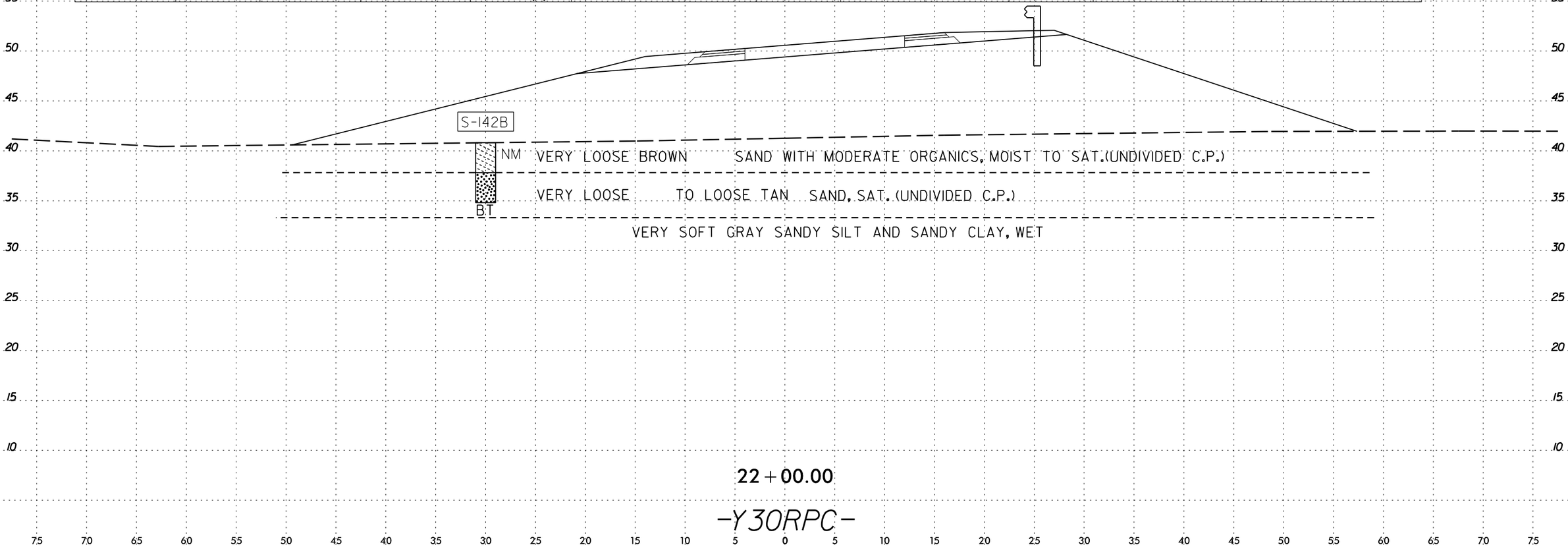


10-SEP-2021\10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
Lee Stone AT LSTONE CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-142B	30 ft LT	22+00	0.0 - 3.0	A-2-4(0)	NP	NP	3.6	76.5	15.9	4.0	99.9	99	28	-	5.7



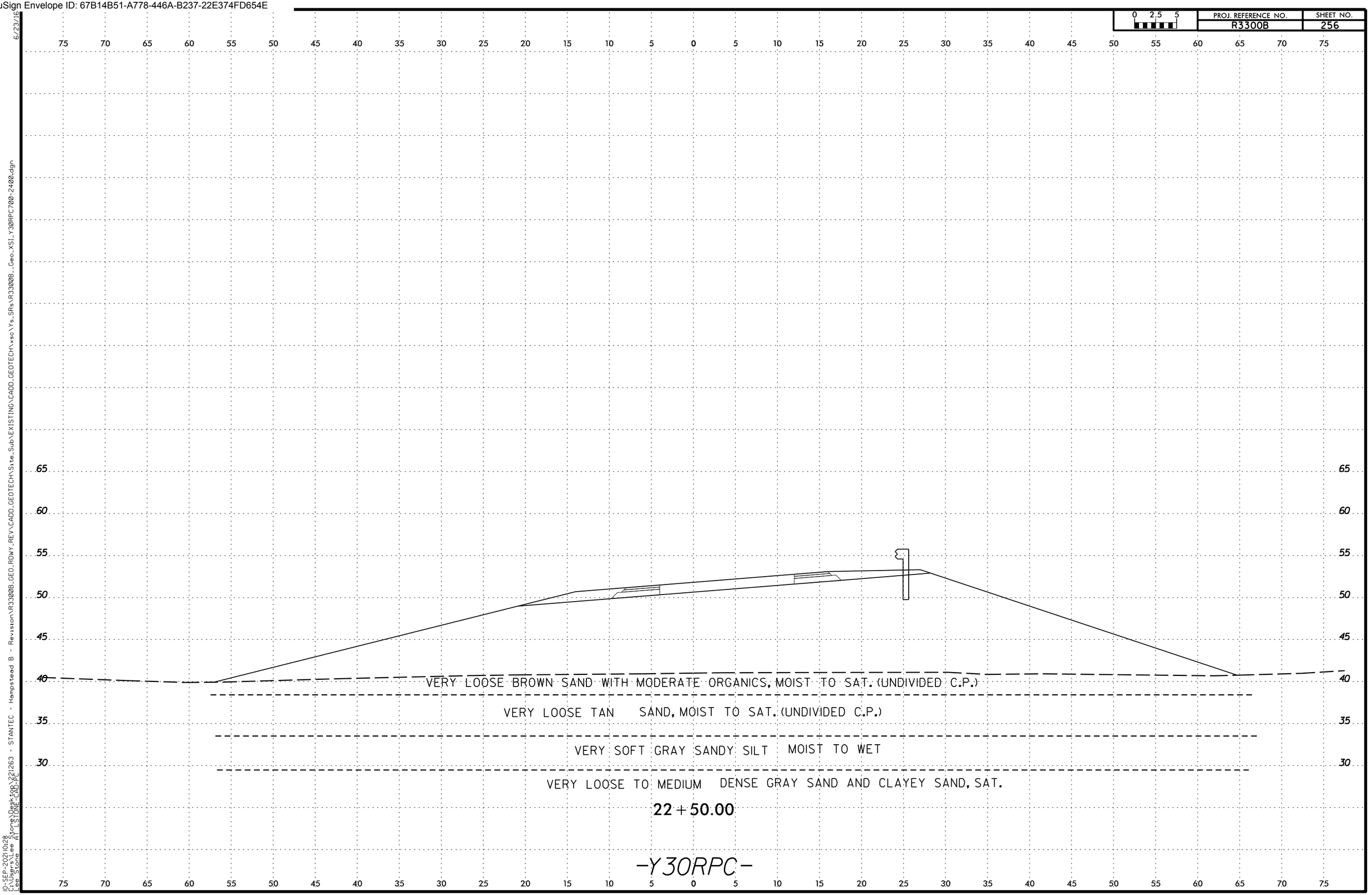
22+00.00

-Y30RPC-

10-SEP-2021 10:28
C:\Users\Lee Stone.AT\STONE-CAD-PC
I:\Stone\Desktop\21263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_Y30RPC700-2400.dgn
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

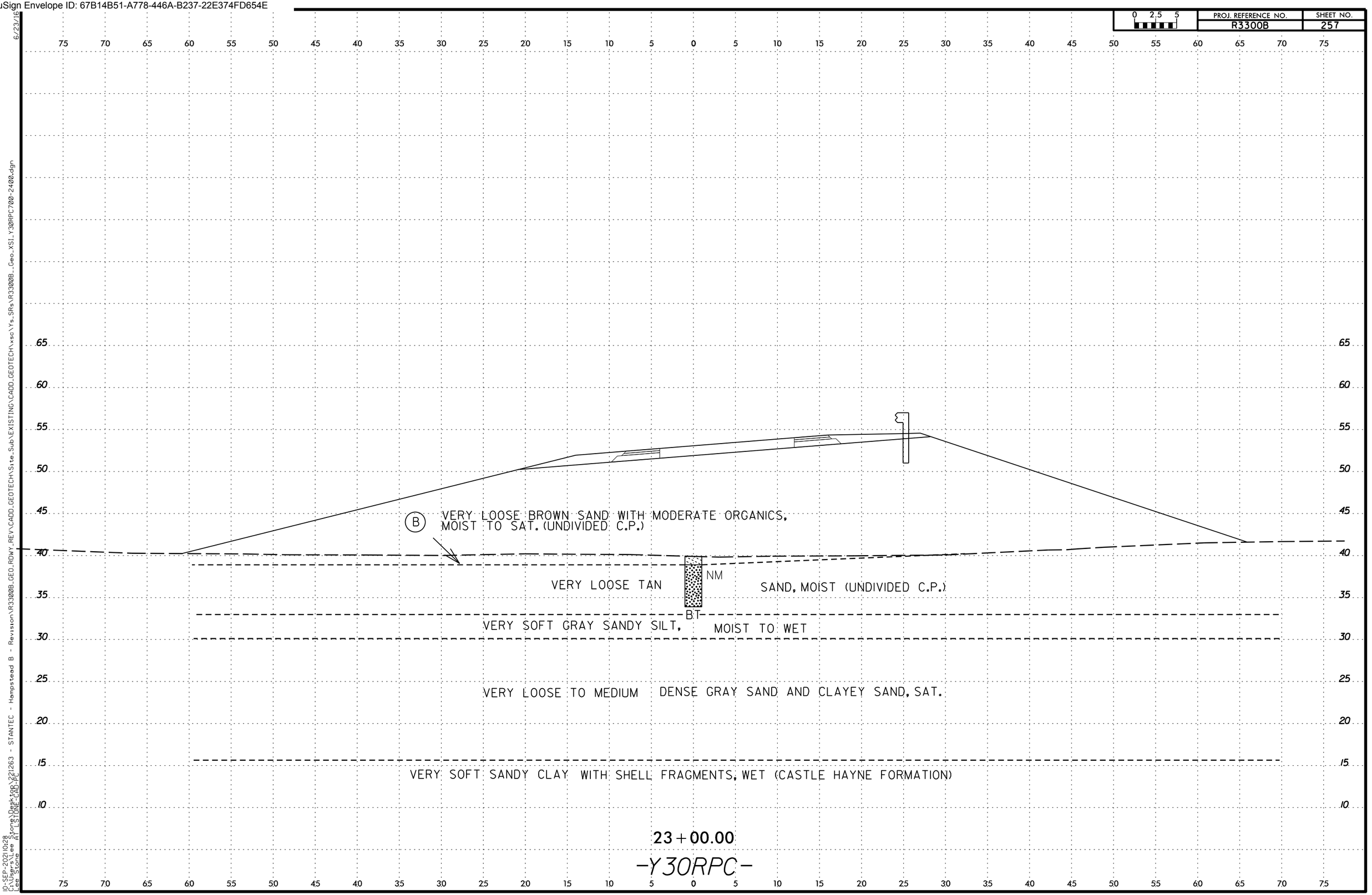
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	256



6/23/16
C:\Users\Lee Stone\Desktop\22I263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
10-SEP-2021\0:28
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

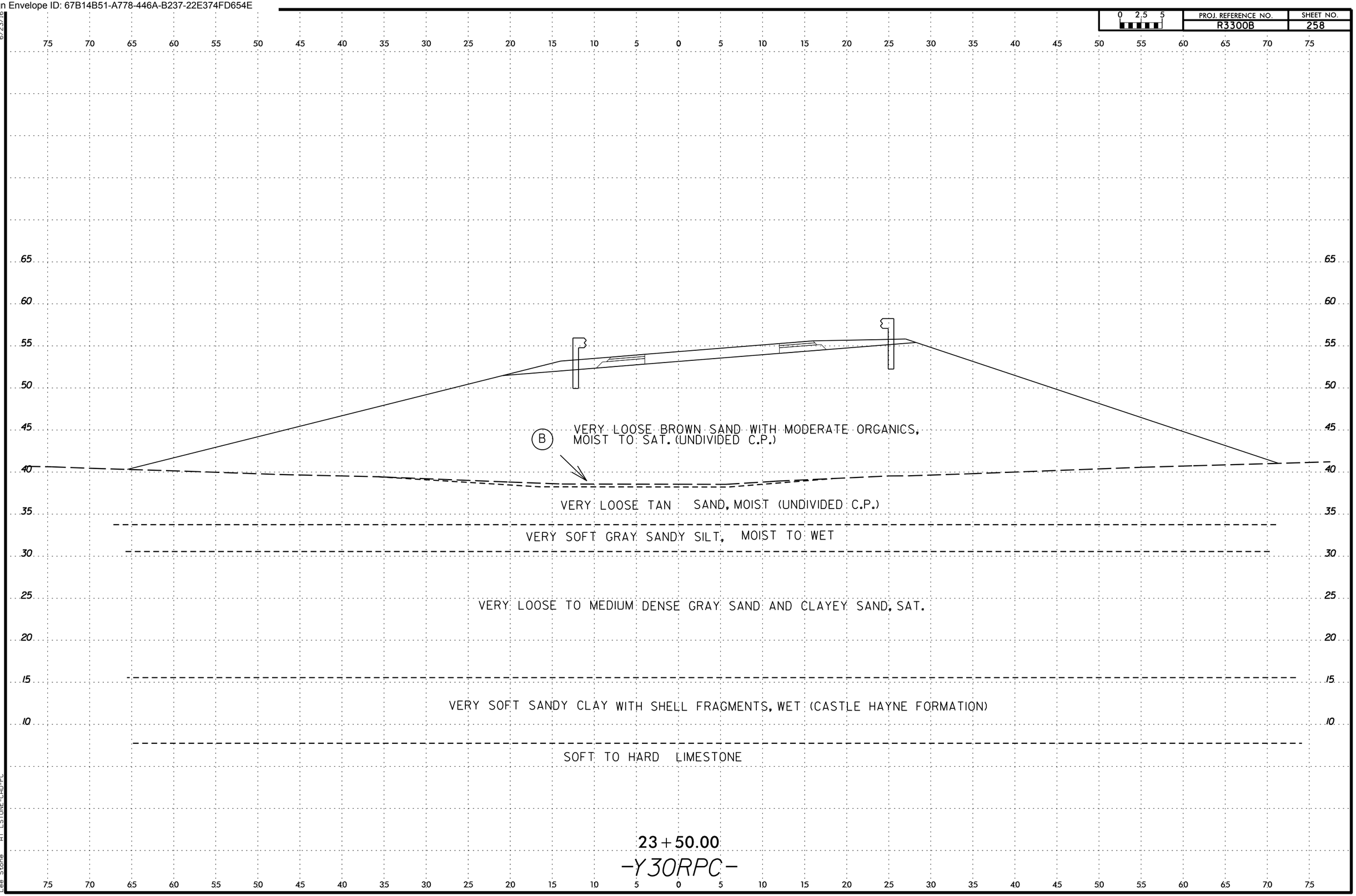
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	257



6/23/16
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R3300B	258

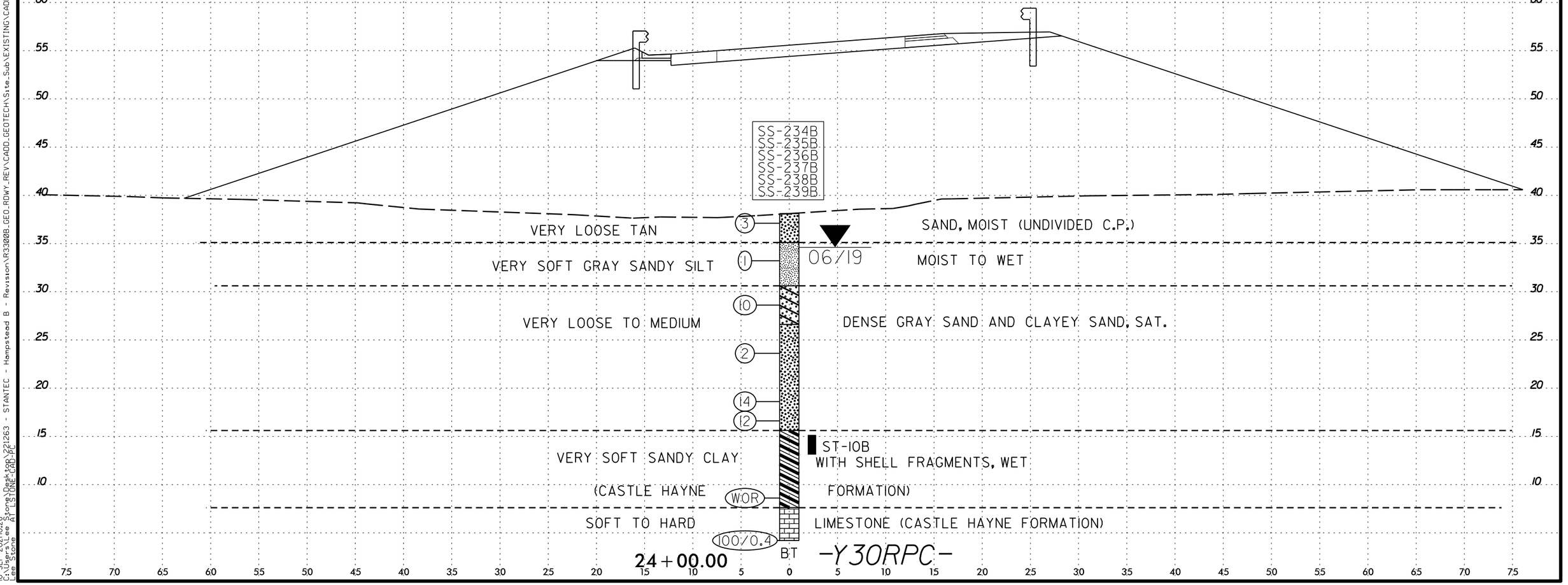


6/23/16
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC700-2400.dgn
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

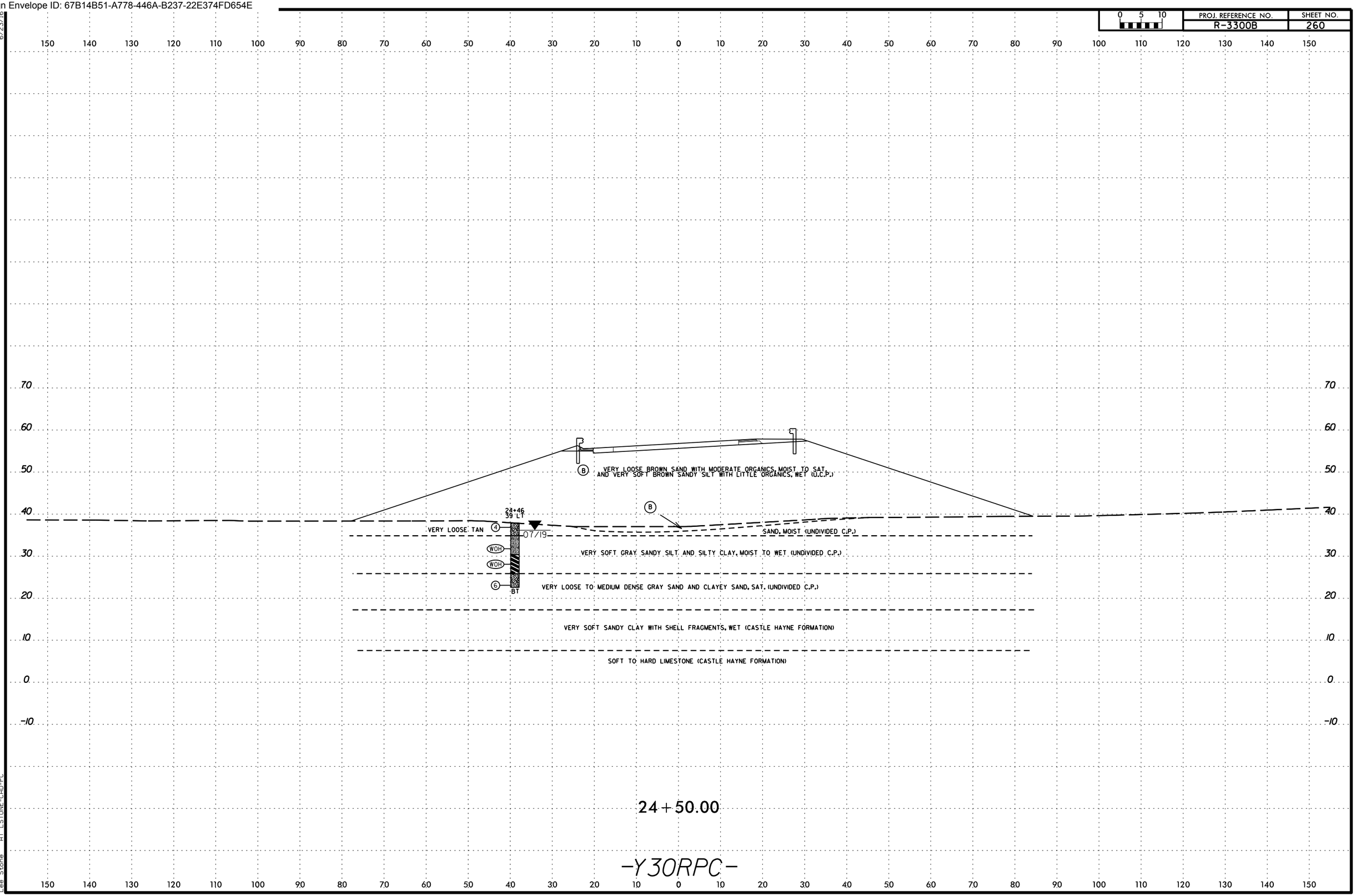
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-234B	CL	24+00	0.0 - 1.5	A-2-4(0)	NP	NP	1.2	78.8	11.7	8.3	100	100	30	-	-
SS-235B	CL	24+00	3.9 - 5.4	A-4(2)	24	8	10.8	49.2	18.7	21.3	100	97	56	-	-
SS-236B	CL	24+00	8.5 - 10.0	A-2-6(1)	32	15	4.8	64.2	8.7	22.4	100	99	34	-	-
SS-237B	CL	24+00	13.5 - 15.0	A-2-4(0)	NP	NP	36.4	45.0	9.6	9.1	98.1	81	21	-	-
SS-238B	CL	24+00	18.5 - 20.0	A-2-4(0)	NP	NP	7.4	76.5	9.9	6.2	99.9	97	21	-	-
SS-239B	CL	24+00	28.5 - 30.0	A-6(1)	27	11	20.0	43.4	28.1	8.5	99.9	94	43	-	-
ST-10B	5' RT	24+00	23.0-25.0	A-6(21)	40	21	0.4	9.8	-	-	100	99	97	-	-



6/23/16
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc Ys_SRs\R3300B_Geo_XSI_Y30RPC7002400.dgn
Lee Stone AT LISTONE_CAD_PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	260



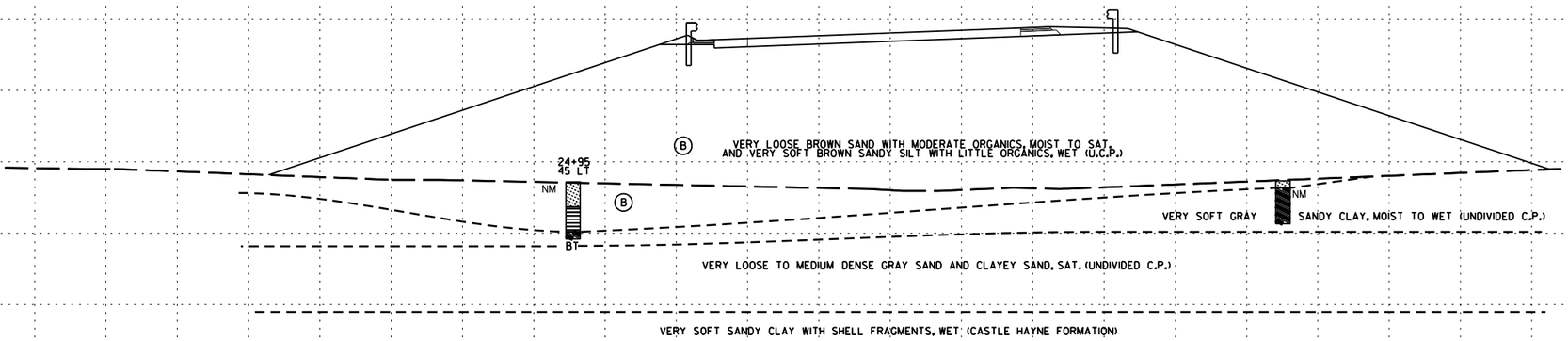
6/23/16
I:\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC2450-2550.dgn
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

6/23/16
10-SEP-2021\0:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC2450-2550.dgn
Lee Stone AT LSTONE-CAD-PC

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-181B	45 LT	24+95	4.0 - 6.0	A-4(0)	NP	NP	2.5	65.2	19.3	13.0	99.9	99	41	-	10.1

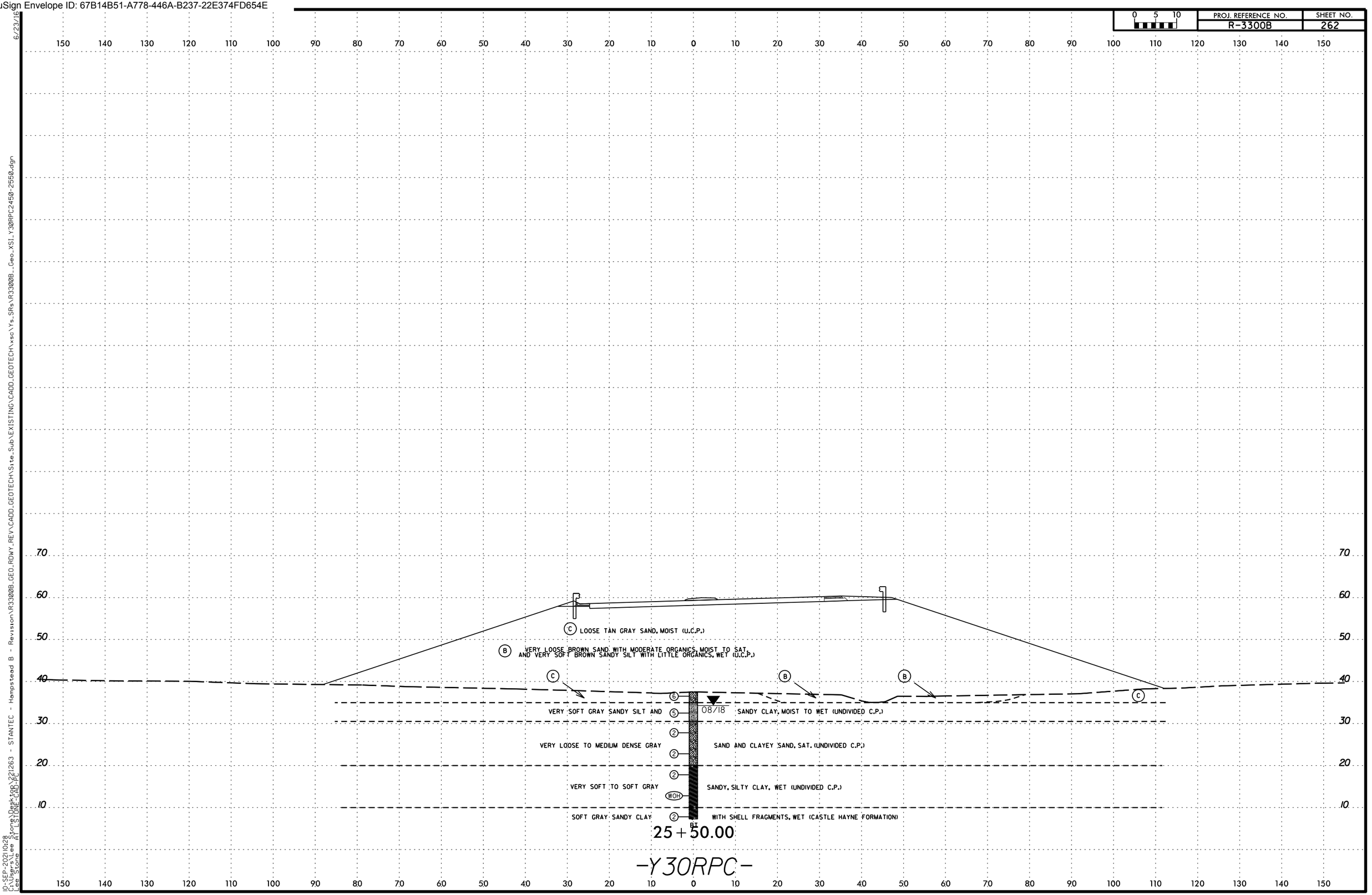


25+00.00

-Y30RPC-

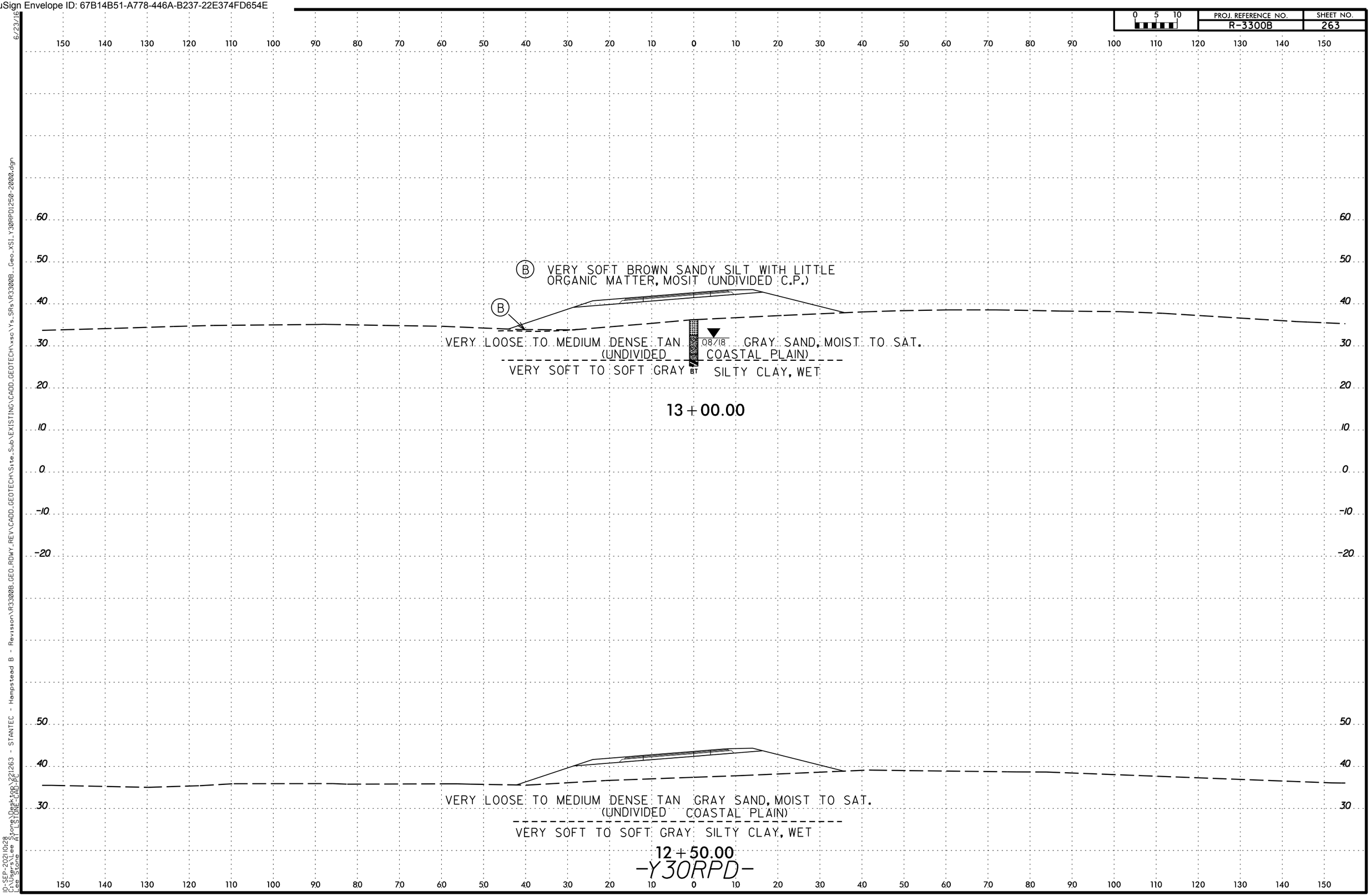
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	262



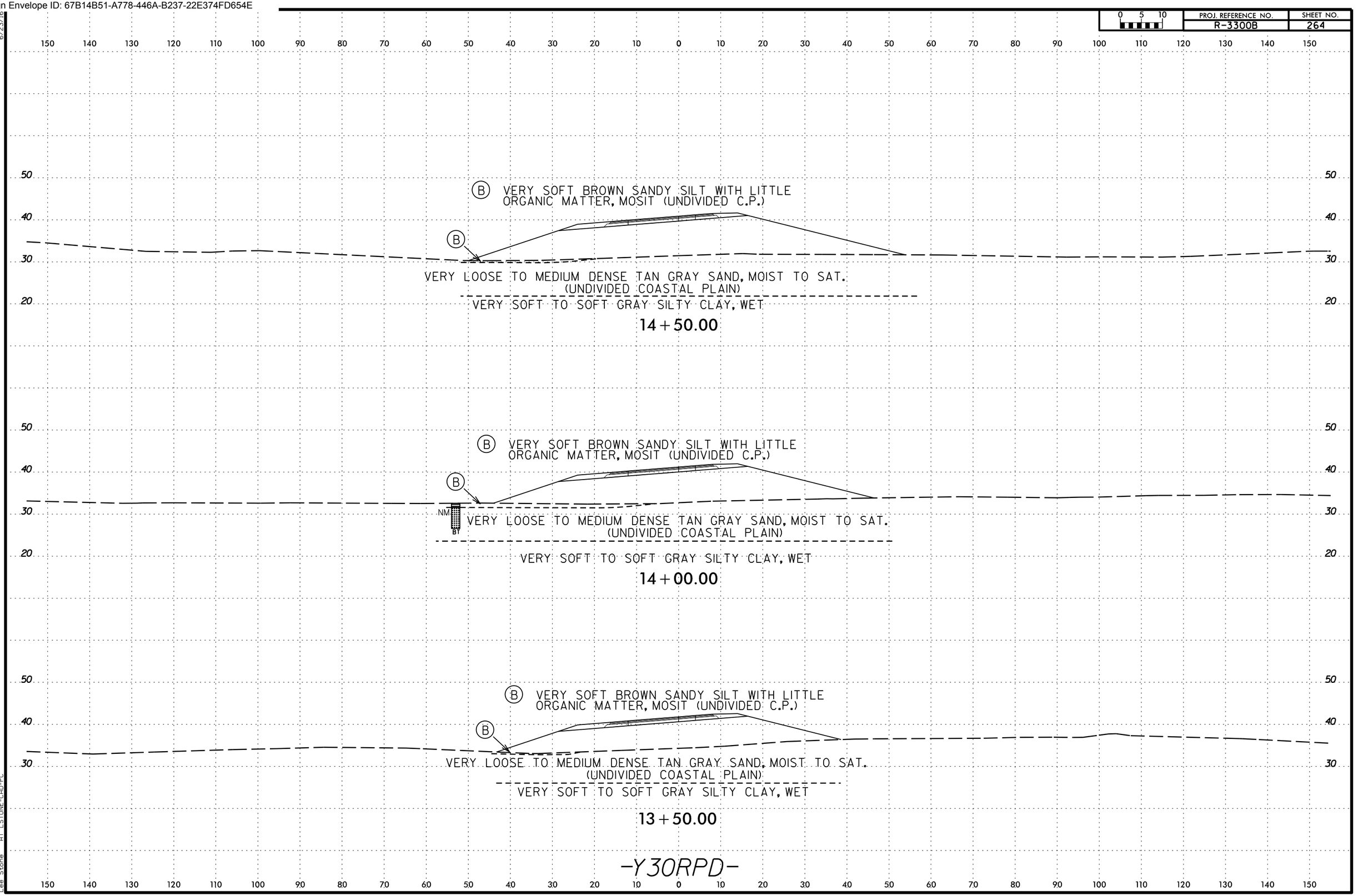
10-SEP-2021\10:28
C:\Users\Lee Stone AT LSTONE CAD-PC
Lee Stone
C:\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPC2450-2550.dgn
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
10-SEP-2021\0:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPD1250-2000.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



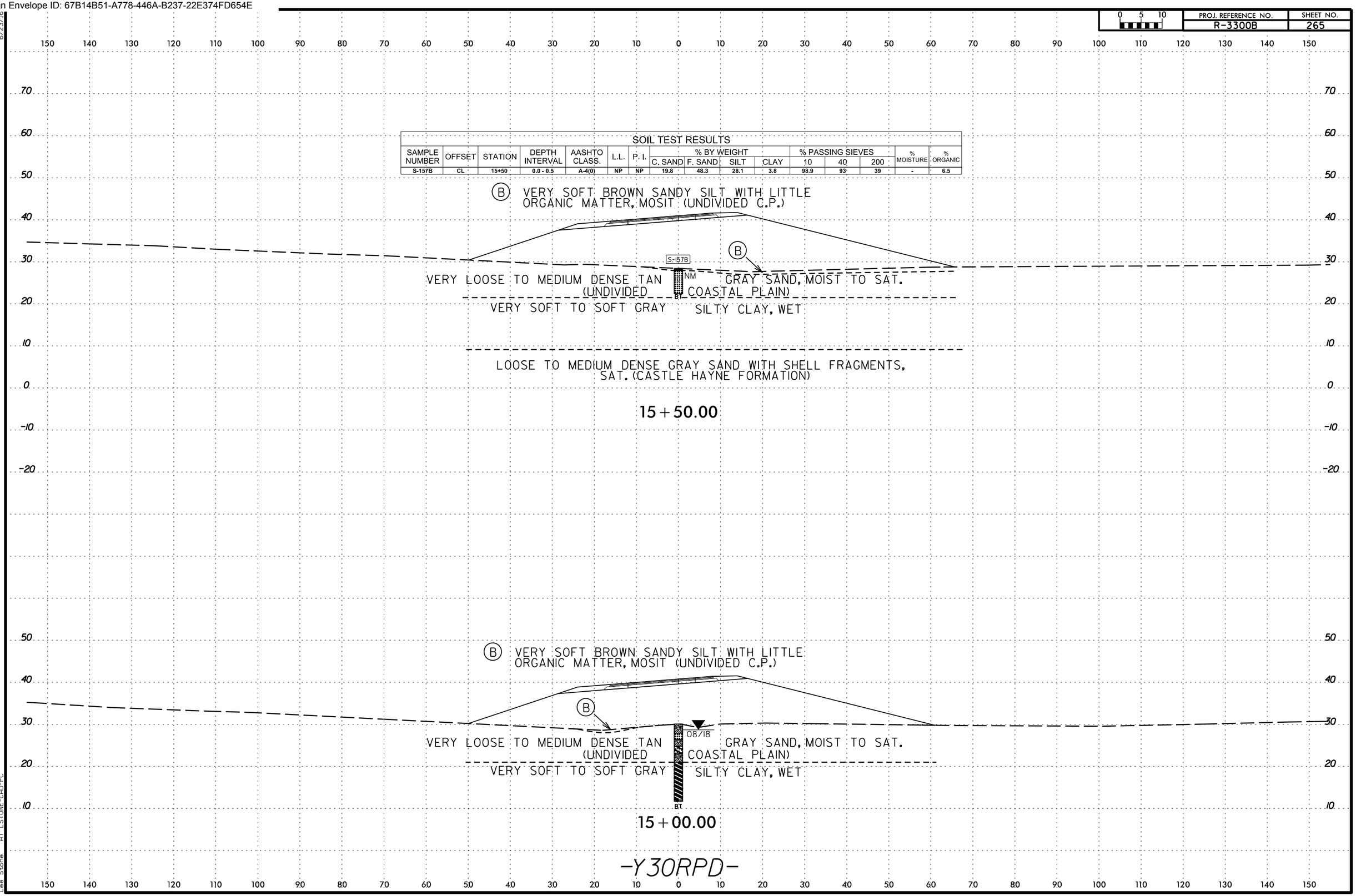
6/23/16
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\21263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPD1250-2000.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	265

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-157B	CL	15+50	0.0 - 0.5	A-4(0)	NP	NP	19.8	48.3	28.1	3.8	98.9	93	39	-	6.5



-Y30RPD-

6/23/16
10-SEP-2021\0:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPD1250-2000.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	266

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

50
40
30
20
10

VERY LOOSE TO MEDIUM DENSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED COASTAL PLAIN)

VERY SOFT TO SOFT GRAY SILTY CLAY AND CLAYEY SILT, WET

LOOSE TO MEDIUM DENSE GRAY SAND WITH SHELL FRAGMENTS, SAT. (CASTLE HAYNE FORMATION)

16+50.00

(B) VERY SOFT BROWN SANDY SILT WITH LITTLE ORGANIC MATTER, MOSIT (UNDIVIDED C.P.)

(B)

VERY LOOSE TO MEDIUM DENSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED COASTAL PLAIN)

NM

BT

VERY SOFT TO SOFT GRAY SILTY CLAY, WET

LOOSE TO MEDIUM DENSE GRAY SAND WITH SHELL FRAGMENTS, SAT. (CASTLE HAYNE FORMATION)

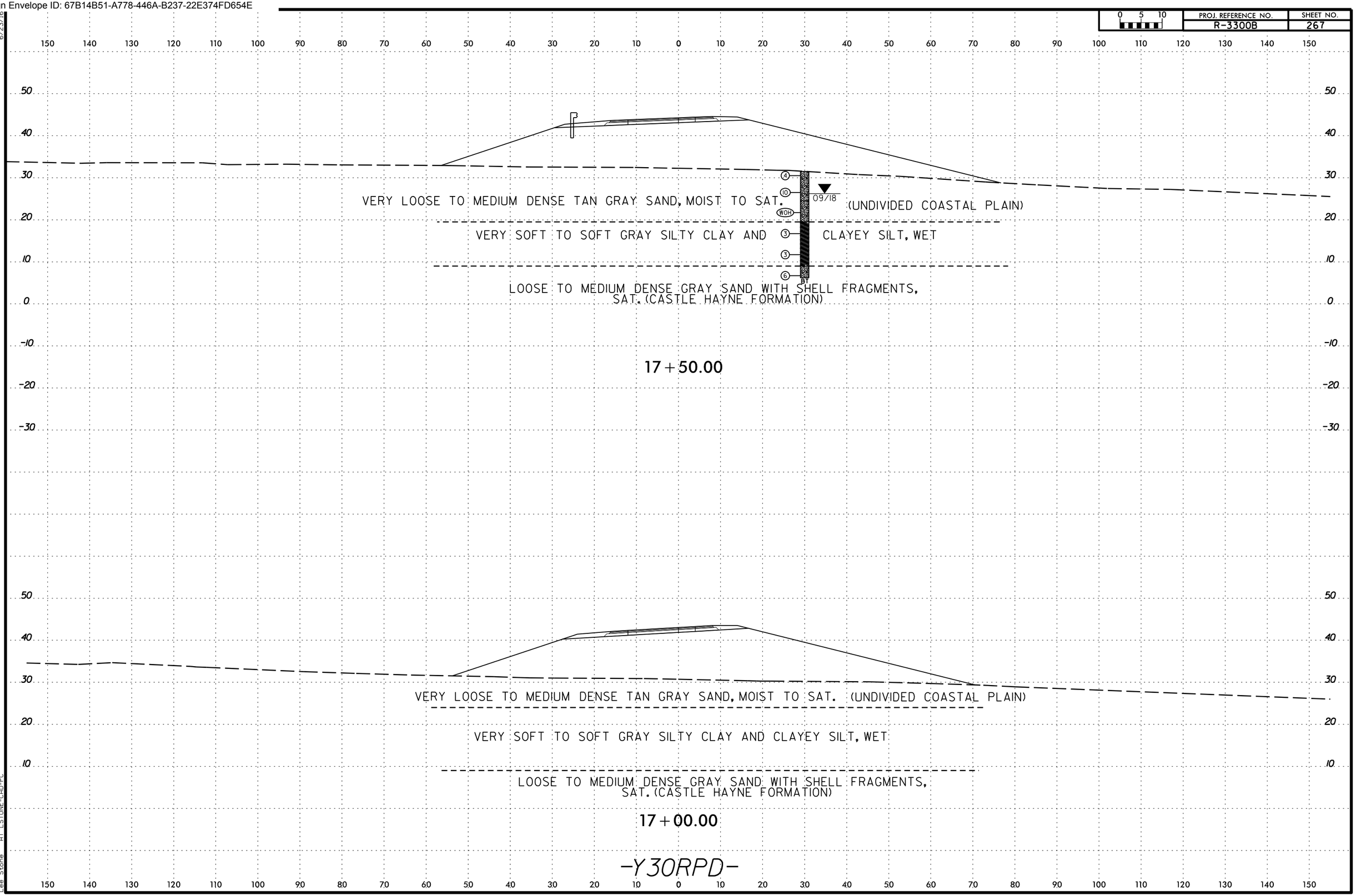
16+00.00

-Y30RPD-

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPD1250-2000.dgn
10-SEP-2021 10:28
Lee Stone AT LSTONE CAD-PC

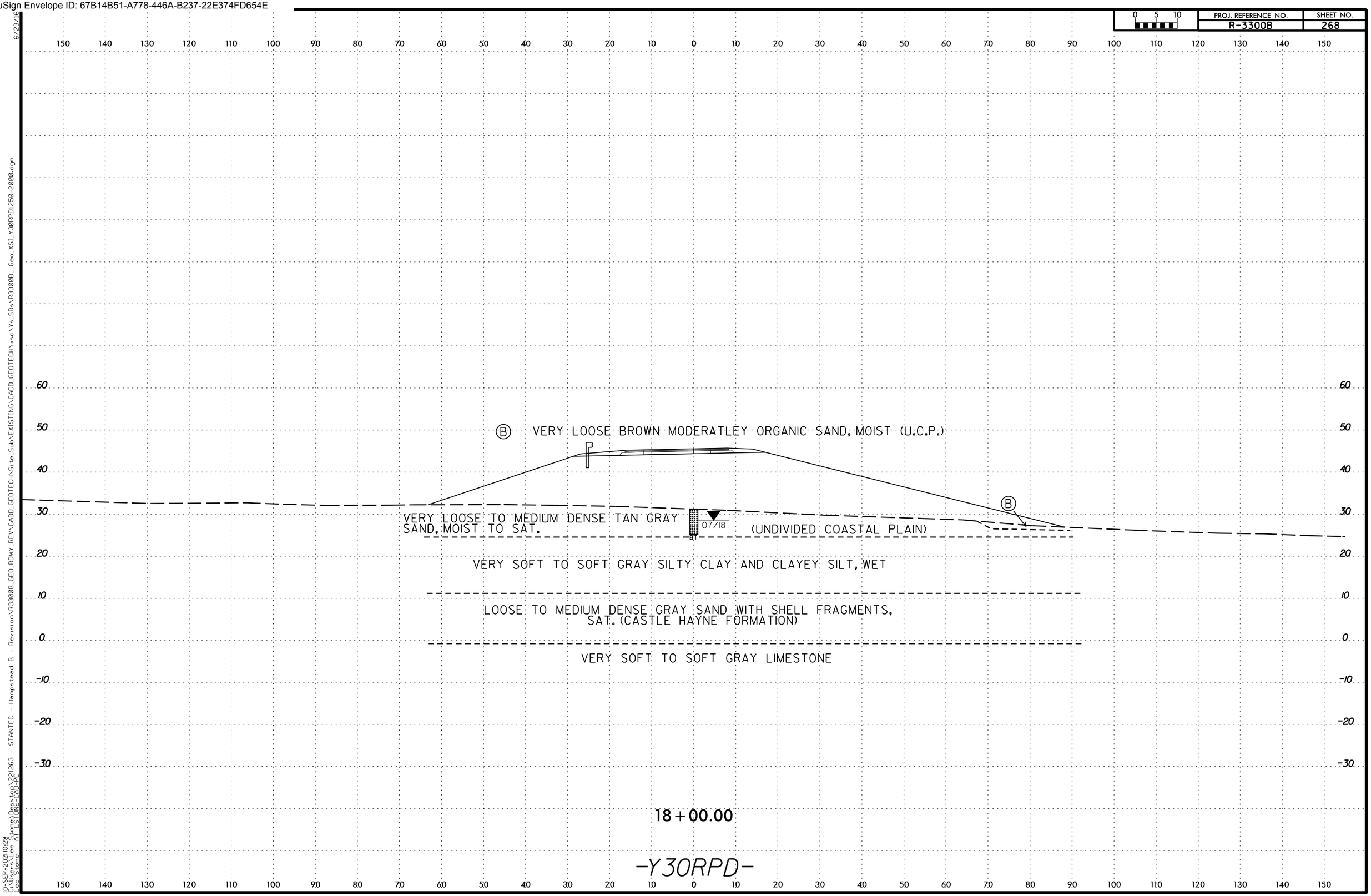
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	267



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPD1250-2000.dgn
10-SEP-2021 10:28
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



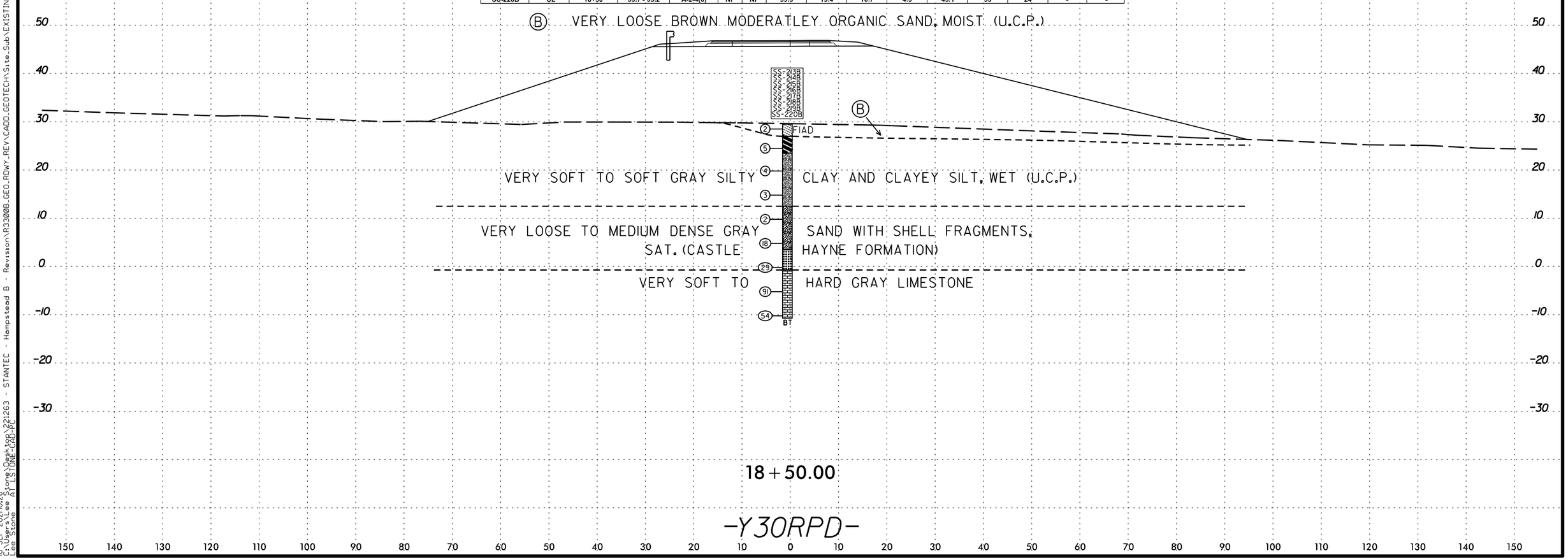
6/23/16
10-SEP-2021\0228
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPD1250-2000.dgn
Lee Stone AT LSTONE_CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	269

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-213B	CL	18+50	0.0 - 1.5	A-2-4(0)	NP	NP	16.0	69.5	11.3	3.2	98.6	94	22	-	9.7
SS-214B	CL	18+50	4.0 - 5.5	A-7-5(47)	85	38	0.8	7.2	31.8	60.2	99.8	100	94	-	-
SS-215B	CL	18+50	8.7 - 10.2	A-4(0)	NP	NP	3.5	70.9	20.6	5.0	99.5	98	39	-	-
SS-216B	CL	18+50	13.7 - 15.2	A-4(11)	38	10	1.6	14.6	51.1	32.8	99.7	99	92	-	-
SS-217B	CL	18+50	18.7 - 20.2	A-2-4(0)	NP	NP	36.0	37.0	13.7	13.3	99.6	90	31	-	-
SS-218B	CL	18+50	23.7 - 25.2	A-2-4(0)	NP	NP	63.5	23.5	7.9	5.1	98.7	63	14	-	-
SS-219B	CL	18+50	28.7 - 30.2	A-3(0)	NP	NP	74.1	17.5	4.8	3.6	69.7	48	9	-	-
SS-220B	CL	18+50	33.7 - 35.2	A-2-4(0)	NP	NP	59.3	19.4	16.7	4.5	45.1	53	24	-	-

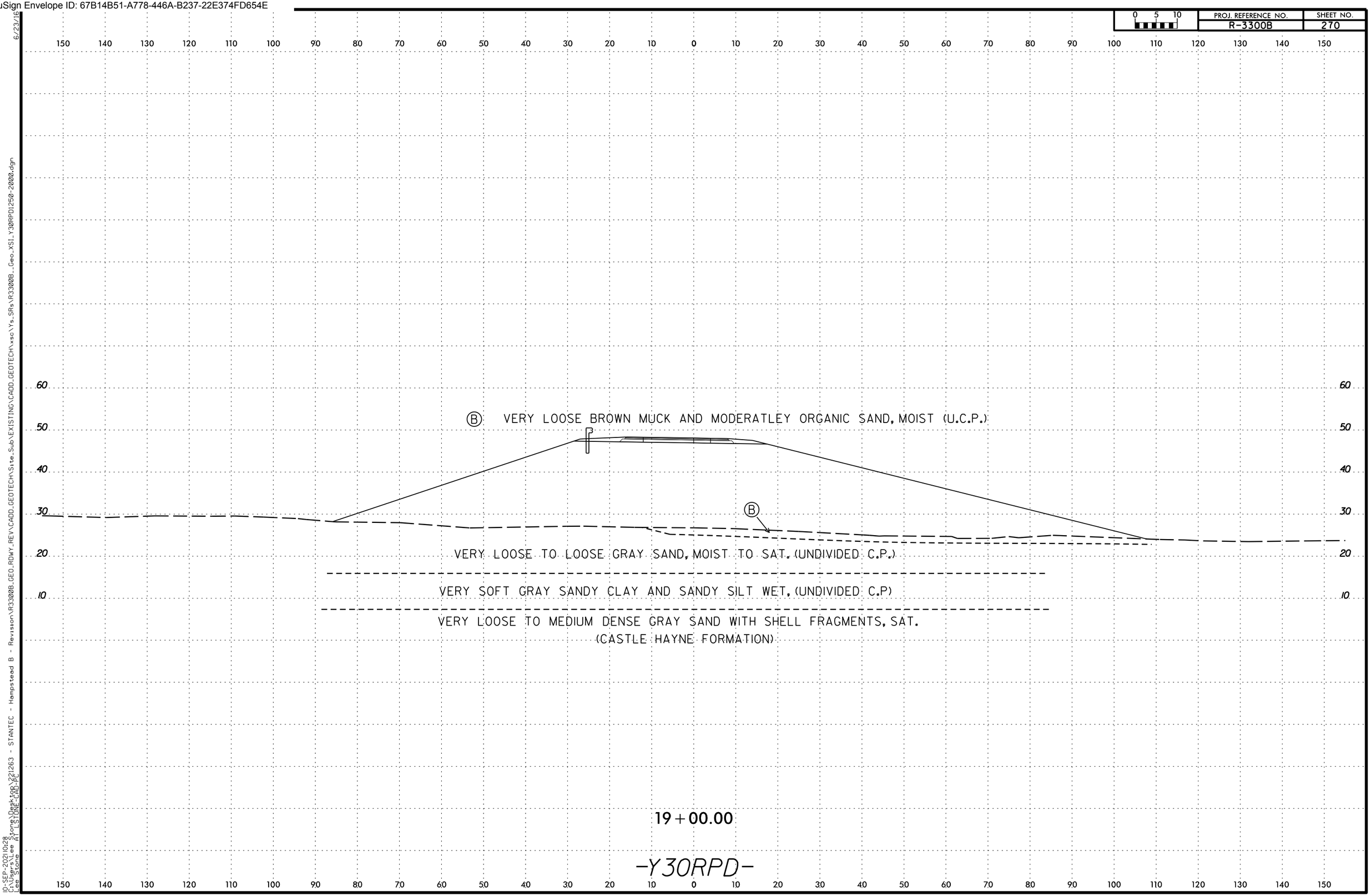


18+50.00

-Y30RPD-

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_Y30RPD1250-2000.dgn
10-SEP-2021 10:28
Lee Stone
ALLSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPD1250-2000.dgn
Lee Stone AT_STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-144B	87 ft LT	19+50	0.0 - 4.0	A-2-4(0)	NP	NP	13.8	60.2	25.0	1.0	98.5	92	34	-	12.7

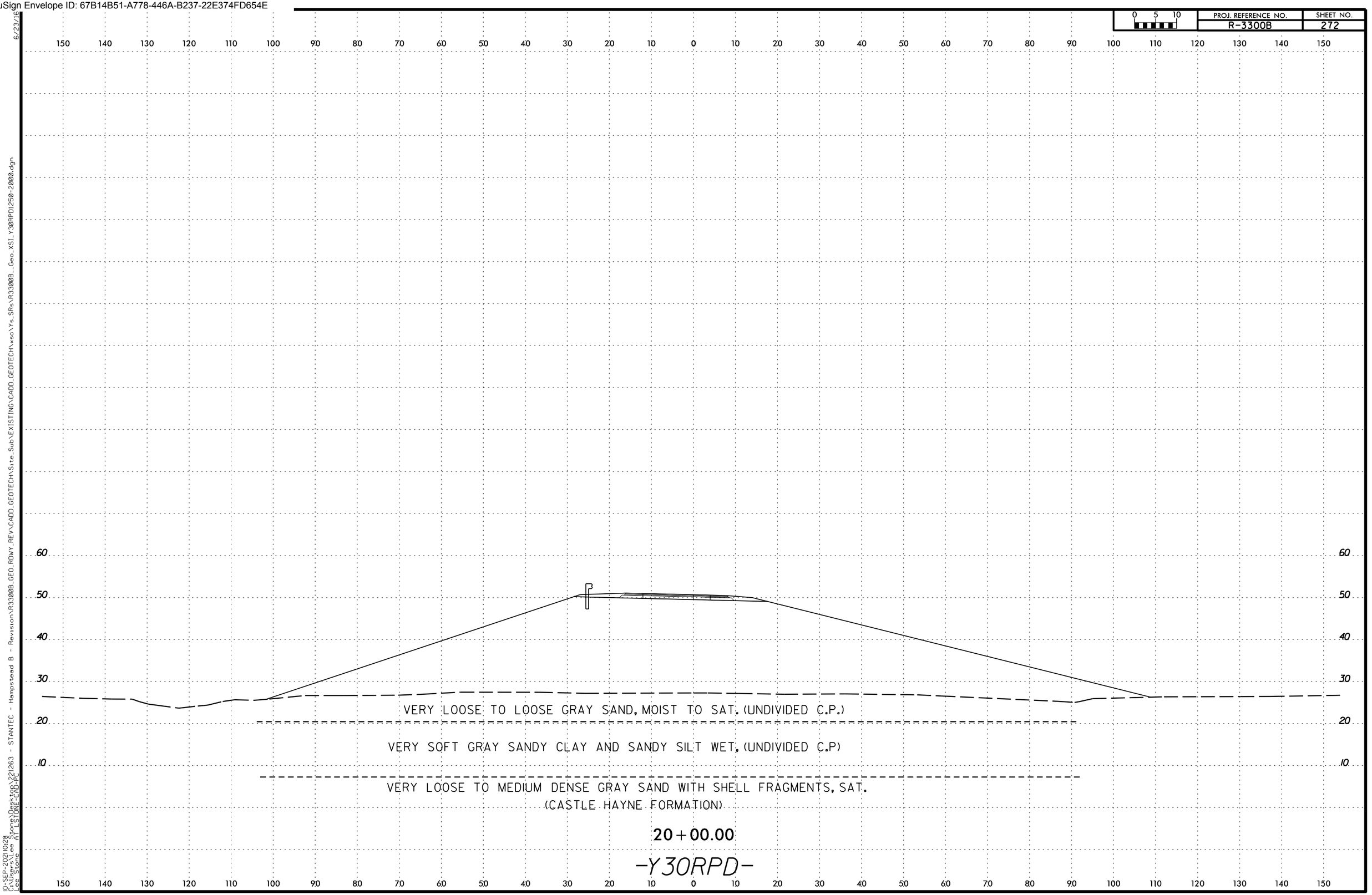
19 + 50.00

-Y30RPD-

6/23/16
I:\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPD1250-2000.dgn
10-SEP-2021 10:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

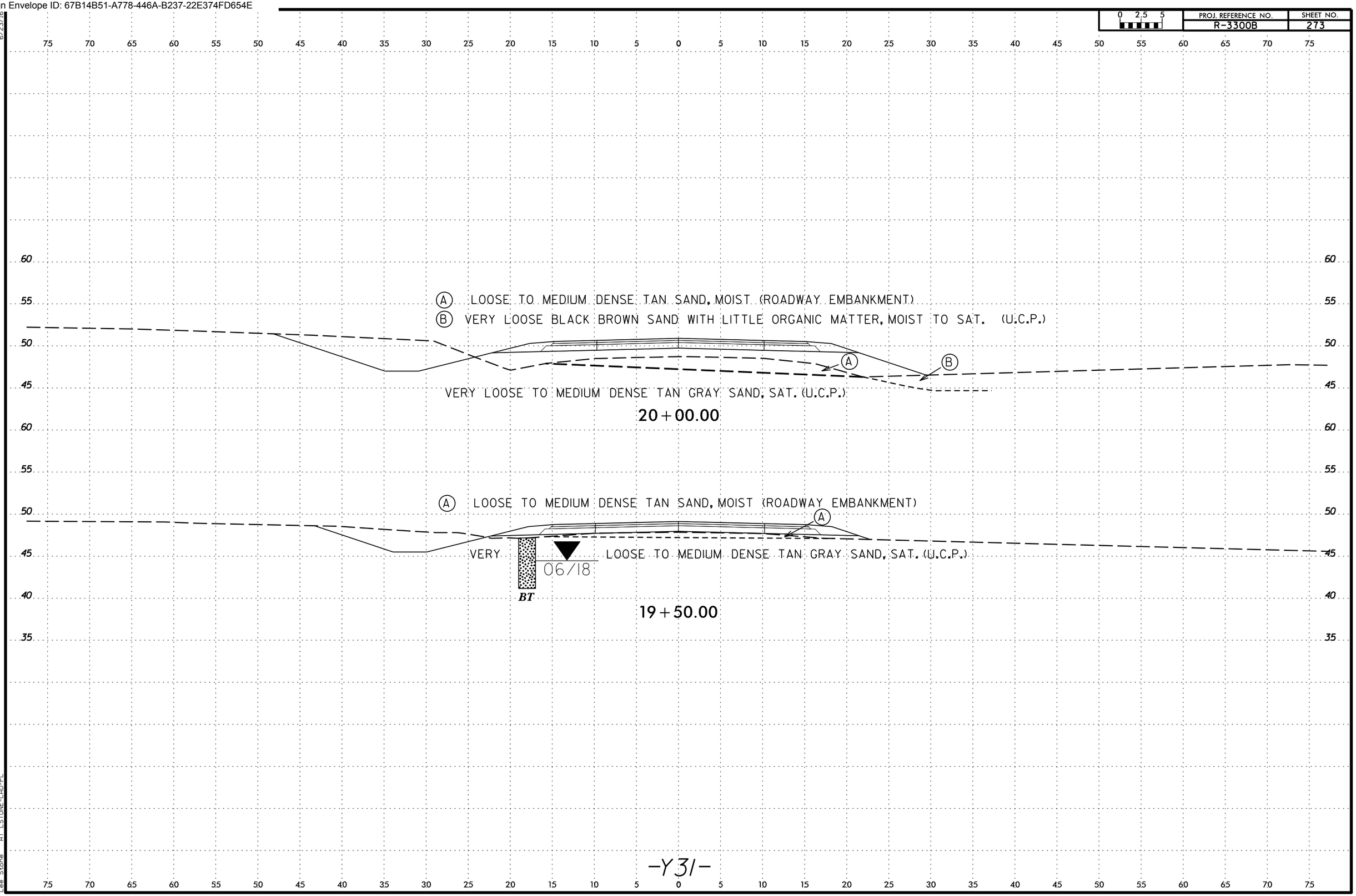
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	272



6/23/16
10-SEP-2021\0:28
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y30RPD1250-2000.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

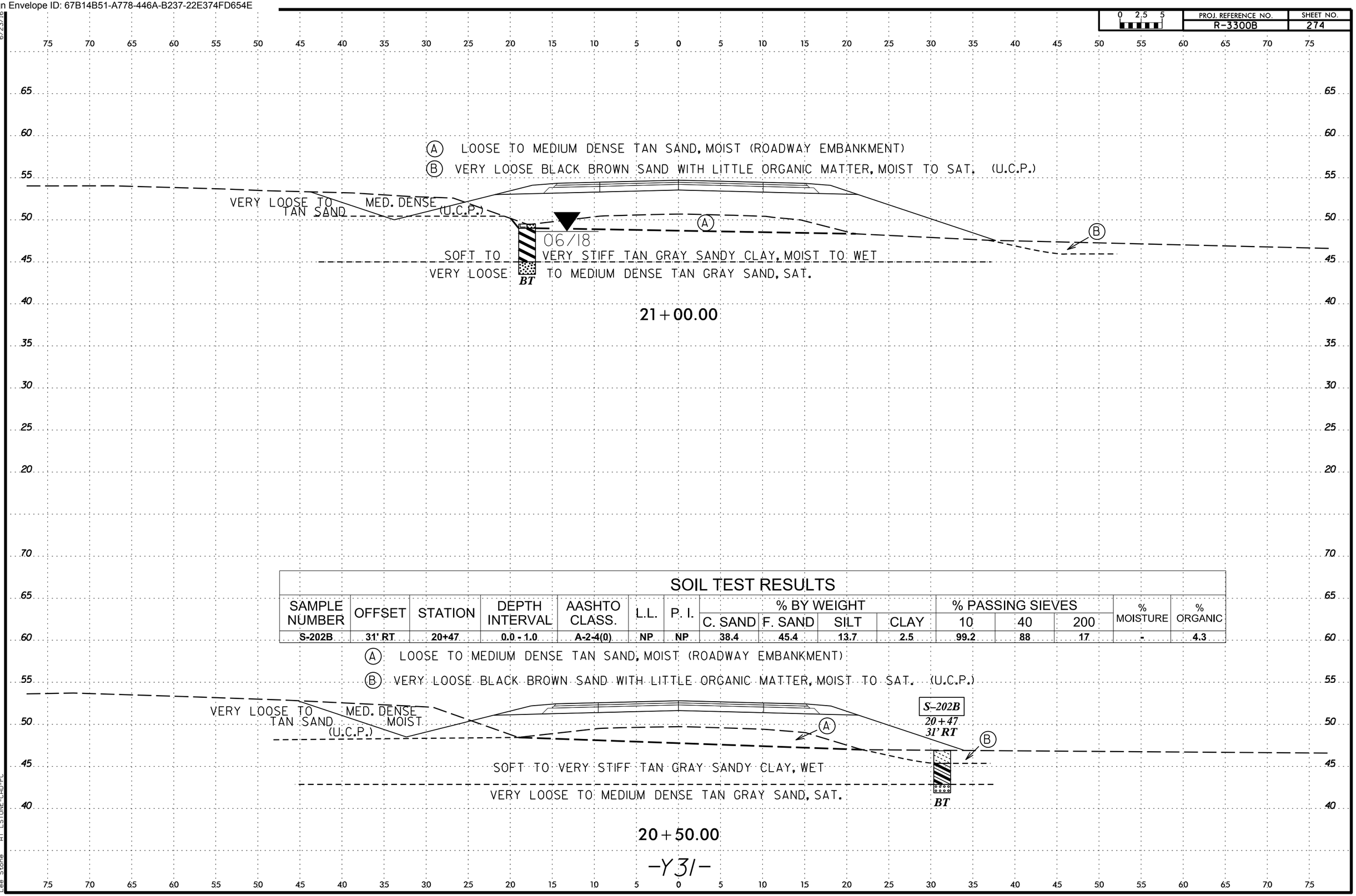
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	273



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y31_1950-2100.dgn
10-SEP-2021 10:44
Lee Stone
AT STONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	274



SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-202B	31' RT	20+47	0.0 - 1.0	A-2-4(0)	NP	NP	38.4	45.4	13.7	2.5	99.2	88	17	-	4.3

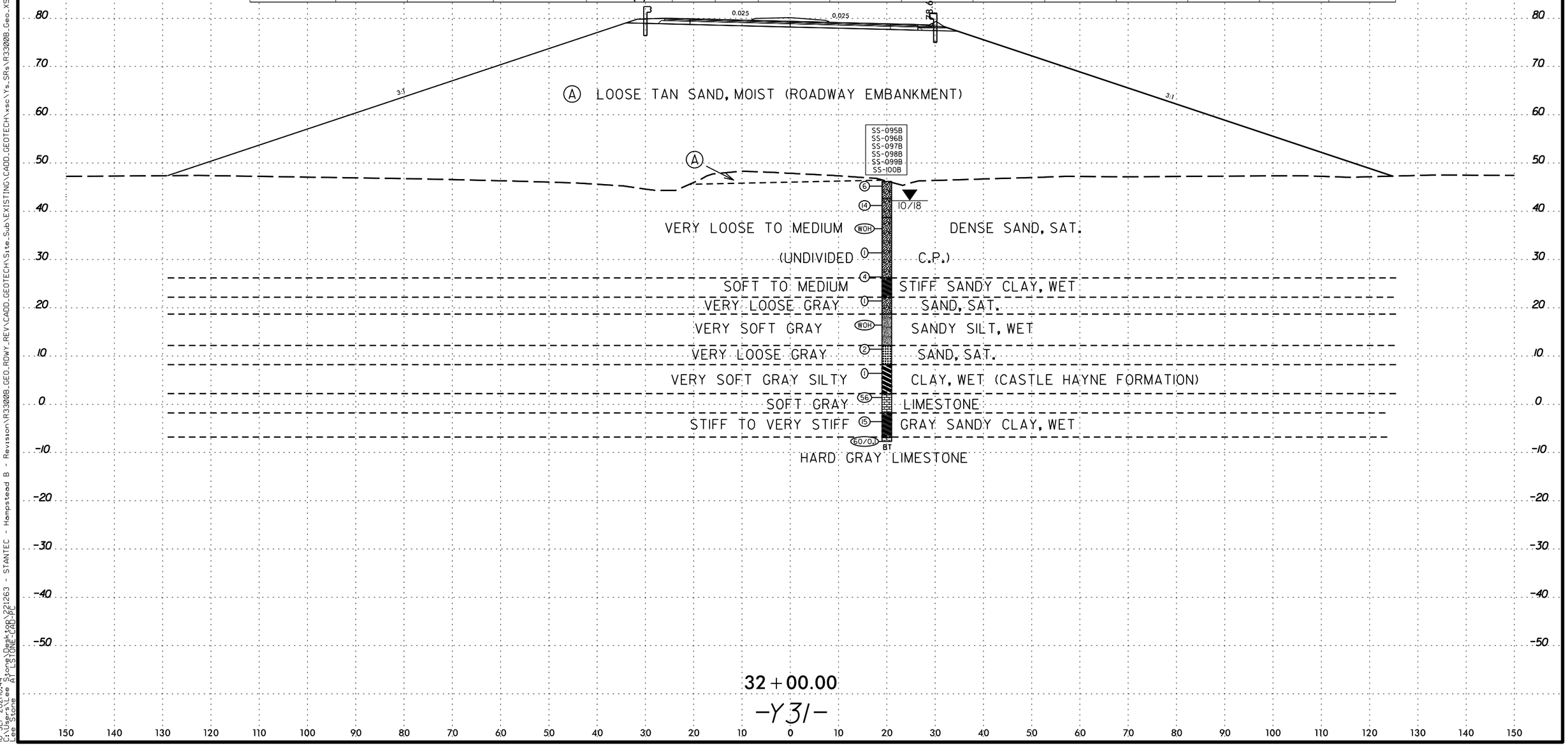
-Y31-

6/23/16
10-SEP-2021\10:44
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y31_950-2100.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-095B	20 ft RT	32+00	4.0 - 5.5	A-2-4(0)	NP	NP	71.2	24.8	0.7	3.3	100	83	18	-	-
SS-096B	20 ft RT	32+00	8.8 - 10.3	A-2-4(0)	NP	NP	46.3	38.1	3.3	12.3	100	90	28	-	-
SS-097B	20 ft RT	32+00	24.0 - 25.3	A-2-4(0)	NP	NP	10.4	79.5	6.1	4.0	99.9	97	17	-	-
SS-098B	20 ft RT	32+00	28.8 - 30.3	A-4(1)	28	6	8.3	55.4	27.2	9.1	100	95	51	-	-
SS-099B	20 ft RT	32+00	38.8 - 40.3	A-7-6(22)	46	23	11.9	14.7	48.6	24.8	100	90	88	-	-
SS-100B	20 ft RT	32+00	48.8 - 50.3	A-6(8)	32	16	19.8	28.1	20.0	32.1	99.4	85	68	-	-

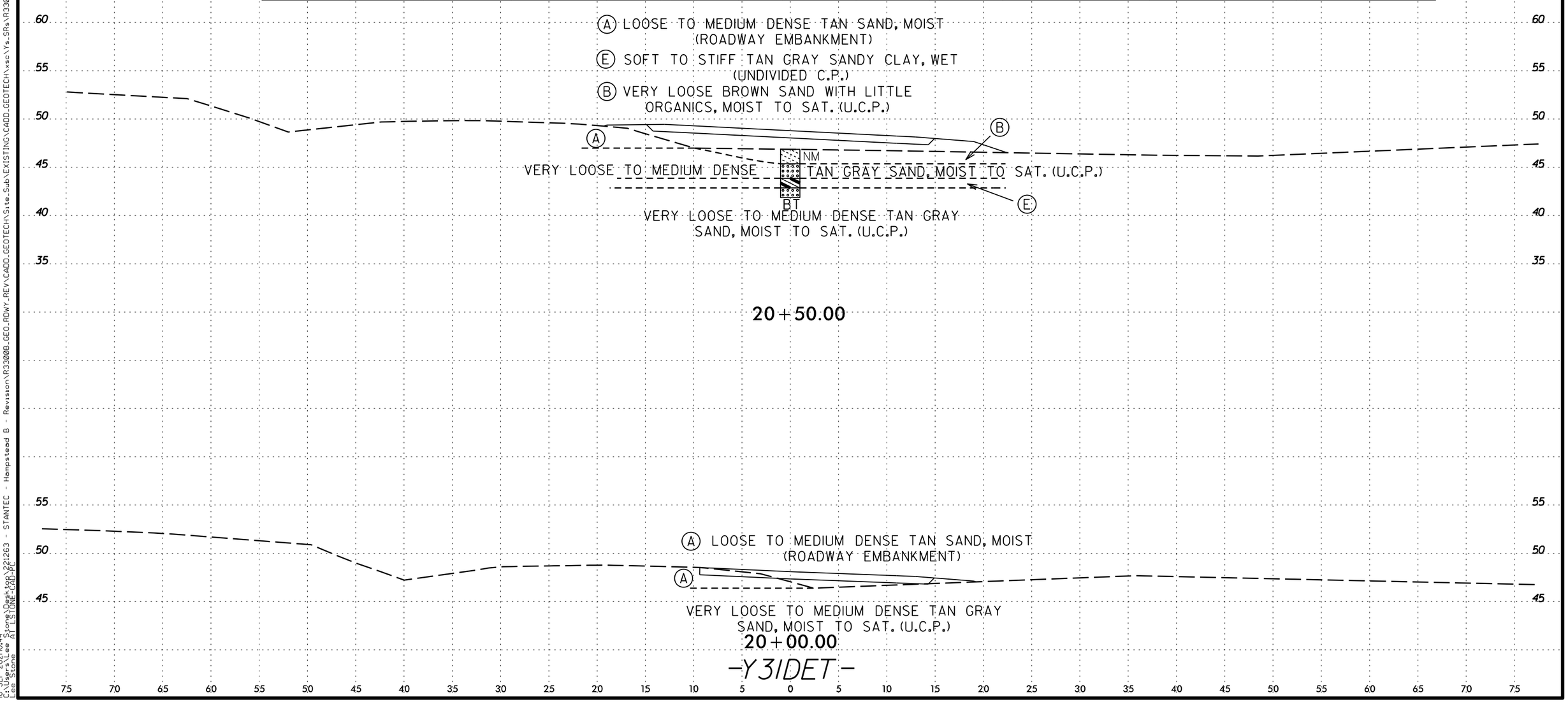


6/23/16
10-SEP-2021 10:44
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_Y31_3200.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

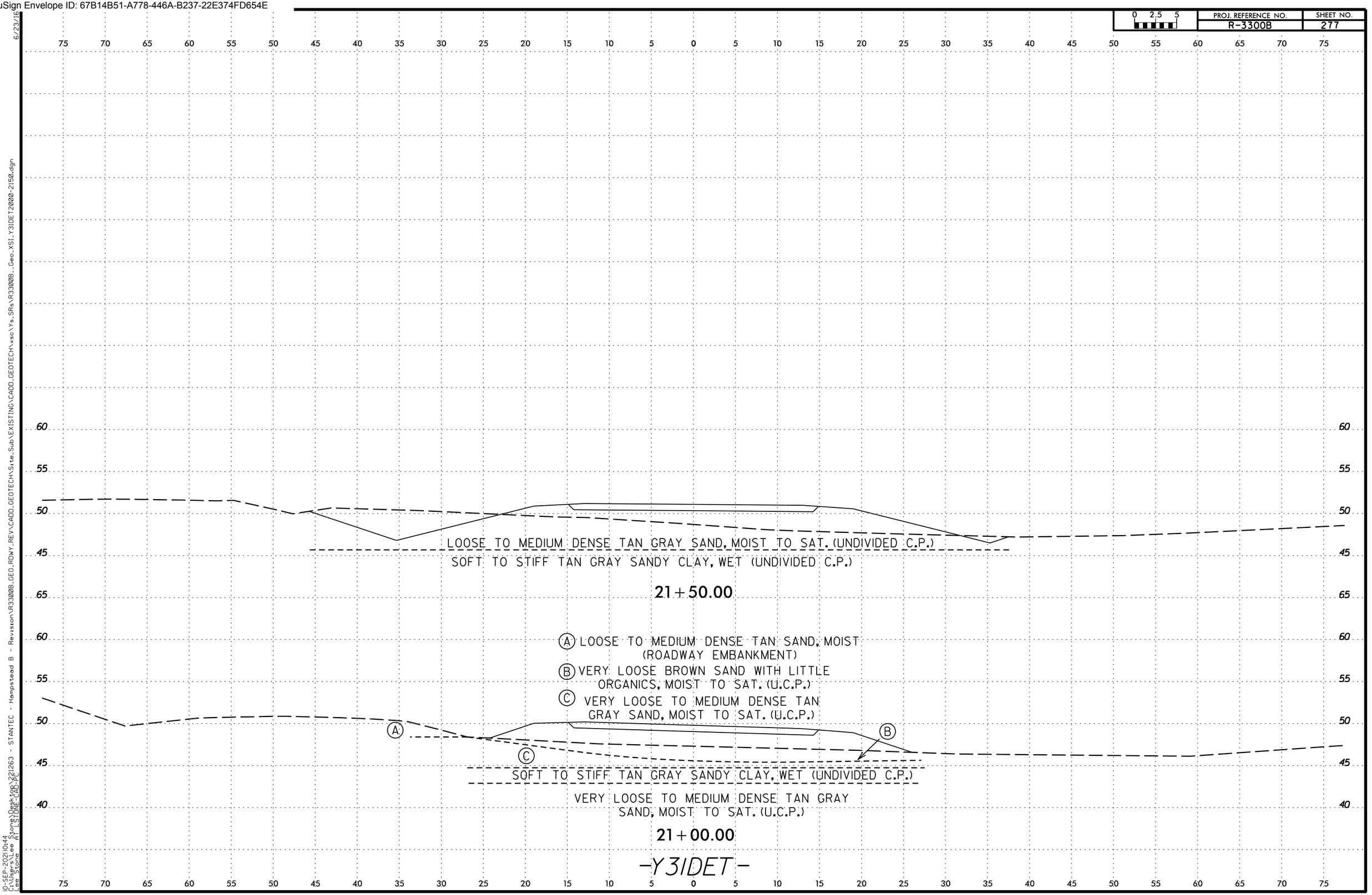
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-202B	CL	20+50	0.0 - 1.0	A-2-4(0)	NP	NP	38.4	45.4	13.7	2.5	99.2	88	17	-	4.3



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y31DET2000-2150.dgn
10-SEP-2021 10:44
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y31DET2000-2150.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	277



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y31DET2000-2150.dgn
10-SEP-2021 10:44
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	278

VERY LOOSE TO MEIDUM DENSE BROWN TO GRAY SAND WITH TRACE

ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT GRAY SANDY CLAY AND SANDY SILT, WET

(CASTLE HAYNE FORMATION)

11+50.00

B VERY LOOSE BLACK BROWN MODERATLEY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)

B

10/18

VERY LOOSE TO MEIDUM DENSE BROWN TO GRAY SAND WITH TRACE

ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT GRAY SANDY CLAY AND SANDY SILT, WET (CASTLE HAYNE FORMATION)

-Y3IRPA-

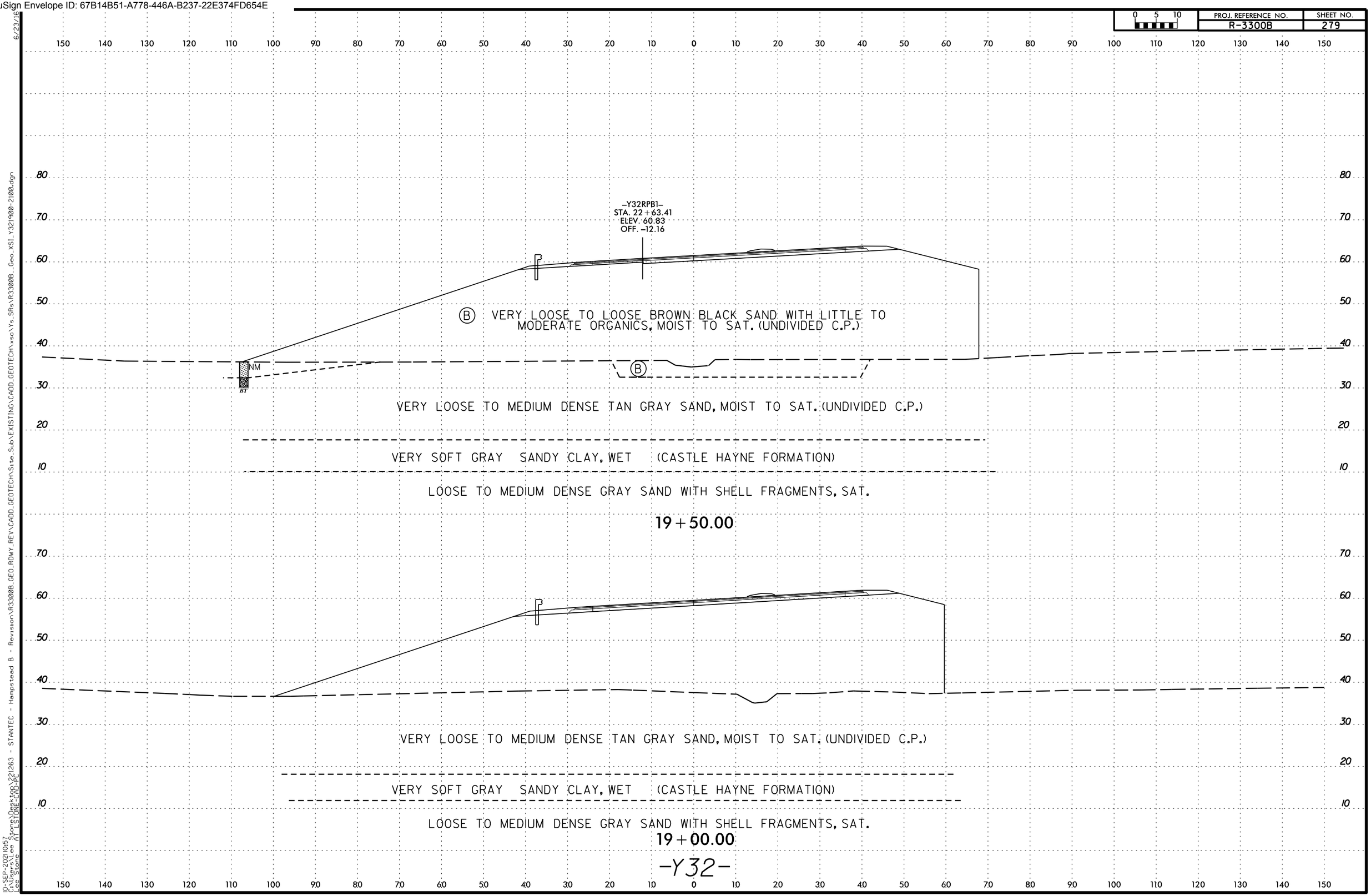
11+00.00

BT

10-SEP-2021 10:44
C:\Users\Lee Stone\Desktop\21263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y3IRPAI100-I150.dgn
Lee Stone AT LSTONE-CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

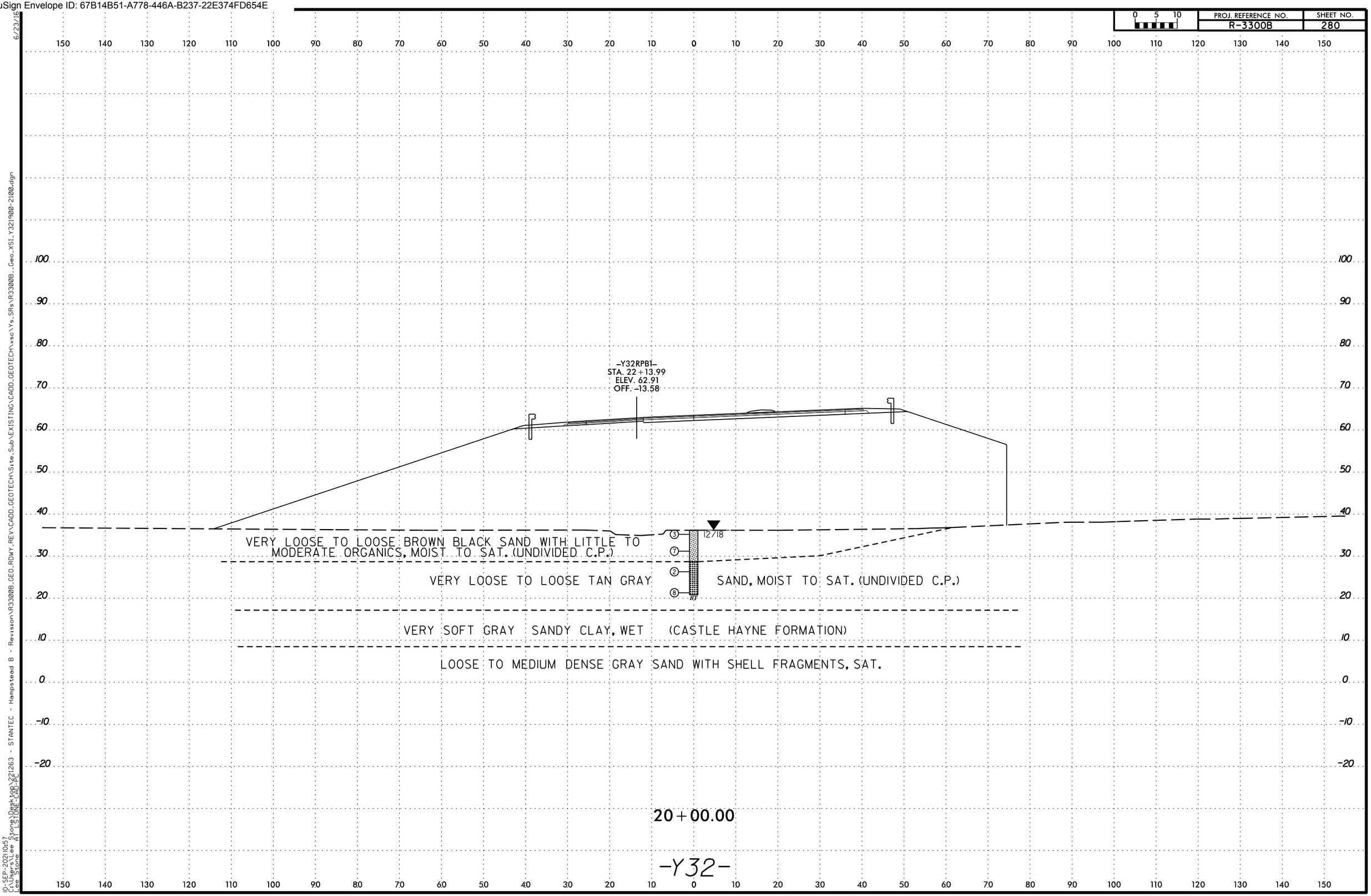
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	279



6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_Y321900-2100.dgn
Lee Stone ATLSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

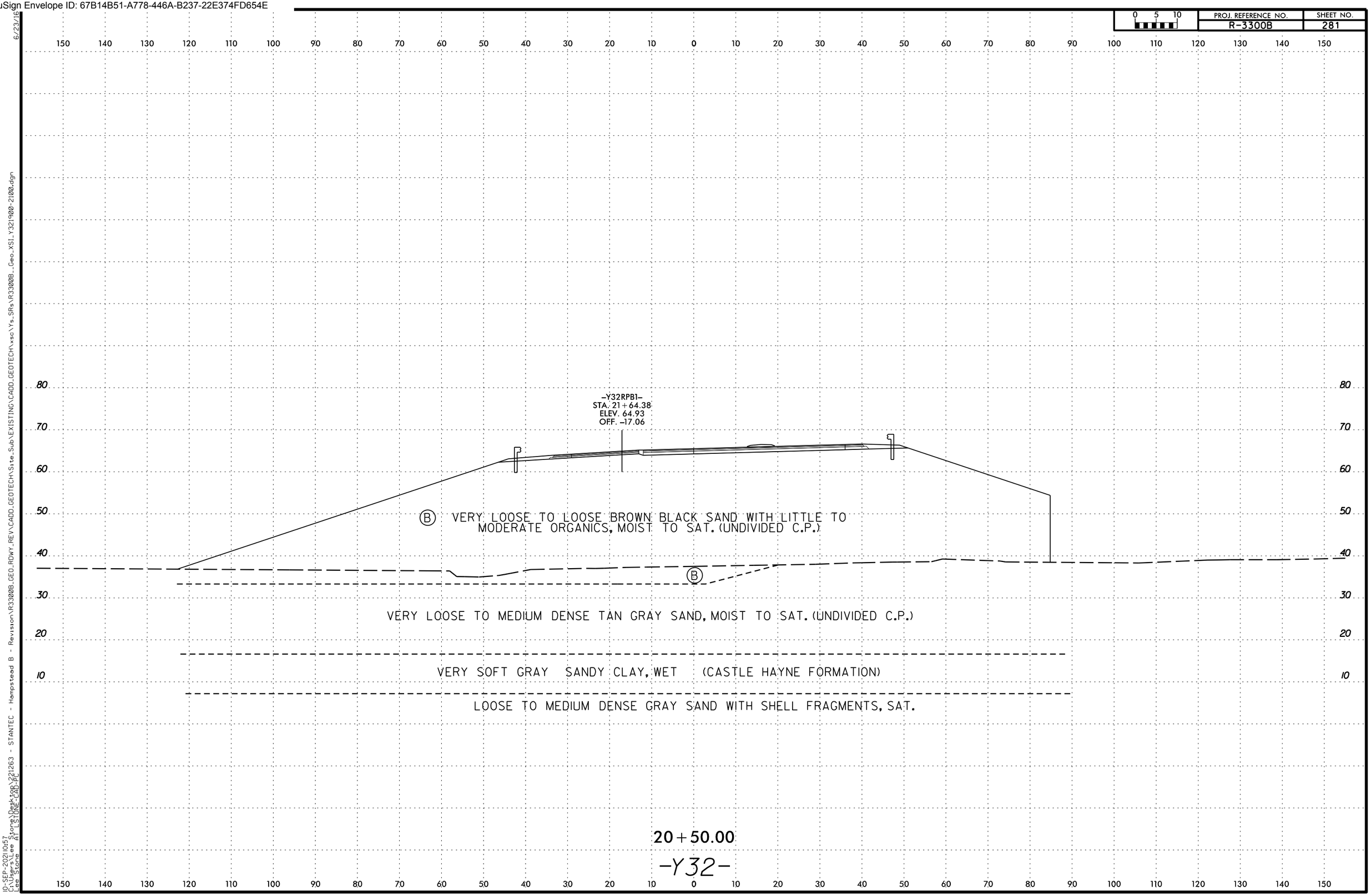
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	280



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y321900-2100.dgn
10-SEP-2021 10:57
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	281



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y321900-2100.dgn
10-SEP-2021 10:57
Lee Stone
AT STONE CAD PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-184B	27 ft LT	21+14	0.0 - 1.5	A-2-4(0)	NP	NP	10.1	77.0	3.0	9.8	100	99	14	-	-
SS-207B	27 ft LT	21+14	8.7 - 10.2	A-3(0)	NP	NP	2.4	96.4	0.2	1.0	99.9	99	1	-	-
SS-185B	27 ft LT	21+14	23.7 - 25.2	A-6(13)	35	16	2.4	23.6	55.3	18.7	100	99	84	-	-
SS-186B	27 ft LT	21+14	33.7 - 35.2	A-2-4(0)	NP	NP	41.0	31.1	14.8	13.1	91.3	76	33	-	-
SS-187B	27 ft LT	21+14	43.7 - 45.2	A-2-4(0)	NP	NP	26.5	64.1	2.7	6.7	96.2	85	10	-	-
ST-08B	23 ft LT	21+14	25.0 - 27.0	A-6(14)	39	-	0.4	37.4	34.5	27.7	100	99.8	73.0	-	-

-Y32RPB1-
STA. 21+14.33
ELEV. 66.82
OFF. -23.67

Ⓖ MODERATELY HARD LIMESTONE

SS-184B
SS-207B
SS-185B
SS-186B
SS-187B

21+14
27 LT

11/18

12 15 4 17 21

LOOSE TO MEDIUM DENSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

WOH WOH

ST-08B

VERY SOFT GRAY SANDY CLAY, WET
(CASTLE HAYNE FORMATION)

4 1

LOOSE TO MEDIUM DENSE GRAY SAND WITH SHELL FRAGMENTS, SAT.

Ⓖ

10 12

BT

MEDIUM DENSE GRAY SAND WITH SHELL FRAGMENTS, SAT.

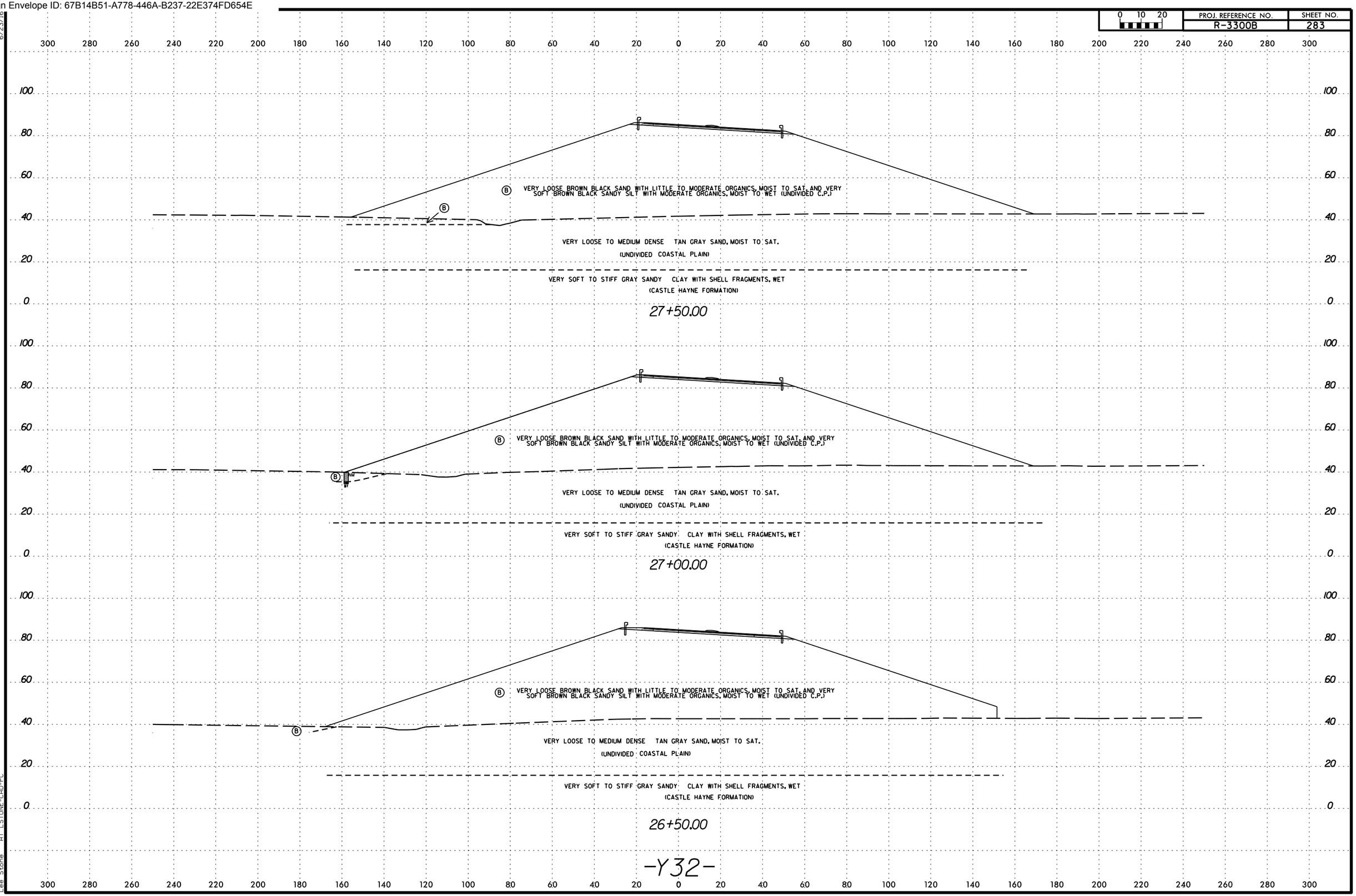
21+00.00

-Y32-

10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y321900-2100.dgn
Lee Stone AT_STONE-CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	283

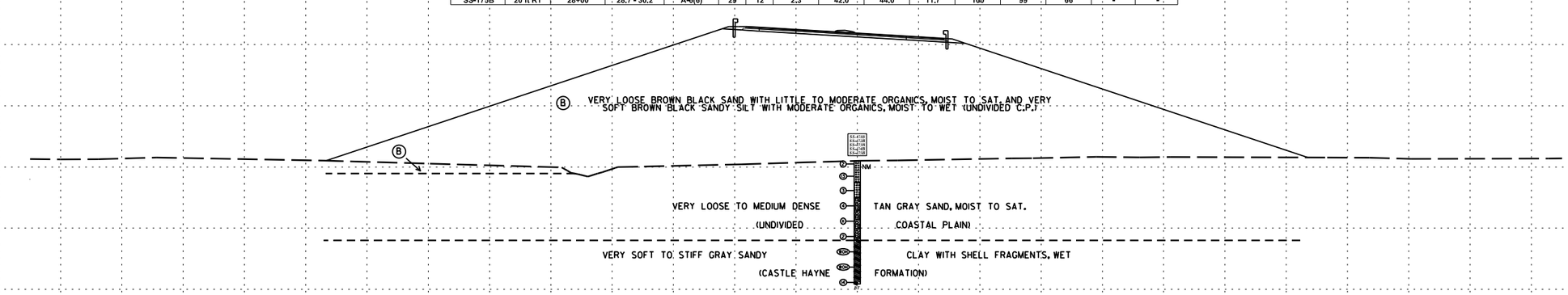


6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y322650-3300.dgn
10-SEP-2021 10:57
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-171B	20 ft RT	28+00	0.0 - 1.5	A-3(0)	NP	NP	12.1	83.3	3.2	1.4	100	97	5	-	0.6
SS-172B	20 ft RT	28+00	8.7 - 10.2	A-3(0)	NP	NP	35.3	63.2	1.3	0.2	98.8	85	2	-	-
SS-173B	20 ft RT	28+00	13.7 - 15.2	A-2-4(0)	NP	NP	3.9	72.1	6.0	18.1	100	100	26	-	-
SS-174B	20 ft RT	28+00	23.7 - 25.2	A-2-4(0)	NP	NP	3.4	83.3	4.9	8.4	100	100	17	-	-
SS-175B	20 ft RT	28+00	28.7 - 30.2	A-6(6)	29	12	2.3	42.0	44.0	11.7	100	99	66	-	-



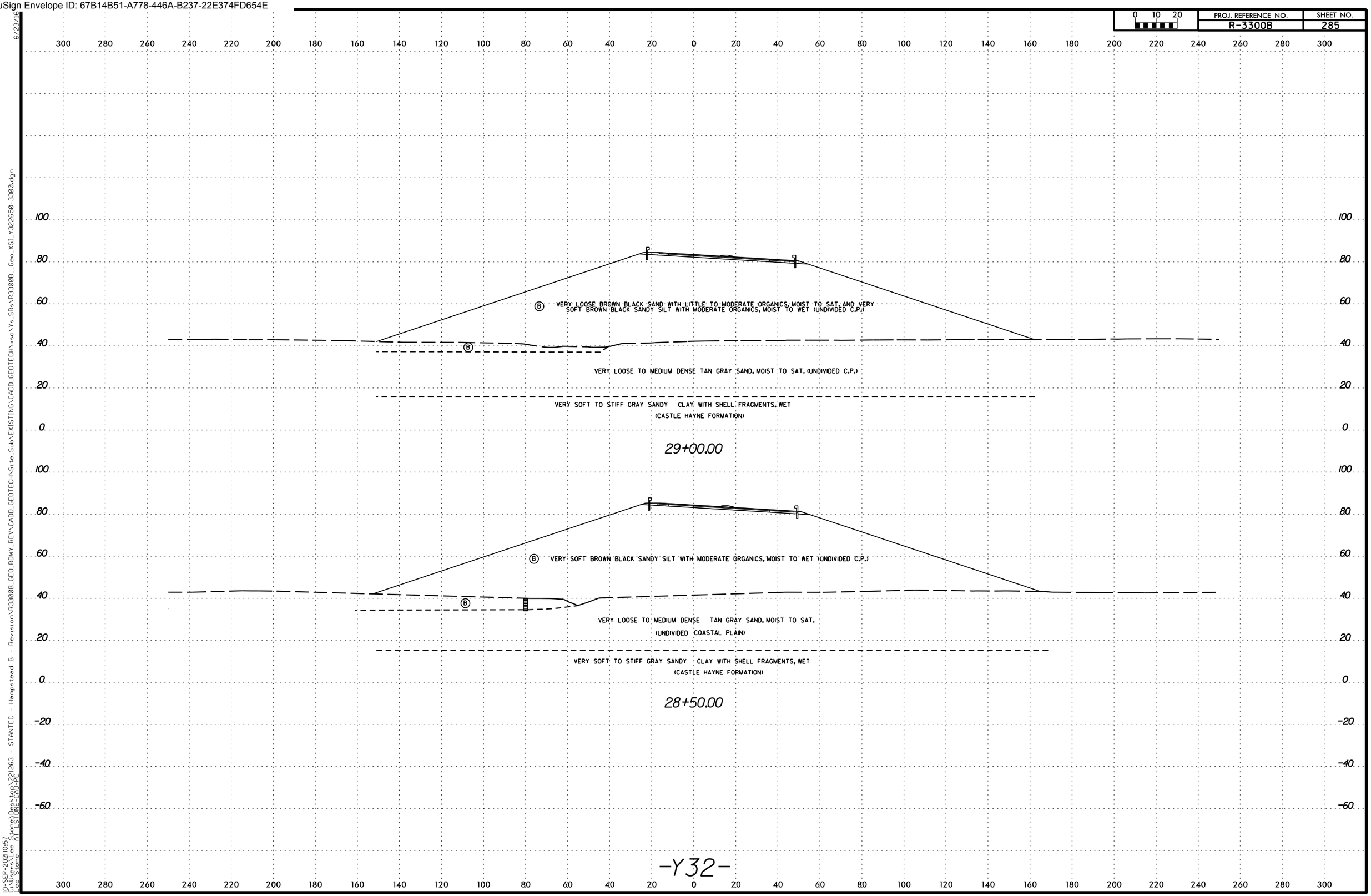
28+00.00

-Y32-

6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y322650-3300.dgn
Lee Stone AT STONE-CAD-PC

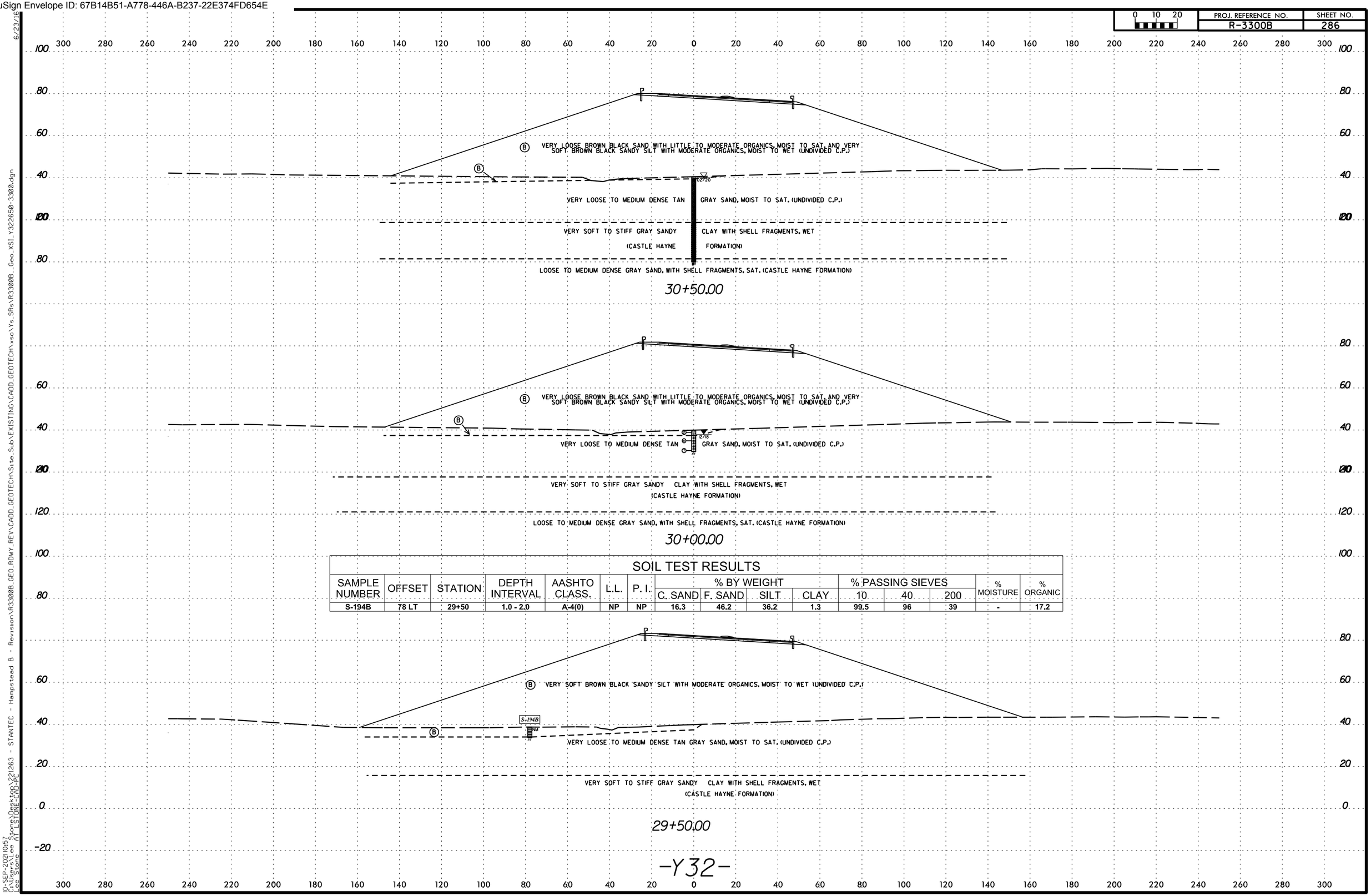
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	285



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y322650-3300.dgn
10-SEP-2021 10:57
Lee Stone
AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-194B	78 LT	29+50	1.0 - 2.0	A-4(0)	NP	NP	16.3	46.2	36.2	1.3	99.5	96	39	-	17.2

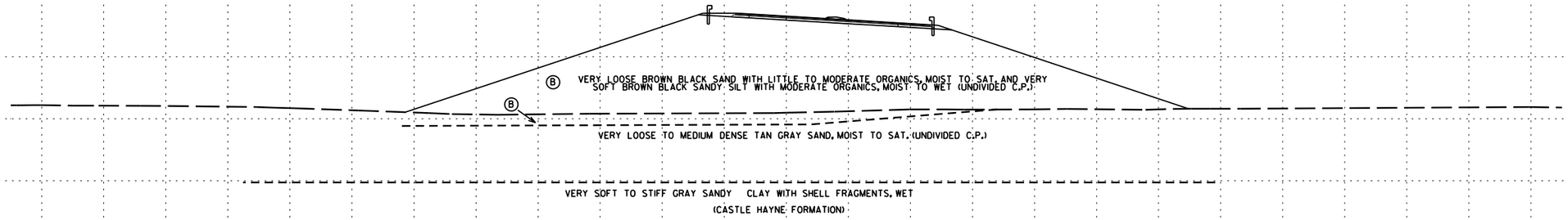
6/23/16
10-SEP-2021|0:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y322650-3300.dgn
Lee Stone AT LSTONE_CAD_PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	287

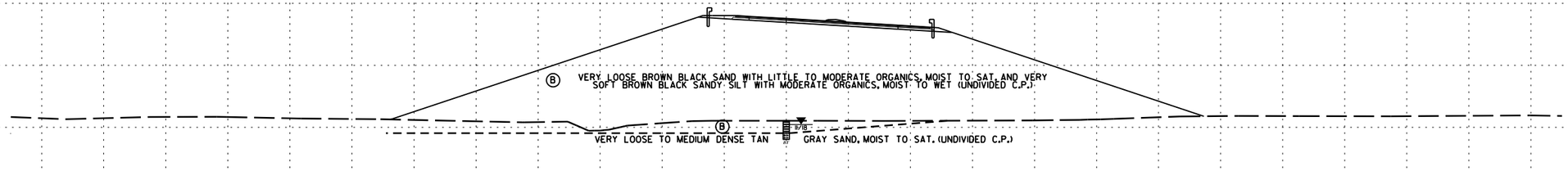
300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

80 60 40 20



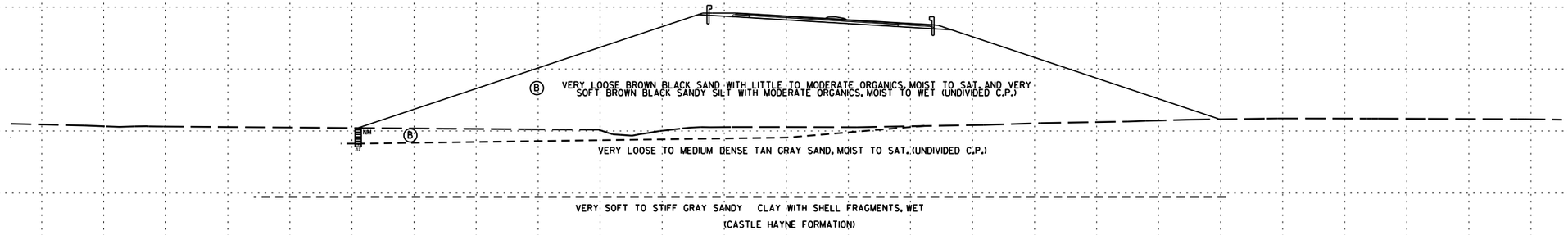
32+00.00

80 60 40 20



31+50.00

60 40 20 0 -20 -40



31+00.00

-Y32-

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

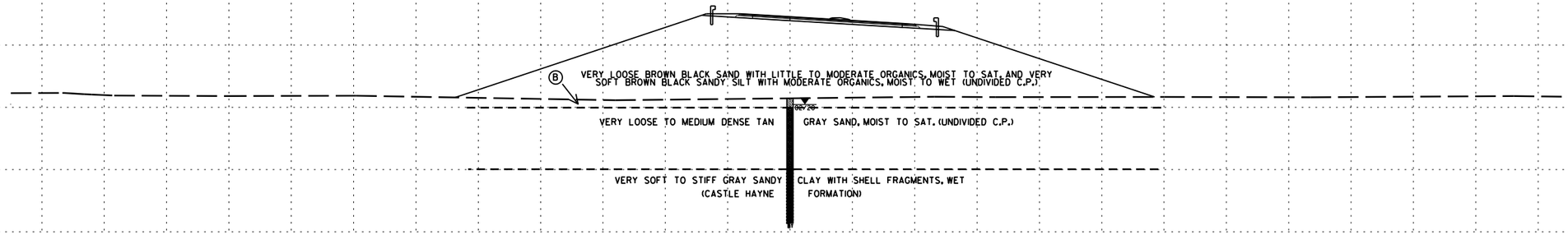
6/23/16

C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_Y322650-3300.dgn
10-SEP-2021 10:57
Lee Stone AT LSTONE CAD-PC

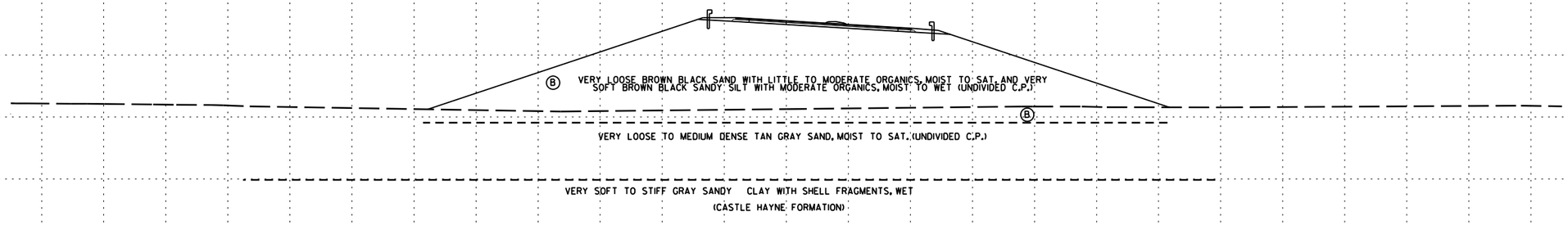
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

80
60
40
20



33+00.00



32+50.00

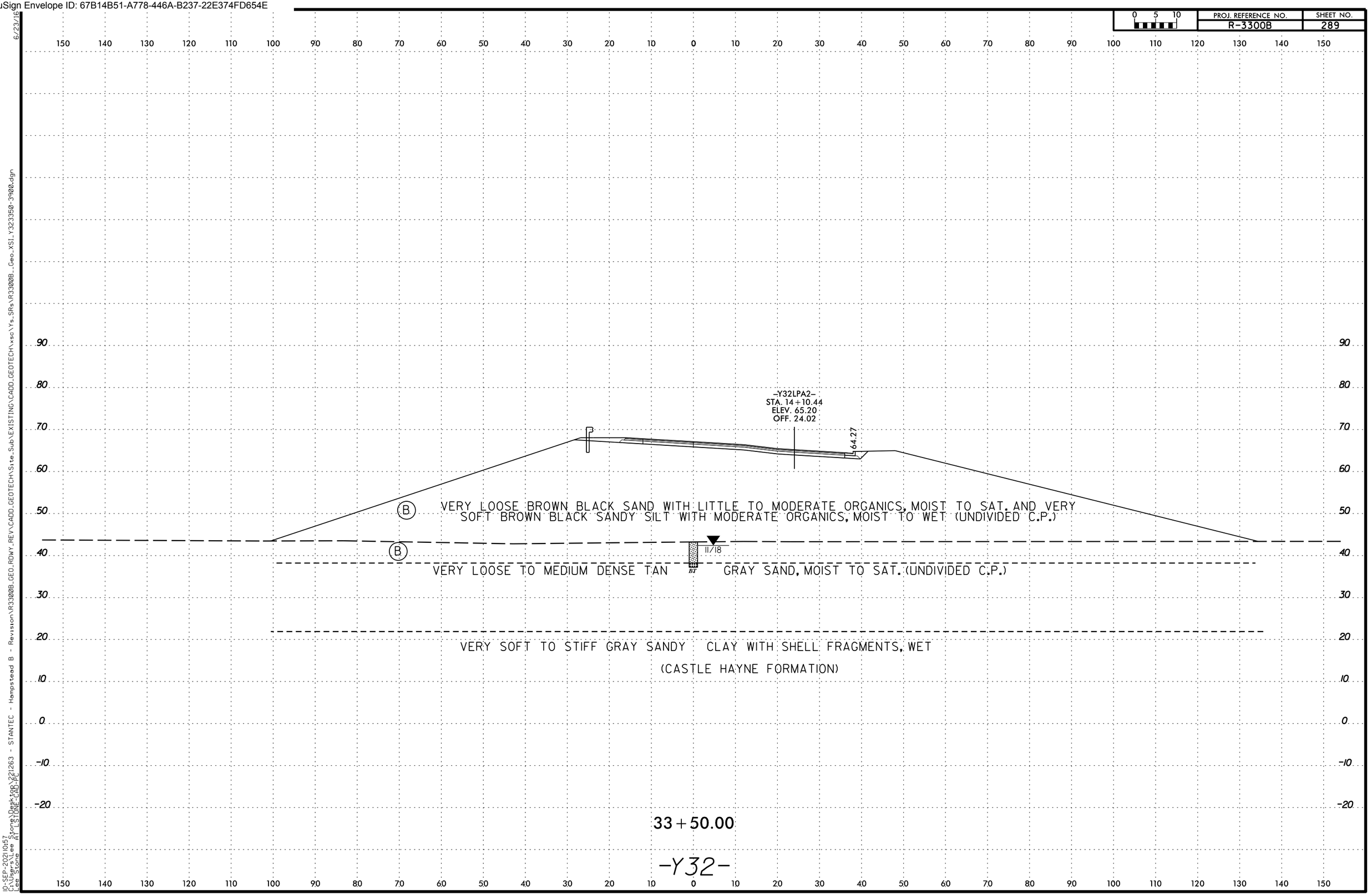
-Y32-

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y322650-3300.dgn
Lee Stone
AT STONE CAD-PC

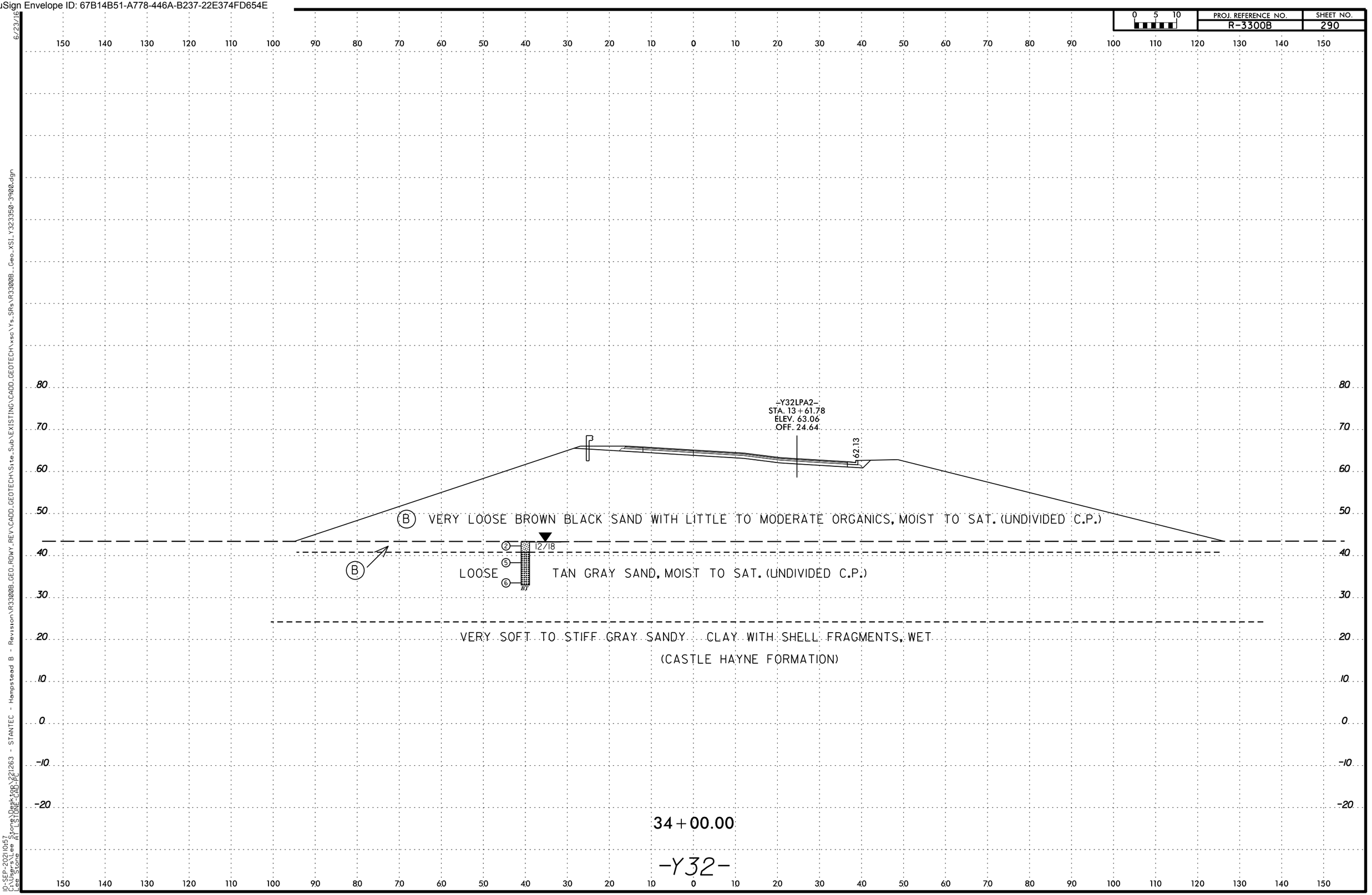
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	289



6/23/16
I:\DGN\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y323350-3900.dgn
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\
Lee Stone
AT LSTONE-CAD-PC

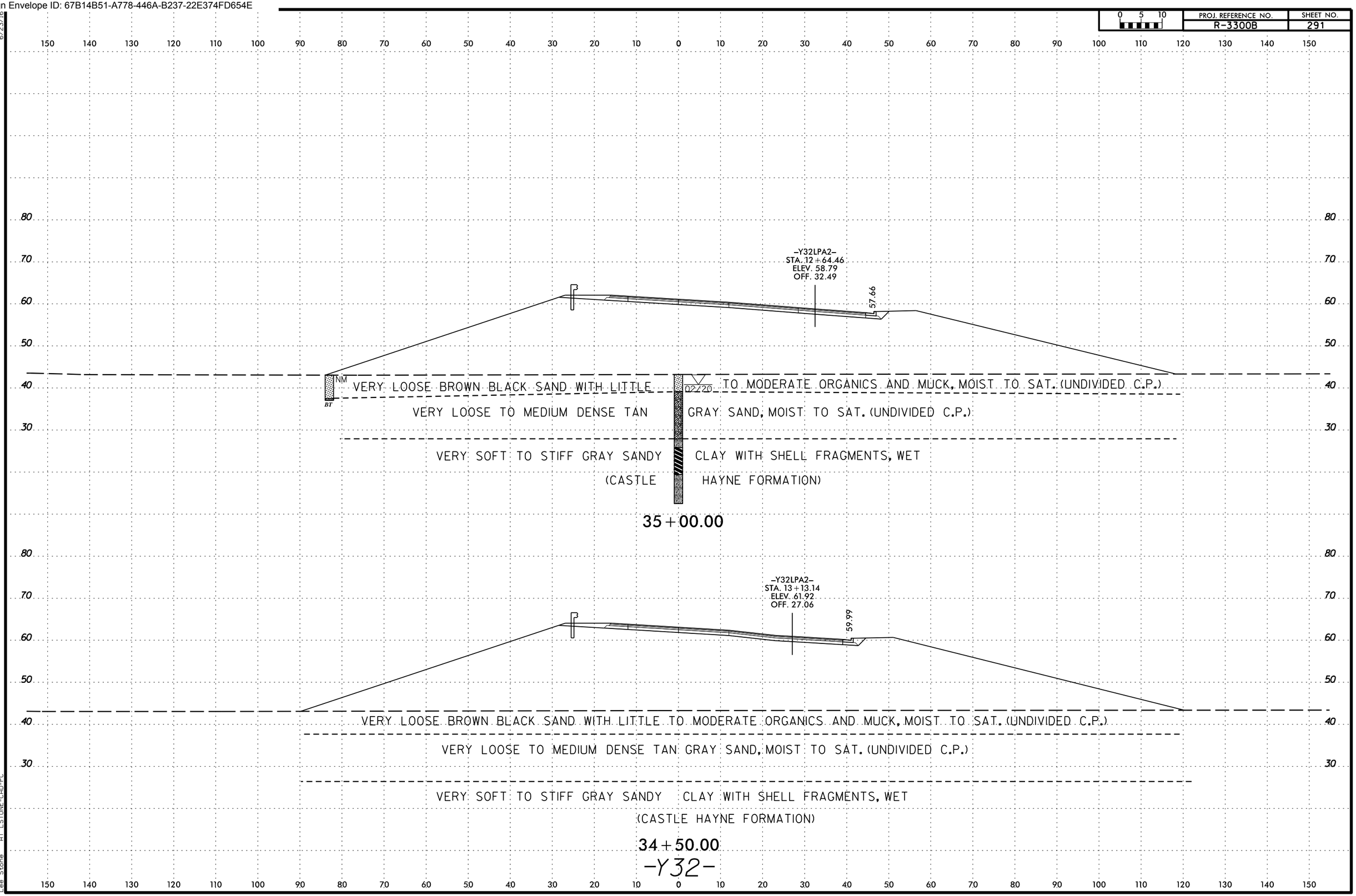
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y323350-3900.dgn
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	291



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y323350-3900.dgn
10-SEP-2021 10:57
Lee Stone
AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y323350-3900.dgn
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y323350-3900.dgn
Lee Stone AT LSTONE-CAD-PC

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

80 70 60 50 40 30 20 10 0 -10 -20

–Y32LPA2–
STA. 12+15.50
ELEV. 56.87
OFF. 42.19

57.66

11/18

VERY LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANICS AND MUCK, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE TO MEDIUM DENSE TAN GRAY SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT TO STIFF GRAY SANDY CLAY WITH SHELL FRAGMENTS, WET (CASTLE HAYNE FORMATION)

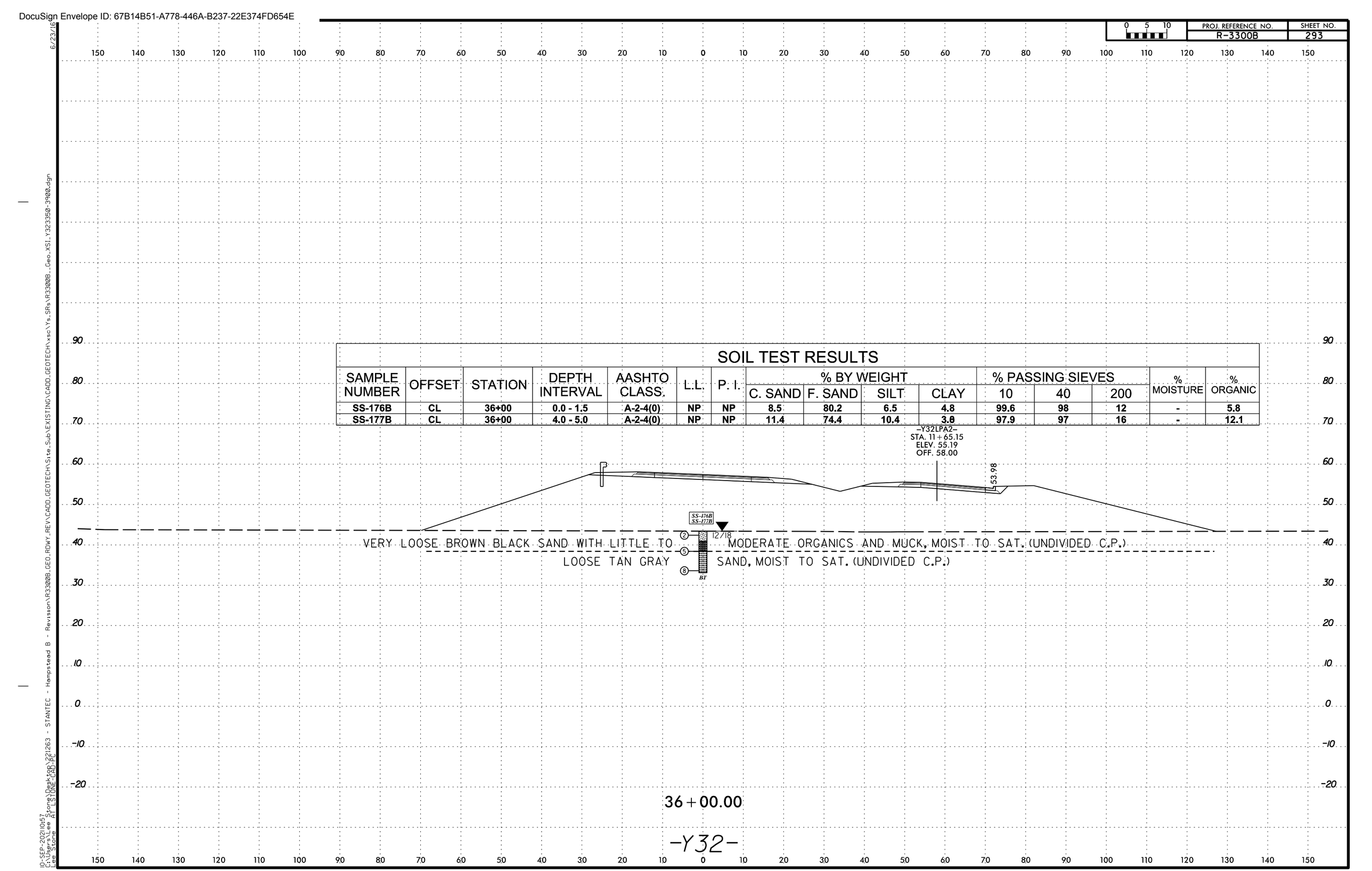
35+50.00

–Y32–

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

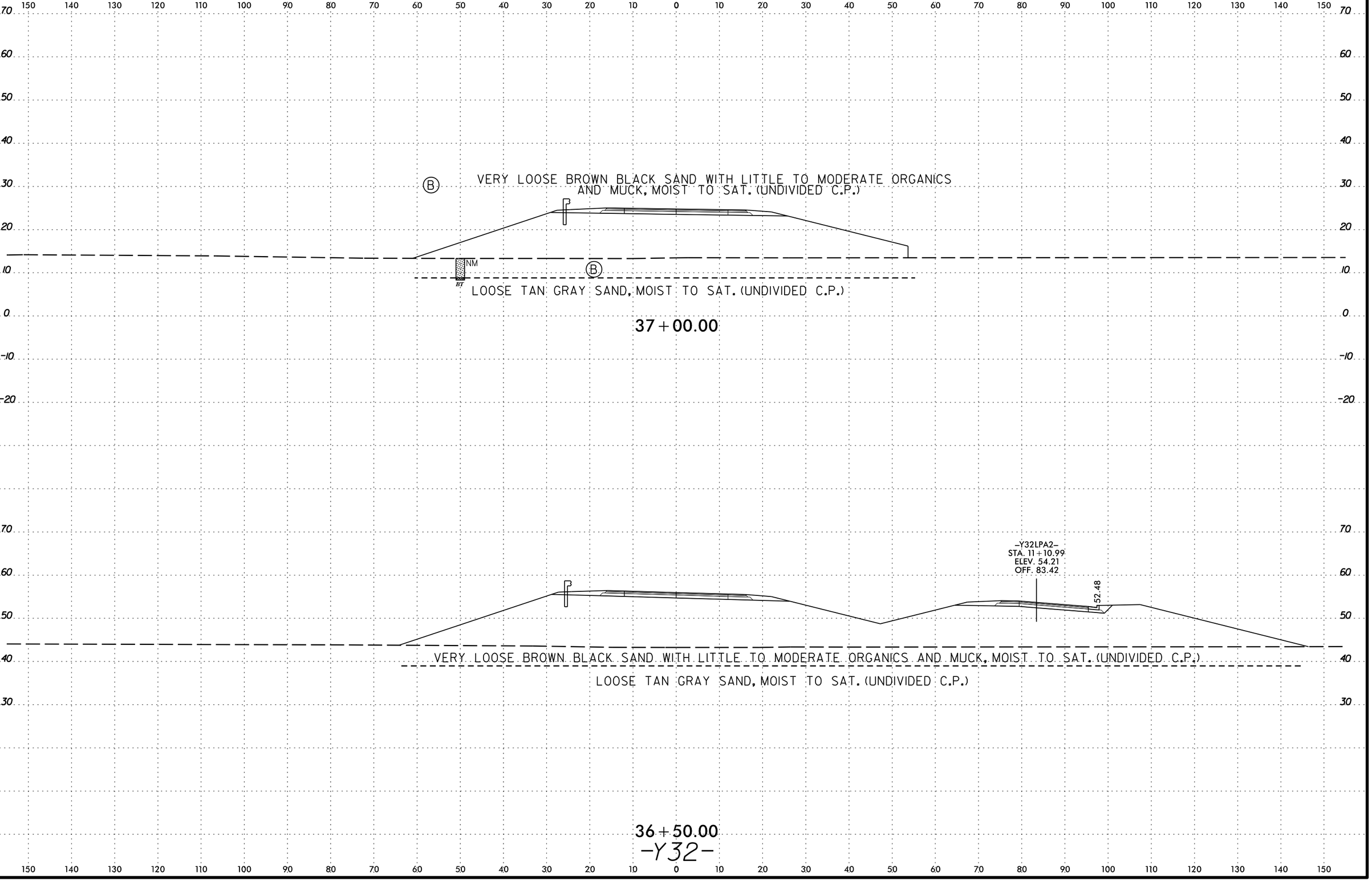
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-176B	CL	36+00	0.0 - 1.5	A-2-4(0)	NP	NP	8.5	80.2	6.5	4.8	99.6	98	12	-	5.8
SS-177B	CL	36+00	4.0 - 5.0	A-2-4(0)	NP	NP	11.4	74.4	10.4	3.8	97.9	97	16	-	12.1



6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y323350-3900.dgn
Lee Stone AT STONE CAD-PC

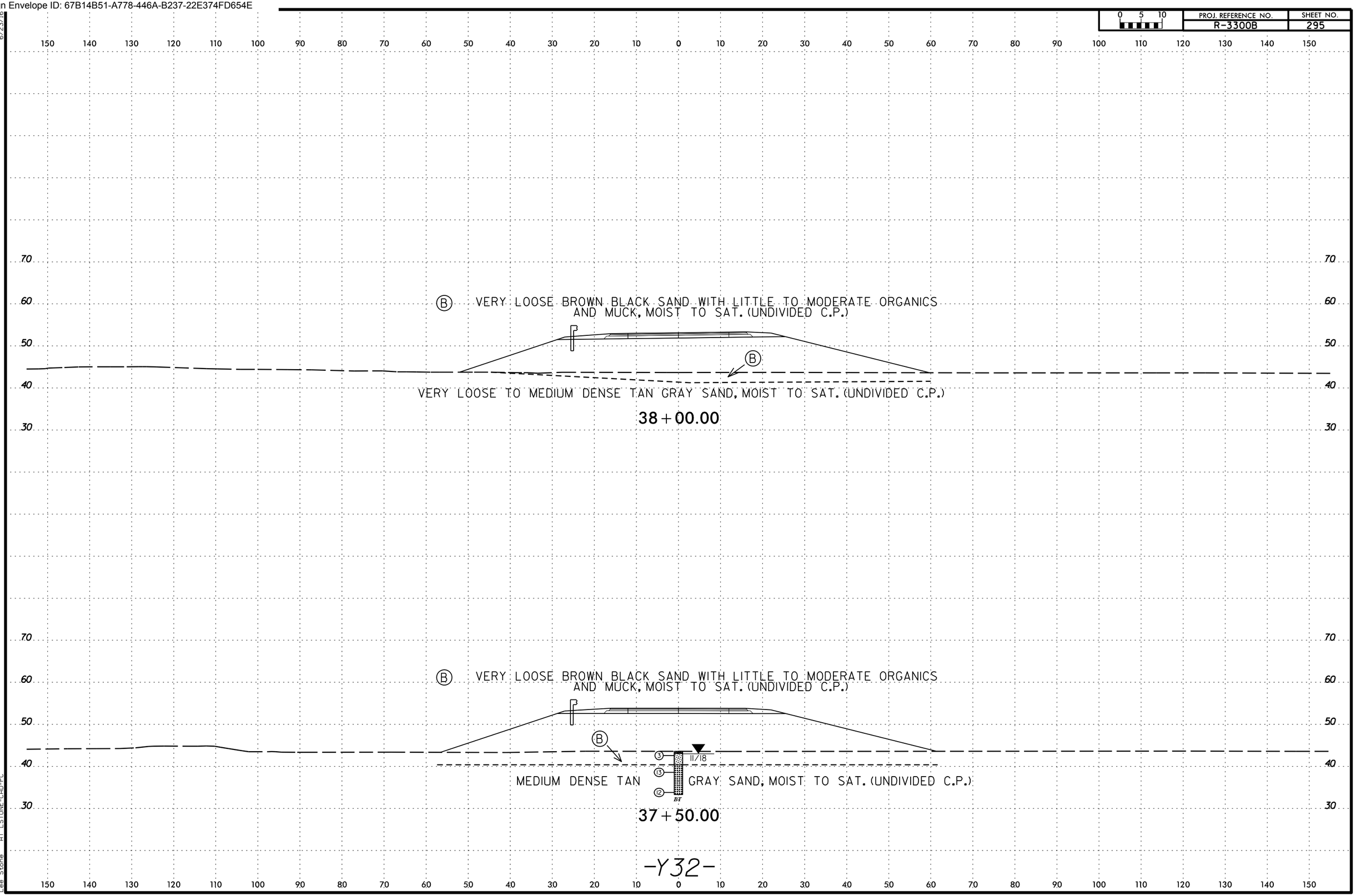
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	294



6/23/16
C:\Users\Lee Stone.Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y323350-3900.dgn
10-SEP-2021 10:57
Lee Stone
AT STONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

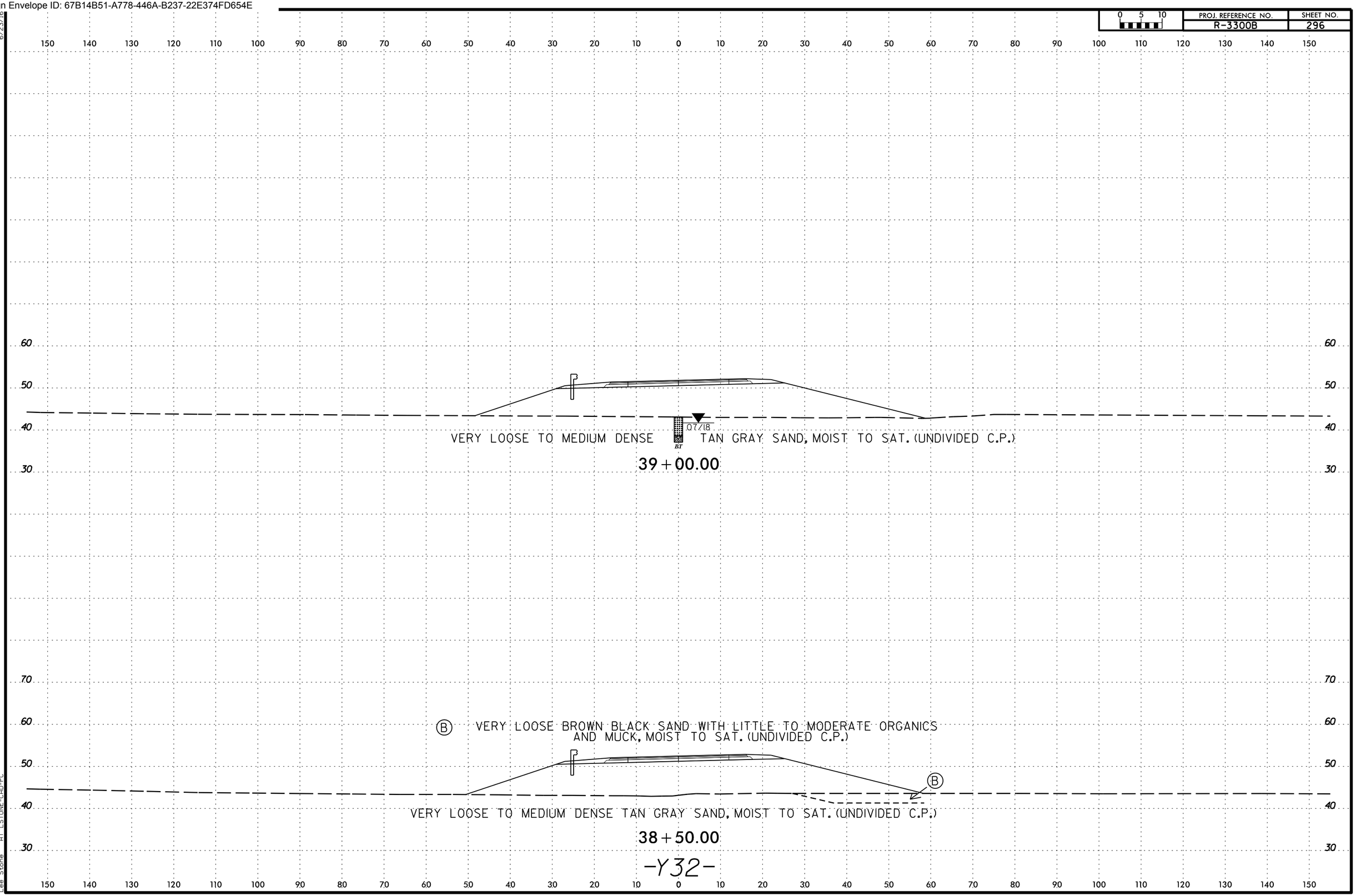


-Y32-

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32350-3900.dgn
10-SEP-2021 10:57
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

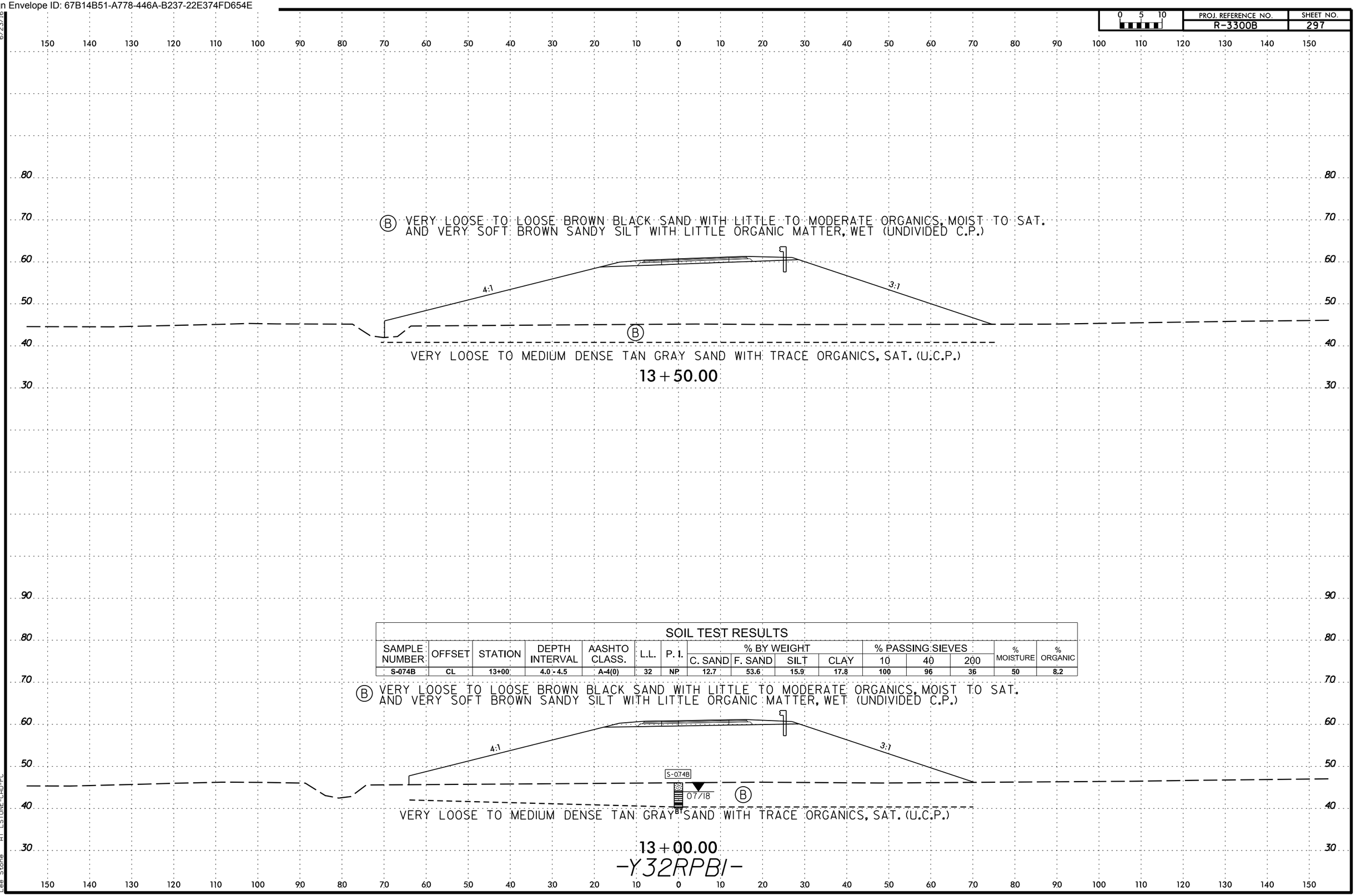
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	296



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y323350-3900.dgn
10-SEP-2021 10:57
Lee Stone
AT STONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	297



SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-074B	CL	13+00	4.0 - 4.5	A-4(0)	32	NP	12.7	53.6	15.9	17.8	100	96	36	50	8.2

6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32RPBI1300-2250.dgn
Lee Stone AT LSTONE-CAD-PC

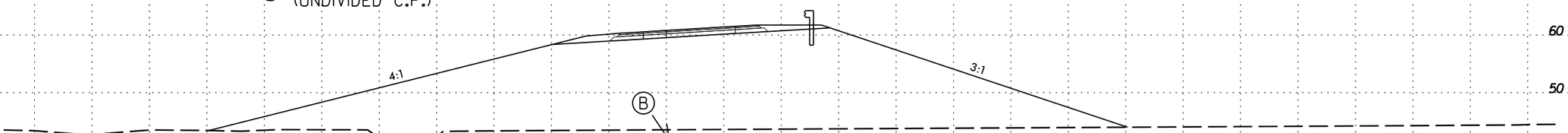
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	298

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

80 70 60 50 40 30

Ⓑ VERY LOOSE TO LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)



VERY LOOSE TO MEDIUM DENSE TAN GRAY SAND WITH TRACE ORGANICS, SAT. (U.C.P.)

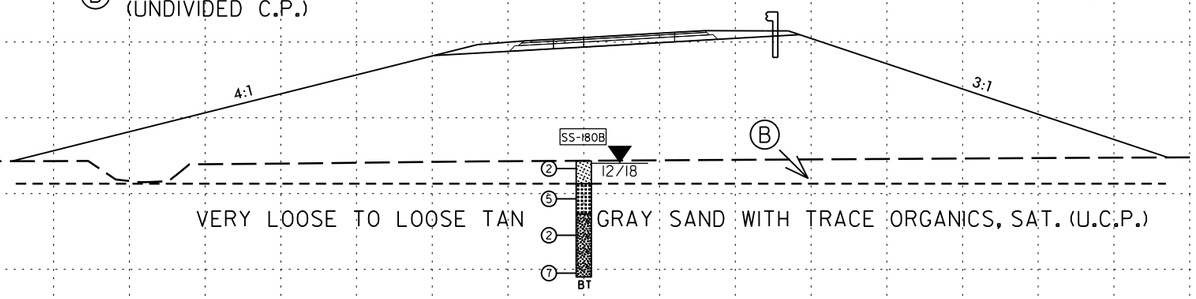
14+50.00

90 80 70 60 50 40 30 20

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-180B	CL	14+00	13.8 - 15.3	A-2-4(0)	NP	NP	4.6	65.4	10.0	19.9	100	100	33	-	-

Ⓑ VERY LOOSE TO LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)



VERY LOOSE TO LOOSE TAN GRAY SAND WITH TRACE ORGANICS, SAT. (U.C.P.)

14+00.00

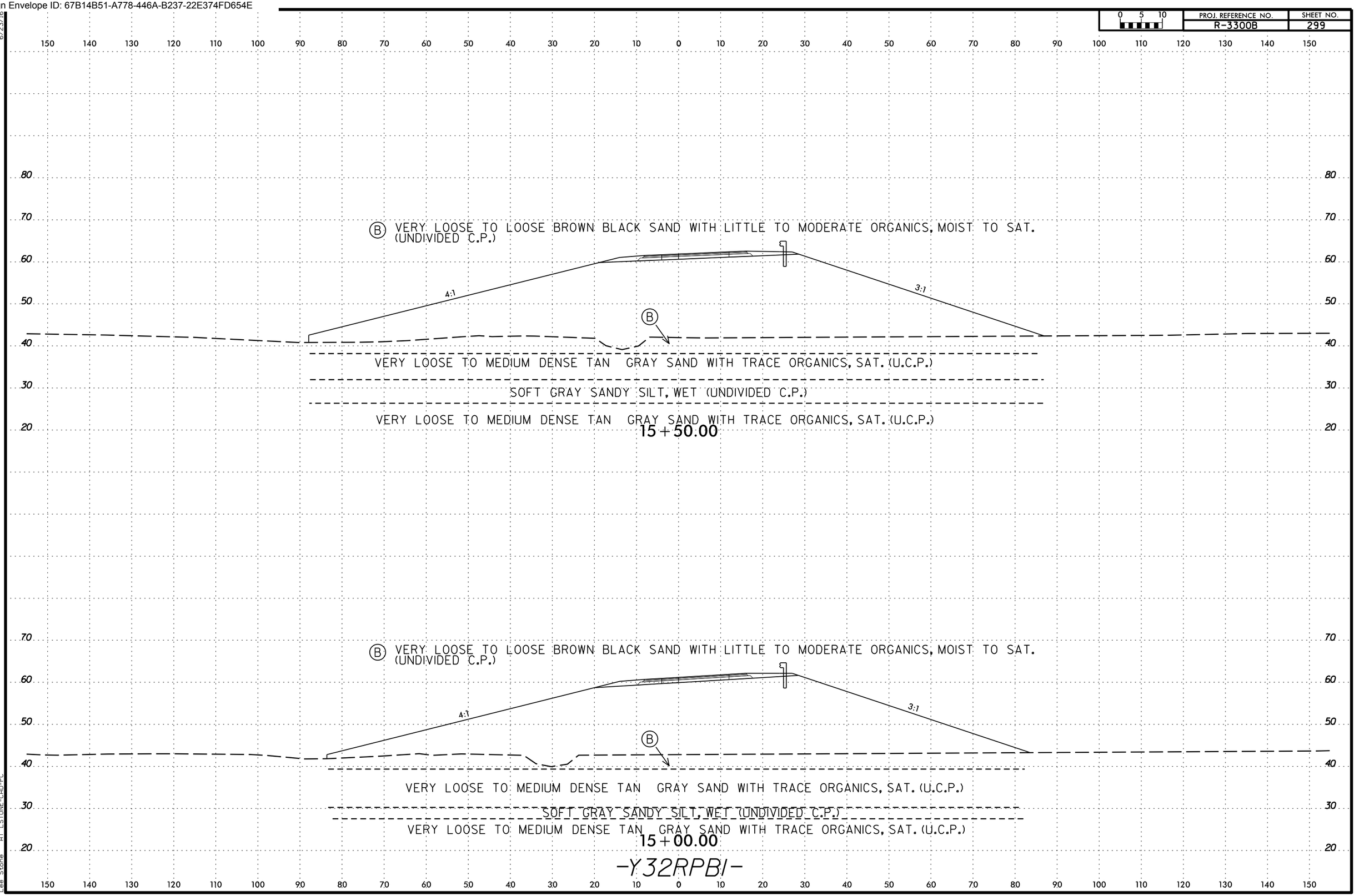
-Y32RPBI-

90 80 70 60 50 40 30 20

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32RPBI1300-2250.dgn
Lee Stone AT LSTONE CAD-PC

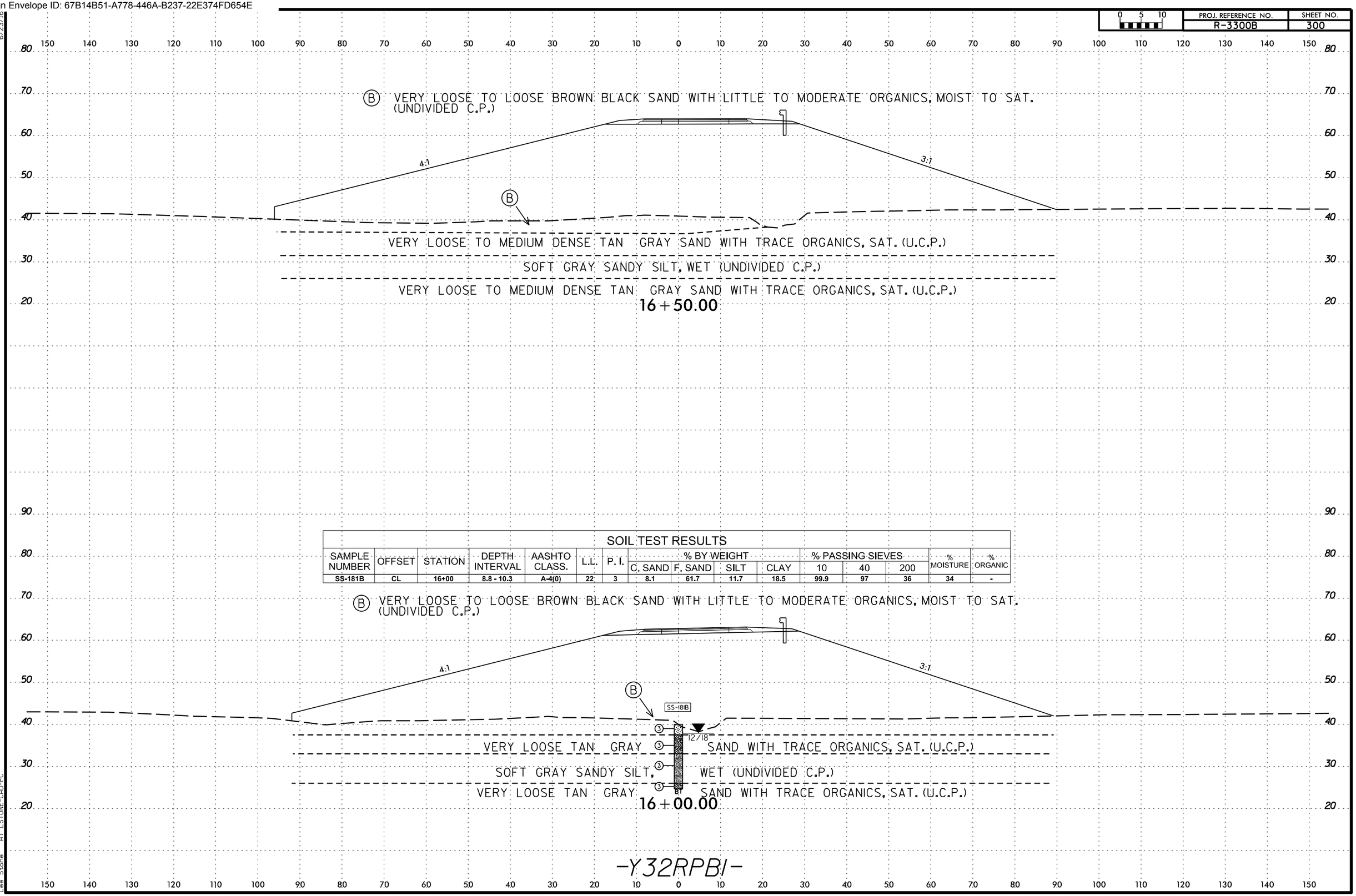
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc Ys_SRs\R3300B_Geo_XSI_Y32RPBI1300-2250.dgn
10-SEP-2021 10:57
Lee Stone
AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	300



SOIL TEST RESULTS

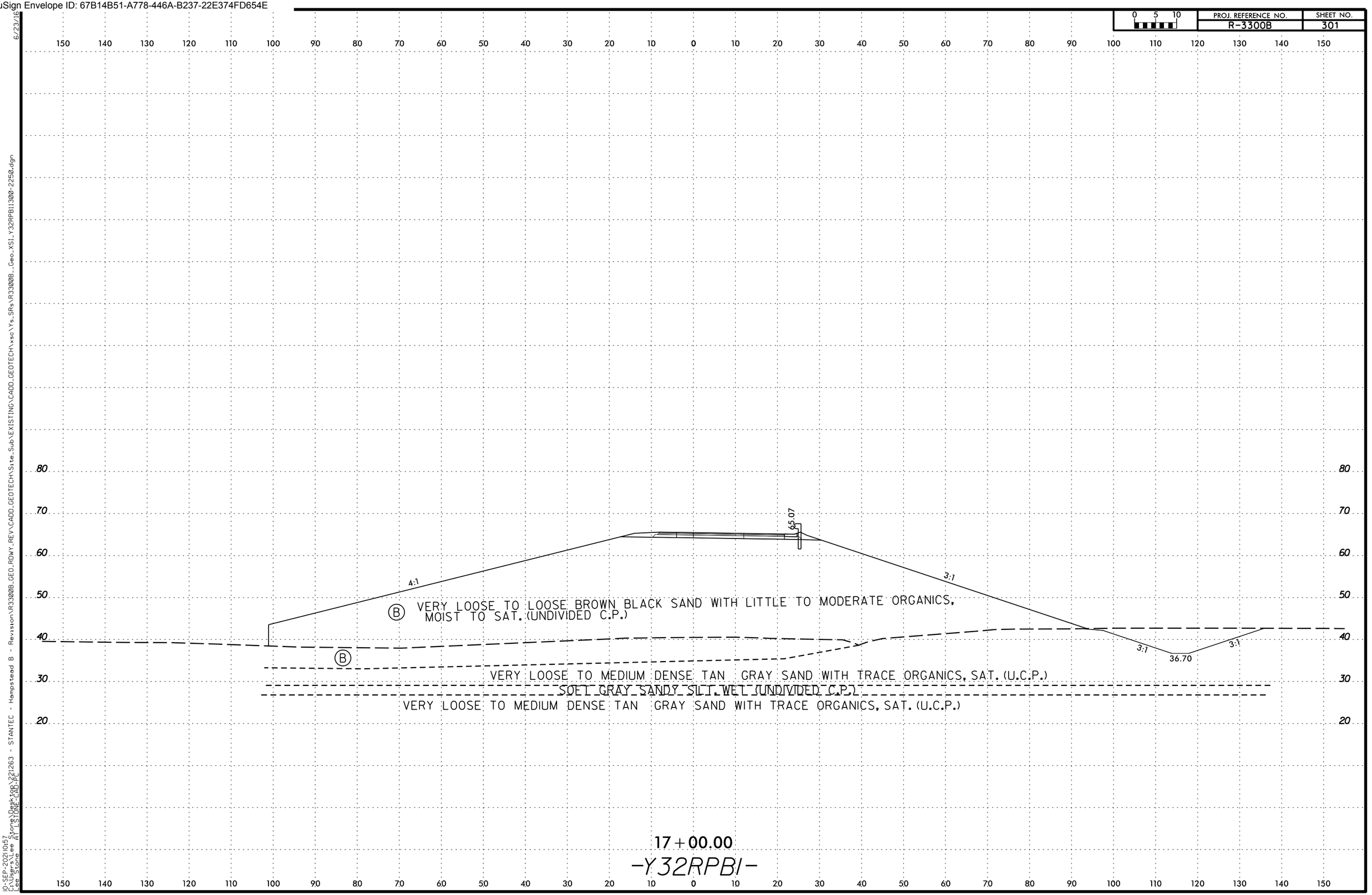
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-181B	CL	16+00	8.8 - 10.3	A-4(0)	22	3	8.1	61.7	11.7	18.5	99.9	97	36	34	-

-Y32RPBI-

6/23/16
C:\Users\Lee Stone.AT\STONE CAD-PC\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32RPBI1300-2250.dgn
10-SEP-2021 10:57
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

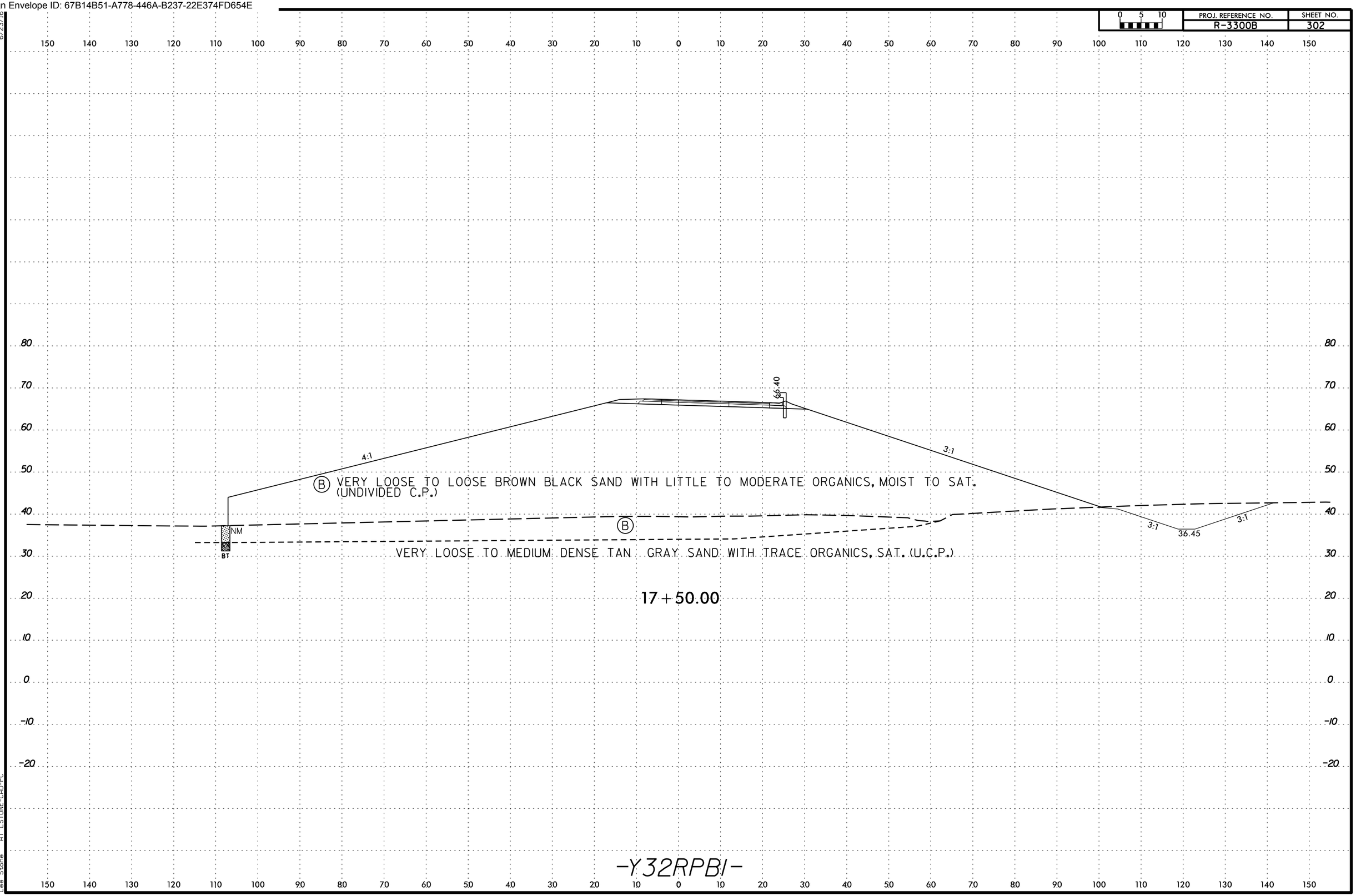
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	301



6/23/16
C:\Users\Lee Stone\Site-Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32RPBI1300-2250.dgn
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	302



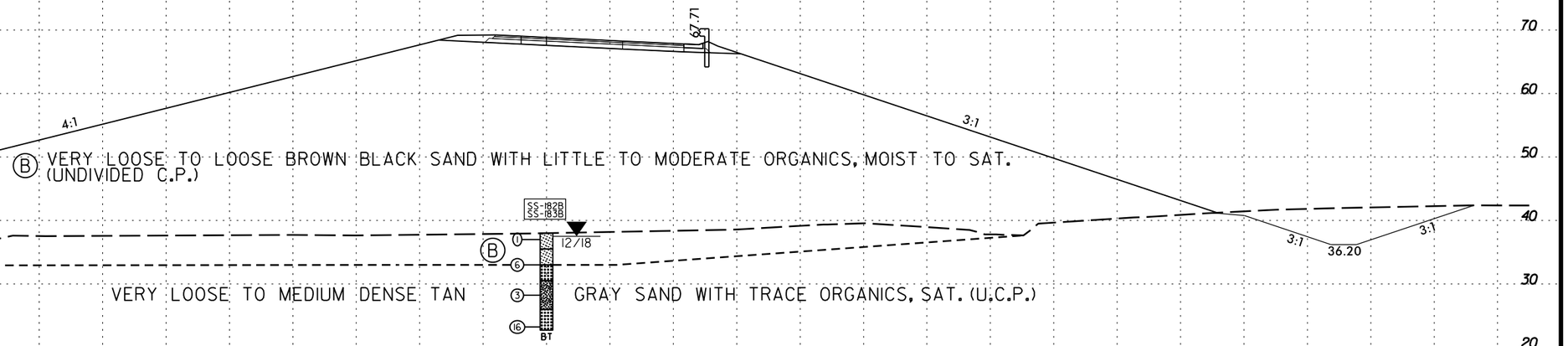
6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32RPBI1300-2250.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

PROJ. REFERENCE NO.	SHEET NO.
R-3300B	303

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-182B	CL	18+00	4.0 - 5.0	A-2-4(0)	NP	NP	18.9	61.9	9.1	10.1	98.3	92	21	-	4.9
SS-183B	CL	18+00	8.8 - 10.3	A-2-4(0)	19	6	21.9	49.0	10.9	18.2	98.1	92	32	-	-



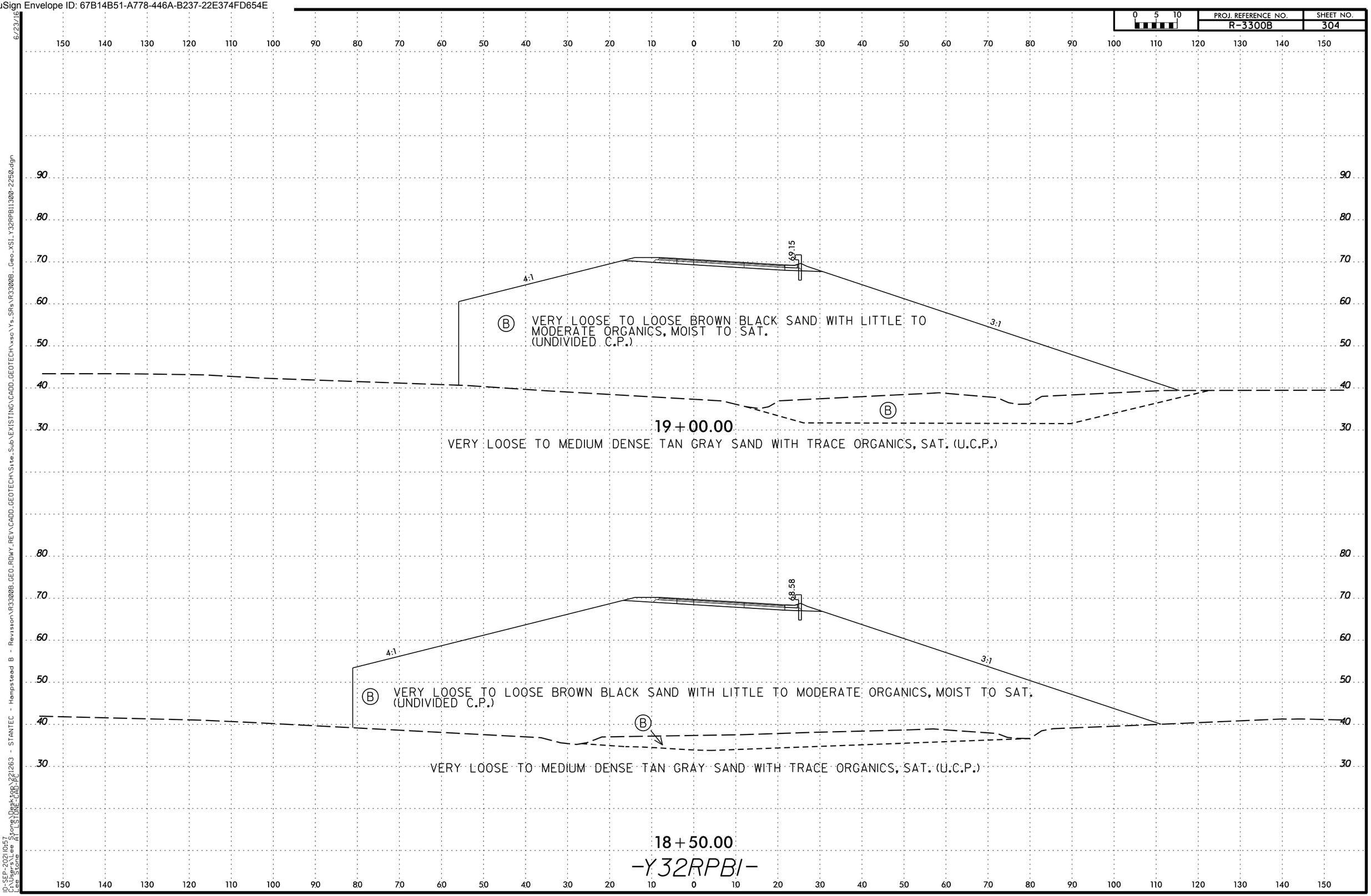
18+00.00

-Y32RPBI-

10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32RPBI1300-2250.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

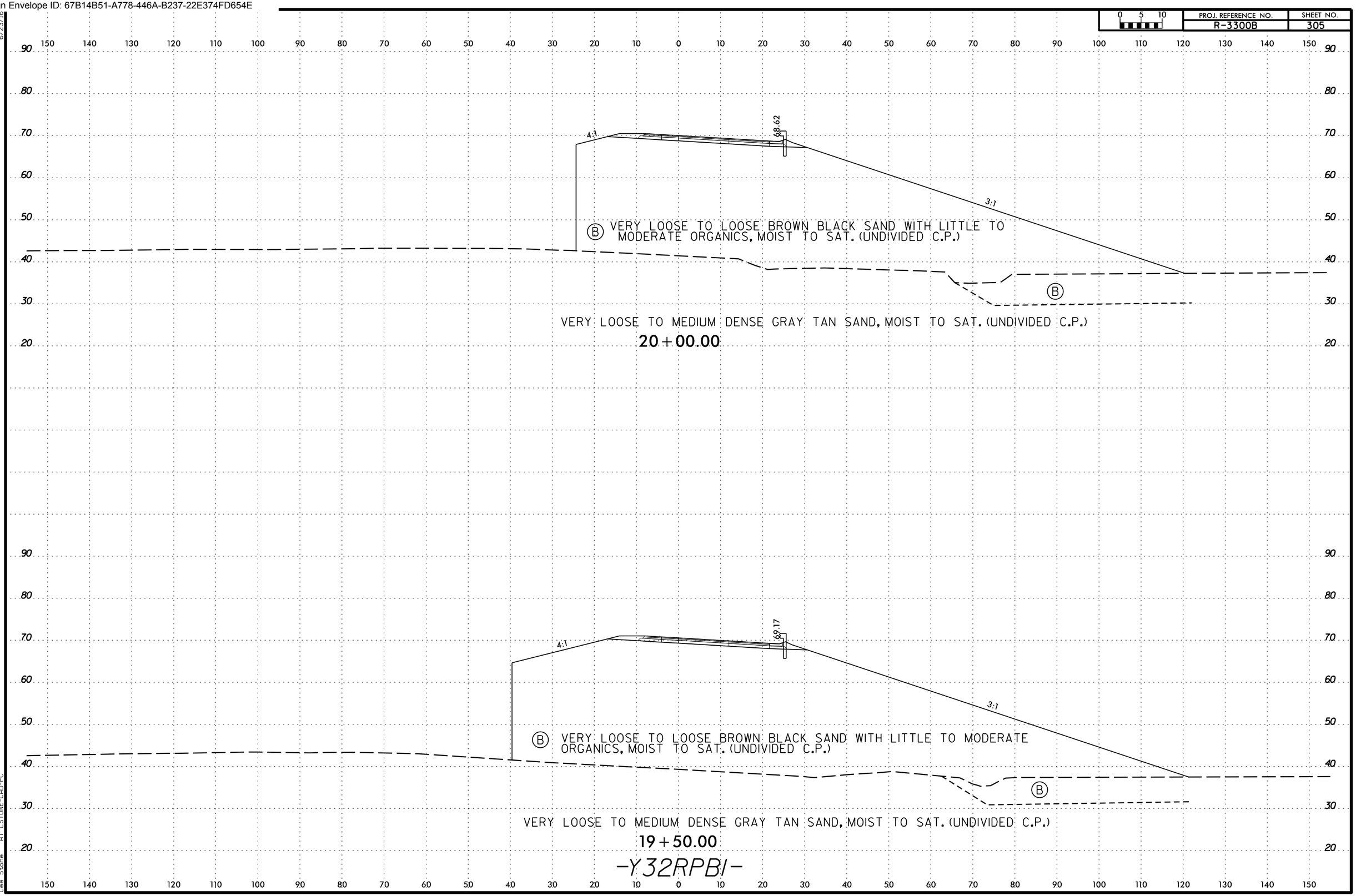
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	304



6/23/16
C:\Users\Lee Stone.Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32RPBI1300-2250.dgn
10-SEP-2021|0:57
Lee Stone
AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

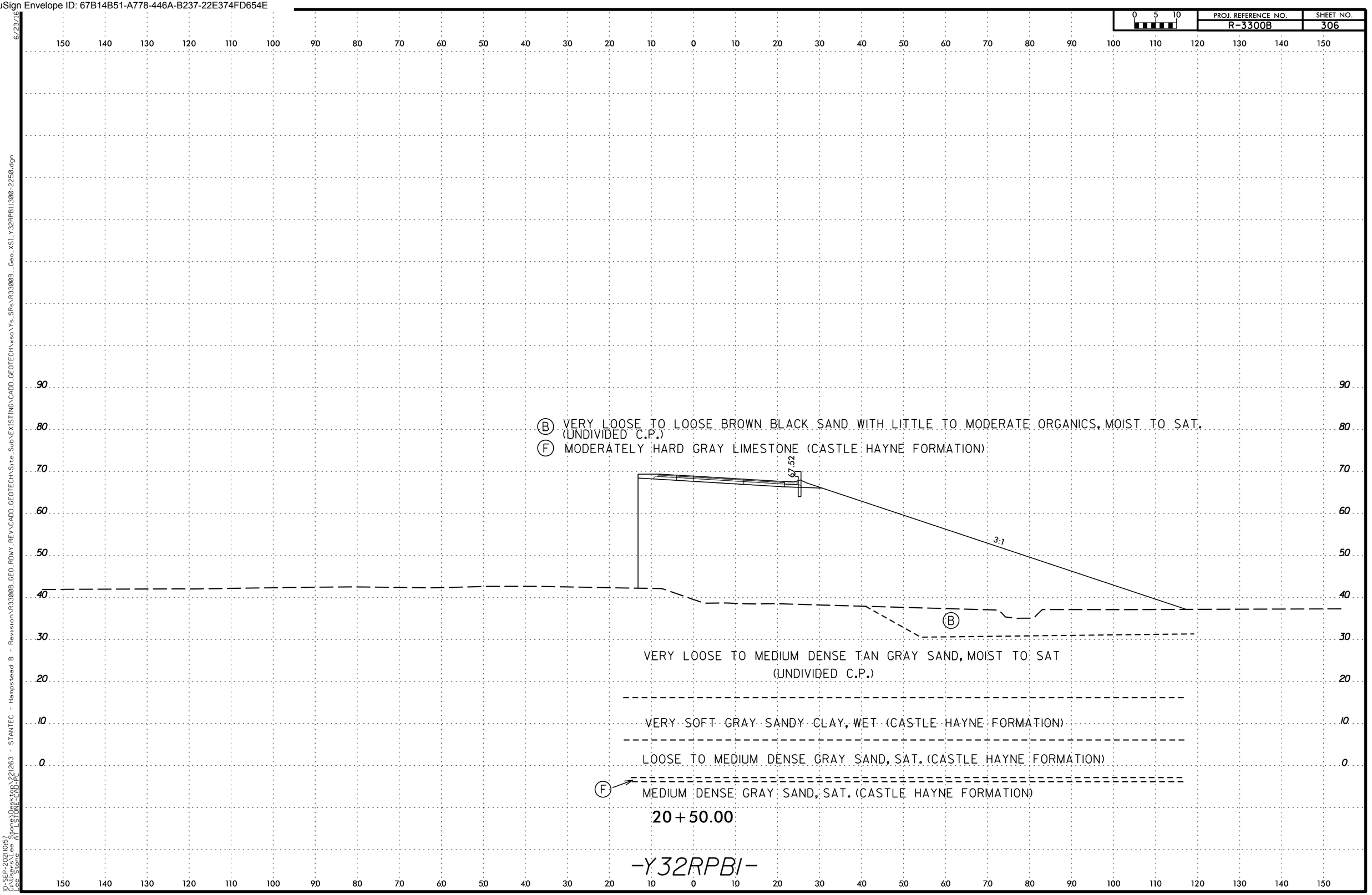
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	305



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32RPBI1300-2250.dgn
10-SEP-2021 10:57
Lee Stone
AT STONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	306



6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32RPBI1300-2250.dgn
Lee Stone AT LSTONE-CAD-PC

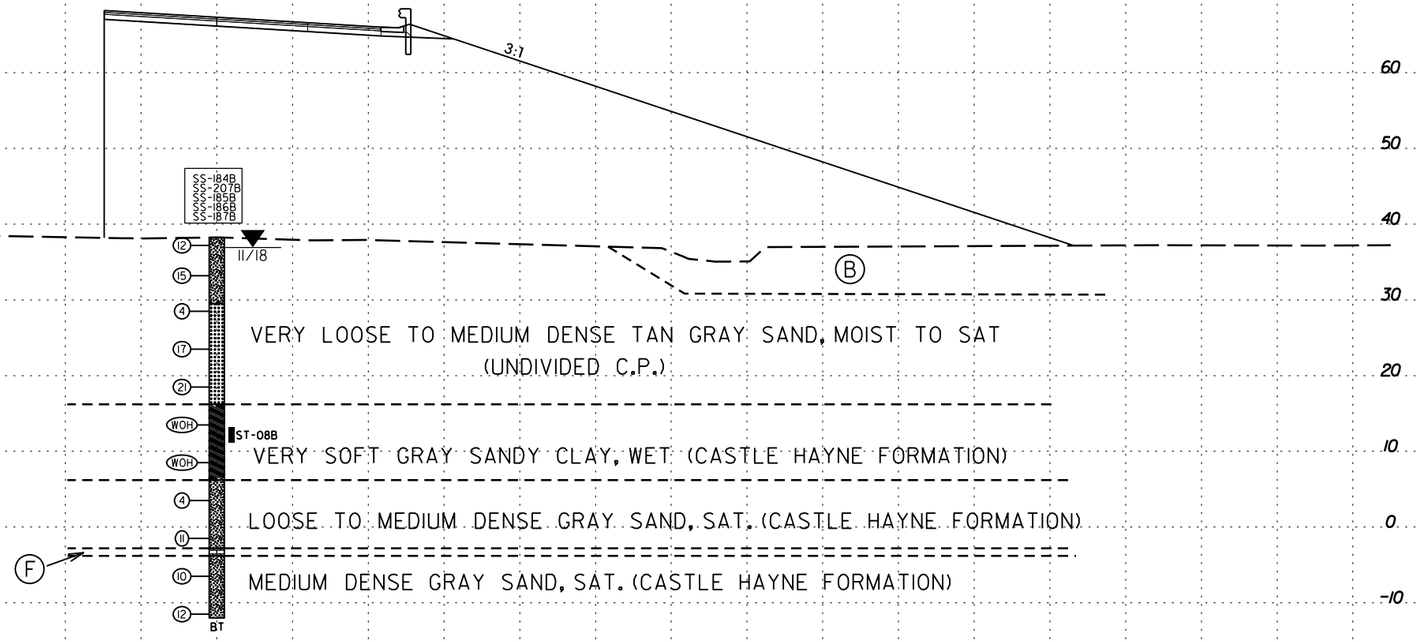
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-184B	CL	21+00	0.0 - 1.5	A-2-4(0)	NP	NP	10.1	77.0	3.0	9.8	100	99	14	-	-
SS-207B	CL	21+00	8.7 - 10.2	A-3(0)	NP	NP	2.4	96.4	0.2	1.0	99.9	99	1	-	-
SS-185B	CL	21+00	23.7 - 25.2	A-6(13)	35	16	2.4	23.6	55.3	18.7	100	99	84	-	-
SS-186B	CL	21+00	33.7 - 35.2	A-2-4(0)	NP	NP	41.0	31.1	14.8	13.1	91.3	76	33	-	-
SS-187B	CL	21+00	43.7 - 45.2	A-2-4(0)	NP	NP	26.5	64.1	2.7	6.7	96.2	85	10	-	-
ST-08B	4 ft LT	21+00	25.0 - 27.0	A-6(14)	39	22	0.4	37.4	34.5	27.7	100	99.8	73.0	39	-

(B) VERY LOOSE TO LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

(F) MODERATELY HARD GRAY LIMESTONE (CASTLE HAYNE FORMATION)

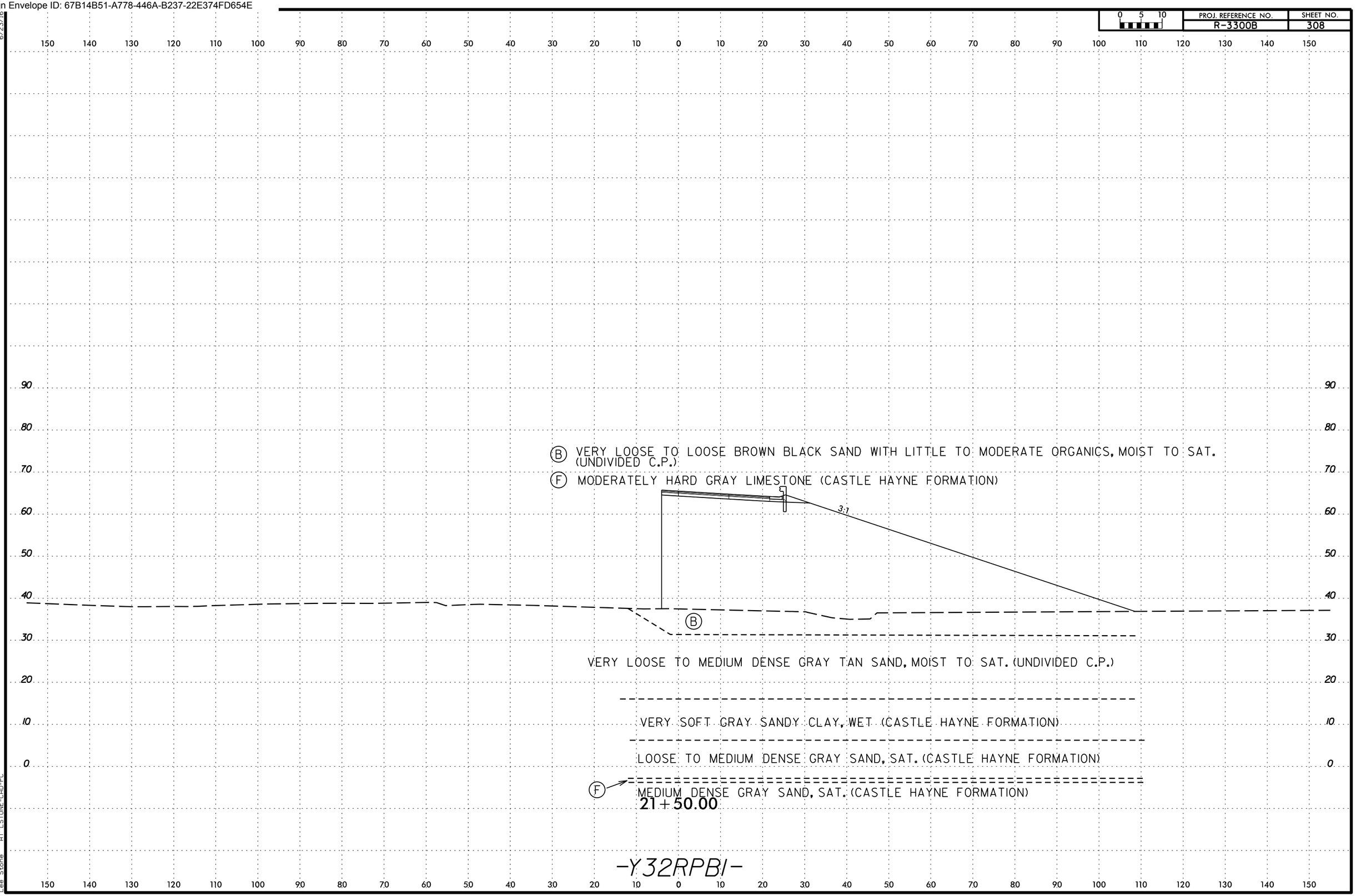


21+00.00

-Y32RPBI-

6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32RPBI1300-2250.dgn
Lee Stone AT LSTONE-CAD-PC

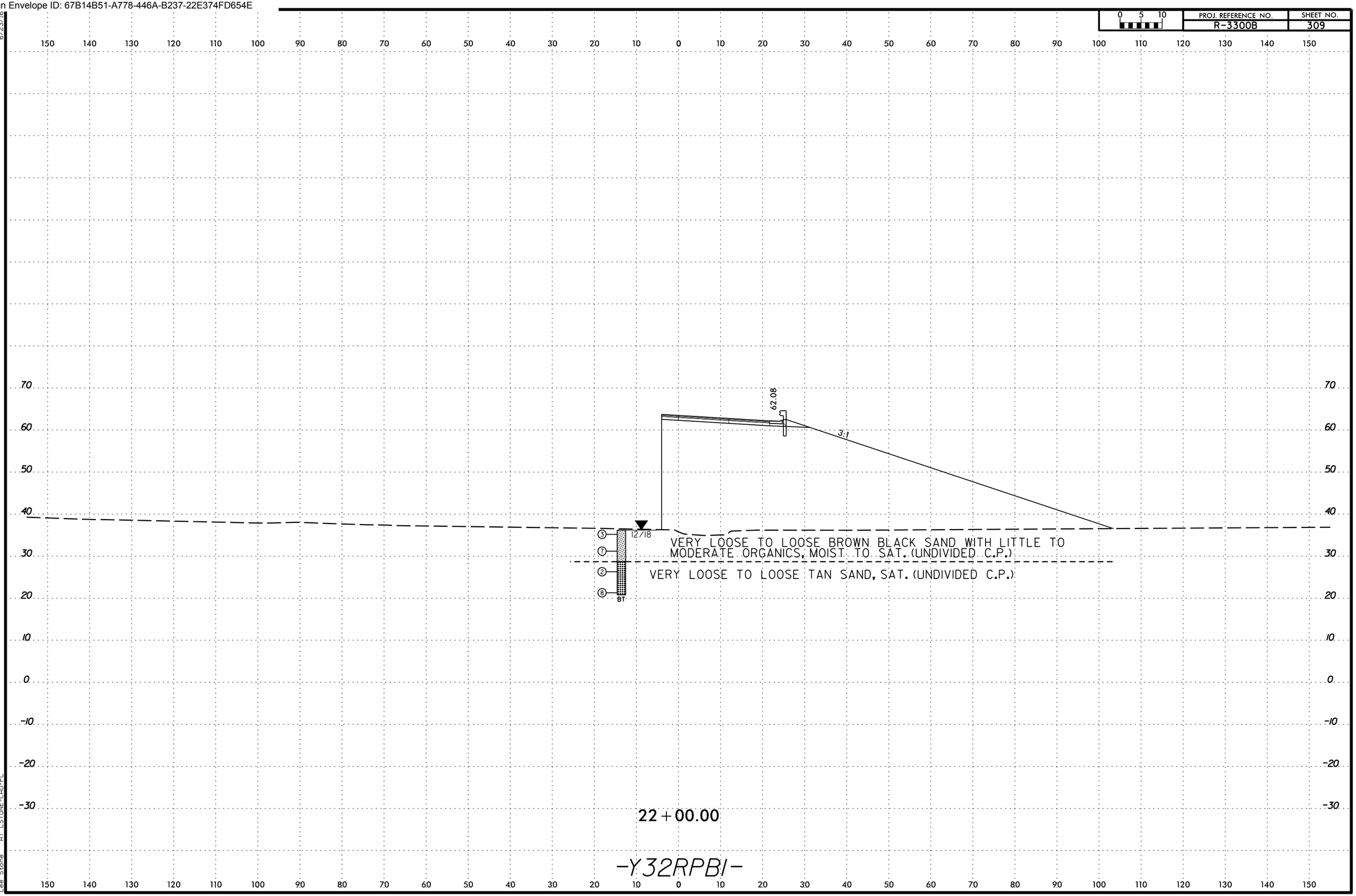
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32RPBI1300-2250.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	309



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32RPBI1300-2250.dgn
10-SEP-2021 10:57
Lee Stone
AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	310

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

70
60
50
40
30

59.98

3:1

VERY LOOSE TO LOOSE BROWN BLACK SAND WITH LITTLE TO MODERATE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

VERY LOOSE TO LOOSE TAN SAND, SAT. (UNDIVIDED C.P.)

22+50.00

-Y32RPBI-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

70
60
50
40
30

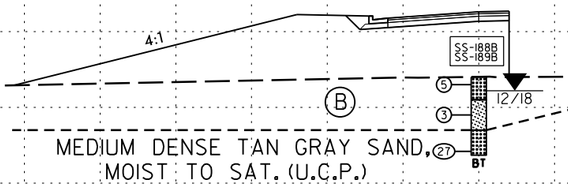
6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32RPBI1300-2250.dgn
10-SEP-2021 10:57
Lee Stone
AT STONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

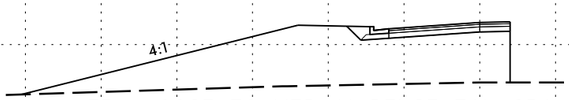
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING SIEVES 10	40	200	% MOISTURE	% ORGANIC
SS-188B	CL	6+00	0.0 - 1.5	A-3(0)	NP	NP	18.3	73.2	4.3	4.2	99.3	96	9	-	2.9
SS-189B	CL	6+00	4.0 - 5.5	A-2-4(0)	NP	NP	10.1	75.6	7.2	7.1	100	99	15	-	3.5

Ⓑ VERY LOOSE TO LOOSE BROWN BLACK SAND WITH TRACE TO MODERATE ORGANICS, MOIST TO SAT. (U.C.P.)



6+00.00



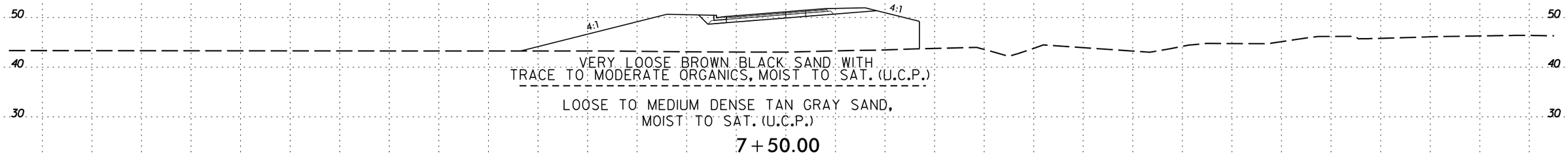
5+50.00

-Y32LPA2-

6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH_xsc_Ys_SRs\R3300B_Geo_XS1_Y32LPA2550-1400.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

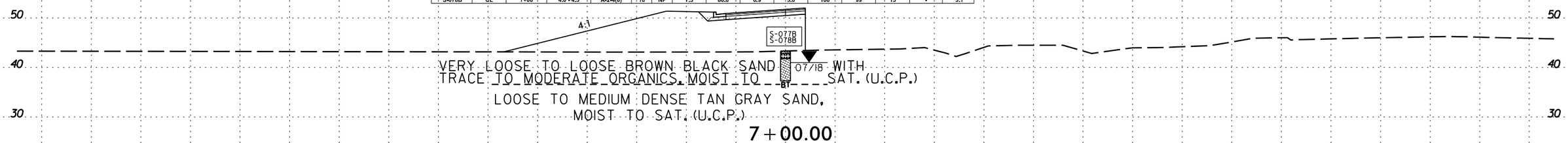
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	312



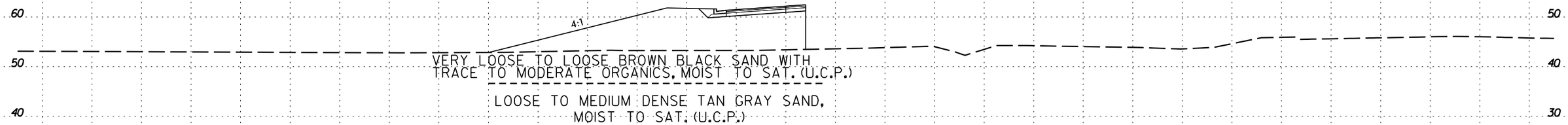
7+50.00

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-077B	CL	7+00	2.0 - 2.5	A-2-4(0)	22	NP	12.2	72.2	6.5	9.1	100	98	17	-	5.9
S-078B	CL	7+00	4.0 - 4.5	A-2-4(0)	18	NP	7.3	80.8	6.9	5.0	100	99	13	-	3.1



7+00.00



6+50.00

-Y32LPA2-

6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Sheets\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_Y32LPA2550-1400.dgn
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

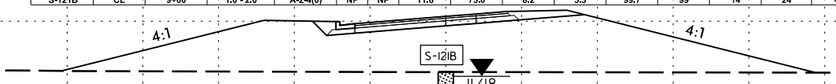
6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_Y32LPA2550-1400.dgn
Lee Stone AT LSTONE-CAD-PC

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

60 50 40 30

SOIL TEST RESULTS

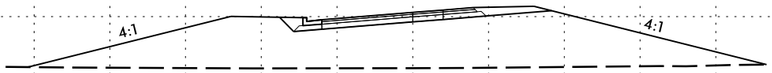
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING SIEVES 10	40	200	% MOISTURE	% ORGANIC
S-121B	CL	9+00	1.0 - 2.0	A-2-4(0)	NP	NP	11.6	75.0	8.2	5.3	99.7	99	14	24	4



VERY LOOSE TO LOOSE BROWN BLACK SAND WITH TRACE TO MODERATE ORGANICS, MOIST TO SAT. (U.C.P.)

LOOSE TO MEDIUM DENSE TAN GRAY SAND, MOIST TO SAT. (U.C.P.)

9+00.00



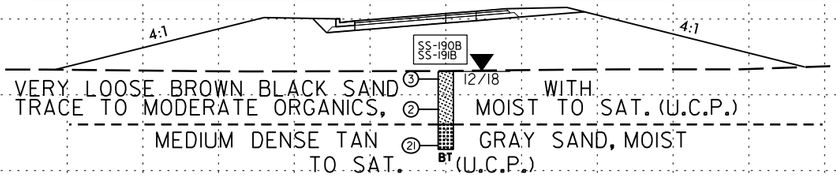
VERY LOOSE TO LOOSE BROWN BLACK SAND WITH TRACE TO MODERATE ORGANICS, MOIST TO SAT. (U.C.P.)

LOOSE TO MEDIUM DENSE TAN GRAY SAND, MOIST TO SAT. (U.C.P.)

8+50.00

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING SIEVES 10	40	200	% MOISTURE	% ORGANIC
SS-190B	CL	8+00	0.0 - 1.5	A-2-4(0)	NP	NP	17.0	72.4	8.3	2.2	99.7	95	12	-	6.8
SS-191B	CL	8+00	4.0 - 5.5	A-2-4(0)	NP	NP	6.7	76.8	11.2	5.3	100	99	18	-	6.1



VERY LOOSE BROWN BLACK SAND WITH TRACE TO MODERATE ORGANICS, MOIST TO SAT. (U.C.P.)

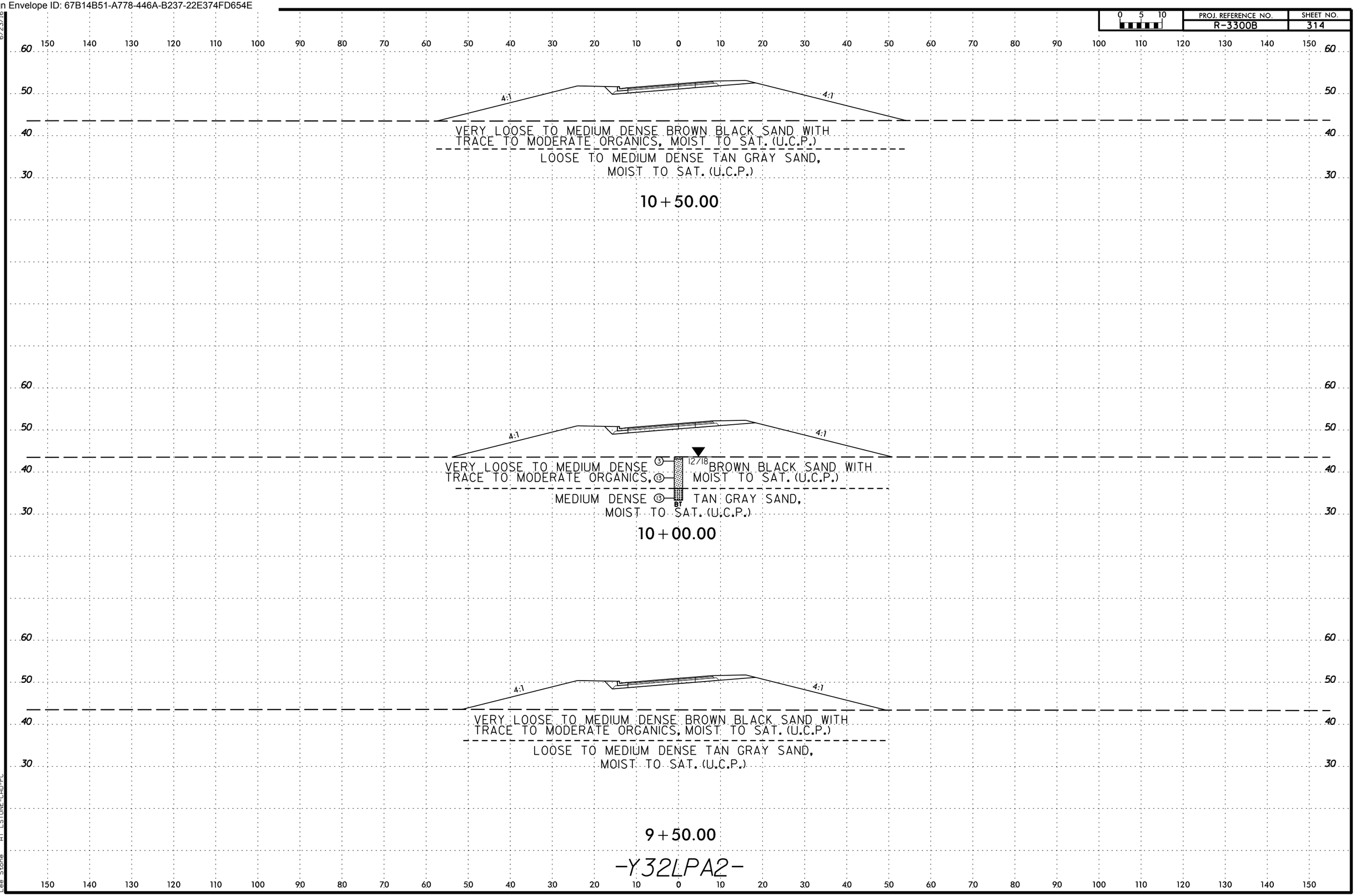
MEDIUM DENSE TAN GRAY SAND, MOIST TO SAT. (U.C.P.)

8+00.00

-Y32LPA2-

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	314



6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_Y32LPA2550-1400.dgn
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	315

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

60
50
40
30

4:1 4:1

VERY LOOSE TO LOOSE BROWN BLACK SAND WITH
TRACE TO MODERATE ORGANICS, MOIST TO SAT. (U.C.P.)
LOOSE TO MEDIUM DENSE TAN GRAY SAND,
MOIST TO SAT. (U.C.P.)

11+50.00

4:1 4:1

VERY LOOSE TO LOOSE 11/18 BROWN BLACK SAND WITH
TRACE TO MODERATE ORGANICS, MOIST TO SAT. (U.C.P.)
LOOSE TO MEDIUM DENSE TAN GRAY
SAND, MOIST TO SAT. (U.C.P.)

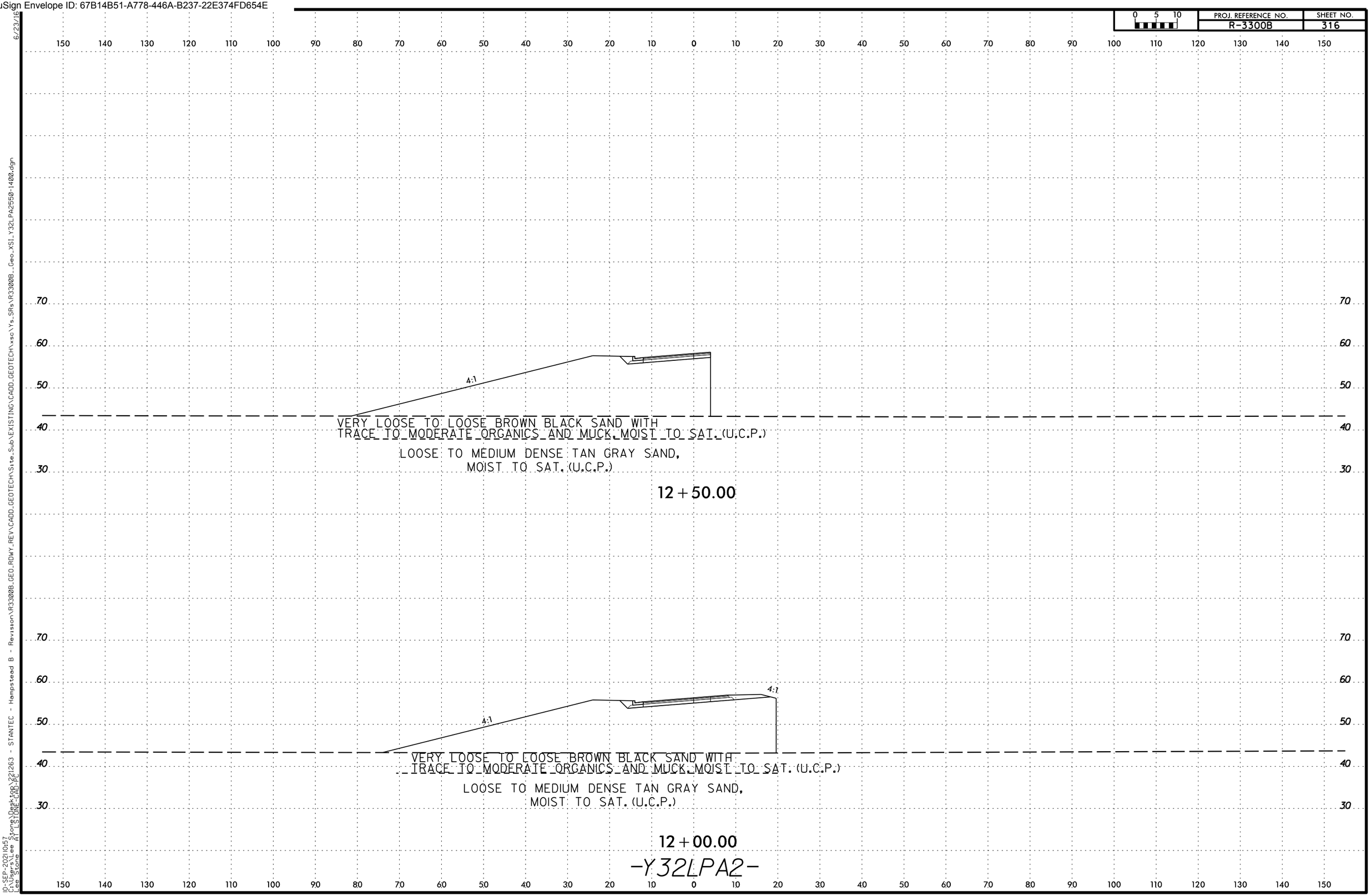
BT

11+00.00

-Y32LPA2-

10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32LPA2550-1400.dgn
Lee Stone AT LSTONE-CAD-PC

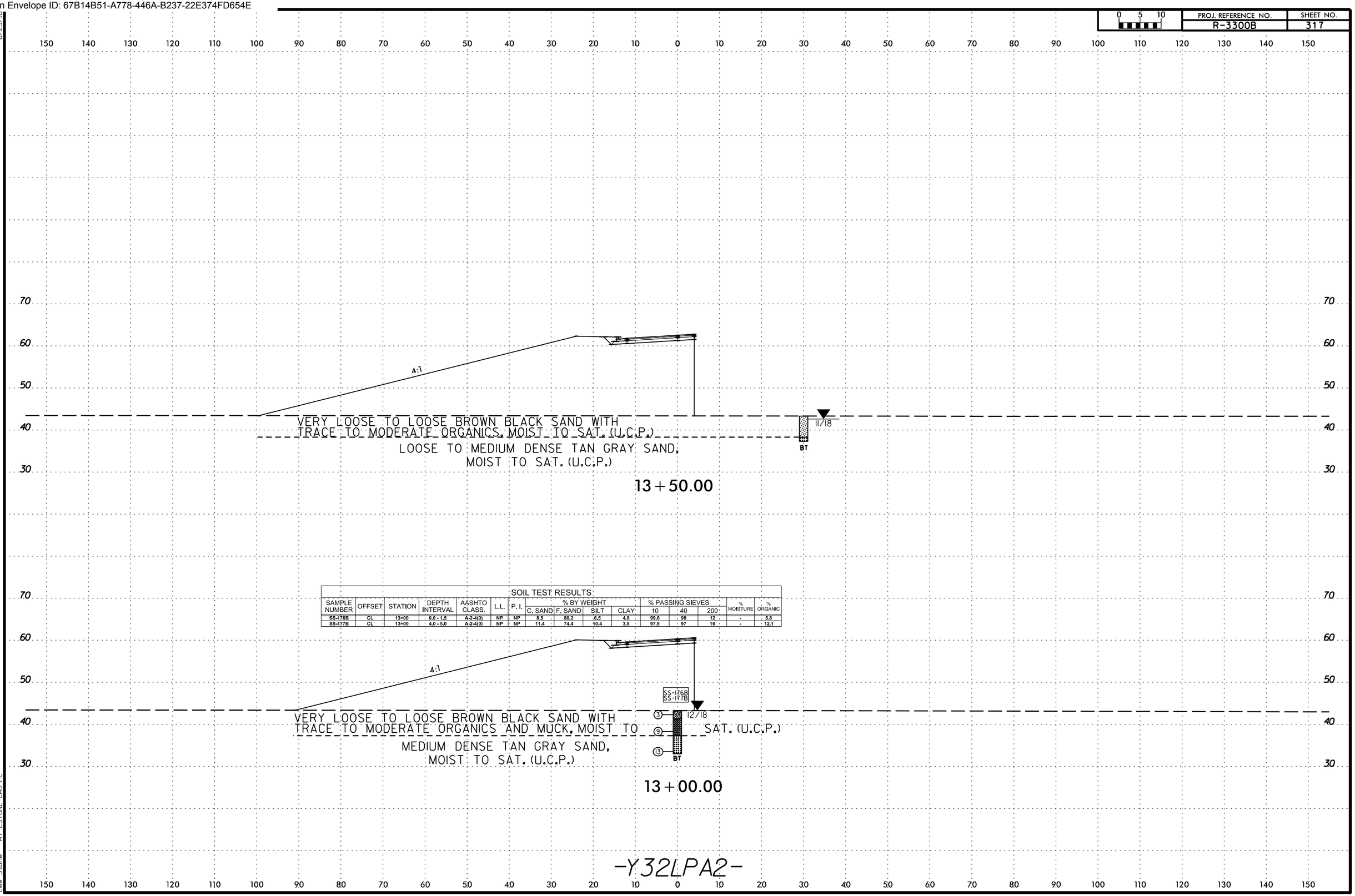
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32LPA2550-1400.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

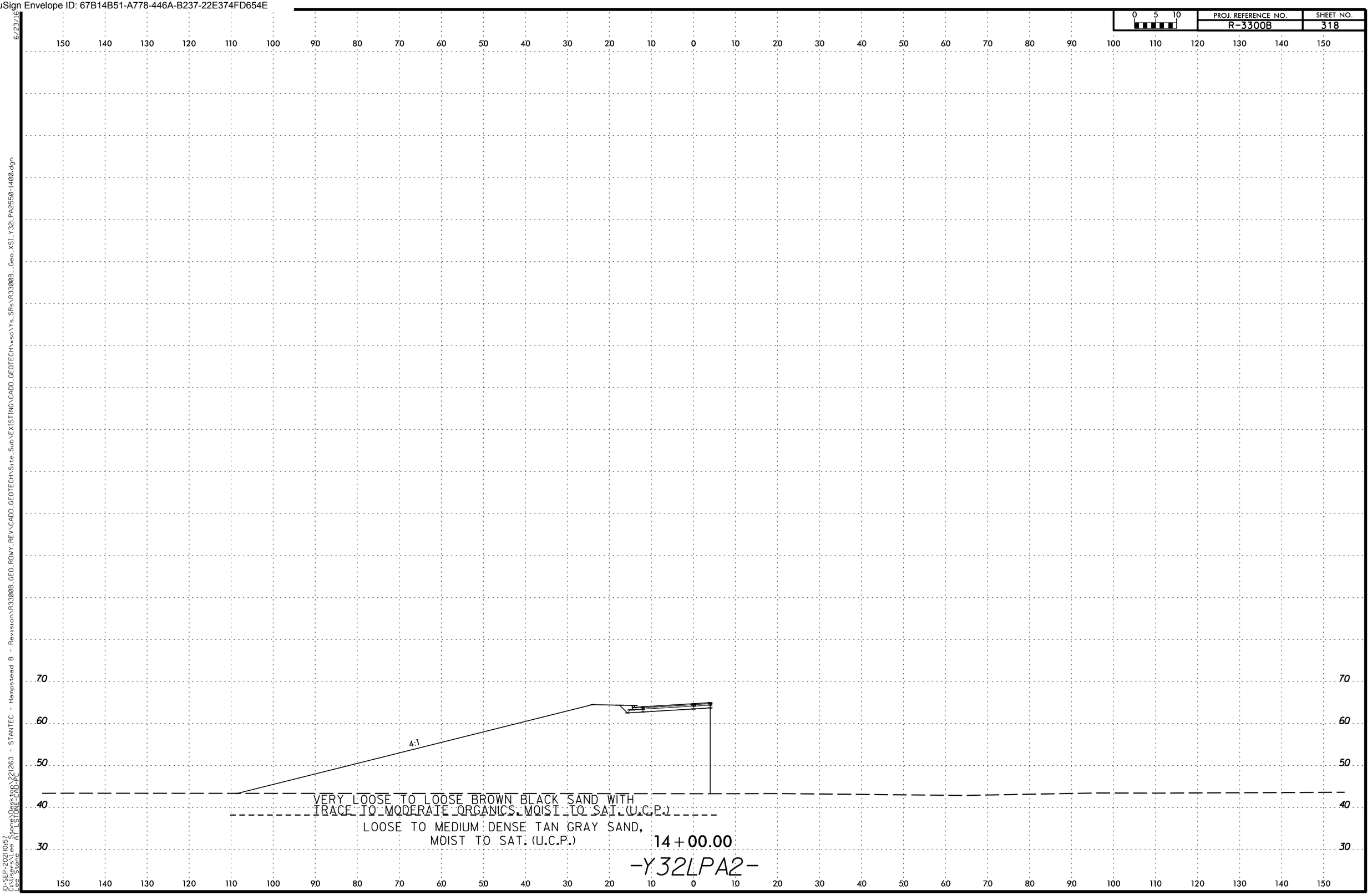
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	317



6/23/16
10-SEP-2021 10:57
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32LPA2550-1400.dgn
Lee Stone AT STONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	318



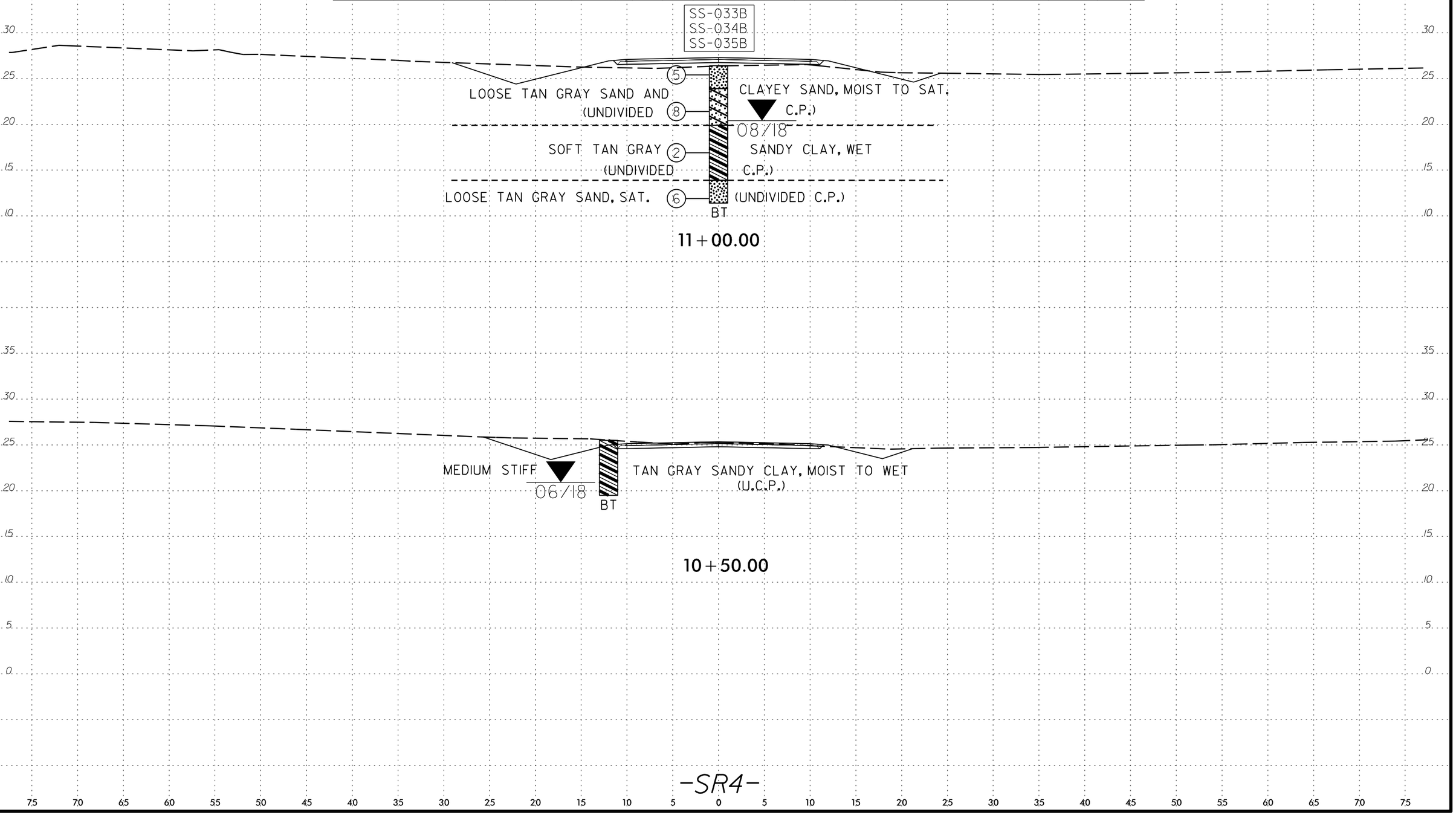
6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_Y32LPA2550-1400.dgn
10-SEP-2021 10:57
Lee Stone
AT STONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	319

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-033B	CL	11+00	0.0 - 1.5	A-2-4(0)	21	NP	13.2	64.5	17.3	5.0	99.3	94	30	-	-
SS-034B	CL	11+00	4.0 - 5.5	A-2-6(0)	25	11	31.7	39.7	7.2	21.4	99.8	96	32	33	-
SS-035B	CL	11+00	13.5 - 15.0	A-2-4(0)	28	7	28.6	44.1	18.2	9.1	99.6	91	34	-	-



6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR41050-11100.dgn
10-SEP-2021 11:03
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR51050-1150.dgn
10-SEP-2021 11:03
Lee Stone AT LSTONE-CAD-PC

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

40
35
30

LOOSE TAN BROWN SAND, MOIST TO SAT. (U.C.P.)

SOFT TO MEDIUM STIFF TAN ORANGE SANDY CLAY, WET (UNDIVIDED C.P.)

11+50.00

45
40
35
30
25

Ⓑ VERY SOFT BROWN BLACK SANDY SILT WITH MODERATE ORGANICS, MOIST TO WET. (U.C.P.)

Ⓑ

07/18

BT

SOFT TO MEDIUM STIFF TAN ORANGE SANDY CLAY, WET (UNDIVIDED C.P.)

11+00.00

45
40
35
30
25

Ⓑ VERY SOFT BROWN BLACK SANDY SILT WITH MODERATE ORGANICS, MOIST TO WET. (U.C.P.)

Ⓕ VERY LOOSE TAN SAND AND GRAVEL, MOIST (ARTIFICIAL FILL)

Ⓕ

Ⓑ

SOFT TO MEDIUM STIFF TAN ORANGE SANDY CLAY, WET (UNDIVIDED C.P.)

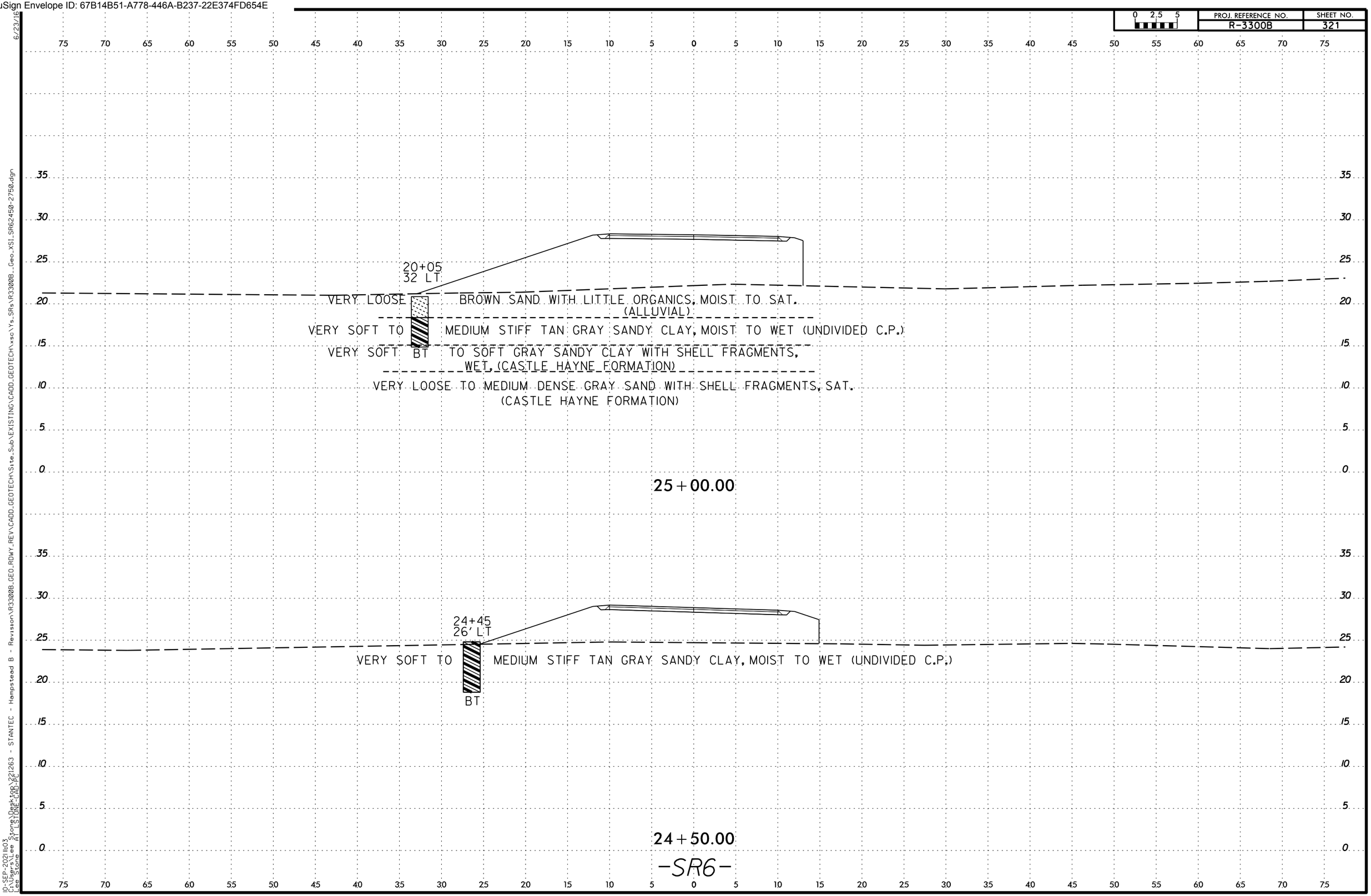
10+50.00

-SR5-

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	321



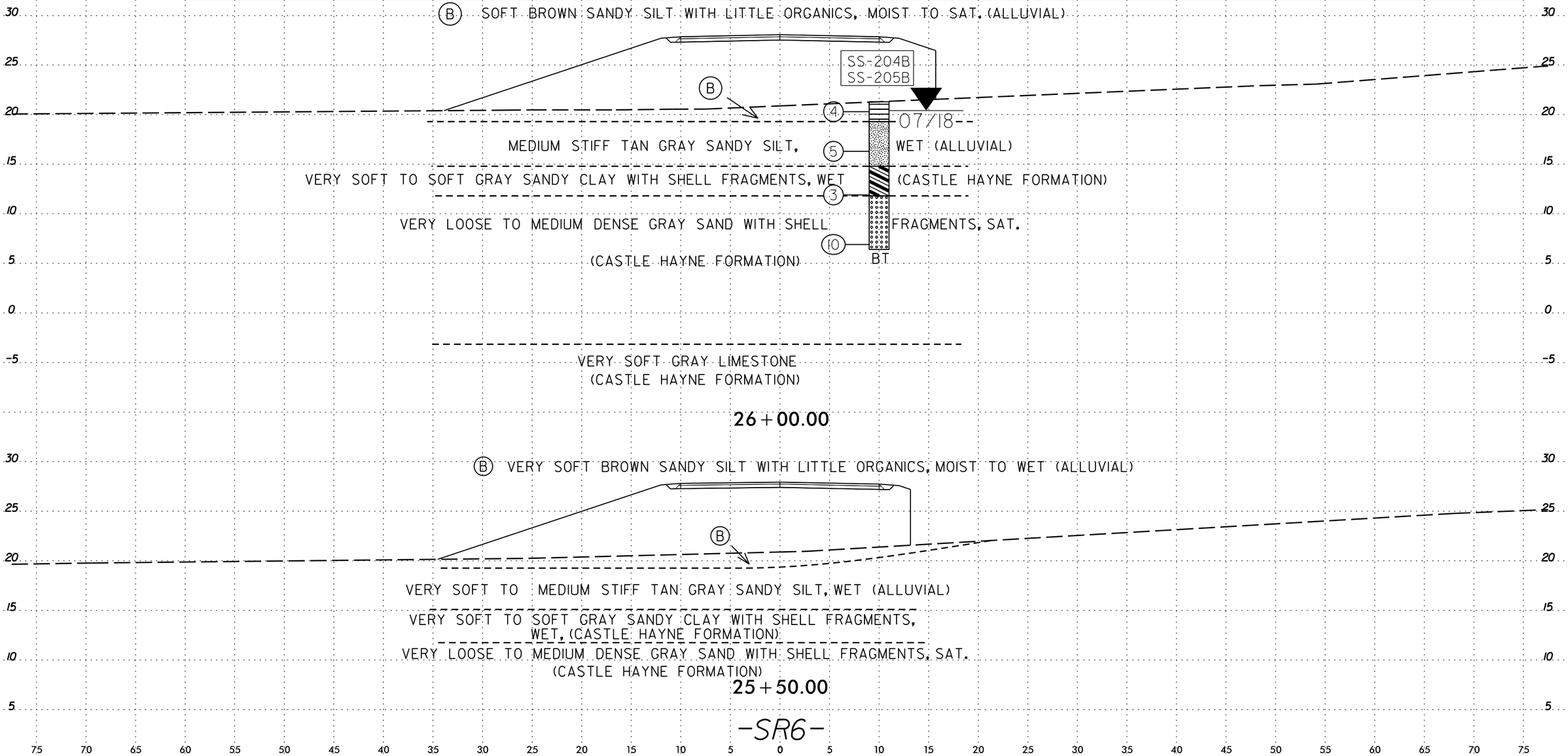
6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR62450-2750.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	322

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-204B	10 ft RT	26+00	0.0 - 1.5	A-4(0)	NP	NP	11.8	40.5	41.8	6.0	97.4	95	49	-	-
SS-205B	10 ft RT	26+00	8.4 - 9.5	A-6(2)	30	14	25.5	32.2	19.2	23.0	99.6	92	43	-	-



6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site-Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR62450-2750.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	323

(B) VERY SOFT BROWN SANDY SILT WITH LITTLE ORGANICS, MOIST TO SAT. (ALLUVIAL)

(D) VERY SOFT TO SOFT TAN GRAY SILTY CLAY, MOIST TO WET (ALLUVIAL)

MEDIUM STIFF TO VERY STIFF TAN GRAY SANDY SILTY CLAY, WET (UNDIVIDED C.P.)

VERY SOFT TO SOFT GRAY SANDY CLAY WITH SHELL FRAGMENTS, WET (CASTLE HAYNE FORMATION)

VERY LOOSE TO MEDIUM DENSE GRAY SAND WITH SHELL FRAGMENTS, SAT.
(CASTLE HAYNE FORMATION)

27+00.00

(B) VERY SOFT BROWN SANDY SILT WITH LITTLE ORGANICS, MOIST TO SAT. (ALLUVIAL)

26+44
21LT

05/19

MEDIUM STIFF TO VERY STIFF TAN GRAY SANDY SILTY CLAY, MOIST TO WET (UNDIVIDED C.P.)

WOH — VERY SOFT TO SOFT TAN GRAY SANDY SILT, WET (ALLUVIAL)

VERY SOFT GRAY SANDY CLAY WITH SHELL FRAGMENTS, WET (CASTLE HAYNE FORMATION)

LOOSE TO MEDIUM DENSE GRAY SAND WITH SHELL FRAGMENTS, SAT.
(CASTLE HAYNE FORMATION)

VERY SOFT GRAY LIMESTONE (CASTLE HAYNE FORMATION)

BT

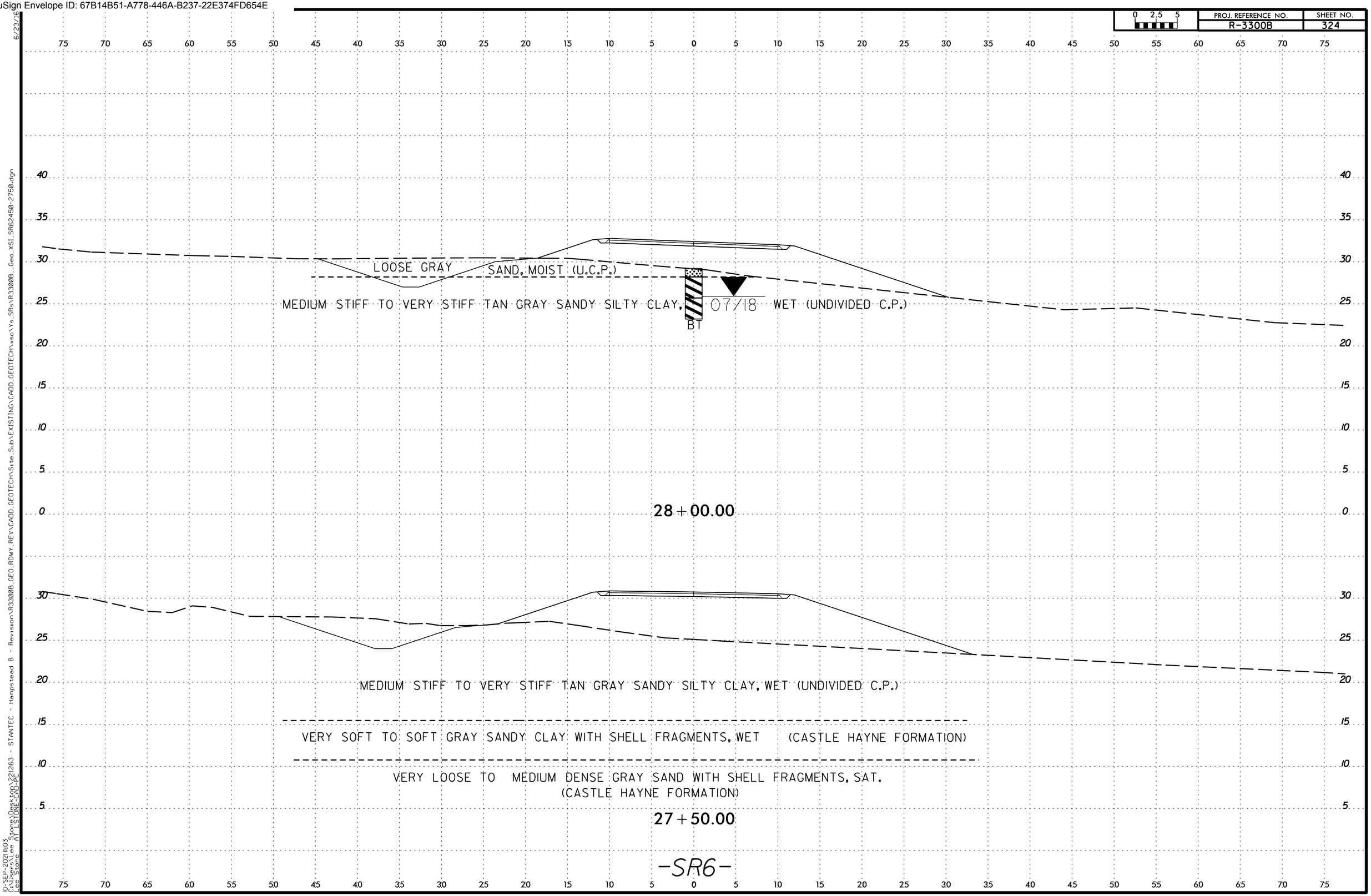
26+50.00

-SR6-

10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_SR62450-2750.dgn
Lee Stone AT LSTONE-CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

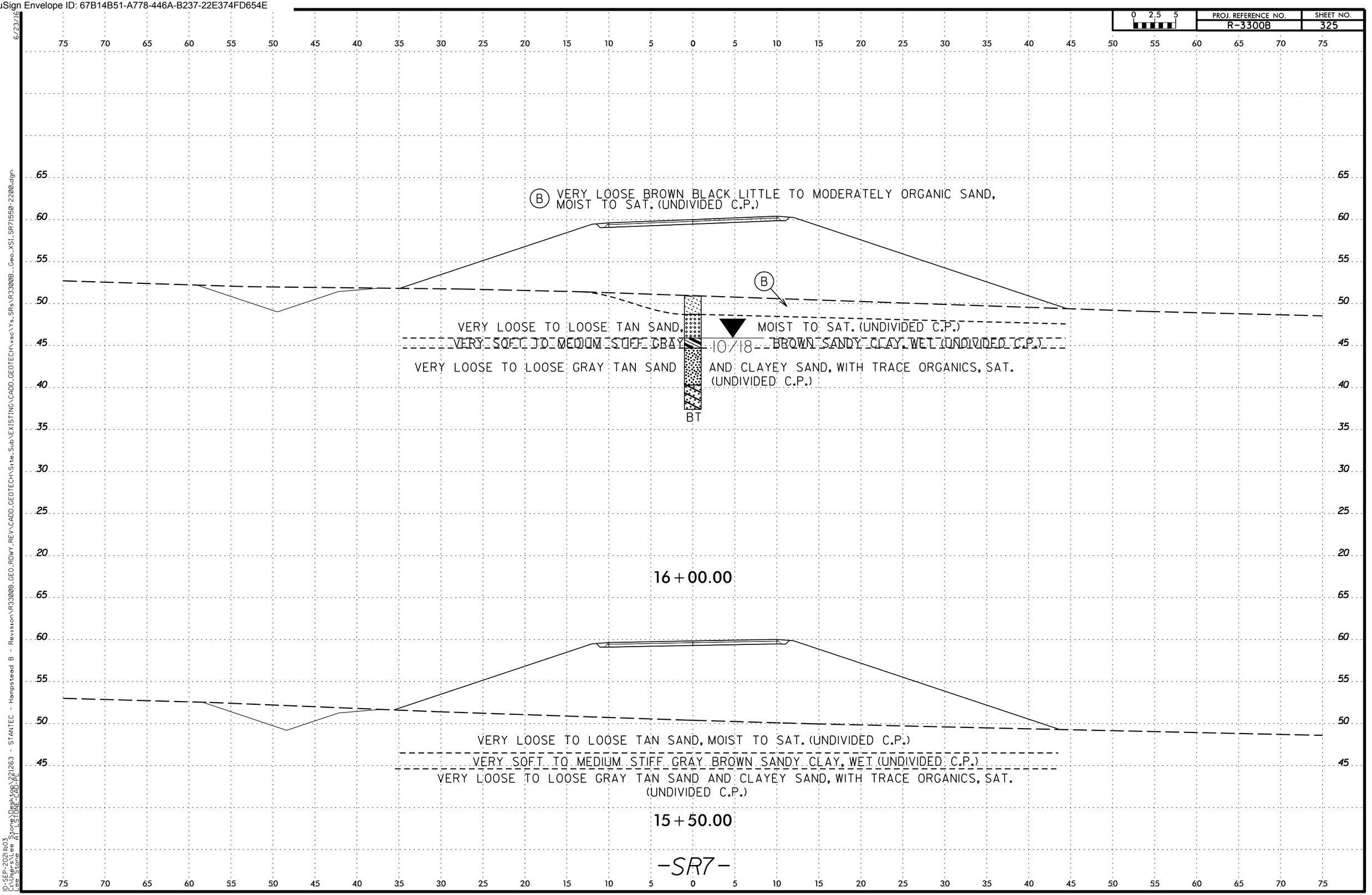
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	324



6/23/16
C:\Users\Lee Stone\Site-Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_SR62450-2750.dgn
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_SR62450-2750.dgn
Lee Stone AT LSTONE-CAD-PC

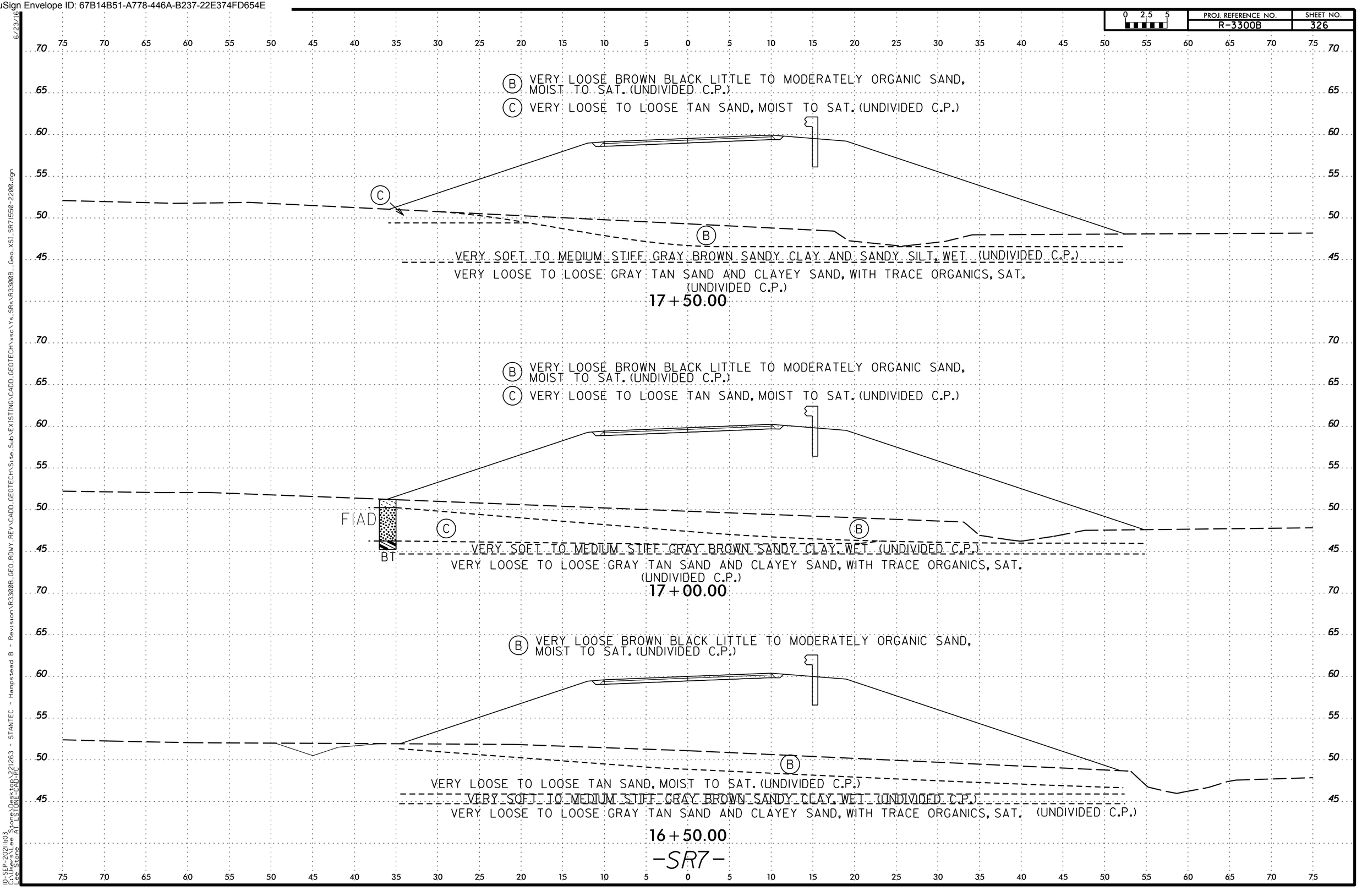
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	325



10-SEP-2021 11:03
C:\Users\Lee Stone\Stone Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR71550-2200.dgn
Lee Stone AT LSTONE CAD-PC
6/23/16

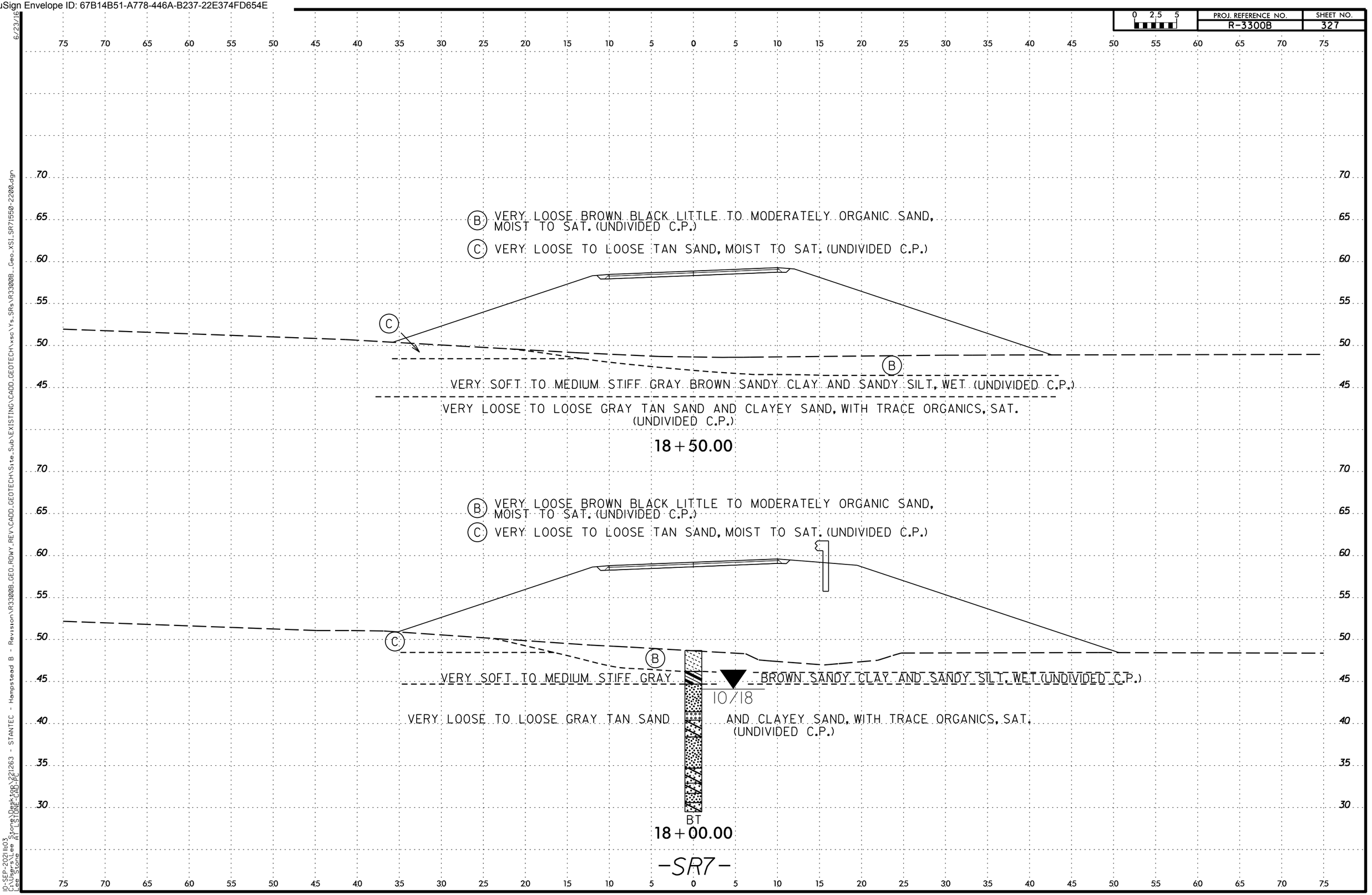
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR71550-2200.dgn
Lee Stone
ALLSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

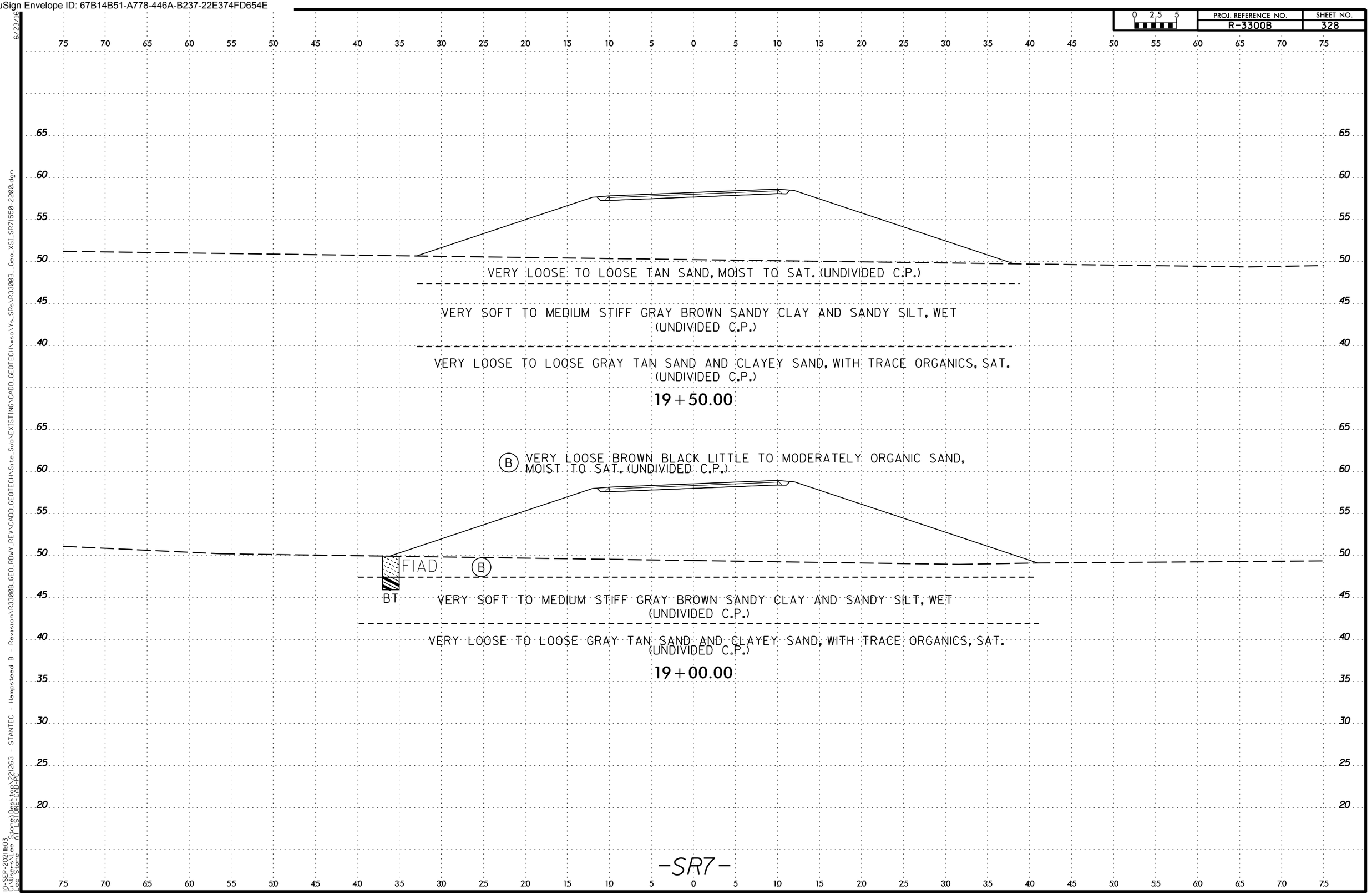
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	327



6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Stone Design Corp\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR71550-2200.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	328



6/23/16
C:\Users\Lee Stone\Desktop\21263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR71550-2200.dgn
10-SEP-2021 11:03
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	329

VERY LOOSE TO LOOSE TAN SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT TO MEDIUM STIFF GRAY BROWN SANDY CLAY AND SANDY SILT, WET
(UNDIVIDED C.P.)

VERY LOOSE TO LOOSE GRAY TAN SAND AND CLAYEY SAND, WITH TRACE ORGANICS, SAT.
(UNDIVIDED C.P.)

20+50.00

(3) 11/18

VERY LOOSE TO LOOSE TAN SAND, MOIST TO SAT. (UNDIVIDED C.P.)

(4)

VERY SOFT TO MEDIUM STIFF GRAY BROWN SANDY CLAY AND SANDY SILT, WET

(1) (UNDIVIDED C.P.)

VERY LOOSE GRAY TAN SAND (3) AND CLAYEY SAND, WITH TRACE ORGANICS, SAT.

BT (UNDIVIDED C.P.)

20+00.00

-SR7-

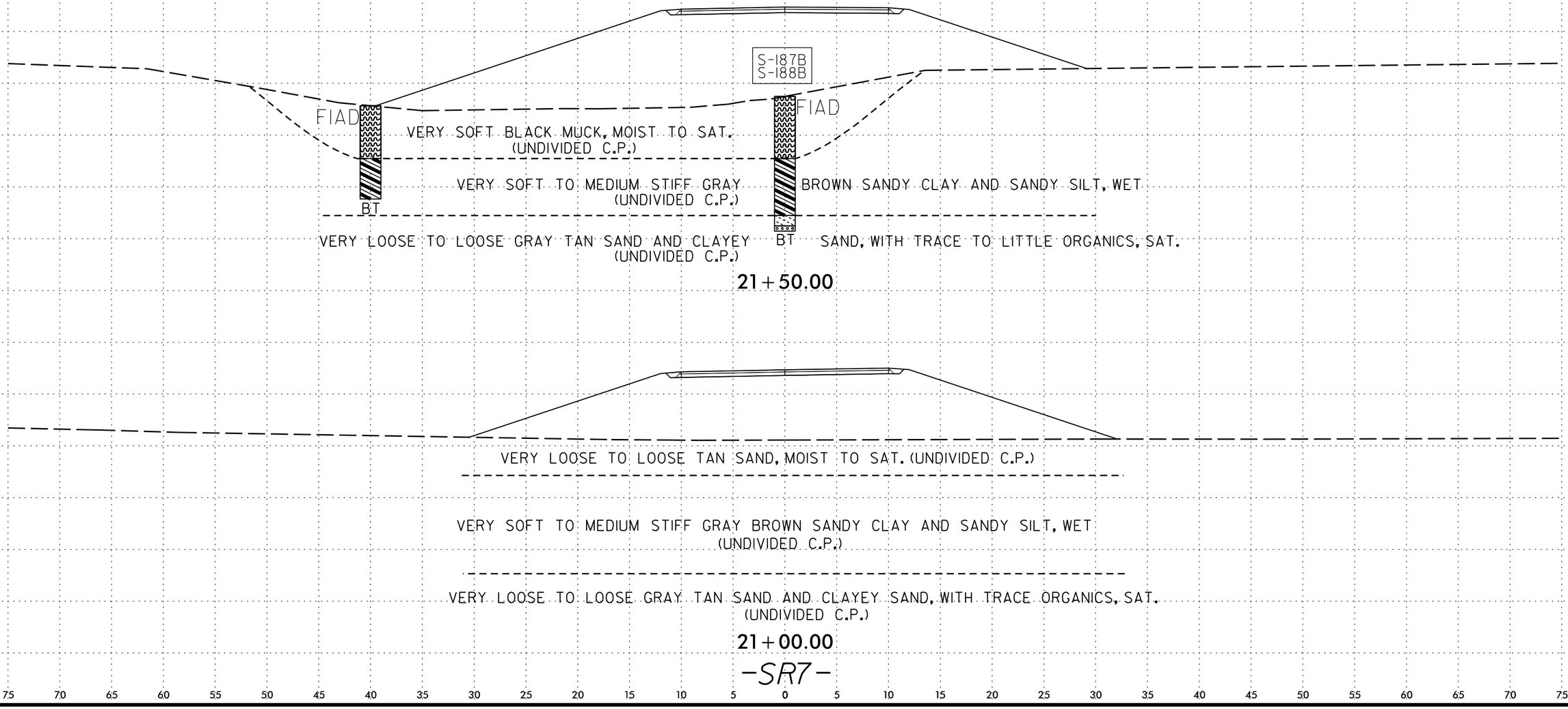
6/23/16
C:\Users\Lee Stone.AT\STONE-CAD-PC\Stone Design\20263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR71550-2200.dgn
10-SEP-2021 11:03
Lee Stone AT STONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	330

SOIL TEST RESULTS

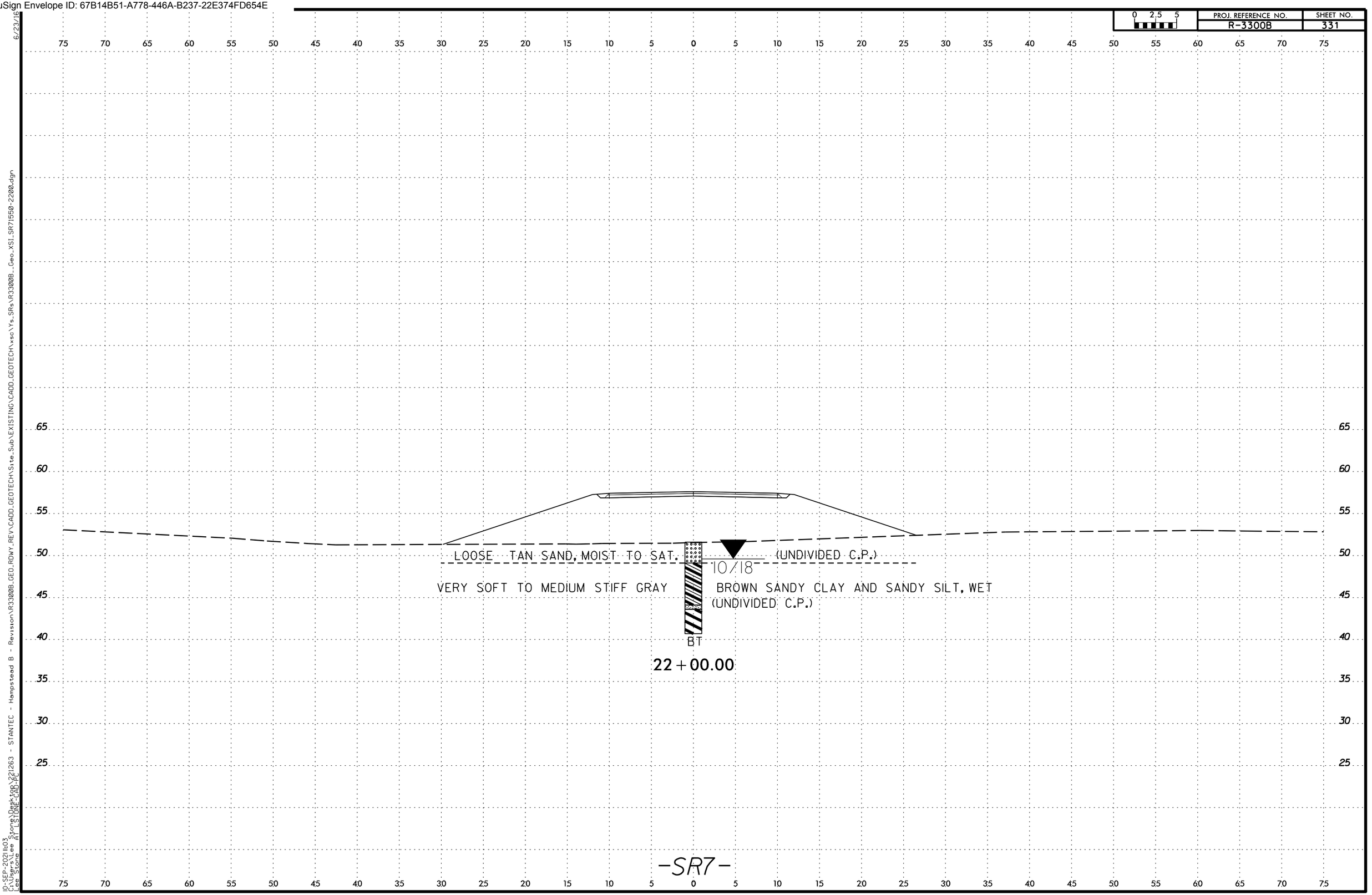
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-187B	CL	21+50	1.0 - 2.0	A-2-4(0)	NEM	NEM	46.4	29.2	12.6	11.8	90.7	71	28	-	73.2
S-188B	CL	21+50	11.5 - 12.5	-	NEM	-	42.1	42.9	8.0	7.0	99.6	89	16	-	3.4



6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_ROWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR71550-2200.dgn
Lee Stone AT STONE CAD PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

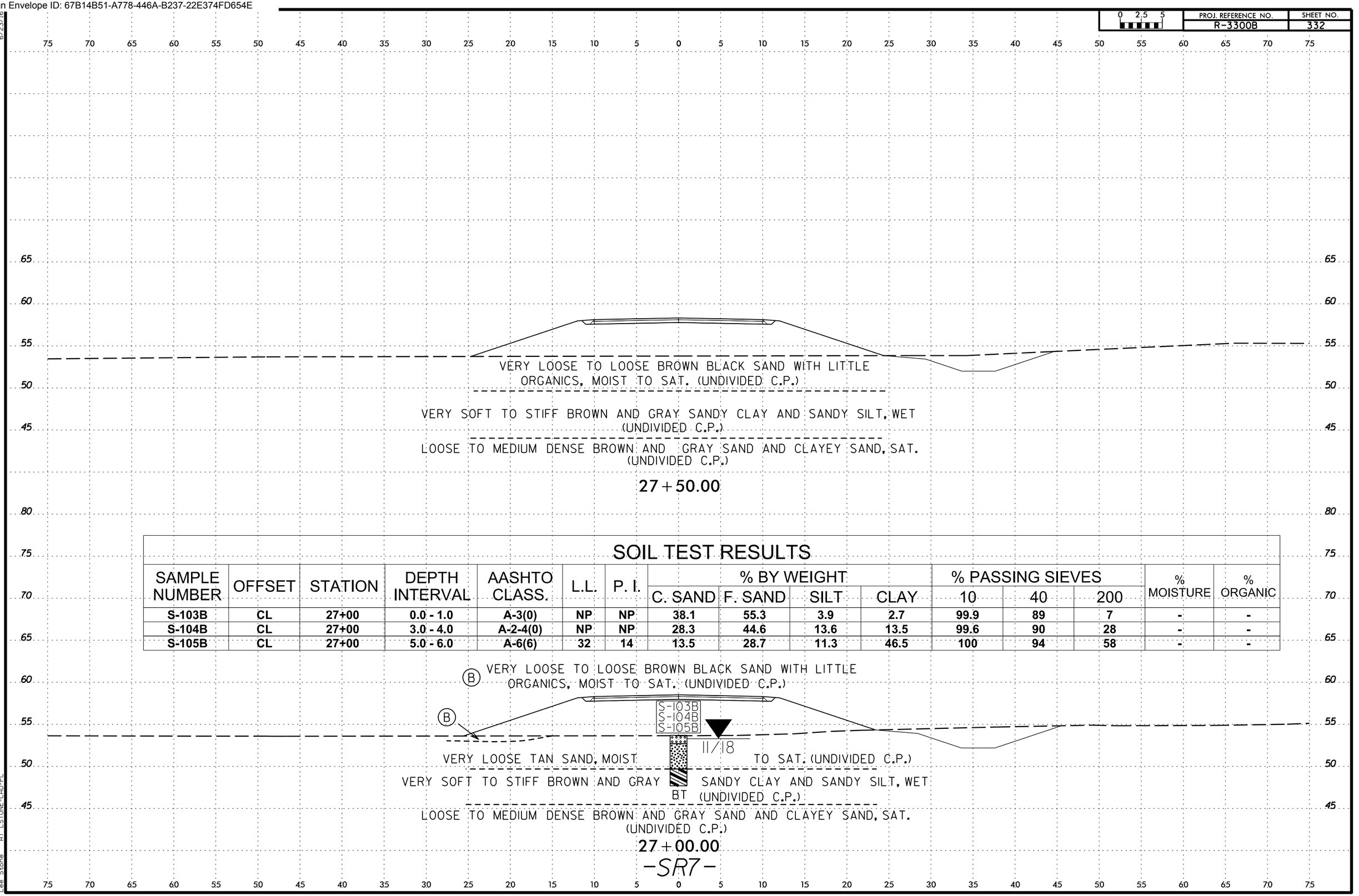
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	331



6/23/16
C:\Users\Lee Stone\Stone Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR71550-2200.dgn
10-SEP-2021 11:03
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	332

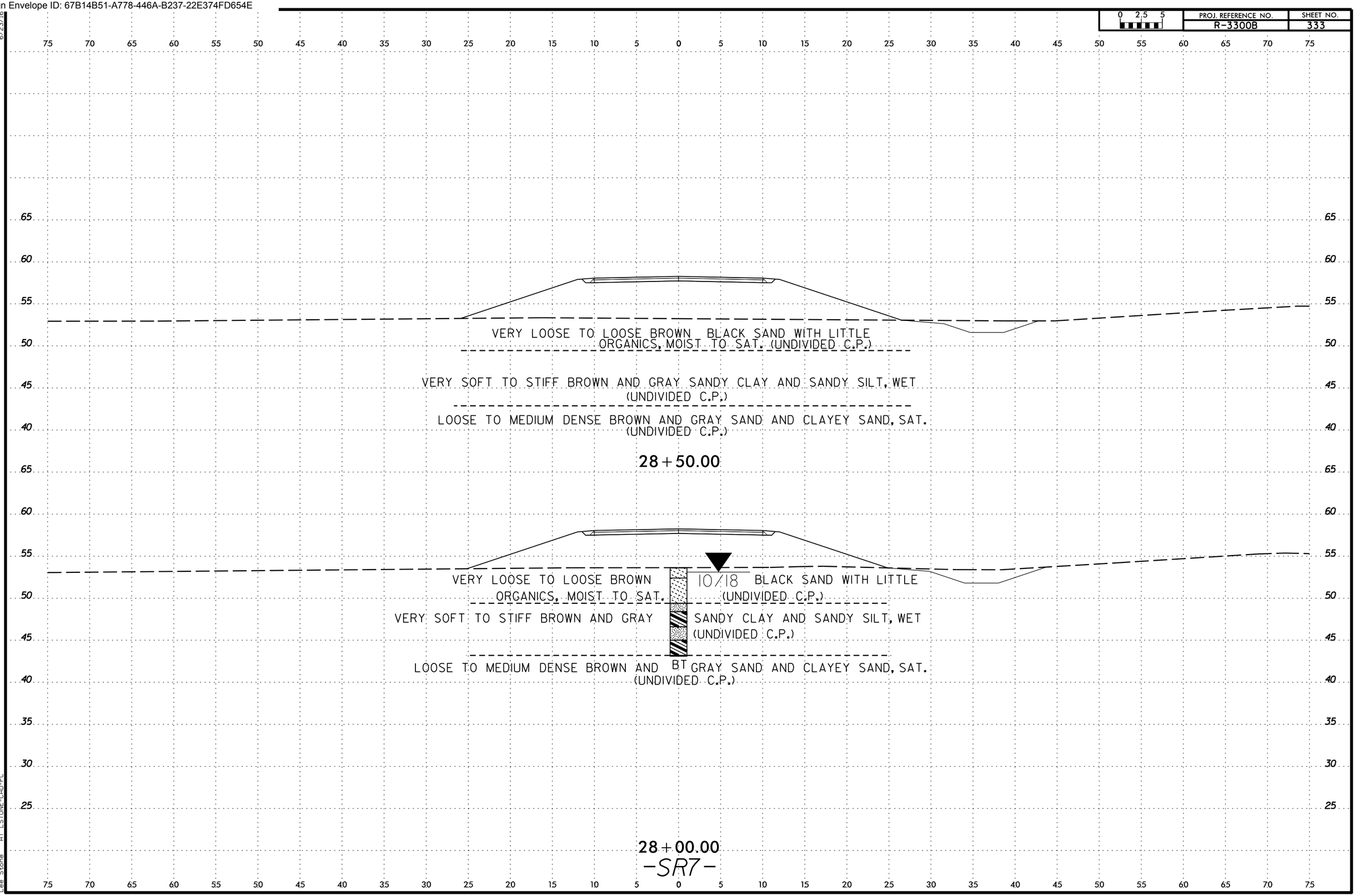


SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-103B	CL	27+00	0.0 - 1.0	A-3(0)	NP	NP	38.1	55.3	3.9	2.7	99.9	89	7	-	-
S-104B	CL	27+00	3.0 - 4.0	A-2-4(0)	NP	NP	28.3	44.6	13.6	13.5	99.6	90	28	-	-
S-105B	CL	27+00	5.0 - 6.0	A-6(6)	32	14	13.5	28.7	11.3	46.5	100	94	58	-	-

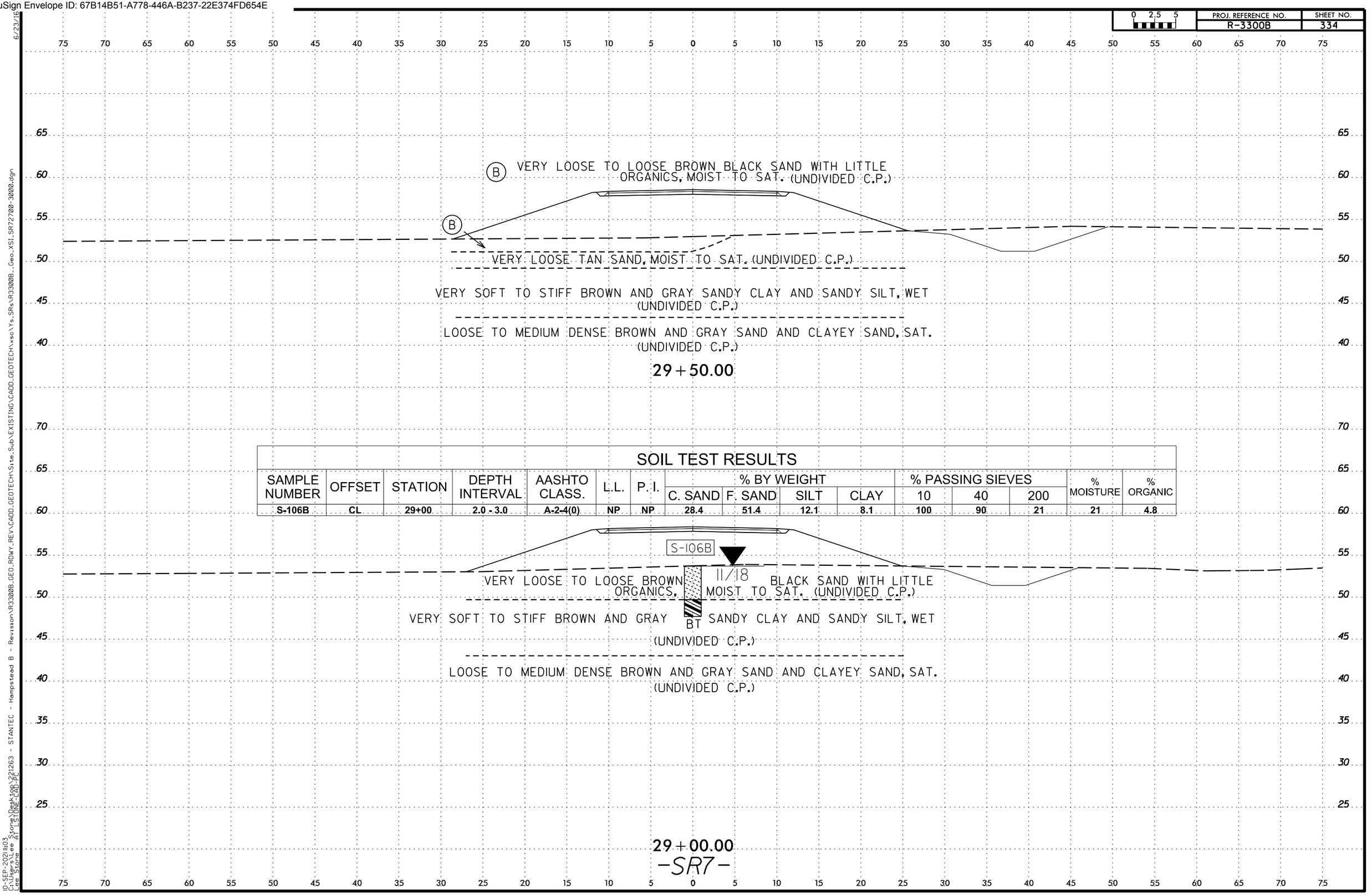
6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR72700-3000.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
10-SEP-2021lis03
C:\Users\Lee Stone AT LSTONE-CAD-PC
...Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR722700-3000.dgn
...Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR722700-3000.dgn
Stone\Desktop\22I263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR722700-3000.dgn

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



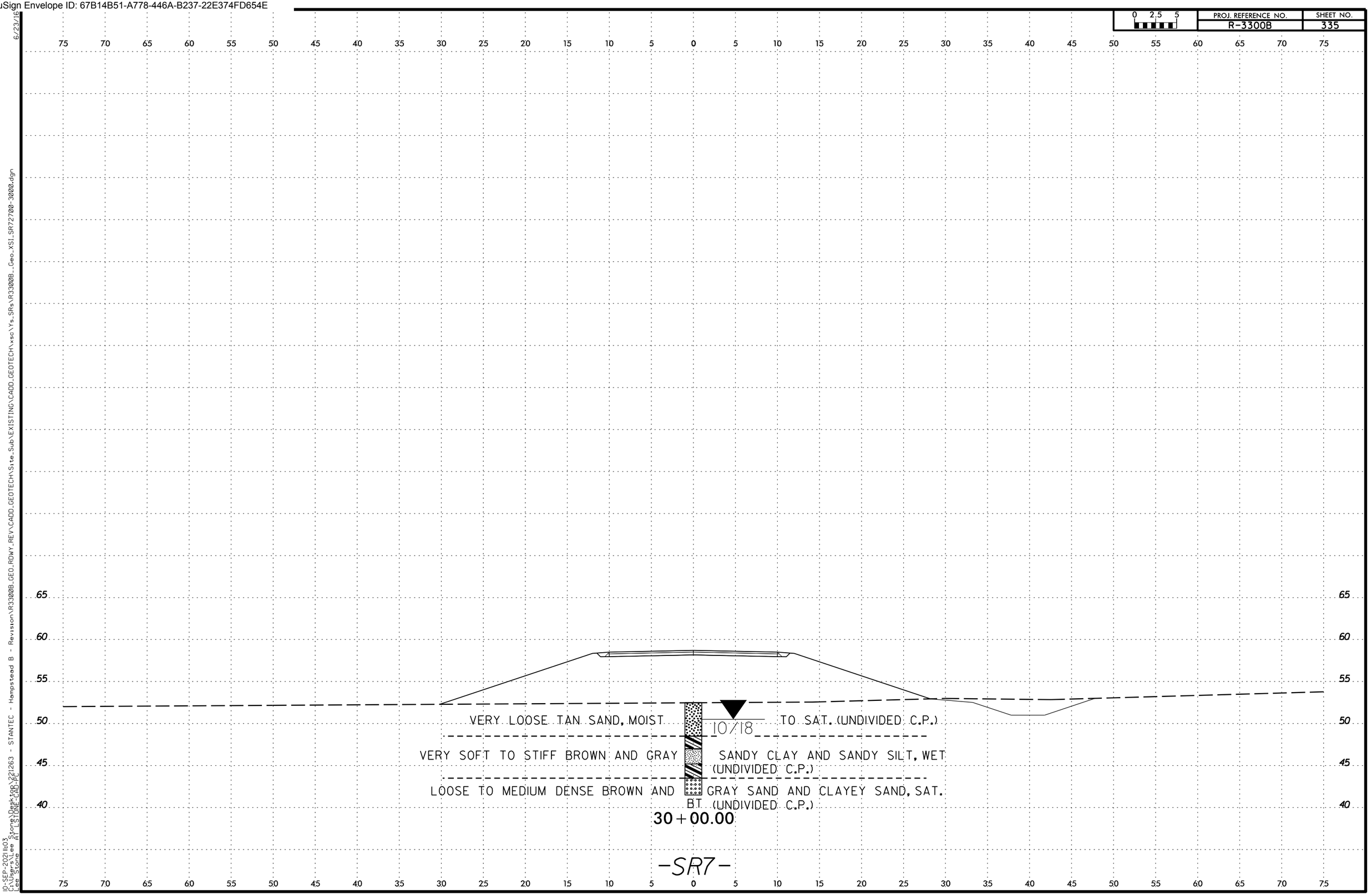
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-106B	CL	29+00	2.0 - 3.0	A-2-4(0)	NP	NP	28.4	51.4	12.1	8.1	100	90	21	21	4.8

10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\21263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR72700-3000.dgn
Lee Stone AT LSTONE-CAD-PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	335



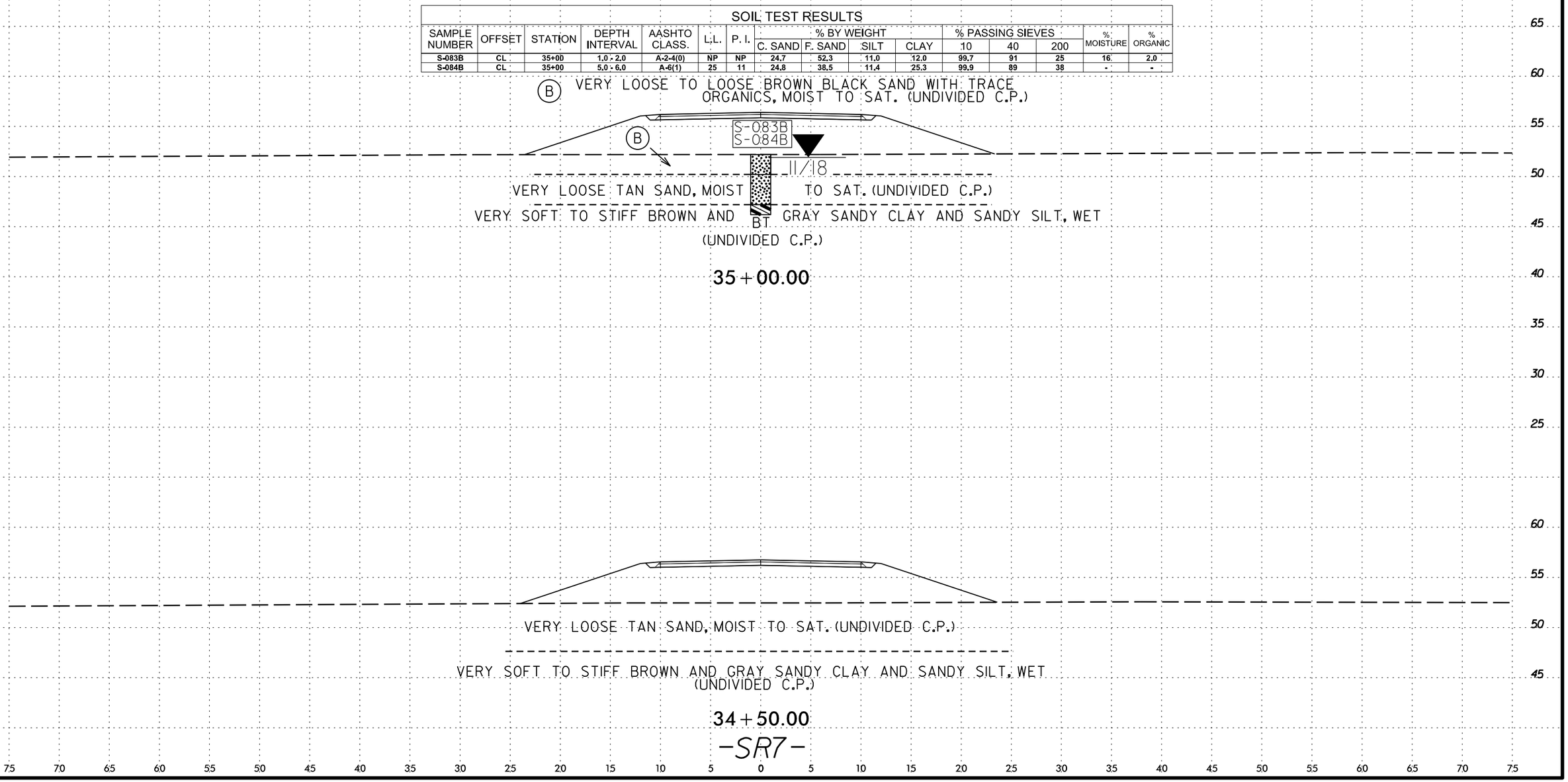
6/23/16
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR72700-3000.dgn
10-SEP-2021 11:03
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	336

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-083B	CL	35+00	1.0 - 2.0	A-2-4(0)	NP	NP	24.7	52.3	11.0	12.0	99.7	91	25	16	2.0
S-084B	CL	35+00	5.0 - 6.0	A-6(1)	25	11	24.8	38.5	11.4	25.3	99.9	89	38	-	-



6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_SR73450-3750.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_SR73450-3750.dgn
Lee Stone AT LSTONE CAD-PC

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

60 55 50 45

VERY LOOSE TO LOOSE BROWN BLACK SAND WITH TRACE TO LITTLE ORGANICS, MOIST TO SAT.
VERY LOOSE TAN SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT TO STIFF BROWN AND GRAY SANDY CLAY AND SANDY SILT, WET
(UNDIVIDED C.P.)

MEDIUM DENSE GRAY SAND, SAT.
(UNDIVIDED C.P.)

36+50.00

65 60 55 50 45

(B) VERY LOOSE TO LOOSE BROWN BLACK SAND WITH TRACE TO LITTLE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

(B)

10/18

VERY LOOSE TAN SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT TO STIFF BROWN AND GRAY SANDY CLAY AND SANDY SILT, WET
(UNDIVIDED C.P.)

MEDIUM DENSE BT GRAY SAND, SAT. (UNDIVIDED C.P.)

36+00.00

65 60 55 50 45

(B) VERY LOOSE TO LOOSE BROWN BLACK SAND WITH TRACE TO LITTLE ORGANICS, MOIST TO SAT. (UNDIVIDED C.P.)

(B)

VERY LOOSE TAN SAND, MOIST TO SAT. (UNDIVIDED C.P.)

VERY SOFT TO STIFF BROWN AND GRAY SANDY CLAY AND SANDY SILT, WET
(UNDIVIDED C.P.)

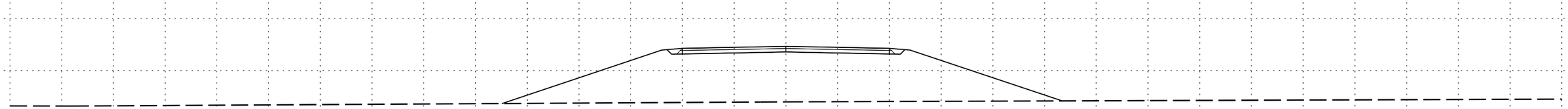
MEDIUM DENSE GRAY SAND, SAT. (UNDIVIDED C.P.)

35+50.00

-SR7-

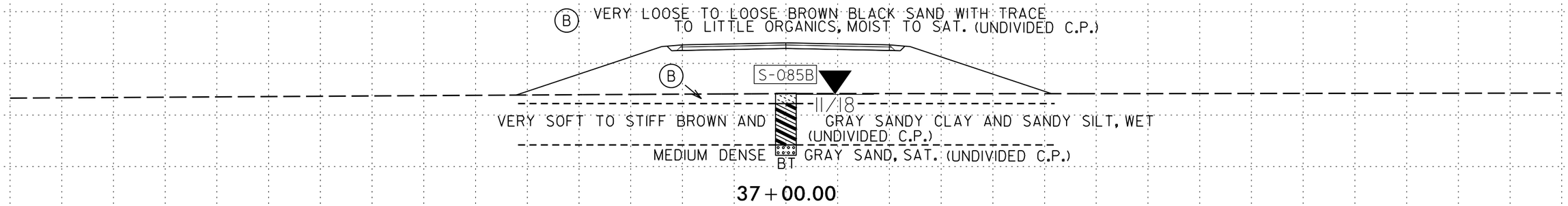
75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-085B	CL	37+00	0.0 - 1.0	A-2-4(0)	21	7	23.8	47.6	16.4	12.3	99.9	90	30	21	4.9



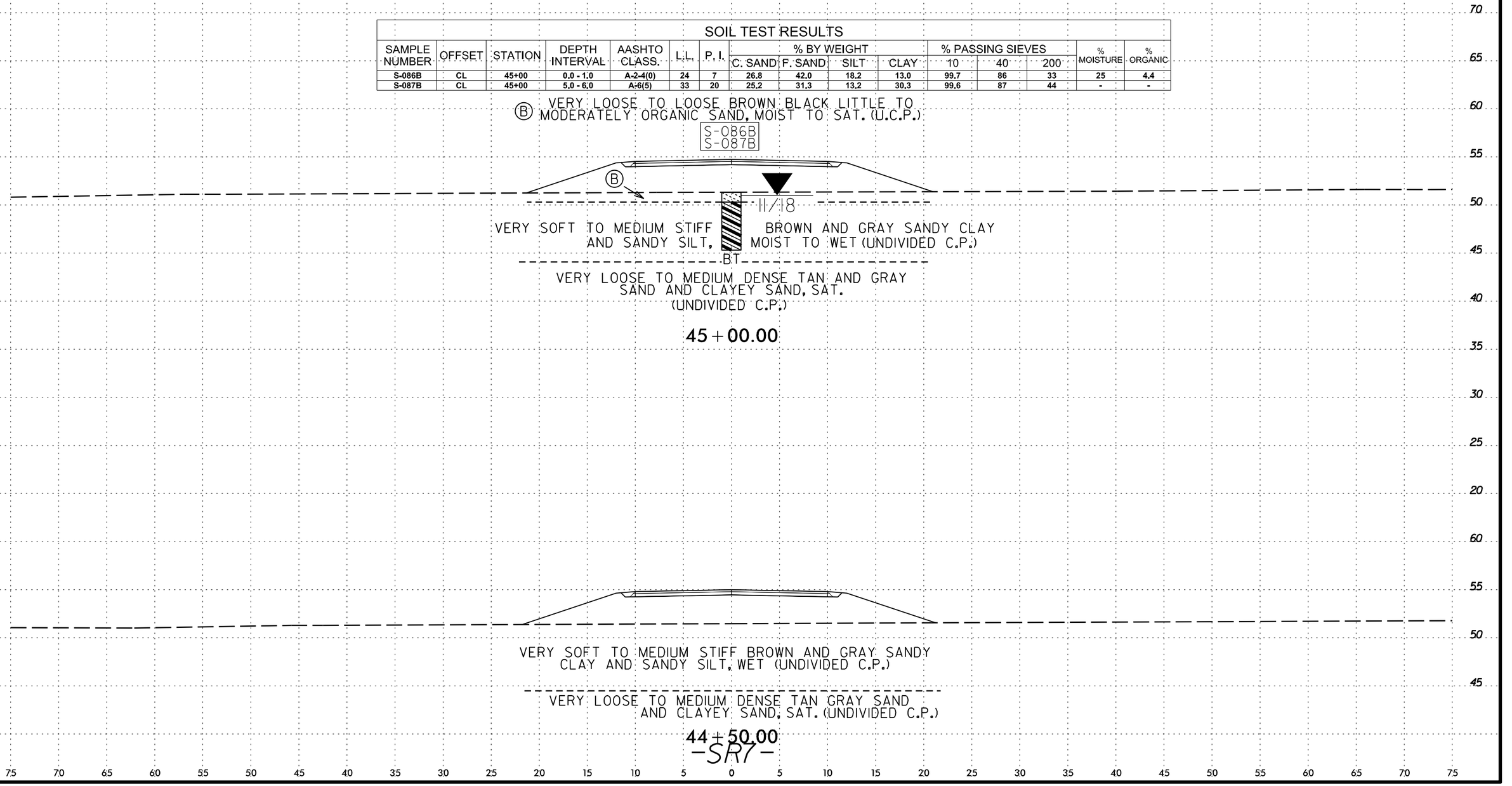
-SR7-

10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\21263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_SR73450-3750.dgn
Lee Stone AT LSTONE_CAD_PC
6/23/16

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

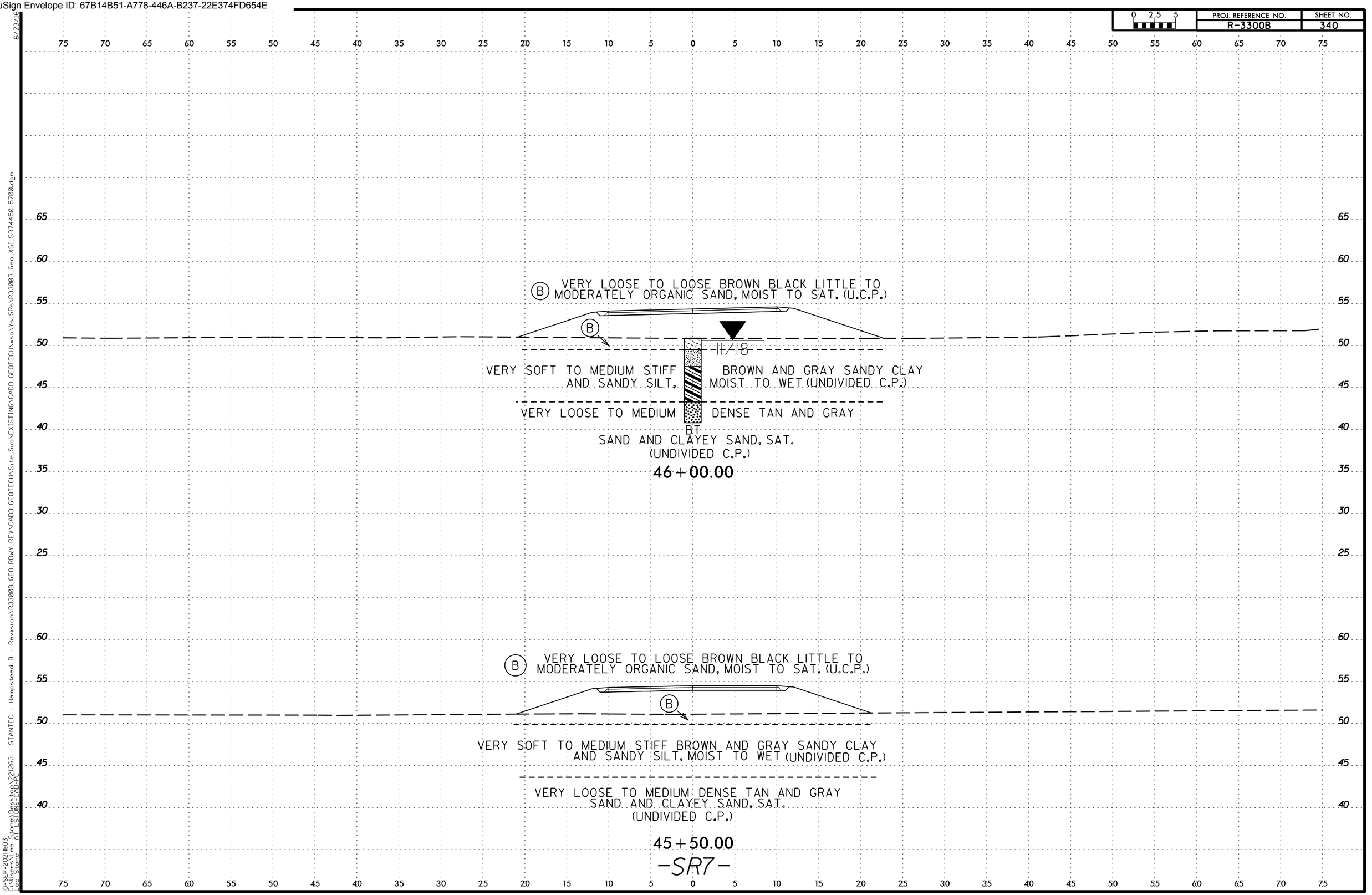
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT C. SAND	F. SAND	SILT	CLAY	% PASSING SIEVES 10	40	200	% MOISTURE	% ORGANIC
S-086B	CL	45+00	0.0 - 1.0	A-2-4(0)	24	7	26.8	42.0	18.2	13.0	99.7	86	33	25	4.4
S-087B	CL	45+00	5.0 - 6.0	A-6(5)	33	20	25.2	31.3	13.2	30.3	99.6	87	44	-	-



6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_SR74450-5700.dgn
Lee Stone AT LSTONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc Ys_SRs\R3300B_Geo_XS1_SR74450-5700.dgn
Lee Stone AT LSTONE-CAD-PC

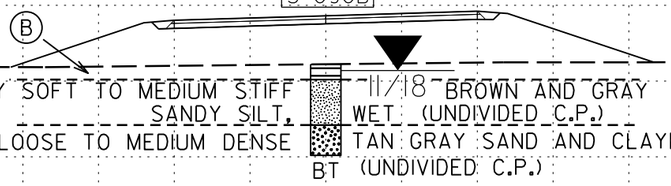
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-088B	CL	47+00	0.0 - 1.0	A-4(0)	NP	NP	24.8	36.0	29.9	9.3	99.5	88	41	58	8.3
S-089B	CL	47+00	1.0 - 2.0	A-4(0)	21	8	27.8	34.7	17.2	20.3	99.7	85	39	25	-
S-090B	CL	47+00	5.0 - 6.0	A-2-4(0)	NP	NP	34.2	53.7	3.9	8.2	99.8	94	13	-	-

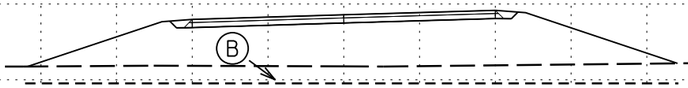
(B) VERY SOFT BROWN BLACK SANDY SILT WITH LITTLE ORGANICS, MOIST TO WET (U.C.P.)

S-088B
S-089B
S-090B



47+00.00

(B) VERY LOOSE TO LOOSE BROWN BLACK LITTLE TO MODERATELY ORGANIC SAND, MOIST TO SAT. (U.C.P.)



46+50.00

-SR7-

6/23/16
C:\Users\Lee Stone AT LSTONE CAD-PC
10-SEP-2021 11:03
C:\Stone_Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc Ys_SRs\R3300B_Geo_XS1_SR74450-5700.dgn
Lee Stone

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

60 55 50

(B) VERY LOOSE TO LOOSE BROWN BLACK LITTLE TO MODERATELY ORGANIC SAND, MOIST TO SAT. (U.C.P.)

VERY LOOSE TO MEDIUM DENSE TAN AND GRAY SAND AND CLAYEY SAND, SAT. (UNDIVIDED C.P.)

48+50.00

(B) VERY SOFT BROWN BLACK SANDY SILT WITH LITTLE ORGANICS, MOIST TO WET (U.C.P.)

VERY LOOSE TO MEDIUM DENSE TAN AND GRAY SAND AND CLAYEY SAND, SAT. (UNDIVIDED C.P.)

48+00.00

65 60 55 50 45

(B) VERY SOFT BROWN BLACK SANDY SILT WITH LITTLE ORGANICS, MOIST TO WET (U.C.P.)

(F) LOOSE TAN SAND WITH GRAVEL, MOIST (ARTIFICIAL FILL)

VERY SOFT TO MEDIUM STIFF BROWN AND GRAY SANDY CLAY AND SANDY SILT, MOIST TO WET (UNDIVIDED C.P.)

VERY LOOSE TO MEDIUM DENSE TANN AND GRAY SAND AND CLAYEY SAND, SAT. (UNDIVIDED C.P.)

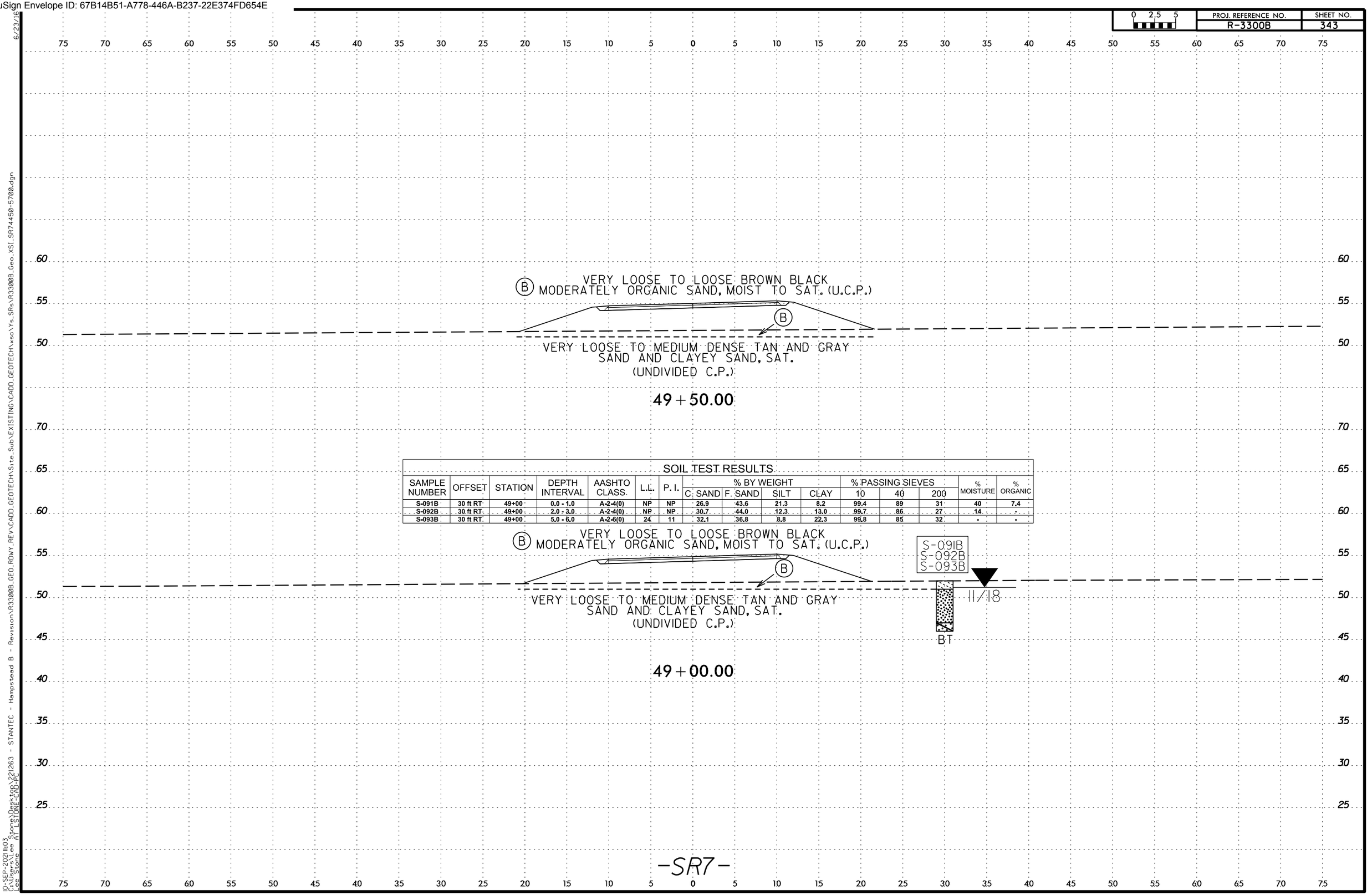
47+50.00

-SR7-

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_SR74450-5700.dgn
Lee Stone AT LSTONE_CAD_PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



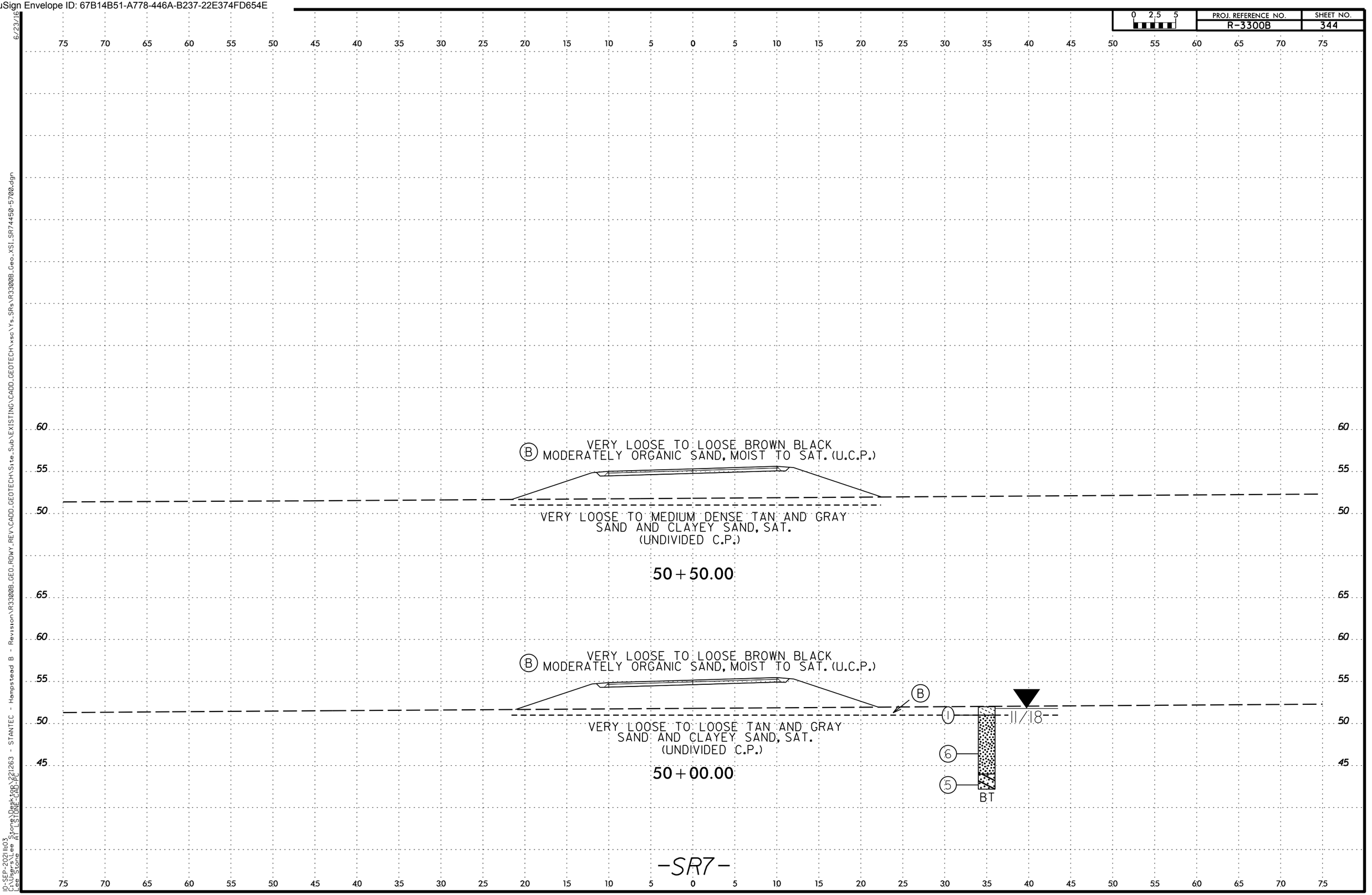
SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-091B	30 ft RT	49+00	0.0 - 1.0	A-2-4(0)	NP	NP	26.9	43.6	21.3	8.2	99.4	89	31	40	7.4
S-092B	30 ft RT	49+00	2.0 - 3.0	A-2-4(0)	NP	NP	30.7	44.0	12.3	13.0	99.7	86	27	14	-
S-093B	30 ft RT	49+00	5.0 - 6.0	A-2-6(0)	24	11	32.1	36.8	8.8	22.3	99.8	85	32	-	-

6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\22263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_SR74450-5700.dgn
Lee Stone AT STONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	344



6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_SR74450-5700.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	345

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

60 55 50 45 65 60

VERY LOOSE TO LOOSE BROWN BLACK MODERATELY ORGANIC SAND, MOIST TO SAT. (U.C.P.)

VERY LOOSE TO MEDIUM DENSE TAN AND GRAY
SAND AND CLAYEY SAND, SAT.
(UNDIVIDED C.P.)

51+50.00

Ⓑ VERY LOOSE TO LOOSE BROWN BLACK
MODERATELY ORGANIC SAND, MOIST TO SAT. (U.C.P.)

Ⓑ

VERY LOOSE TO MEDIUM DENSE TAN AND GRAY
SAND AND CLAYEY SAND, SAT.
(UNDIVIDED C.P.)

11/18

BT

51+00.00

-SR7-

60 55 50 45 40 35 30 25

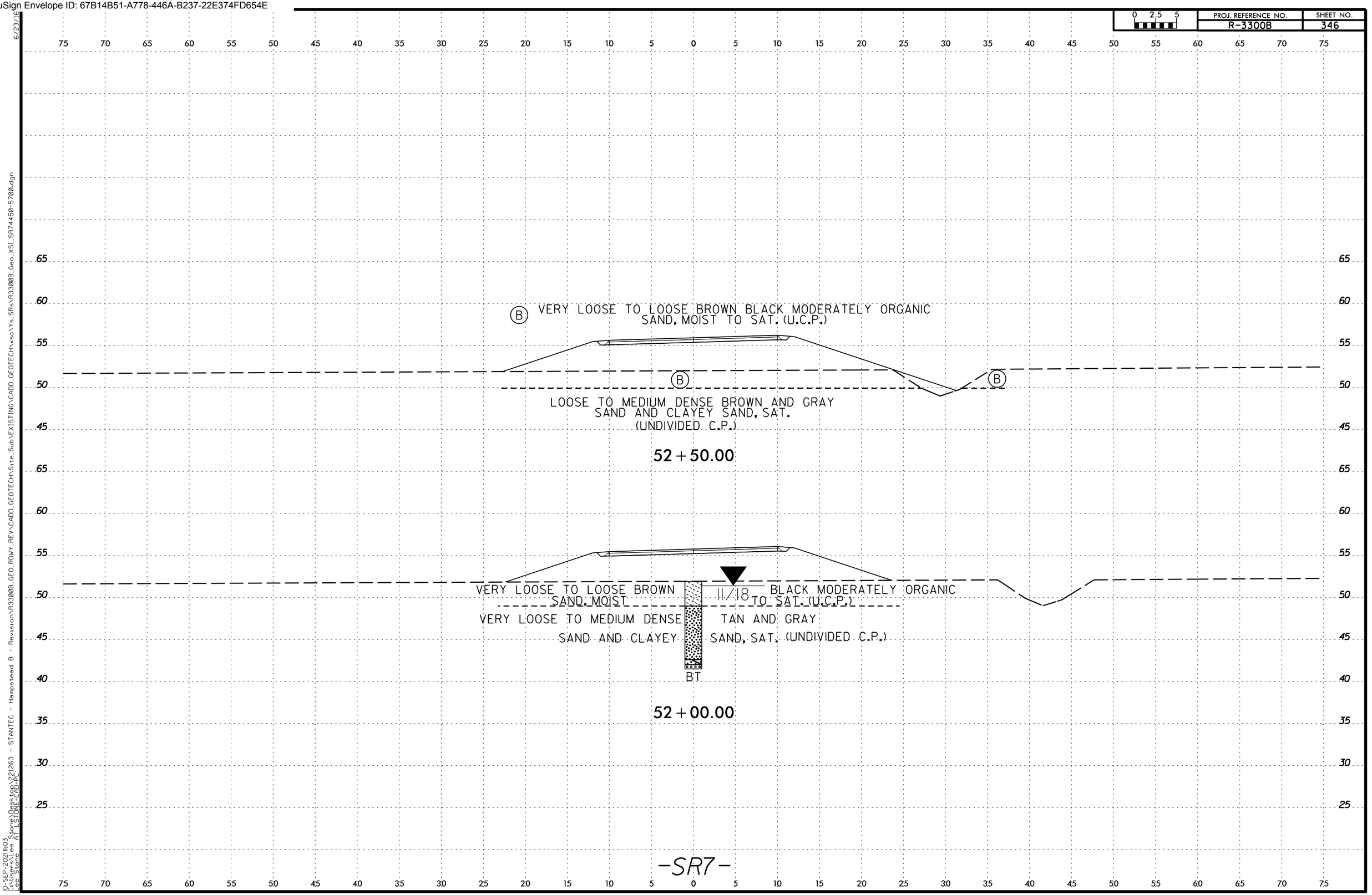
75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

6/23/16

10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc Ys_SRs\R3300B_Geo_XS1_SR74450-5700.dgn
Lee Stone AT LSTONE_CAD_PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	346



6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_SR74450-5700.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XS1_SR74450-5700.dgn
Lee Stone AT LSTONE_CAD_PC

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

65 60 55 50 70 65 60 55 50 45 40 35 30 25

(B) VERY LOOSE TO LOOSE BROWN BLACK MODERATELY ORGANIC SAND, MOIST TO SAT. (U.C.P.)

(B) (B)

LOOSE TO MEDIUM DENSE BROWN AND GRAY SAND AND CLAYEY SAND, SAT. (UNDIVIDED C.P.)

53 + 50.00

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-095B	CL	53+00	0.0 - 1.0	A-2-4(0)	NP	NP	38.1	35.4	23.3	3.2	99.7	85	28	44	8.1

(B) VERY LOOSE TO LOOSE BROWN BLACK MODERATELY ORGANIC SAND, MOIST TO SAT. (U.C.P.)

S-095B

(B) (B)

11/18

LOOSE TO MEDIUM DENSE BROWN AND GRAY SAND AND CLAYEY SAND, SAT. (UNDIVIDED C.P.)

BT

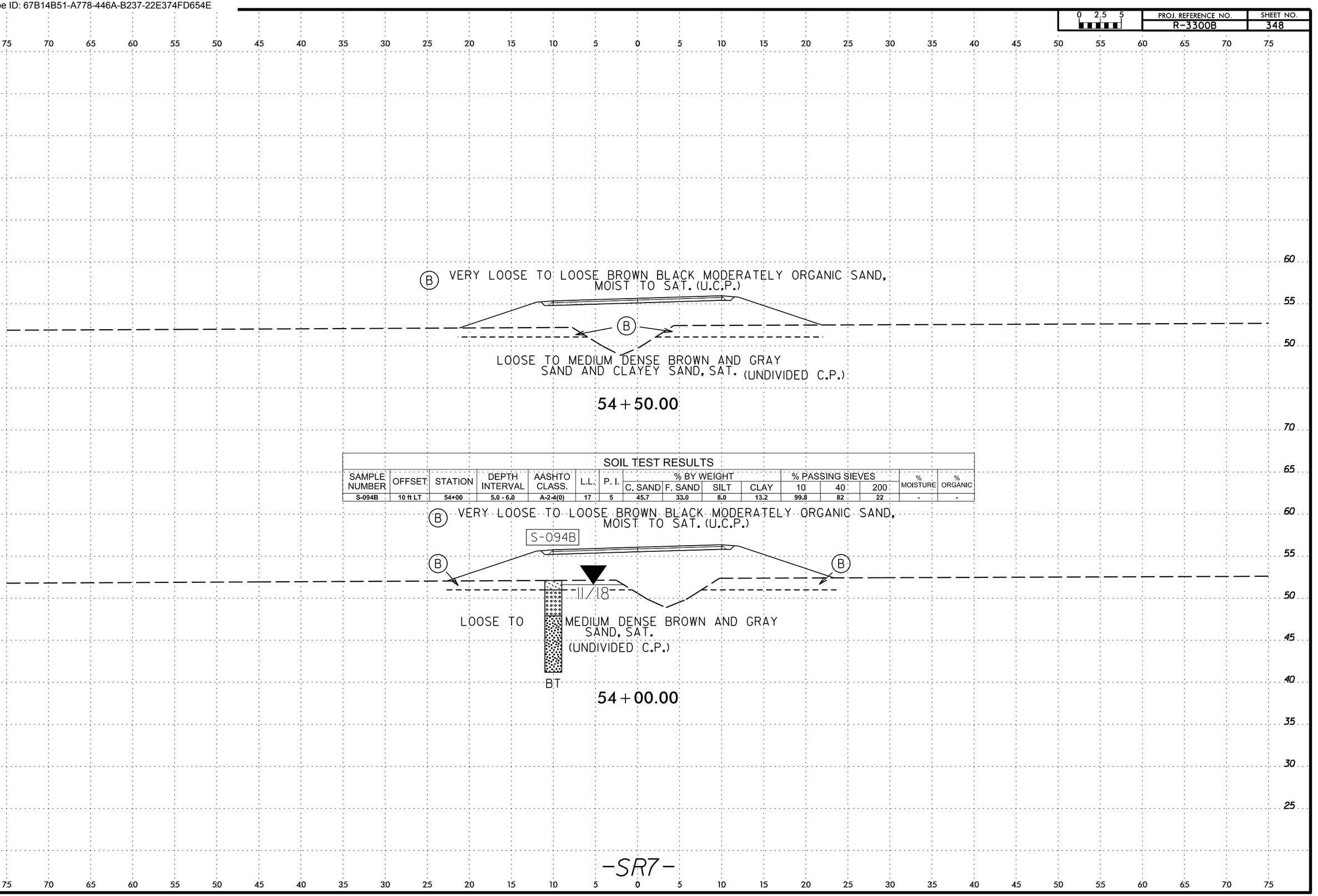
53 + 00.00

60 55 50 45 40 35 30 25

-SR7-

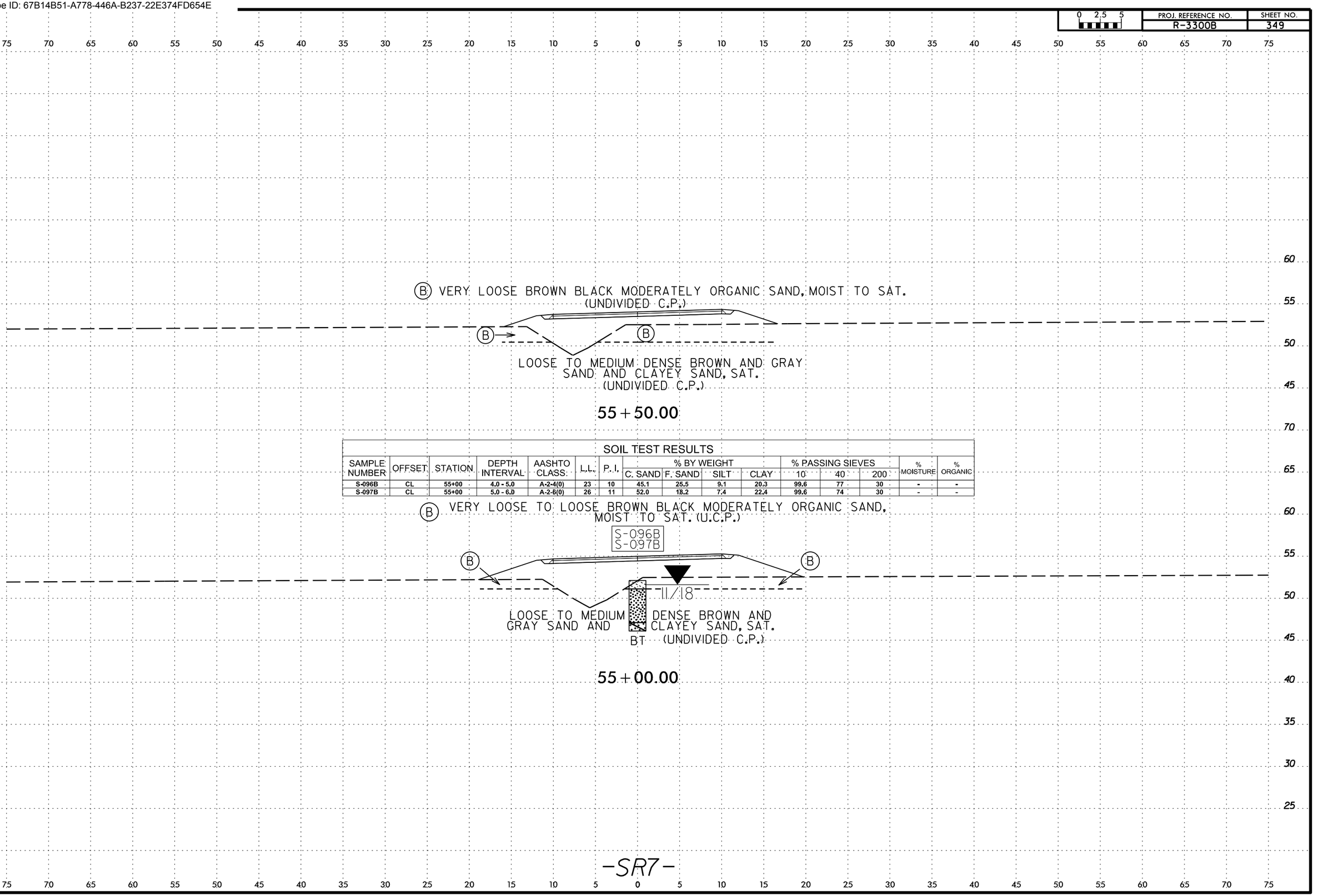
75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone AT LSTONE.CAD.PC
...Sub\EXISTING\CADD_GEOTECH\xsc Ys_SRs\R3300B_Geo_XS1_SR74450-5700.dgn
...Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXIS

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E



SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-096B	CL	55+00	4.0 - 5.0	A-2-4(0)	23	10	45.1	25.5	9.1	20.3	99.6	77	30	-	-
S-097B	CL	55+00	5.0 - 6.0	A-2-6(0)	26	11	52.0	18.2	7.4	22.4	99.6	74	30	-	-

6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\22I263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc Ys_SRs\R3300B_Geo_XS1_SR74450-5700.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	350

VERY LOOSE BROWN BLACK MODERATELY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)

LOOSE TO MEDIUM DENSE BROWN AND GRAY SAND AND CLAYEY SAND, SAT. (UNDIVIDED C.P.)

56 + 50.00

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-130B	CL	56+00	0.0 - 1.5	A-2-4(0)	NP	NP	45.2	39.6	14.0	1.2	99.5	78	16	-	8.9

(B) VERY LOOSE BROWN BLACK MODERATELY ORGANIC SAND, MOIST TO SAT. (UNDIVIDED C.P.)

SS-130B

(B) LOOSE TO MEDIUM AND GRAY SAND (1) (8) (23) 11/18 (B) DENSE BROWN SAT. (UNDIVIDED C.P.)

BT

56 + 00.00

-SR7-

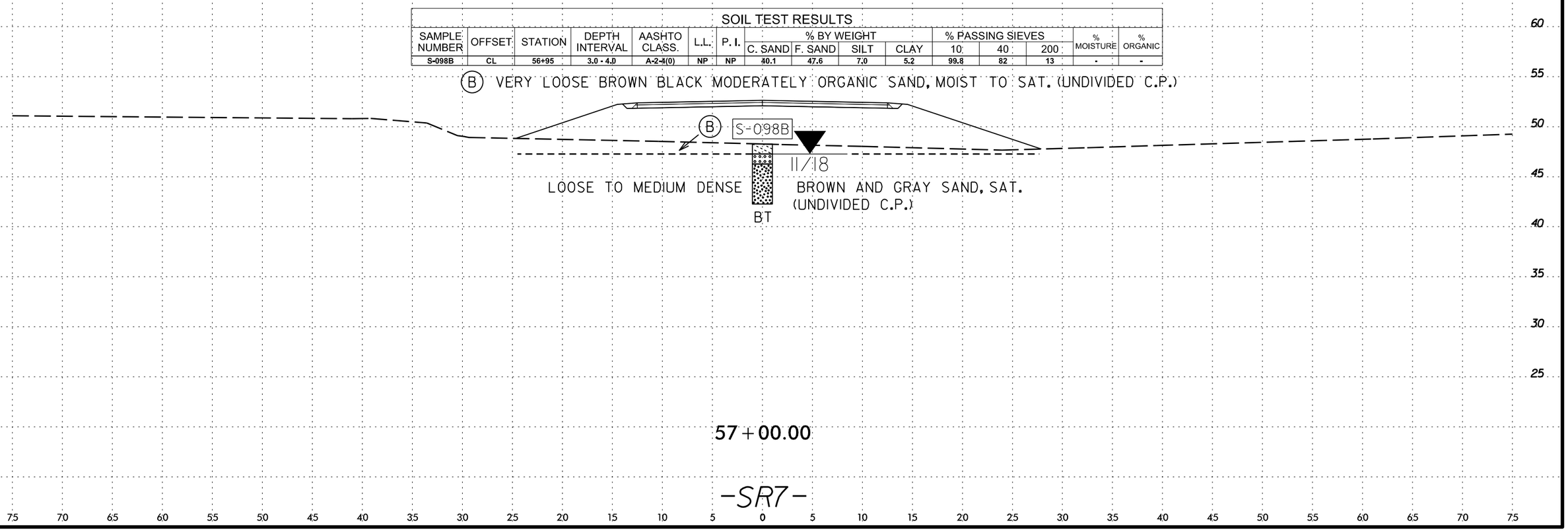
6/23/16
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR74450-5700.dgn
Lee Stone AT LSTONE-CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	R-3300B	351

SOIL TEST RESULTS

SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-098B	CL	56+95	3.0 - 4.0	A-2-4(0)	NP	NP	40.1	47.6	7.0	5.2	99.8	82	13	-	-



6/23/16
C:\Site-Sub\EXISTING\CADD_GEOTECH\xsc\Ys_SRs\R3300B_Geo_XSI_SR74450-5700.dgn
10-SEP-2021 11:03
C:\Users\Lee Stone\Desktop\221263 - STANTEC - Hampstead B - Revision\R3300B_GEO_RDWY_REV\CADD_GEOTECH\Site_Sub\
Lee Stone AT STONE CAD-PC

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

APPENDIX I

CPT LOGS

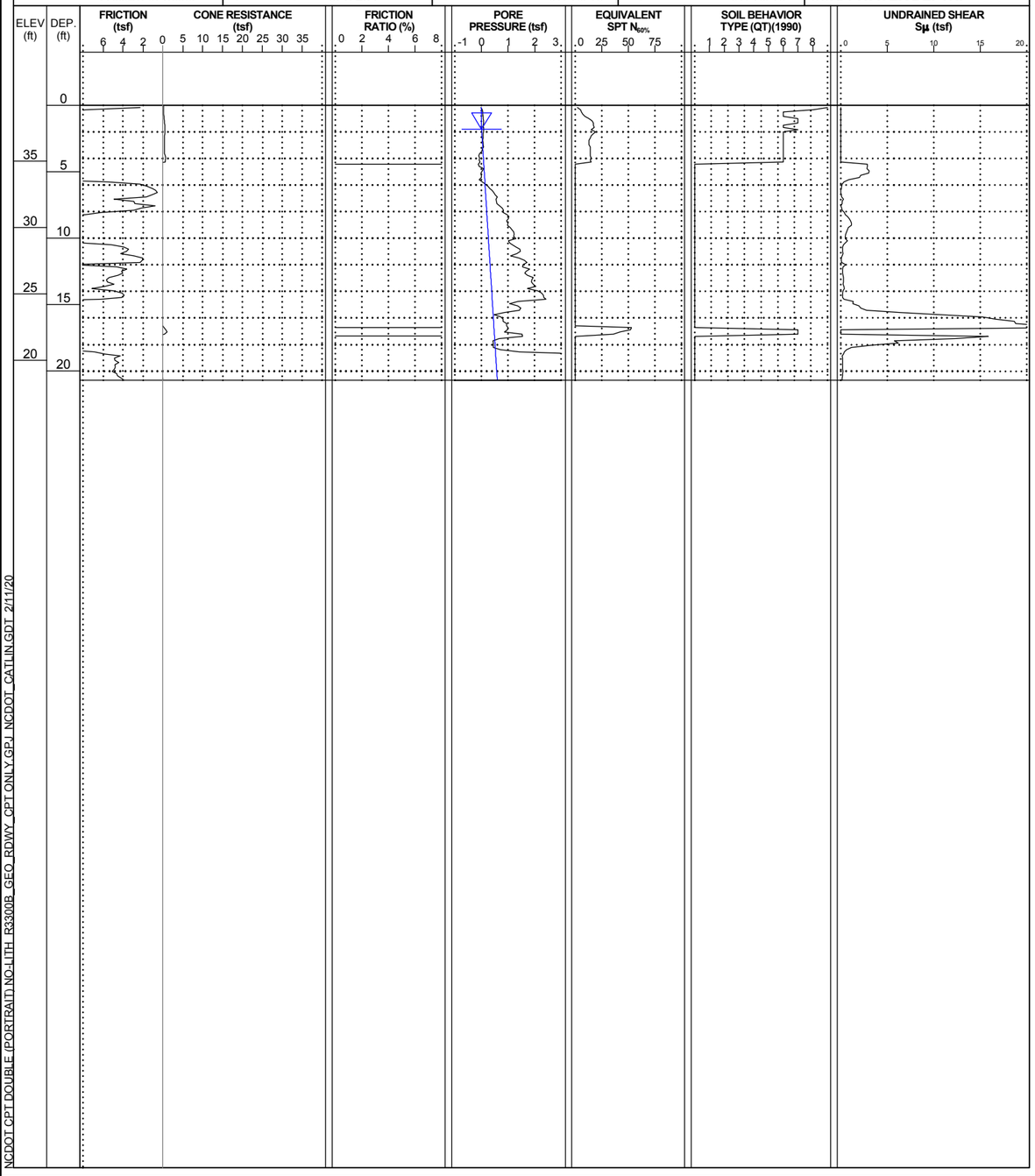
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

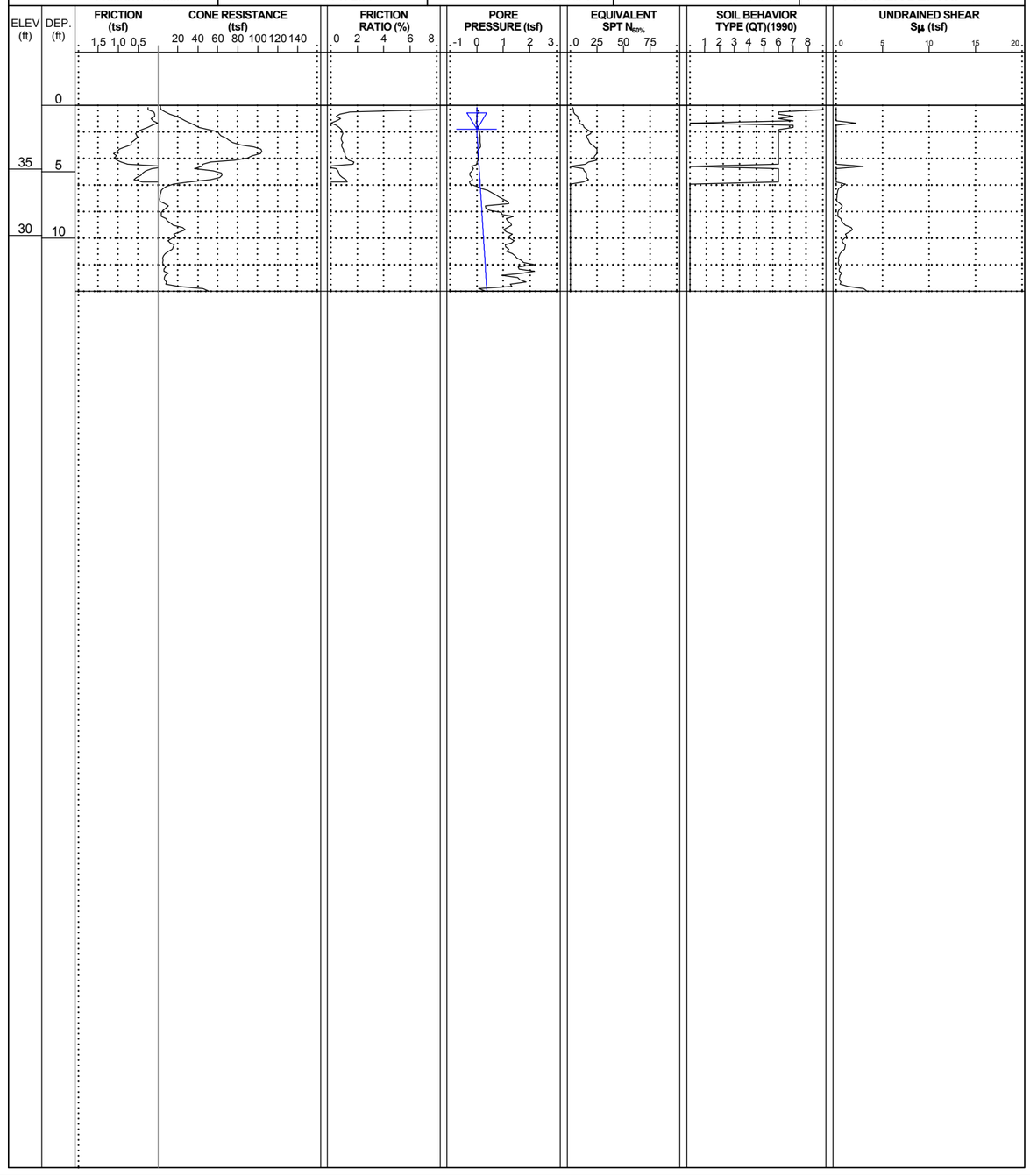
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	1

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_57800	**STATION:** 578+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 1.8
COLLAR ELEV.: 39.2 ft	**TOTAL DEPTH:** 20.7 ft	**NORTHING:** 230,008	**EASTING:** 2,375,704	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/16/18	**COMP. DATE:** 07/16/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_58000	**STATION:** 580+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 1.8
COLLAR ELEV.: 39.8 ft	**TOTAL DEPTH:** 14.0 ft	**NORTHING:** 230,057	**EASTING:** 2,375,898	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/16/18	**COMP. DATE:** 07/16/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

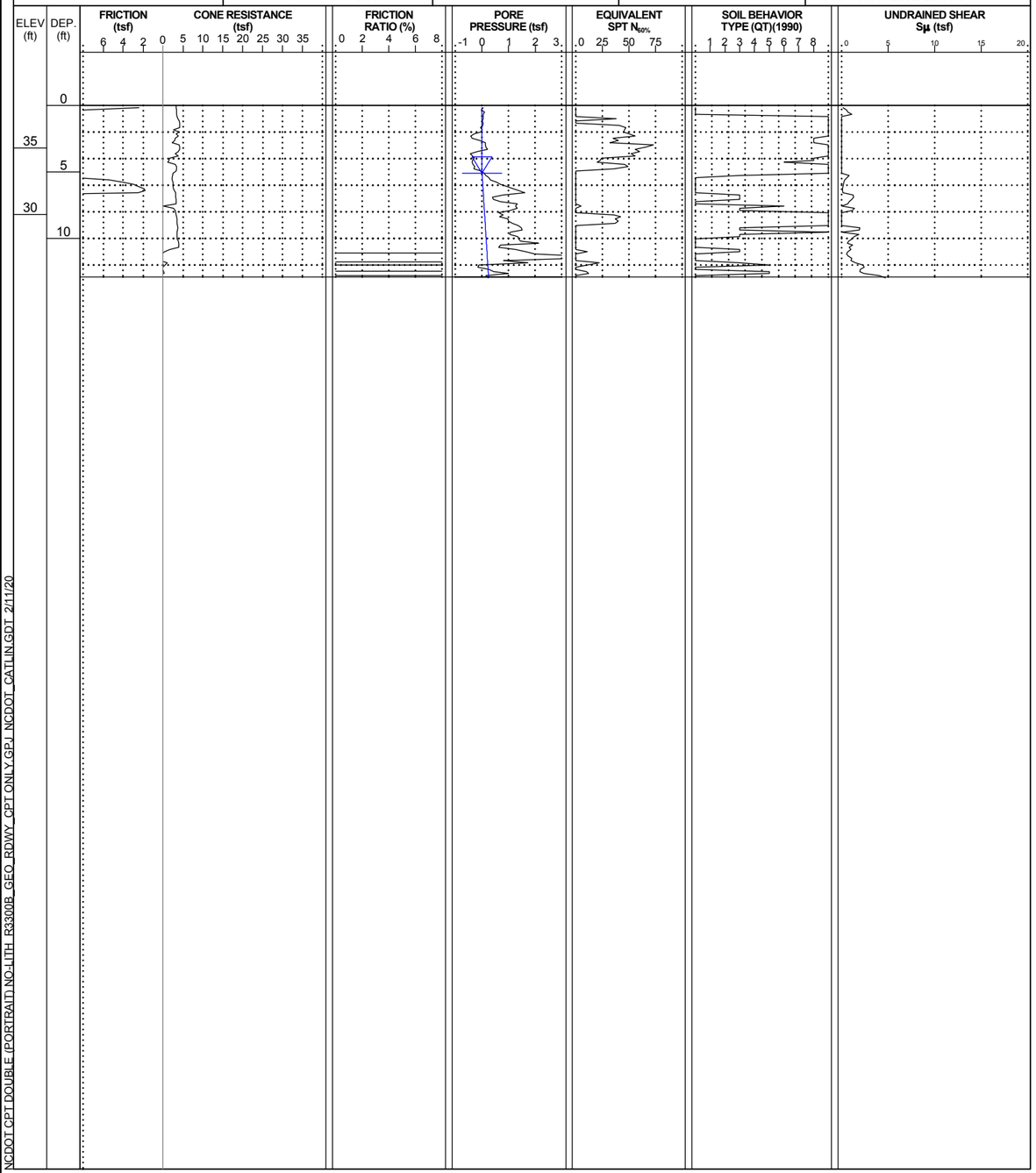
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

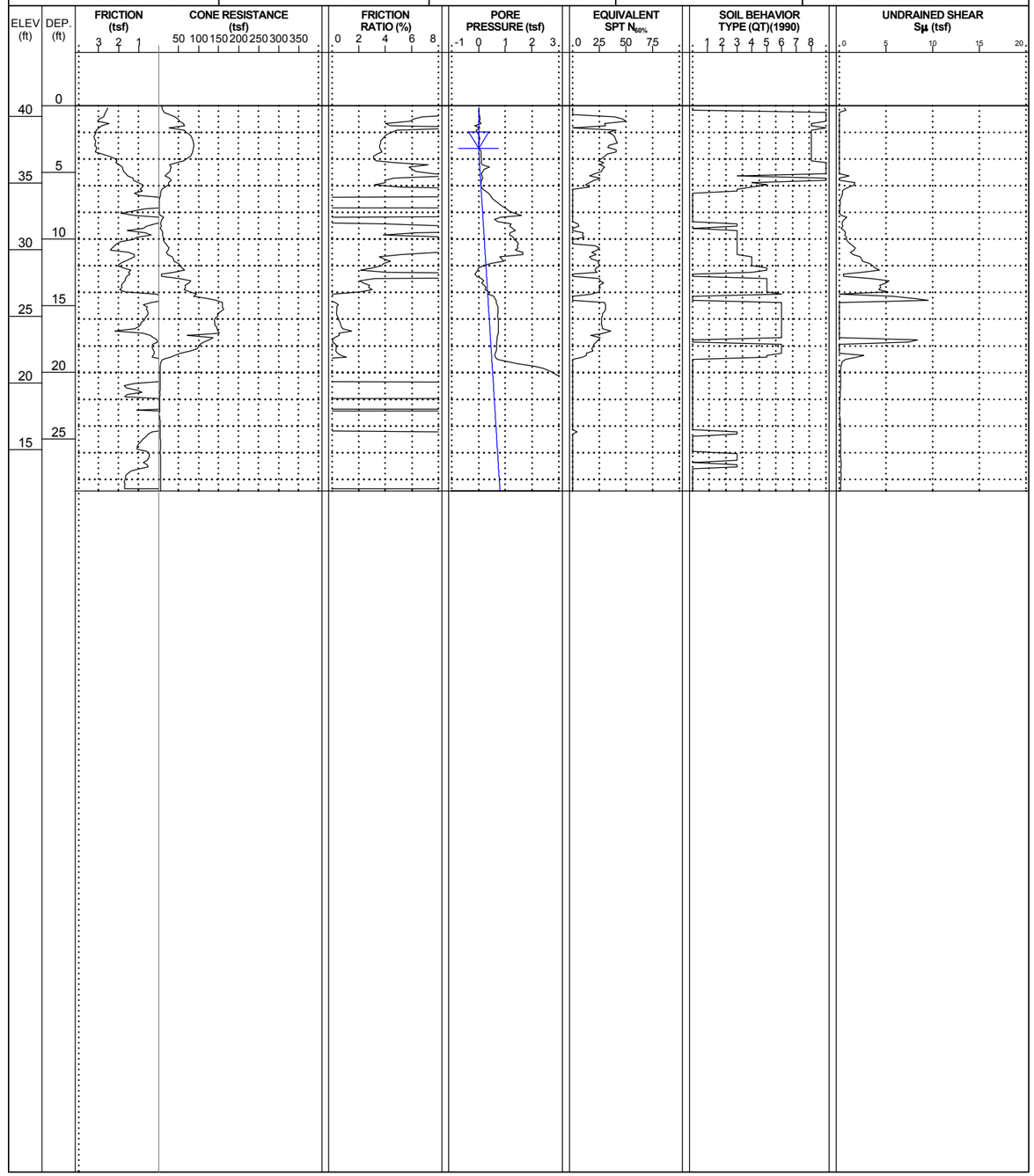
CATLIN Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405
Corporate Licensure No. for Engineering Services C-0586
217060

PROJECT REFERENCE NO.	SHEET
R-3300B	2

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_58400	**STATION:** 584+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 5.1
COLLAR ELEV.: 38.2 ft	**TOTAL DEPTH:** 12.9 ft	**NORTHING:** 230,189	**EASTING:** 2,376,275	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/16/18	**COMP. DATE:** 07/16/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_58650	**STATION:** 586+50	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 3.2
COLLAR ELEV.: 40.8 ft	**TOTAL DEPTH:** 28.9 ft	**NORTHING:** 230,294	**EASTING:** 2,376,502	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/16/18	**COMP. DATE:** 07/16/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH_R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

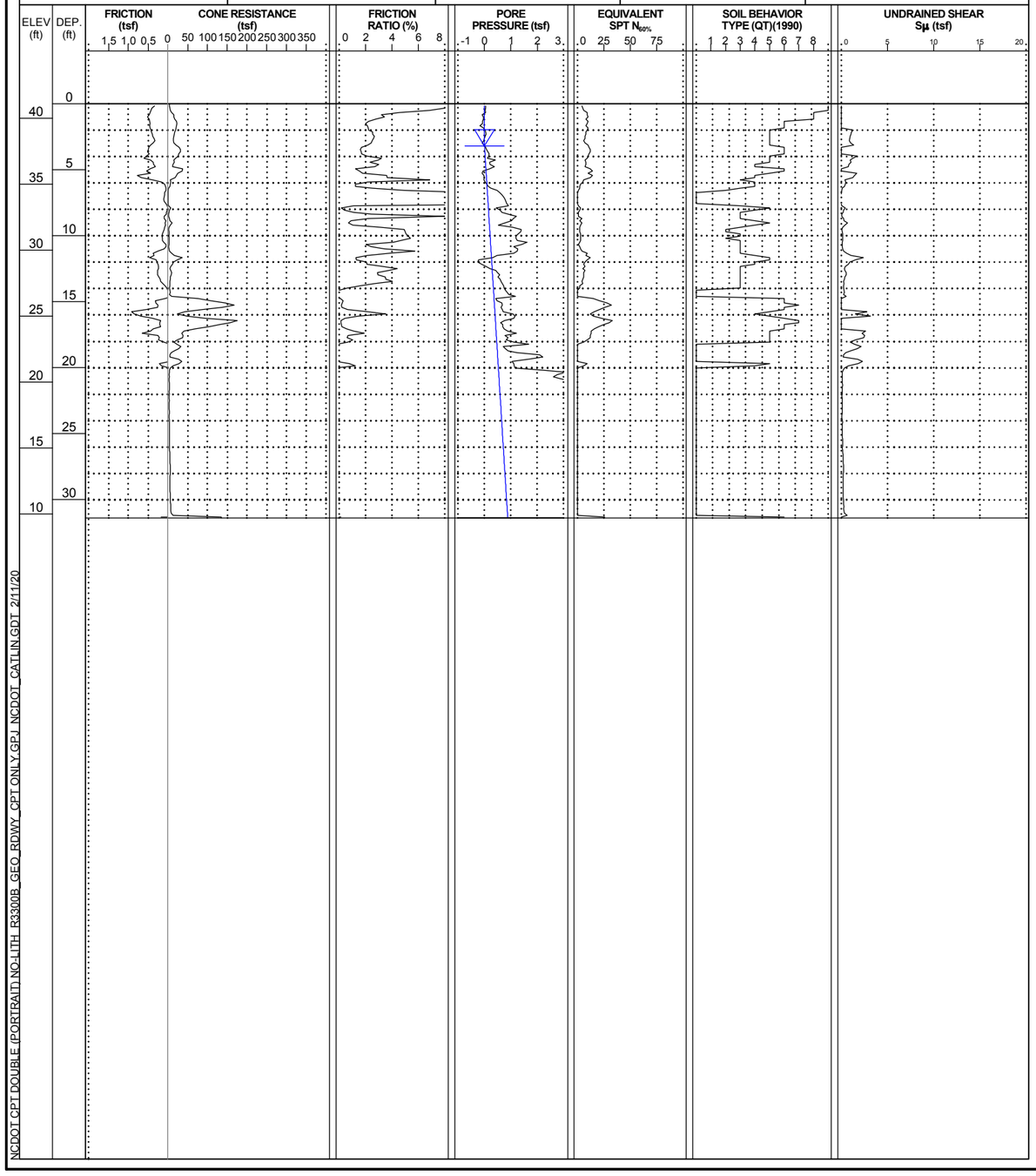
CONE PENETROMETER TEST BORING REPORT

CATLIN Engineers and Scientists, 220 Old Dairy Road, Wilmington, NC 28405, Corporate Licensure No. for Engineering Services C-0586

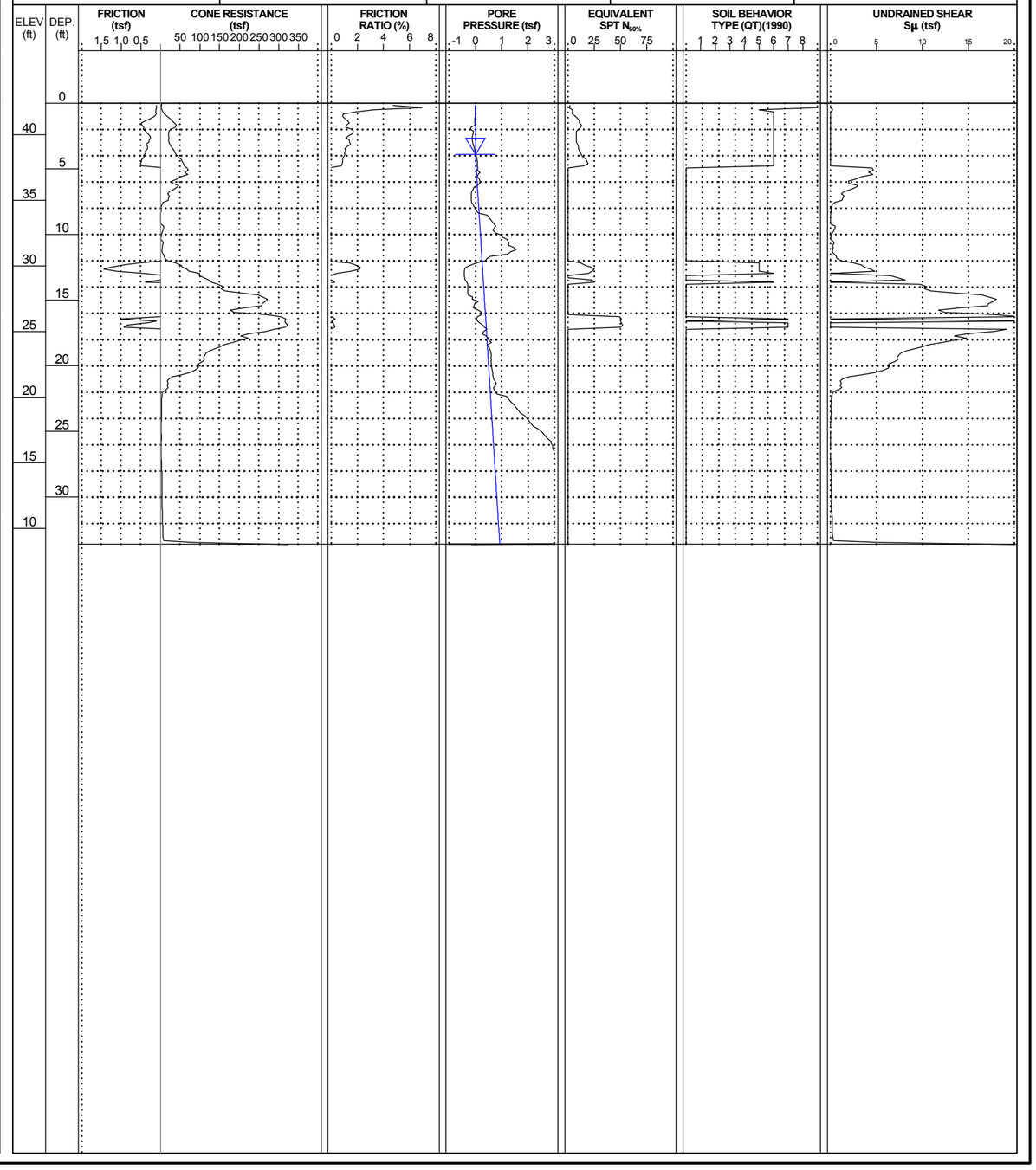
217060

PROJECT REFERENCE NO.	SHEET
R-3300B	3

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_59000	**STATION:** 590+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 3.2
COLLAR ELEV.: 41.1 ft	**TOTAL DEPTH:** 31.4 ft	**NORTHING:** 230,467	**EASTING:** 2,376,806	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/16/18	**COMP. DATE:** 07/16/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_59250	**STATION:** 592+50	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 3.9
COLLAR ELEV.: 42.4 ft	**TOTAL DEPTH:** 33.6 ft	**NORTHING:** 230,610	**EASTING:** 2,377,011	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/12/18	**COMP. DATE:** 07/12/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B GEO RDWY CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

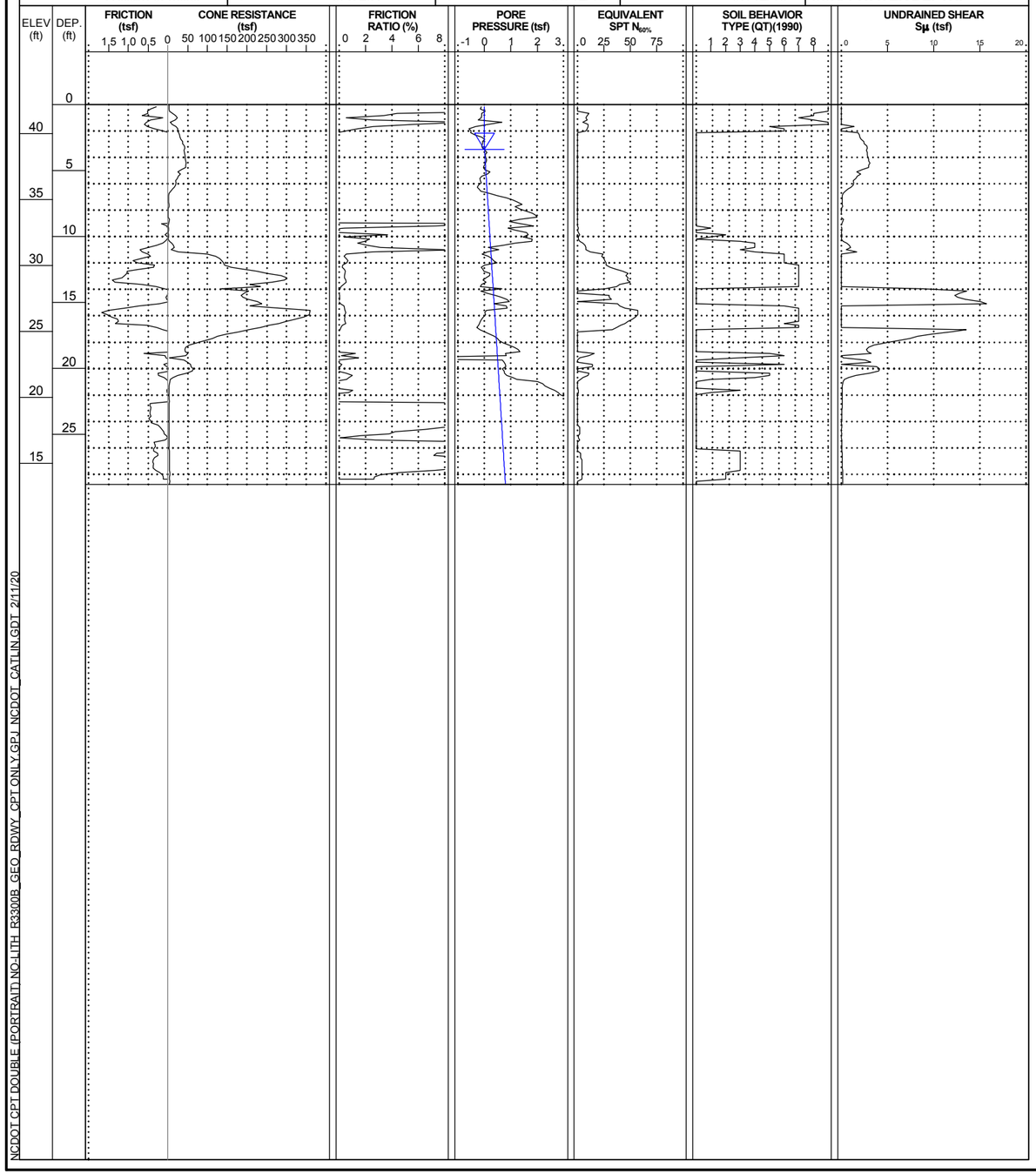
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

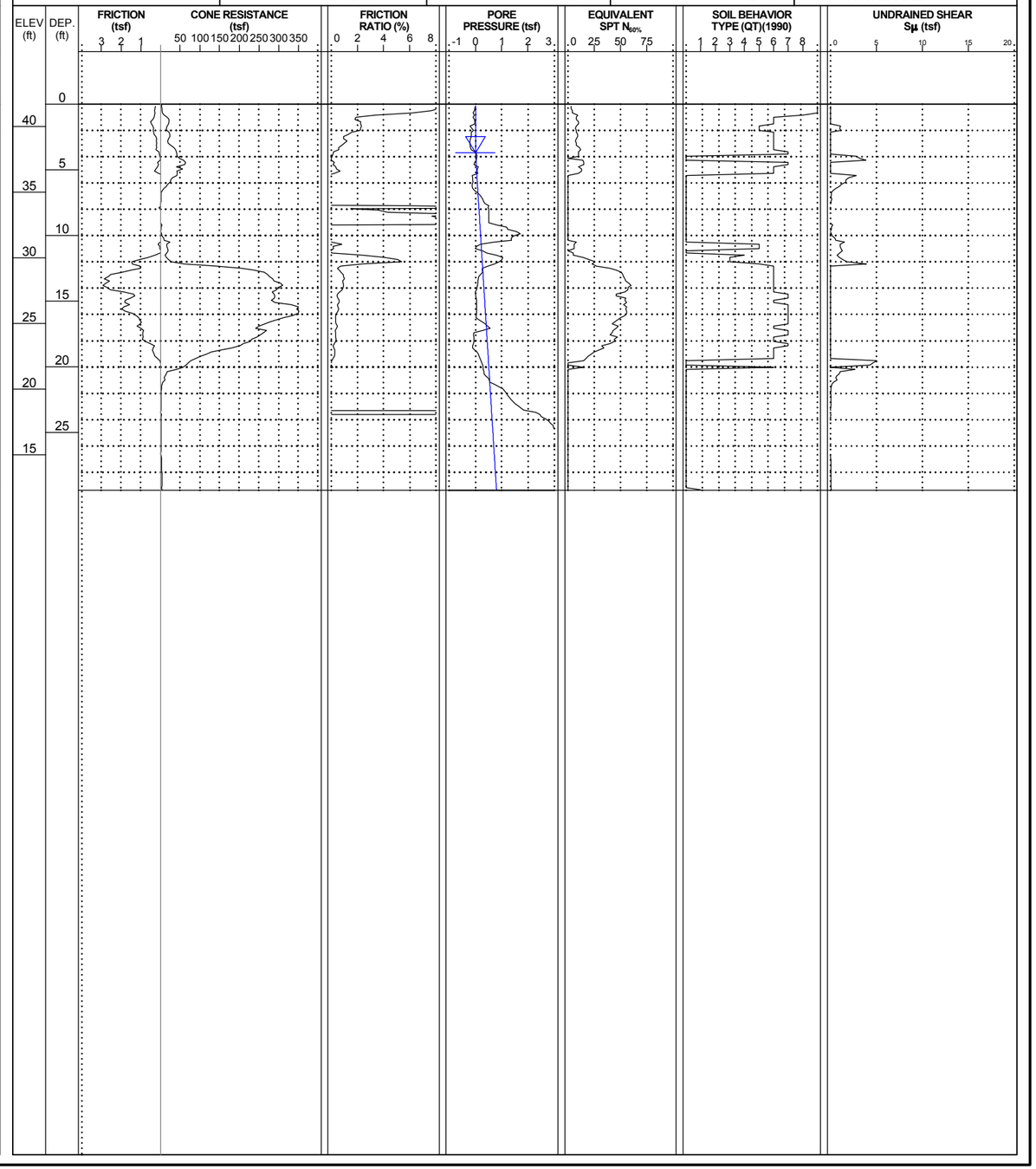
CATLIN Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405
Corporate Licensure No. for Engineering Services C-0566
217060

PROJECT REFERENCE NO.	SHEET
R-3300B	4

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_59600	**STATION:** 596+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 3.4
COLLAR ELEV.: 42.2 ft	**TOTAL DEPTH:** 28.8 ft	**NORTHING:** 230,835	**EASTING:** 2,377,279	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/12/18	**COMP. DATE:** 07/12/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_59750	**STATION:** 597+50	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 3.7
COLLAR ELEV.: 41.7 ft	**TOTAL DEPTH:** 29.4 ft	**NORTHING:** 230,939	**EASTING:** 2,377,387	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/12/18	**COMP. DATE:** 07/12/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

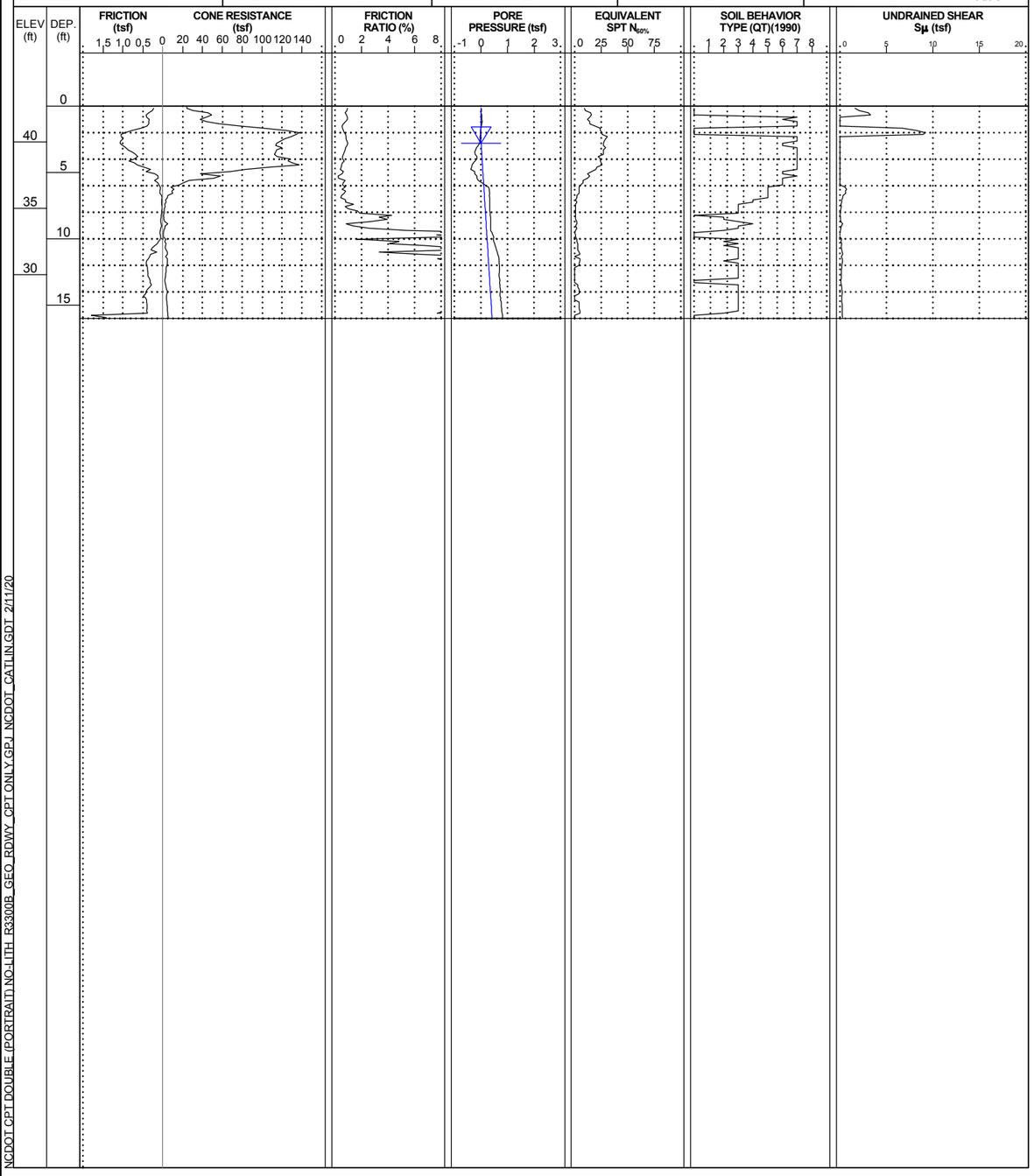
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

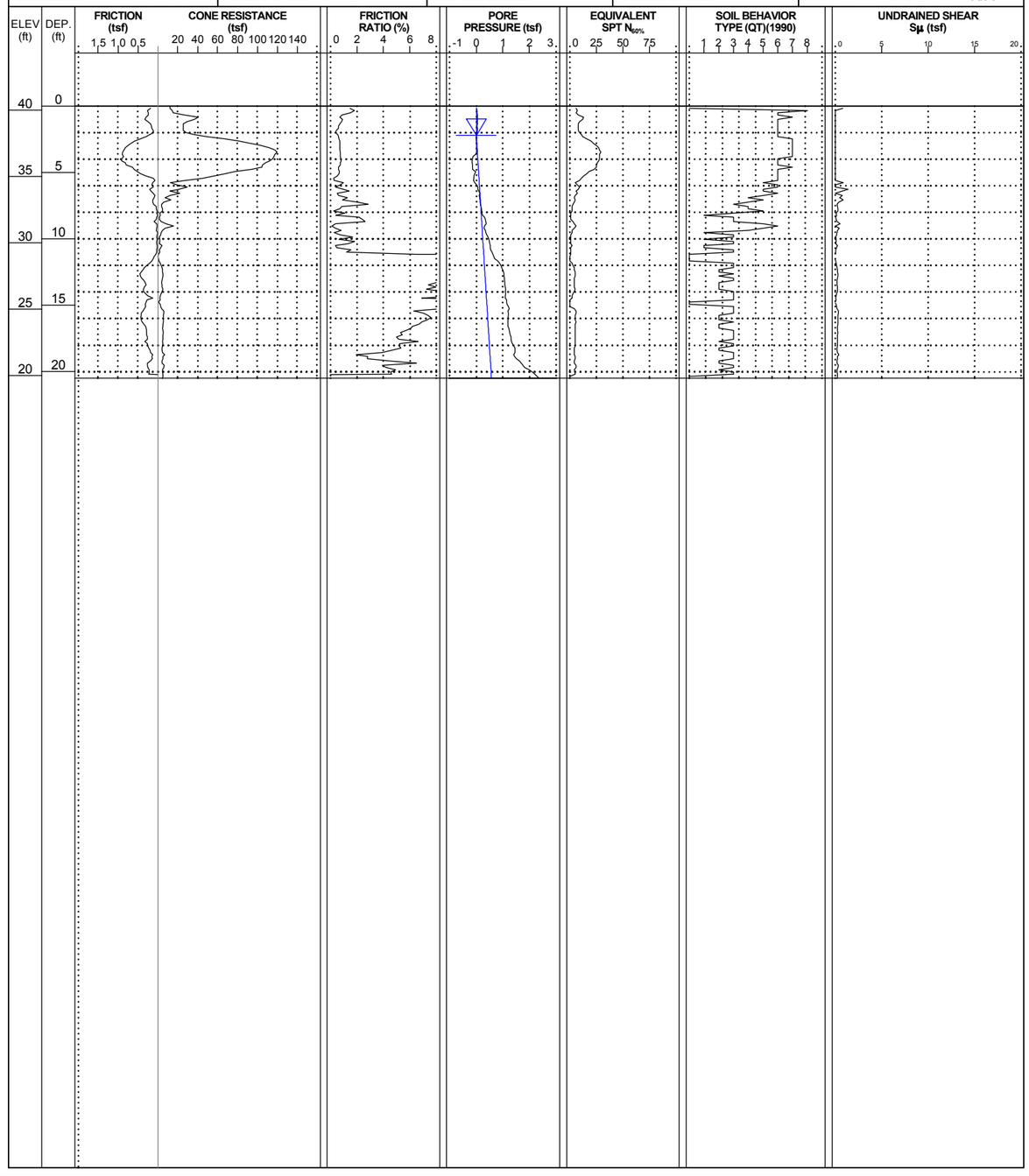
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	5

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_60200	**STATION:** 602+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 2.8
COLLAR ELEV.: 42.7 ft	**TOTAL DEPTH:** 16.0 ft	**NORTHING:** 231,274	**EASTING:** 2,377,687	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/17/18	**COMP. DATE:** 07/17/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_60400	**STATION:** 604+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 2.2
COLLAR ELEV.: 40.3 ft	**TOTAL DEPTH:** 20.5 ft	**NORTHING:** 231,425	**EASTING:** 2,377,818	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/17/18	**COMP. DATE:** 07/17/18	**SURF. WATER DEPTH:** N/A

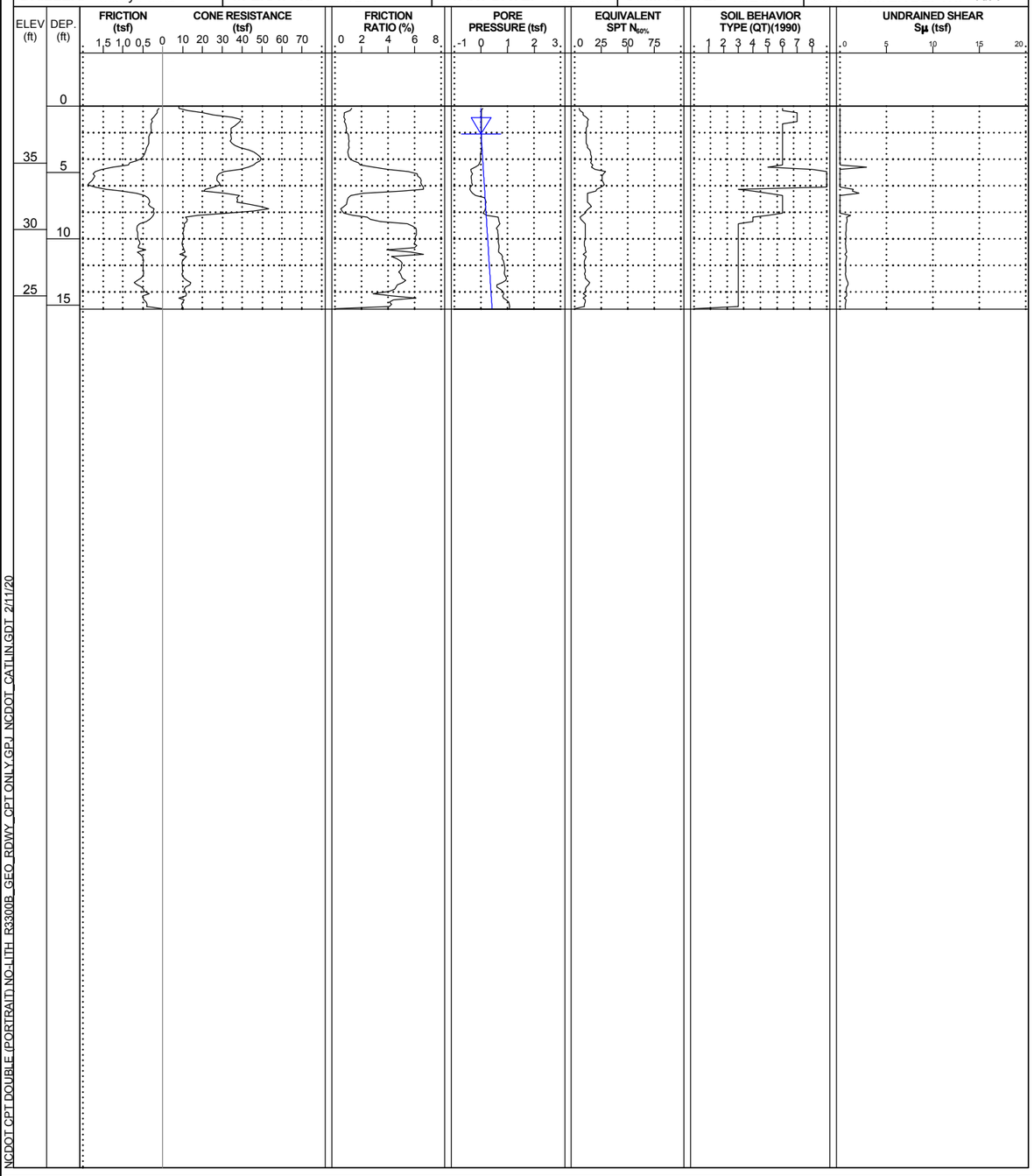


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

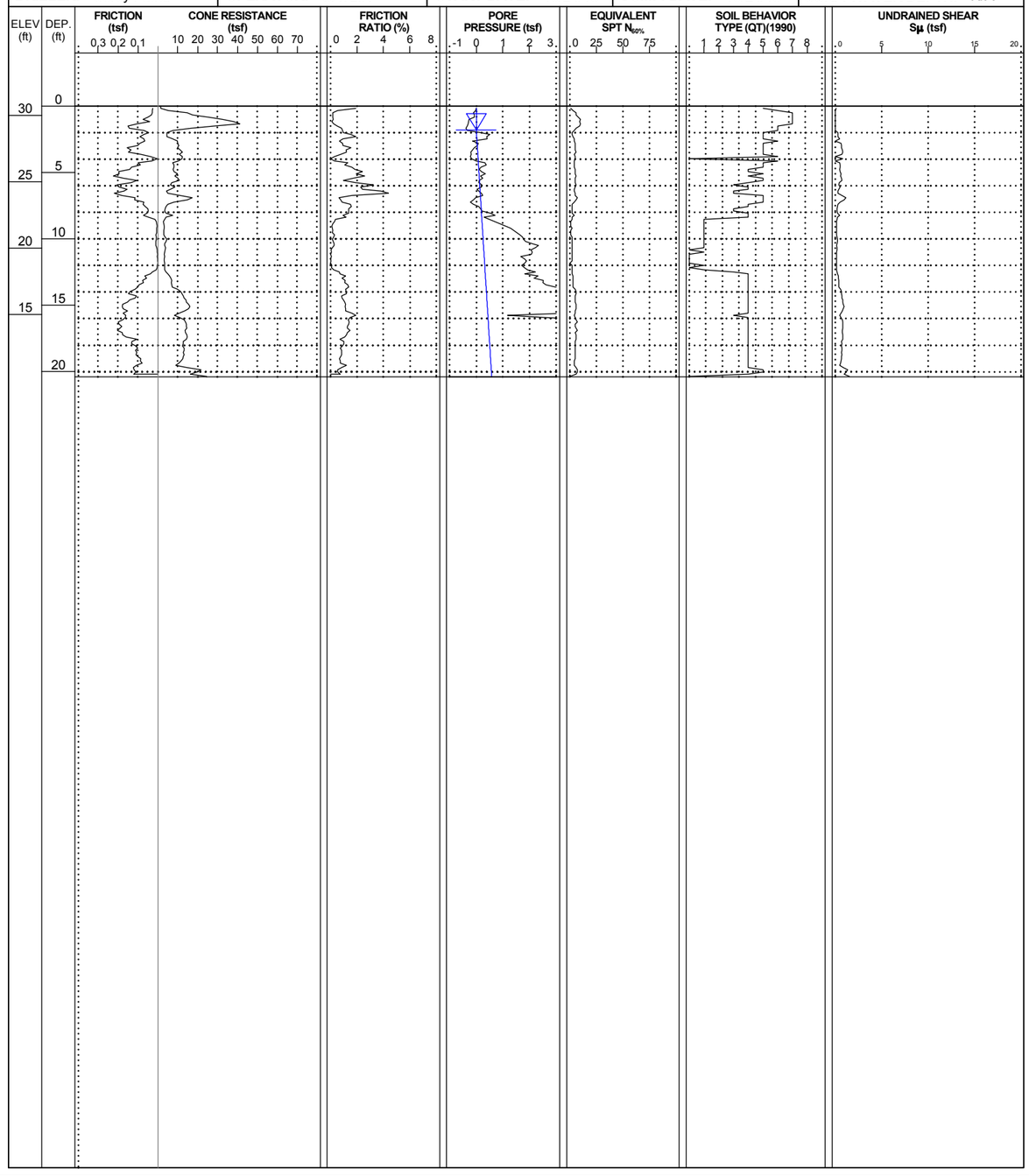
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_60800_CL	**STATION:** 608+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	2.1
COLLAR ELEV.: 39.3 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 231,728	**EASTING:** 2,378,080	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/24/18	**COMP. DATE:** 10/24/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_61000_CL	**STATION:** 610+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	1.8
COLLAR ELEV.: 30.7 ft	**TOTAL DEPTH:** 20.4 ft	**NORTHING:** 231,879	**EASTING:** 2,378,211	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/24/18	**COMP. DATE:** 10/24/18	**SURF. WATER DEPTH:** N/A	

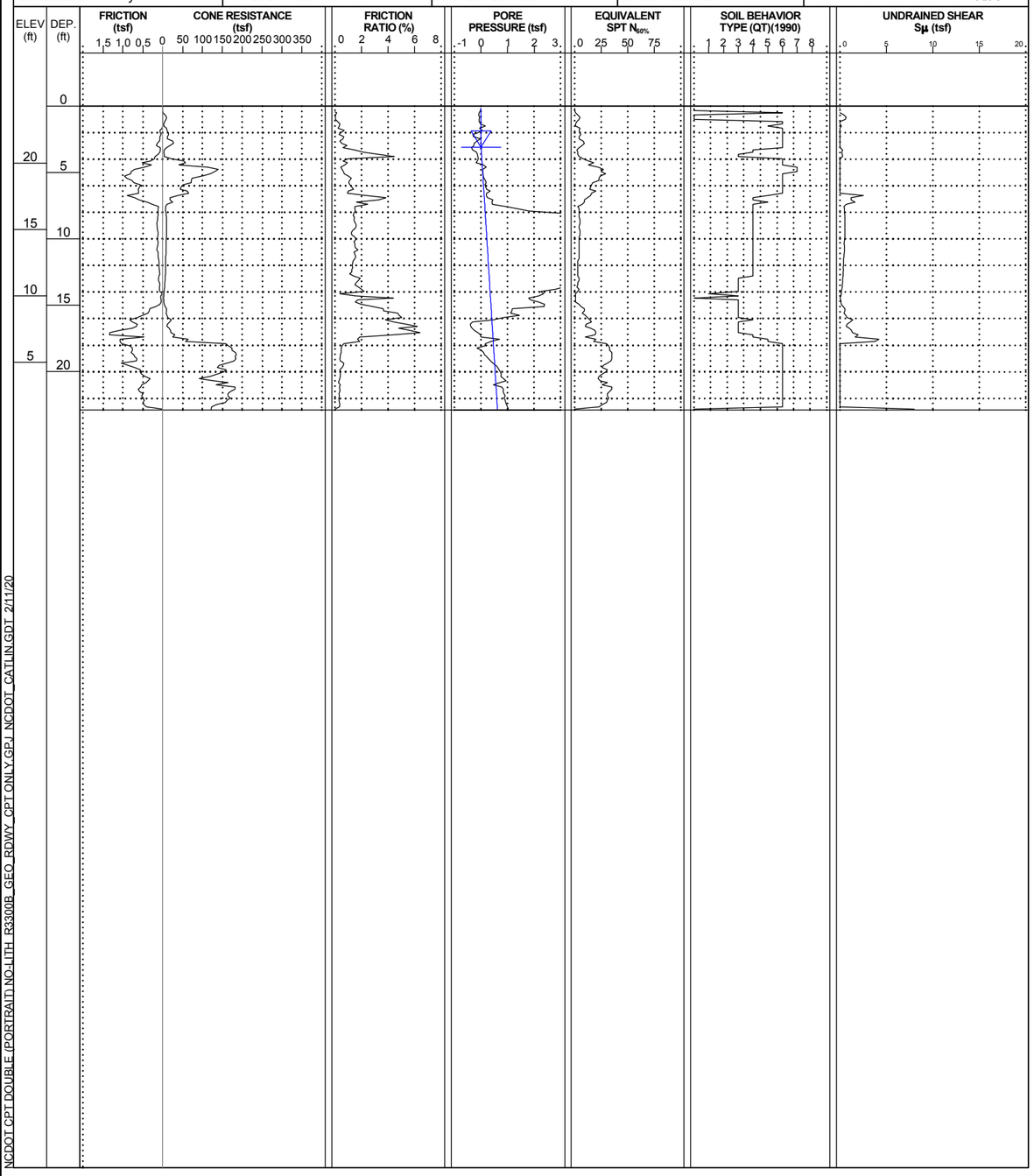


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

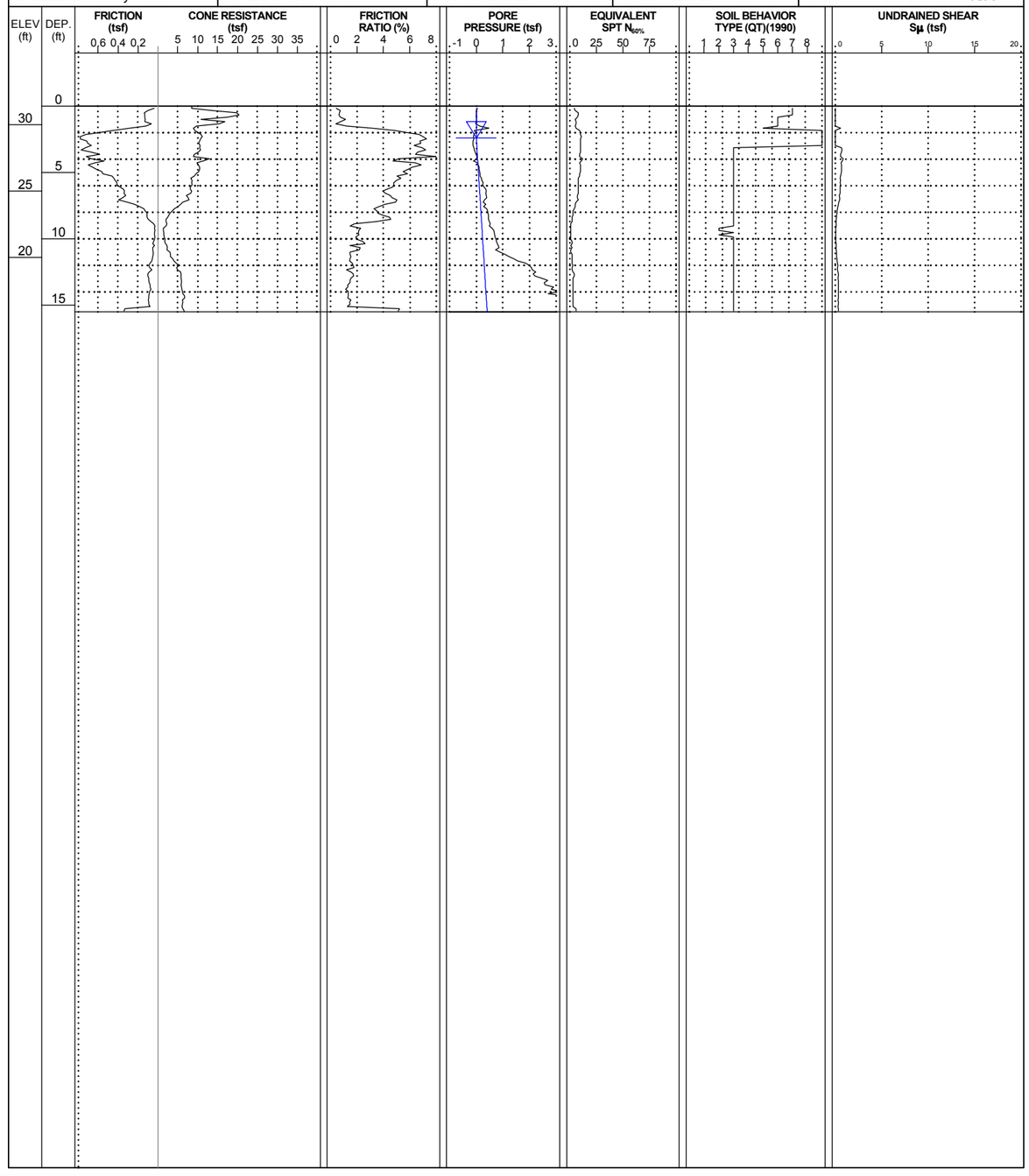
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_61400_CL	**STATION:** 614+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	3.1
COLLAR ELEV.: 24.3 ft	**TOTAL DEPTH:** 22.9 ft	**NORTHING:** 232,182	**EASTING:** 2,378,472	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/24/18	**COMP. DATE:** 10/24/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_61600_CL	**STATION:** 616+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	2.4
COLLAR ELEV.: 31.4 ft	**TOTAL DEPTH:** 15.5 ft	**NORTHING:** 232,329	**EASTING:** 2,378,608	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/24/18	**COMP. DATE:** 10/24/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

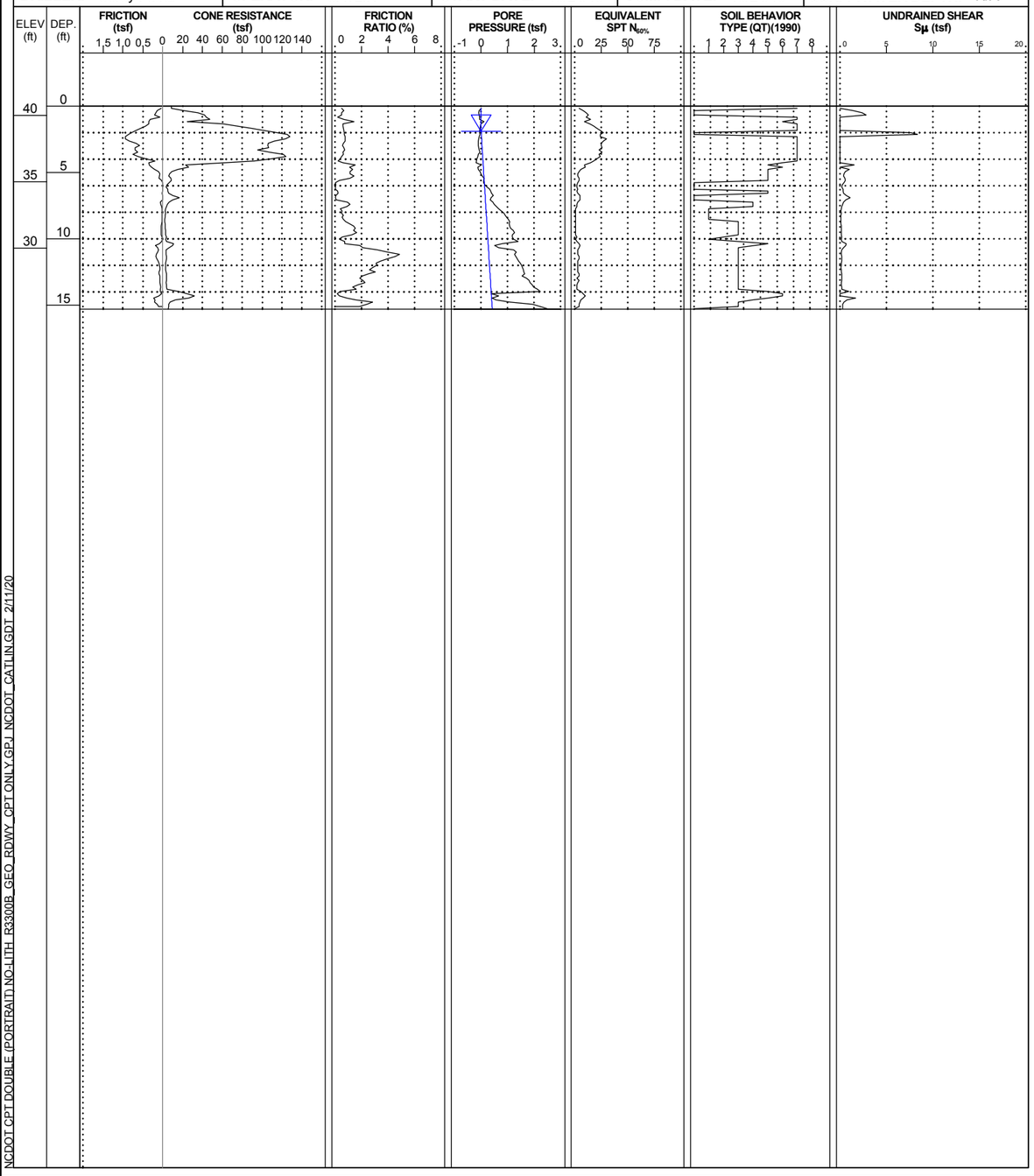
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

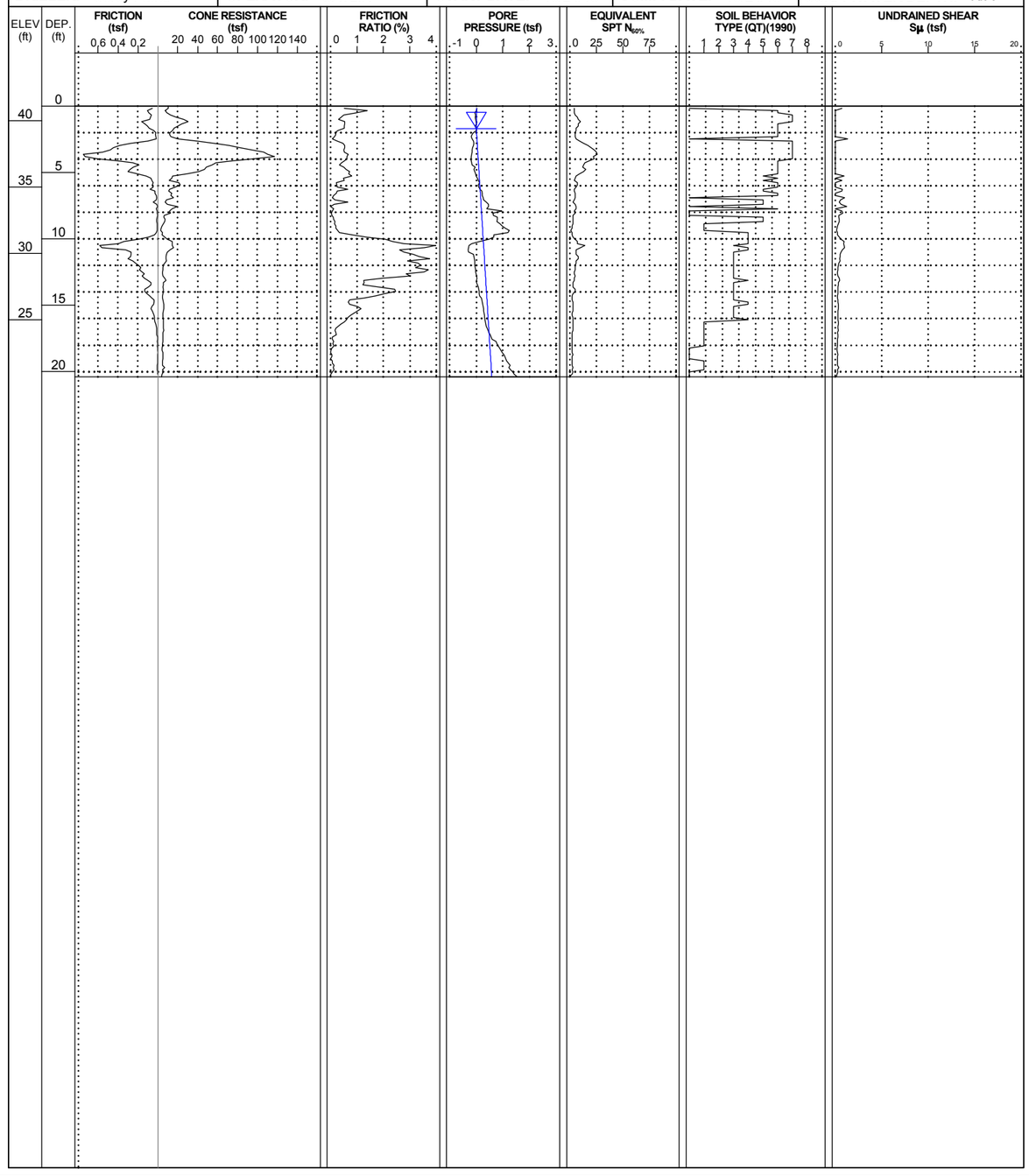
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	8

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_62000_CL	**STATION:** 620+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 1.9
COLLAR ELEV.: 40.7 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 232,591	**EASTING:** 2,378,909	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/24/18	**COMP. DATE:** 10/24/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_62600_CL	**STATION:** 626+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 1.7
COLLAR ELEV.: 41.1 ft	**TOTAL DEPTH:** 20.4 ft	**NORTHING:** 232,885	**EASTING:** 2,379,431	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/24/18	**COMP. DATE:** 10/24/18	**SURF. WATER DEPTH:** N/A

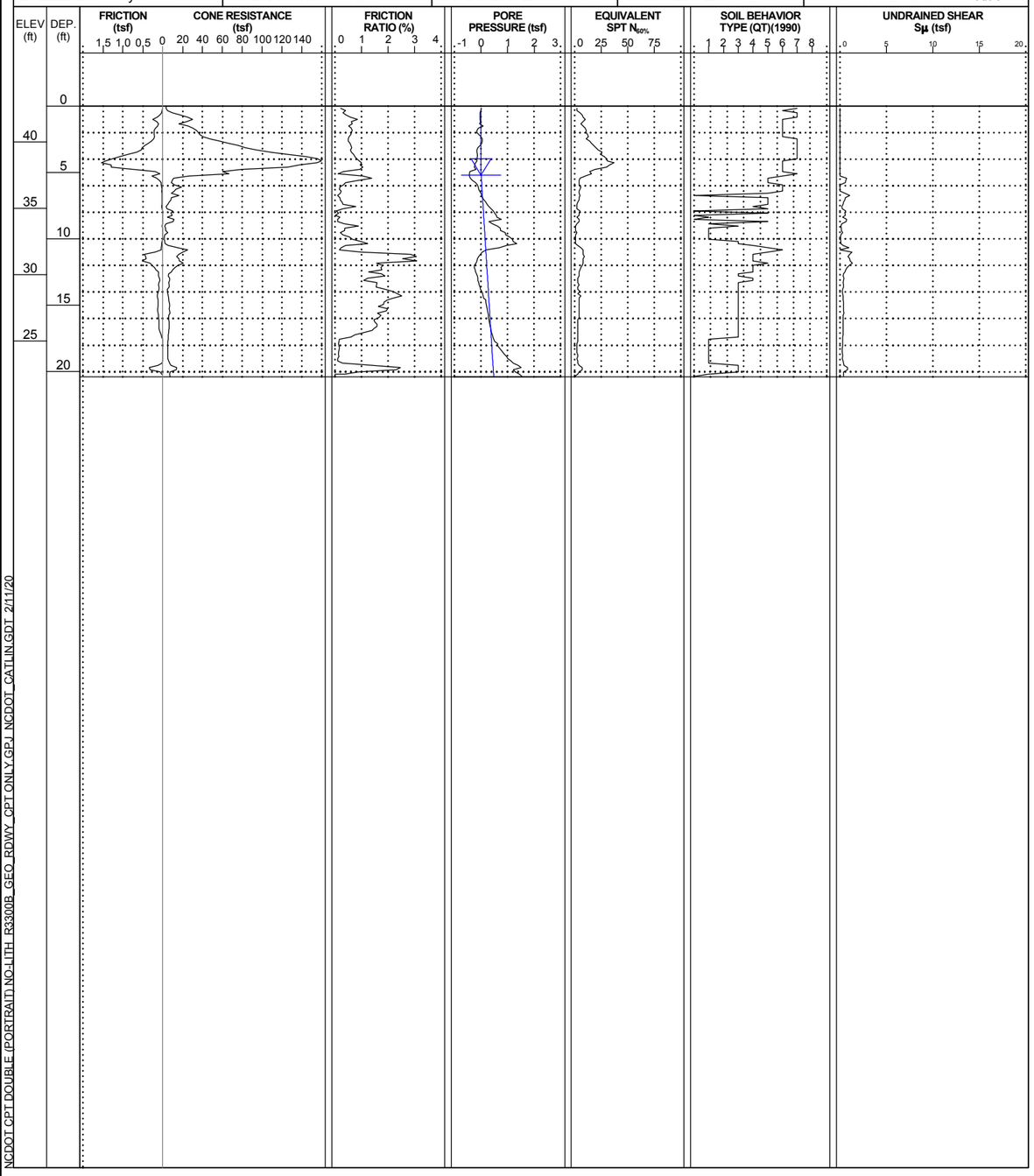


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

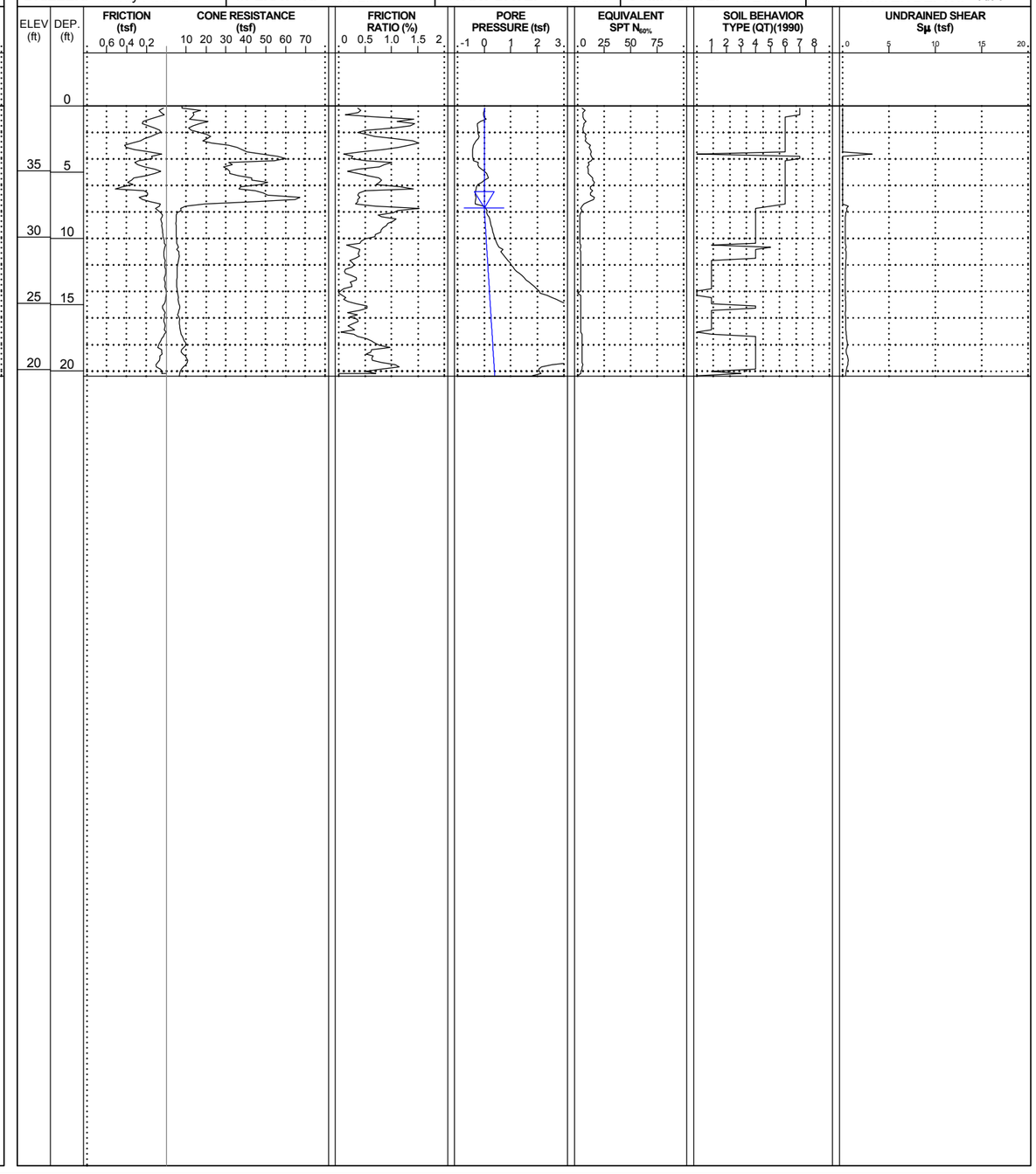
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_62750_CL	**STATION:** 627+50	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	5.2
COLLAR ELEV.: 42.7 ft	**TOTAL DEPTH:** 20.4 ft	**NORTHING:** 232,937	**EASTING:** 2,379,571	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/24/18	**COMP. DATE:** 10/24/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_63200_CL	**STATION:** 632+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	7.7
COLLAR ELEV.: 39.9 ft	**TOTAL DEPTH:** 20.4 ft	**NORTHING:** 233,043	**EASTING:** 2,380,008	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/24/18	**COMP. DATE:** 10/24/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

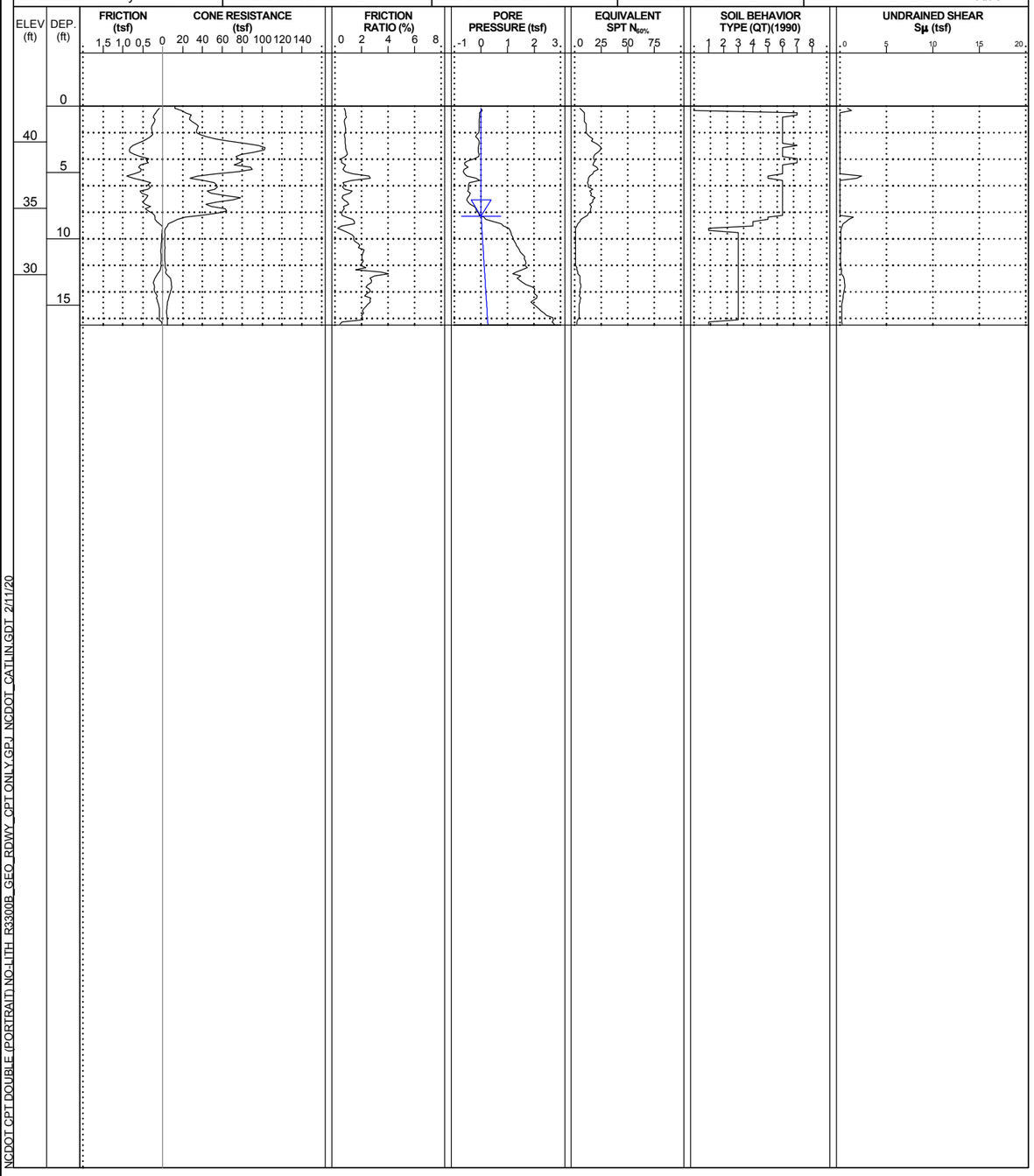
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

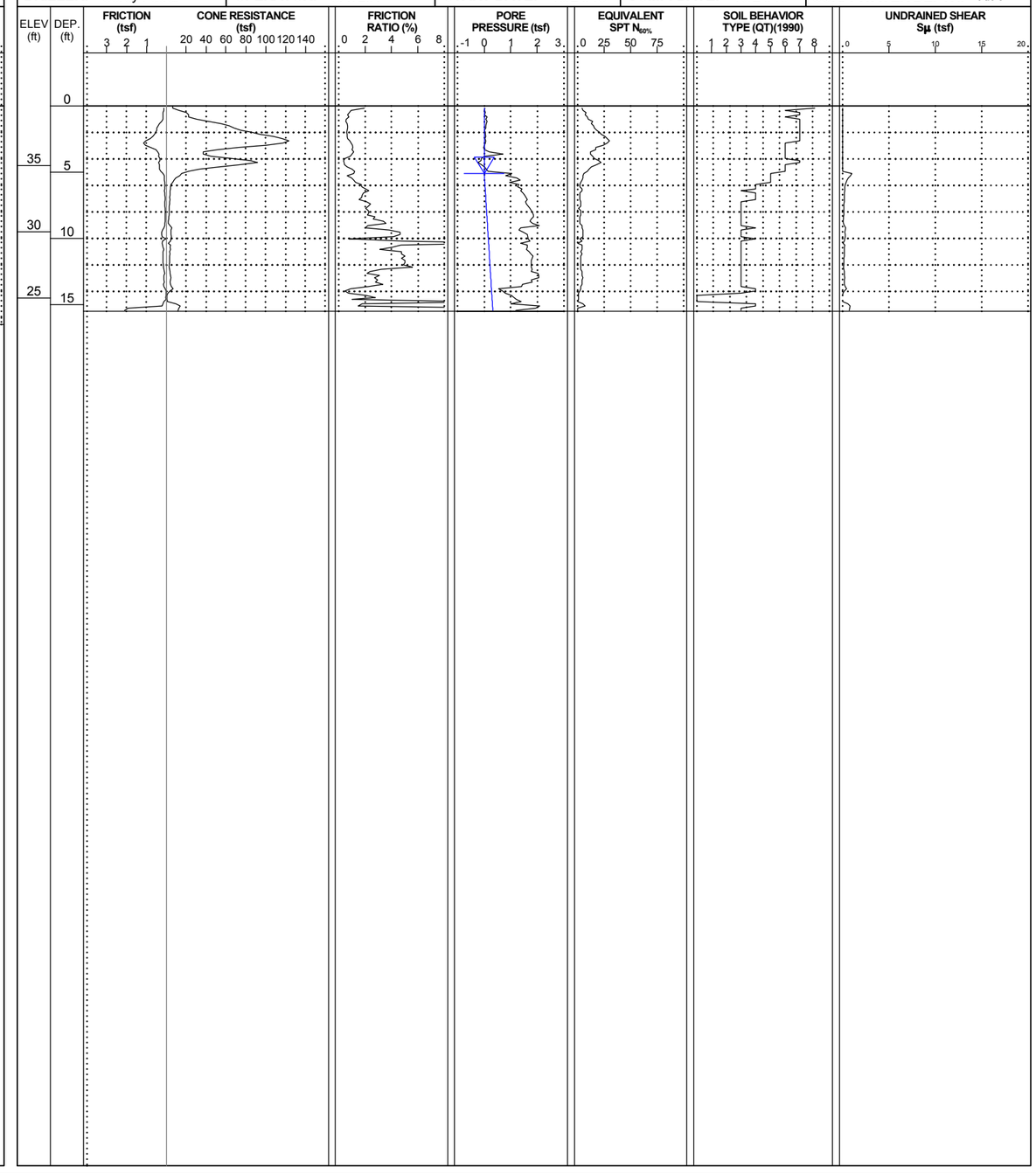
217060 | CATLIN Engineers and Scientists, 220 Old Dairy Road, Wilmington, NC 28405, Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	10

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_63325_CL	**STATION:** 633+25	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 8.3
COLLAR ELEV.: 42.7 ft	**TOTAL DEPTH:** 16.5 ft	**NORTHING:** 233,058	**EASTING:** 2,380,132	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/24/18	**COMP. DATE:** 10/24/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_63850_CL	**STATION:** 638+50	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 5.1
COLLAR ELEV.: 39.5 ft	**TOTAL DEPTH:** 15.5 ft	**NORTHING:** 233,053	**EASTING:** 2,380,656	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/24/18	**COMP. DATE:** 10/24/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

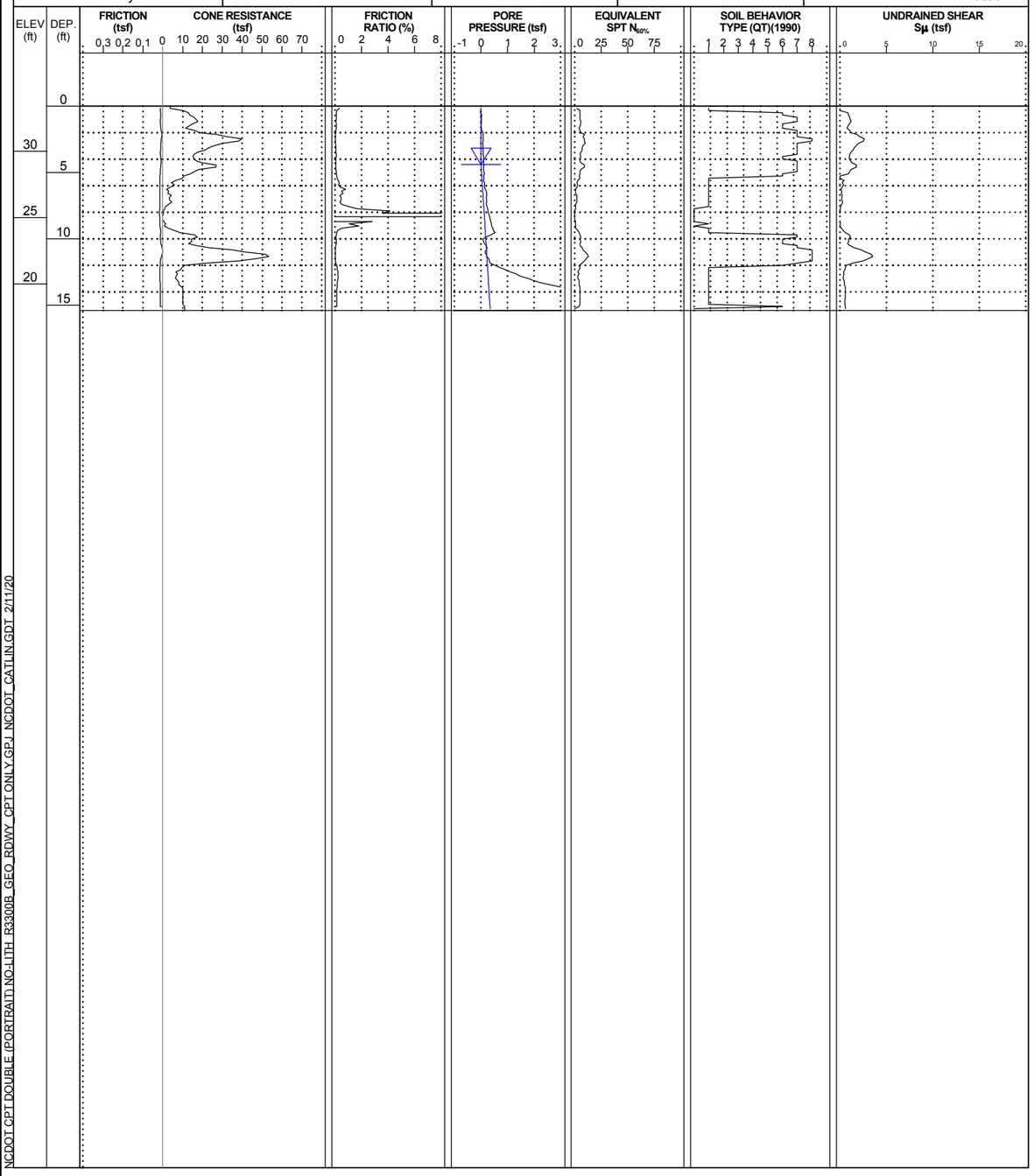
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

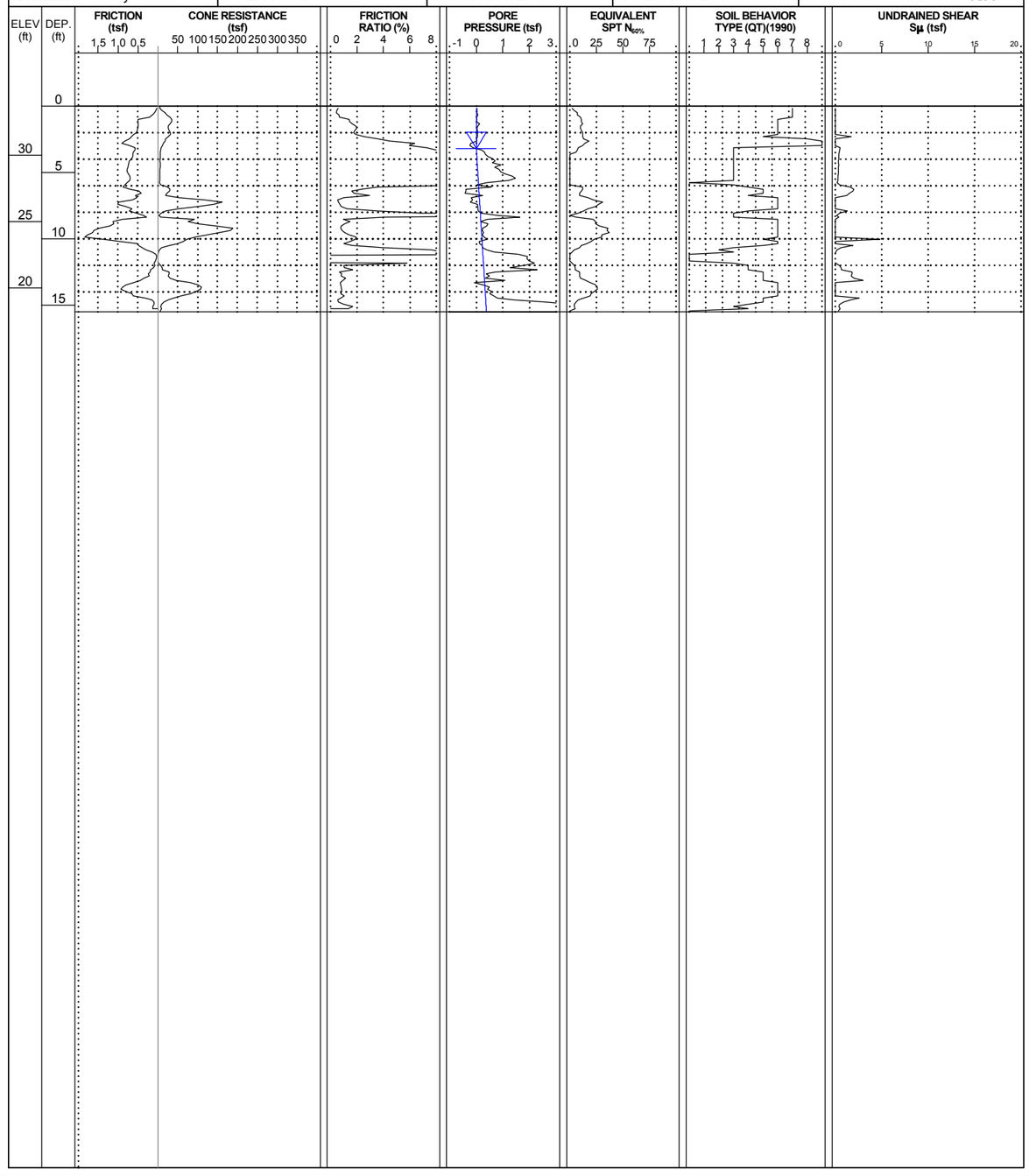
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	11

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_64000_75RT	**STATION:** 640+00	**OFFSET:** 75 ft RT	**ALIGNMENT:** -L1-	**EST. 0 HR.** 4.4
COLLAR ELEV.: 33.4 ft	**TOTAL DEPTH:** 15.4 ft	**NORTHING:** 232,921	**EASTING:** 2,381,195	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/27/18	**COMP. DATE:** 08/27/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_64400_CL	**STATION:** 644+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 3.2
COLLAR ELEV.: 33.7 ft	**TOTAL DEPTH:** 15.5 ft	**NORTHING:** 232,995	**EASTING:** 2,381,203	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/28/18	**COMP. DATE:** 08/28/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

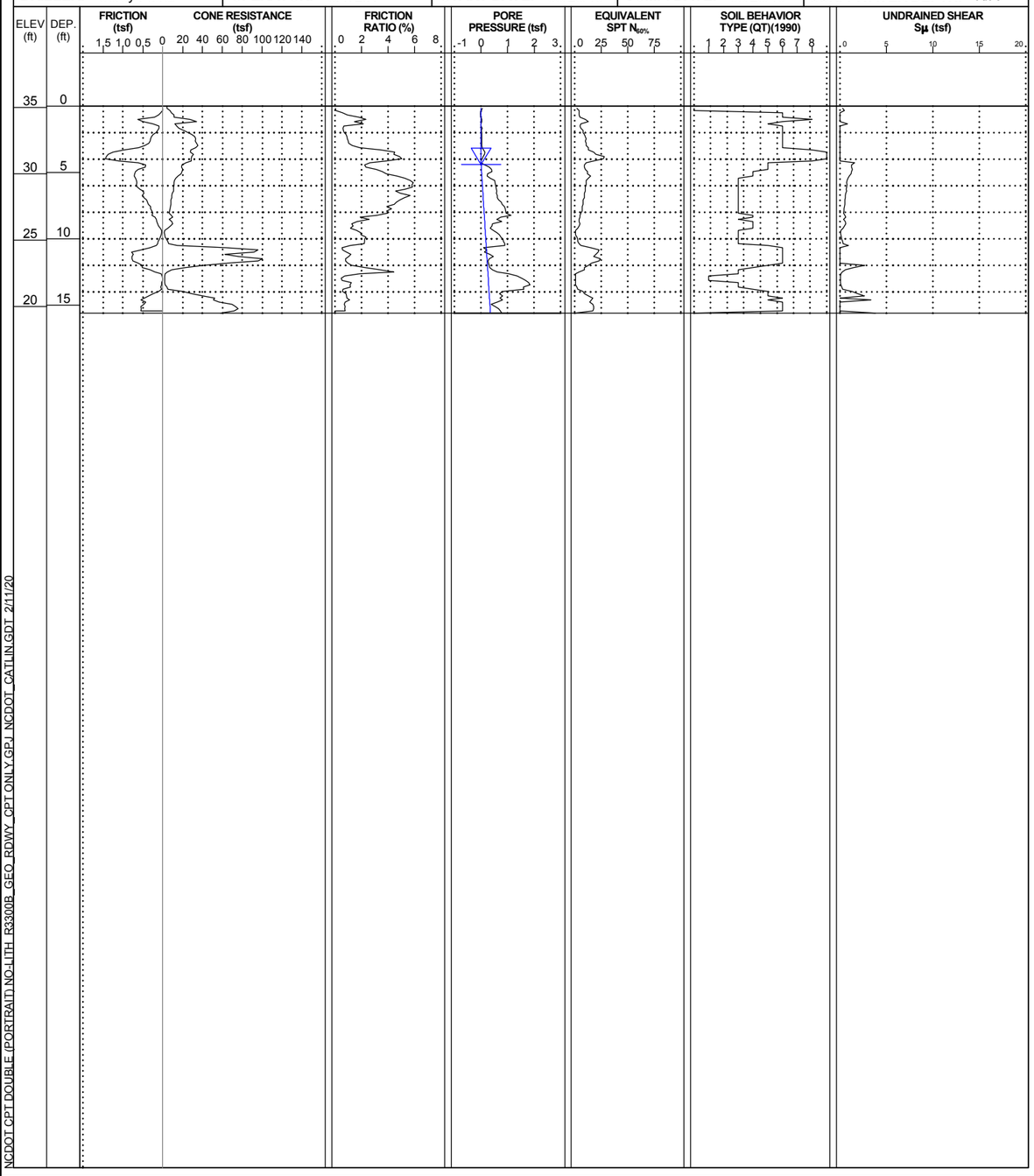
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

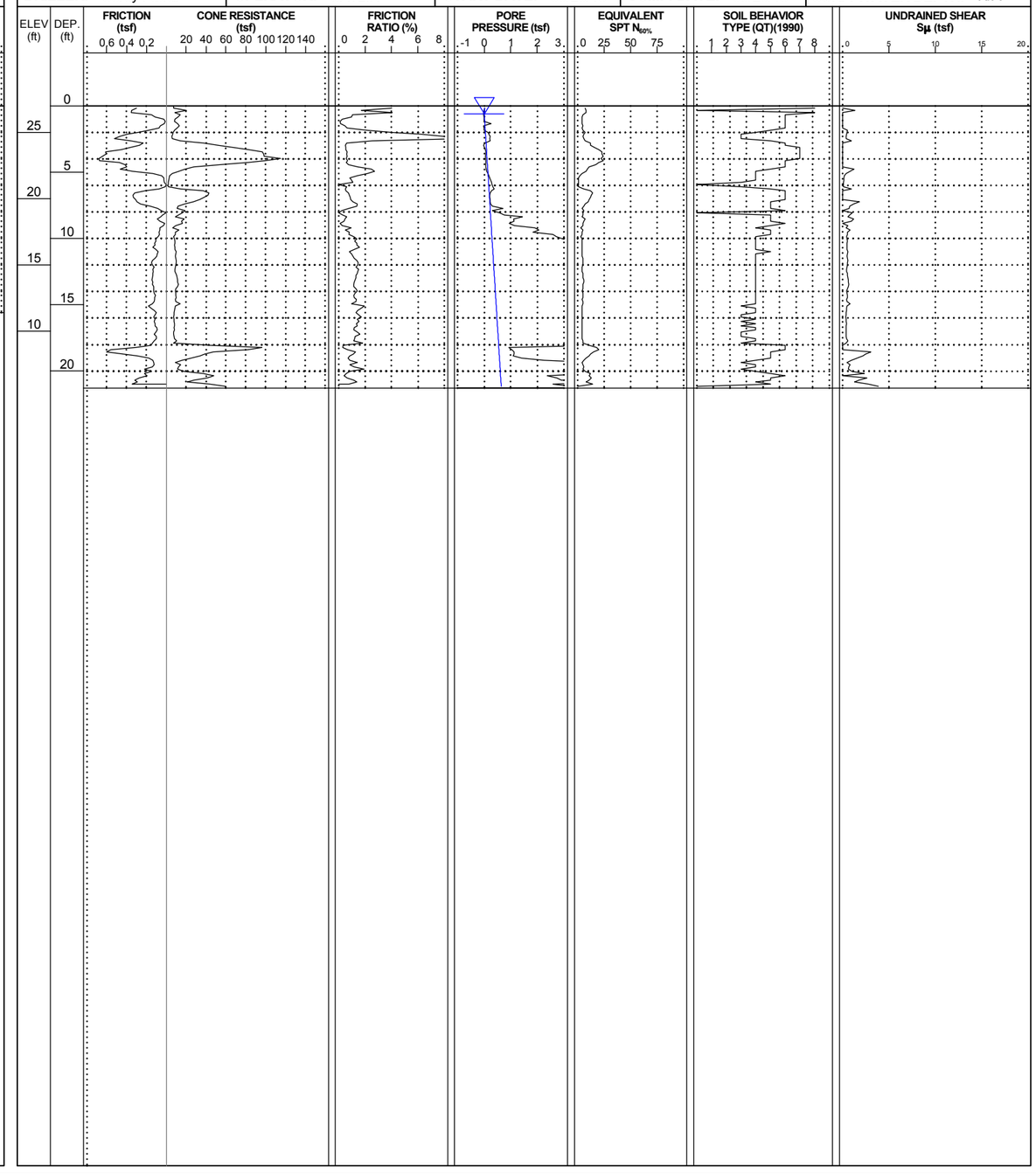
217060 | CATLIN Engineers and Scientists, 220 Old Dairy Road, Wilmington, NC 28405, Corporate Licensure No. for Engineering Services C-0566

PROJECT REFERENCE NO.	SHEET
R-3300B	12

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_64600_CL	**STATION:** 646+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 4.4
COLLAR ELEV.: 35.1 ft	**TOTAL DEPTH:** 15.6 ft	**NORTHING:** 232,974	**EASTING:** 2,381,402	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/28/18	**COMP. DATE:** 08/28/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_65000_CL	**STATION:** 650+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.6
COLLAR ELEV.: 27.0 ft	**TOTAL DEPTH:** 21.3 ft	**NORTHING:** 232,932	**EASTING:** 2,381,800	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/28/18	**COMP. DATE:** 08/28/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH_R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

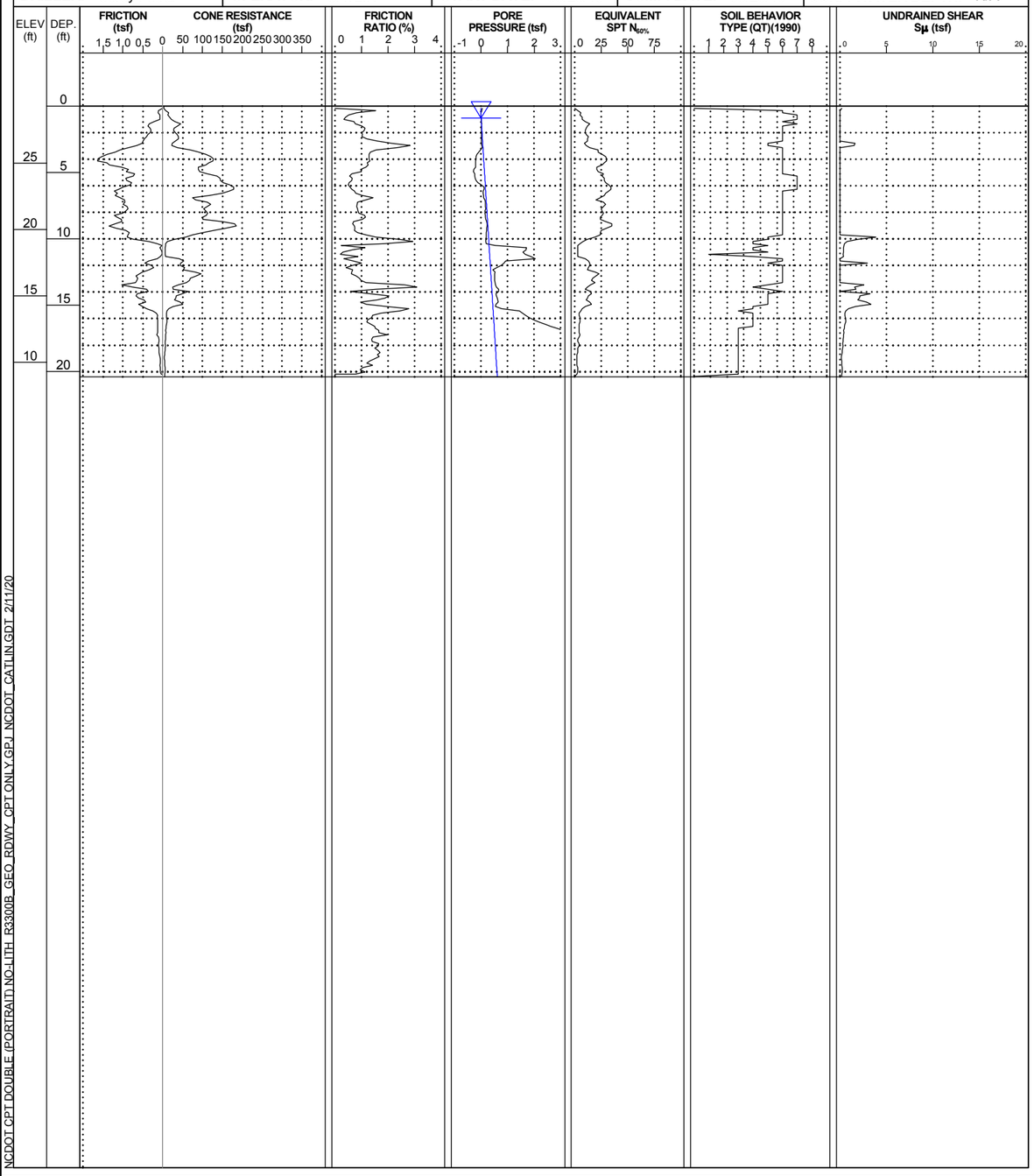
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

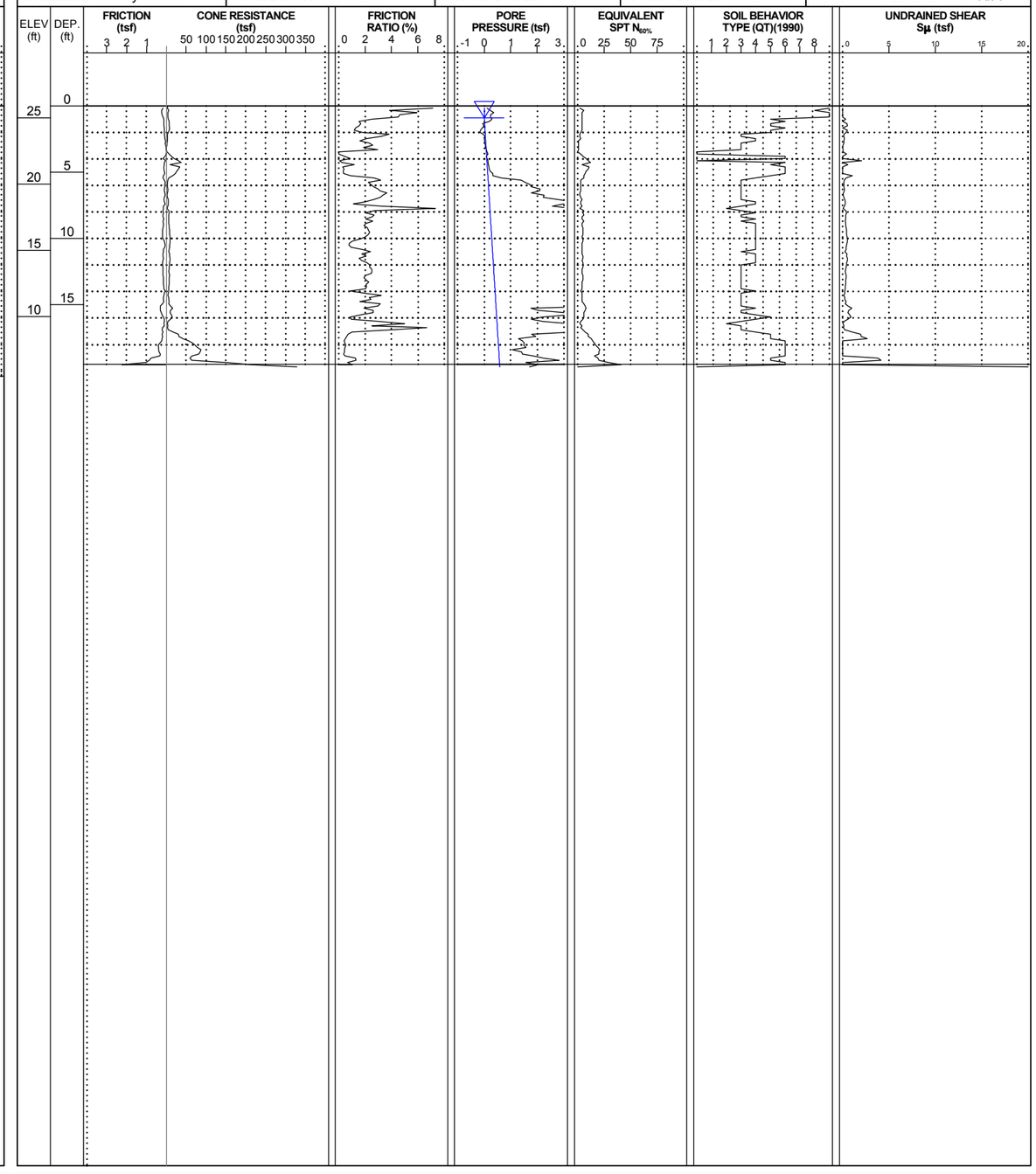
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	13

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_65200_CL	**STATION:** 652+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.9
COLLAR ELEV.: 29.3 ft	**TOTAL DEPTH:** 20.4 ft	**NORTHING:** 232,911	**EASTING:** 2,381,999	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/28/18	**COMP. DATE:** 08/28/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_65600_20LT	**STATION:** 656+00	**OFFSET:** 20 ft LT	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.9
COLLAR ELEV.: 25.9 ft	**TOTAL DEPTH:** 19.5 ft	**NORTHING:** 232,894	**EASTING:** 2,382,398	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/28/18	**COMP. DATE:** 08/28/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

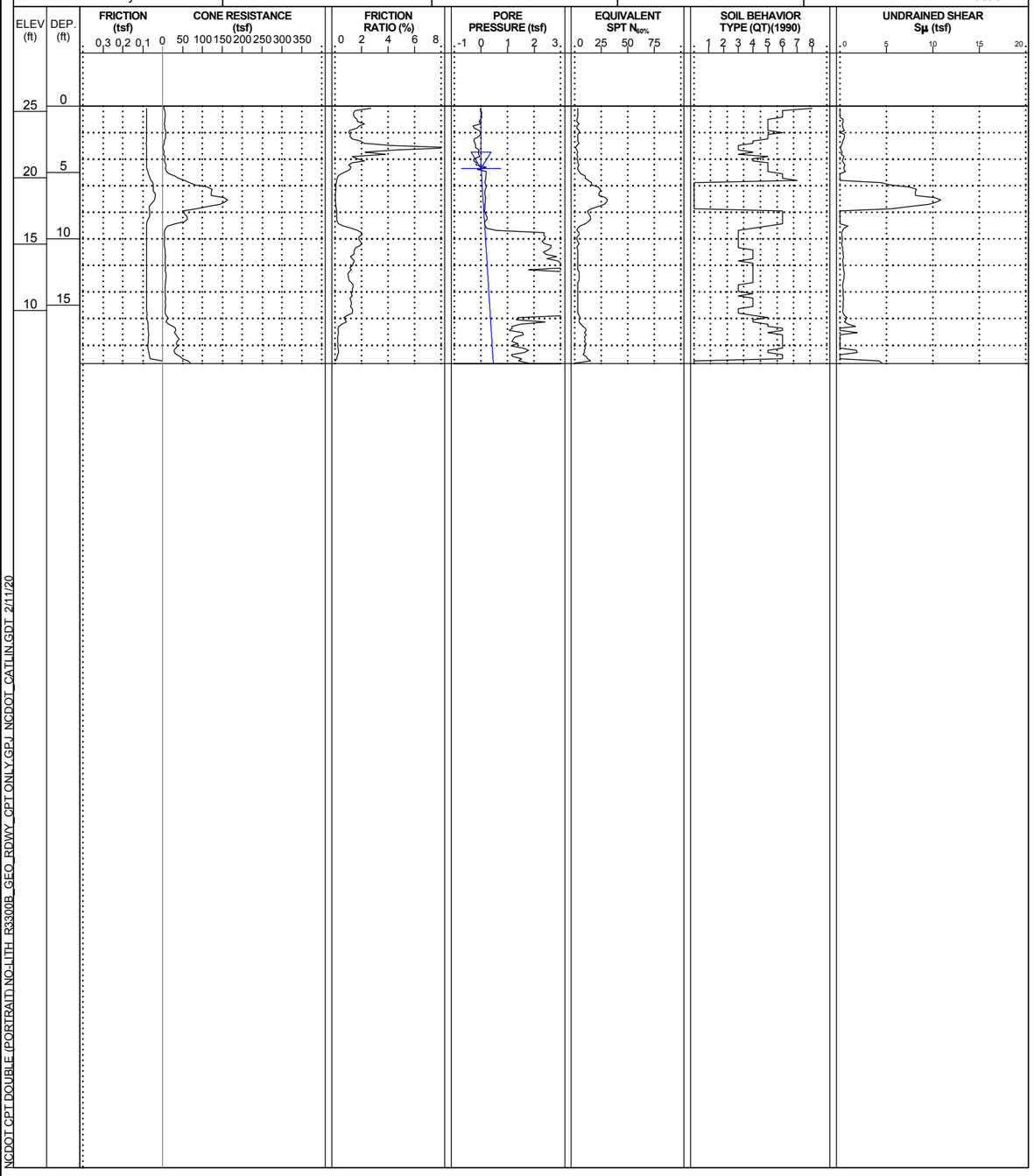
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

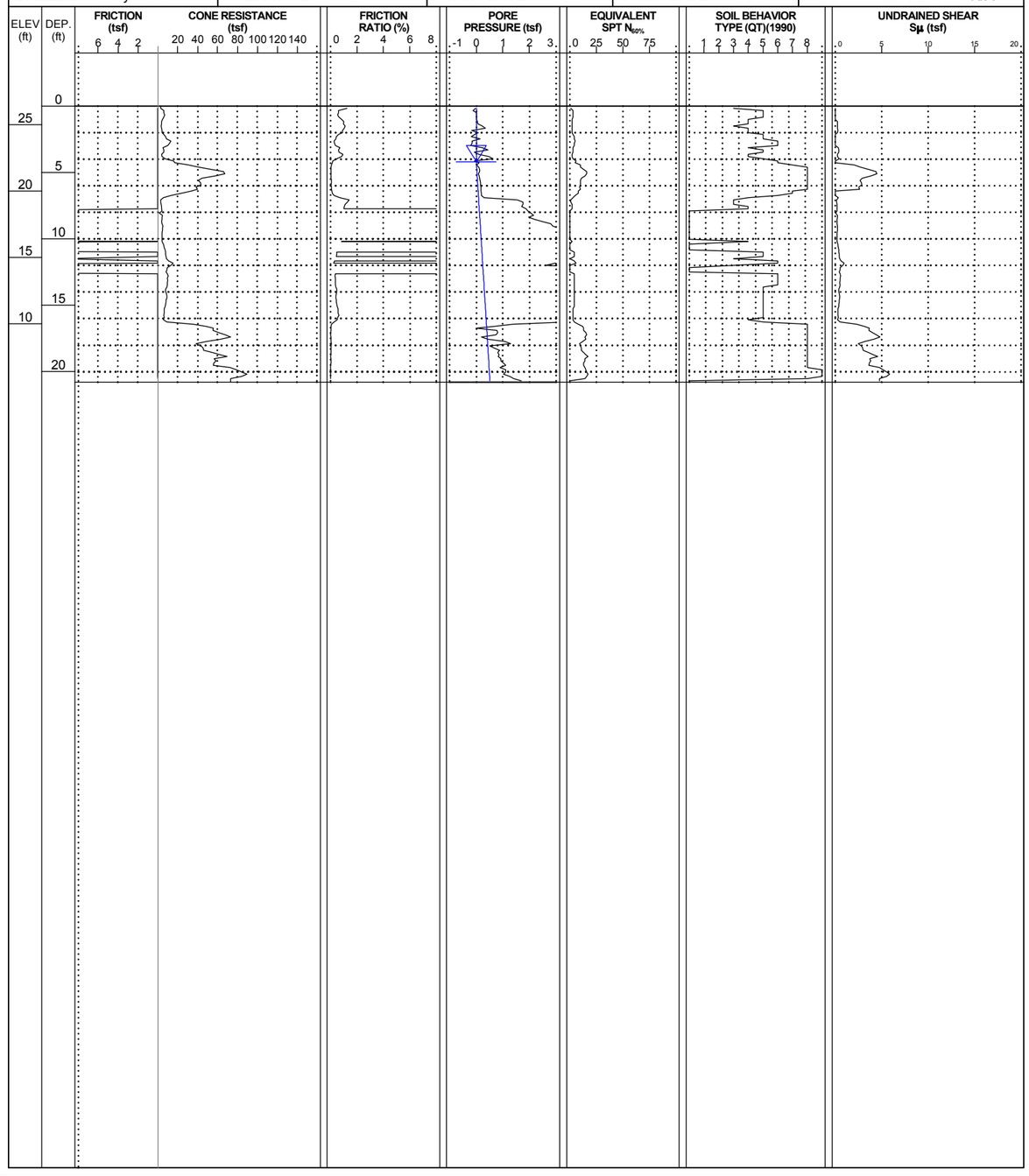
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	14

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_65800_20LT	**STATION:** 658+00	**OFFSET:** 20 ft LT	**ALIGNMENT:** -L1-	**EST. 0 HR.** 4.7
COLLAR ELEV.: 25.4 ft	**TOTAL DEPTH:** 19.4 ft	**NORTHING:** 232,886	**EASTING:** 2,382,597	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/28/18	**COMP. DATE:** 08/28/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_66200_CL	**STATION:** 662+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 4.2
COLLAR ELEV.: 26.4 ft	**TOTAL DEPTH:** 20.8 ft	**NORTHING:** 232,873	**EASTING:** 2,382,997	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/29/18	**COMP. DATE:** 08/29/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

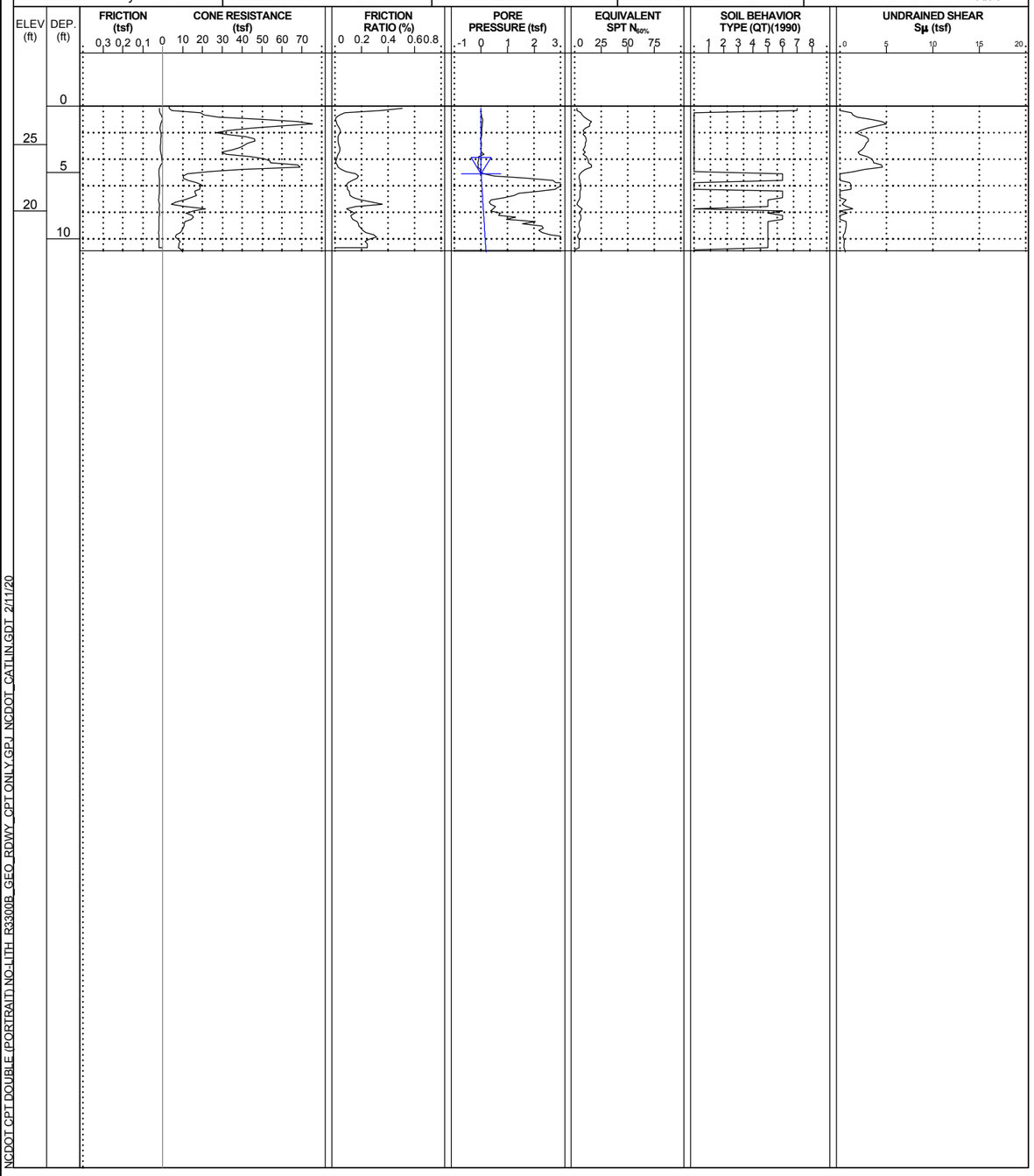
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

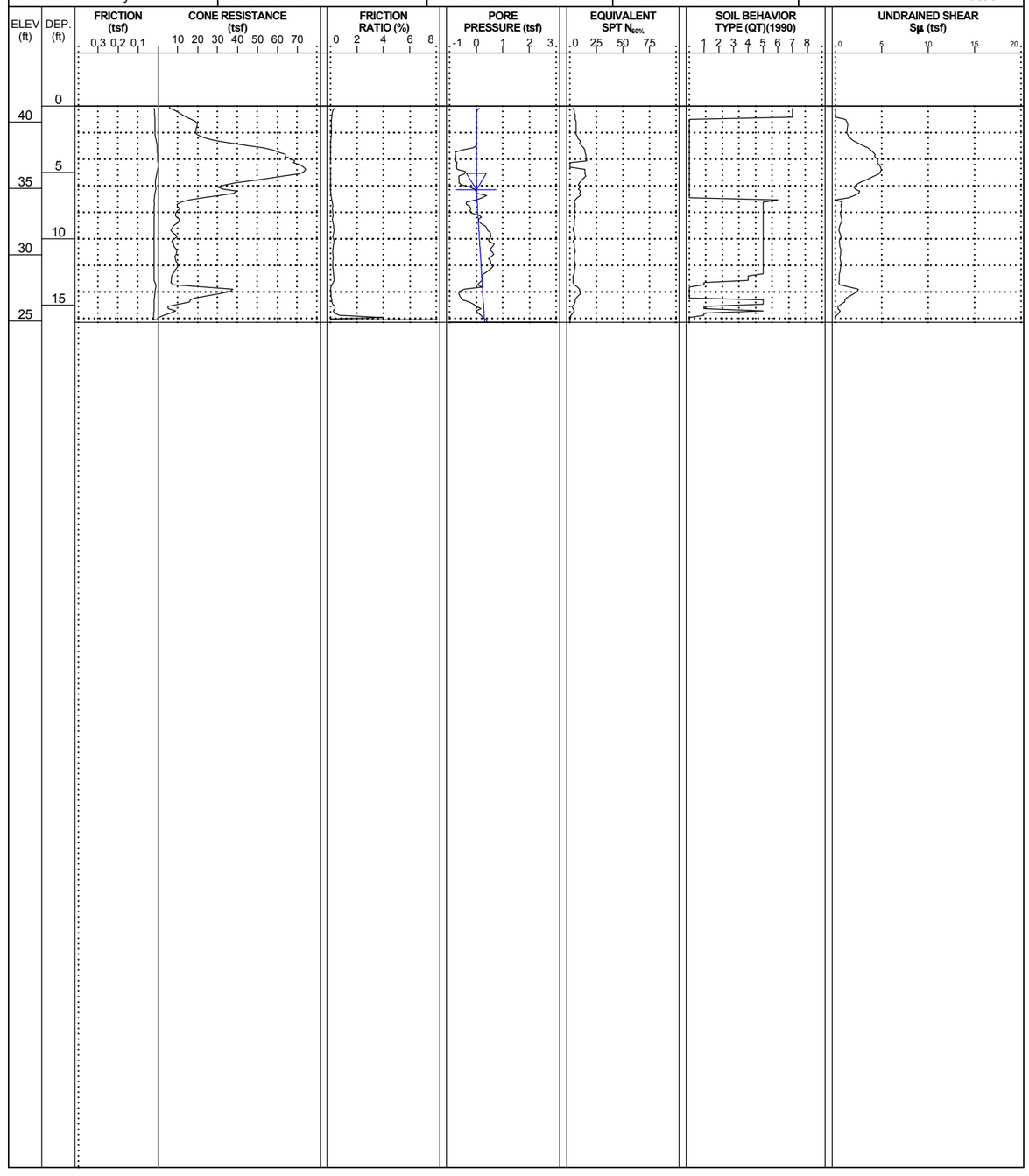
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	15

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_66400_CL	**STATION:** 664+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 5.1
COLLAR ELEV.: 27.9 ft	**TOTAL DEPTH:** 10.9 ft	**NORTHING:** 232,887	**EASTING:** 2,383,196	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/29/18	**COMP. DATE:** 08/29/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_66800_CL	**STATION:** 668+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 6.3
COLLAR ELEV.: 41.2 ft	**TOTAL DEPTH:** 16.3 ft	**NORTHING:** 232,939	**EASTING:** 2,383,593	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/29/18	**COMP. DATE:** 08/29/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

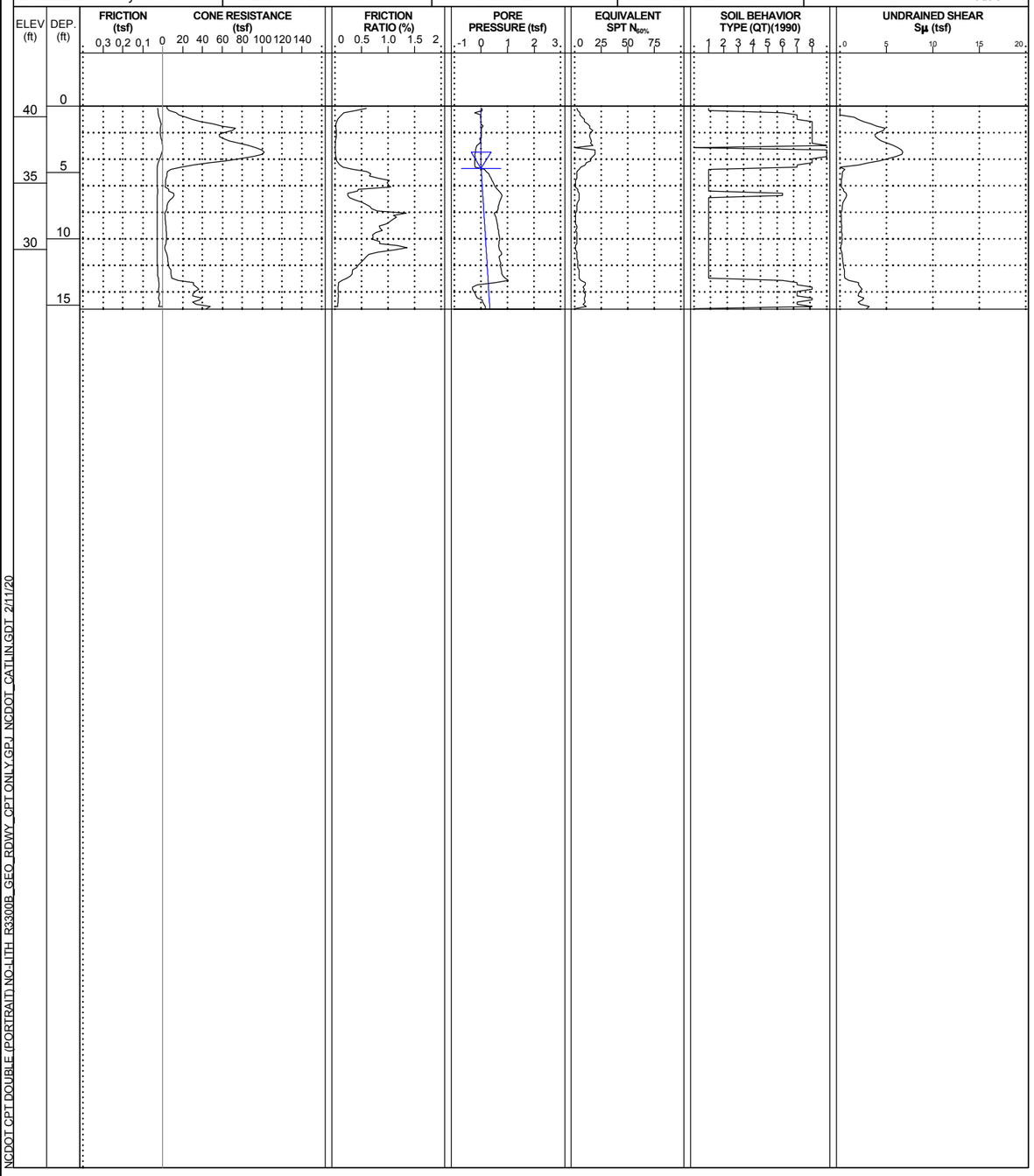
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

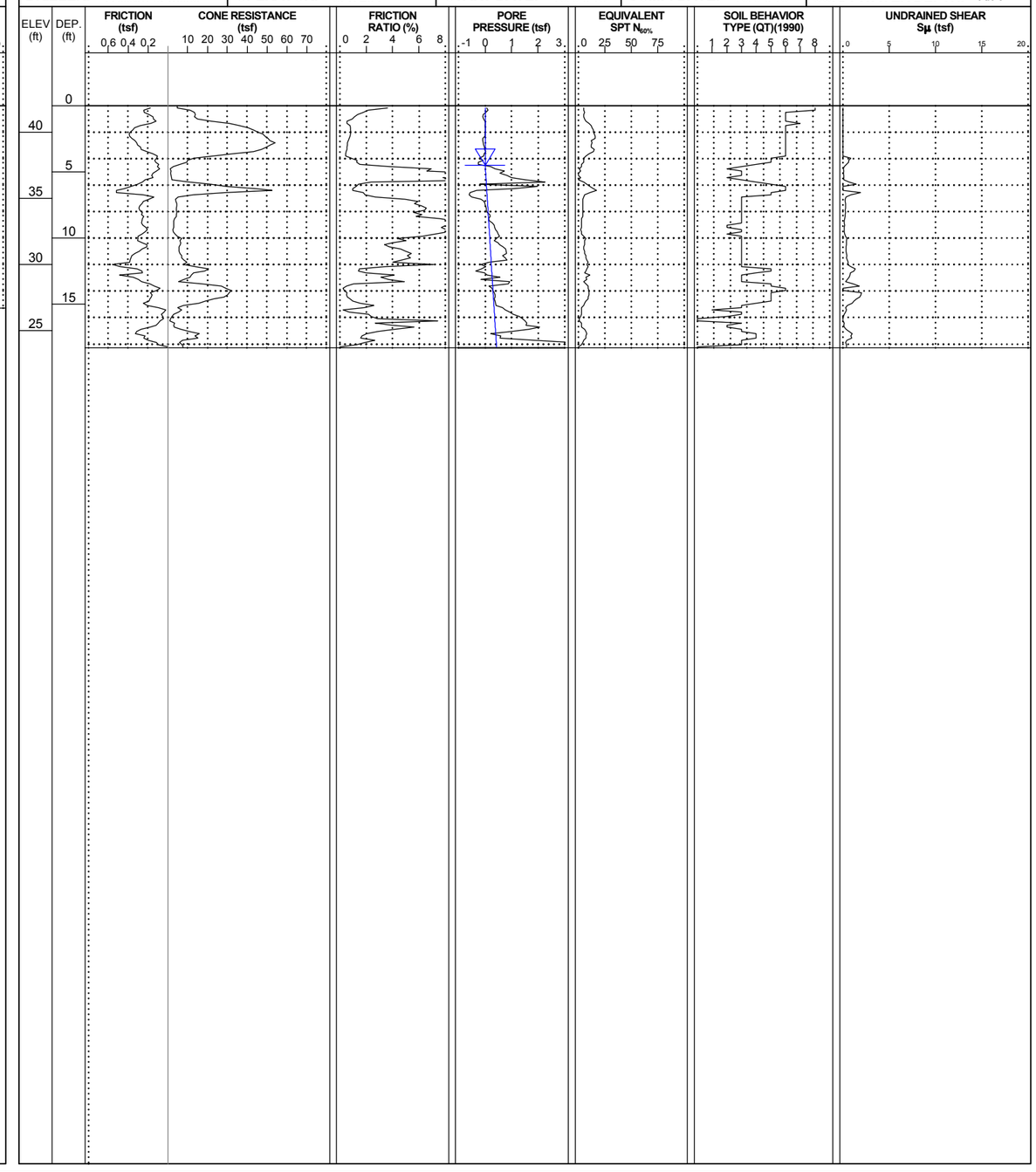
217060 | CATLIN Engineers and Scientists, 220 Old Dairy Road, Wilmington, NC 28405, Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	16

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_67000_CL	**STATION:** 670+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 4.7
COLLAR ELEV.: 40.8 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 232,977	**EASTING:** 2,383,789	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO	**CONE ID:** DSA1123	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/29/18	**COMP. DATE:** 08/29/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_67400_CL	**STATION:** 674+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 4.5
COLLAR ELEV.: 42.0 ft	**TOTAL DEPTH:** 18.3 ft	**NORTHING:** 233,073	**EASTING:** 2,384,177	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO	**CONE ID:** DSG1156	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/04/18	**COMP. DATE:** 10/04/18	**SURF. WATER DEPTH:** N/A

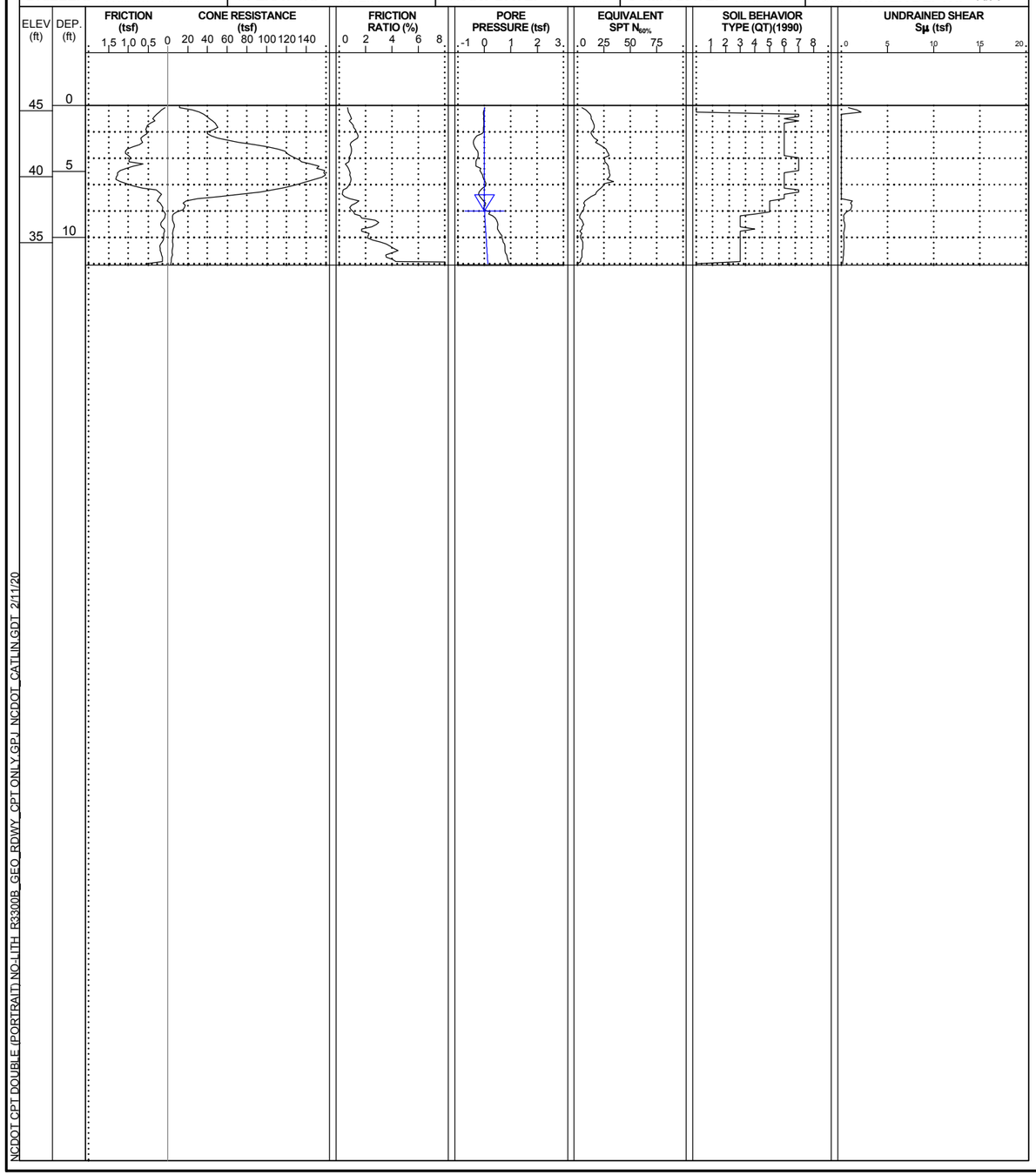


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

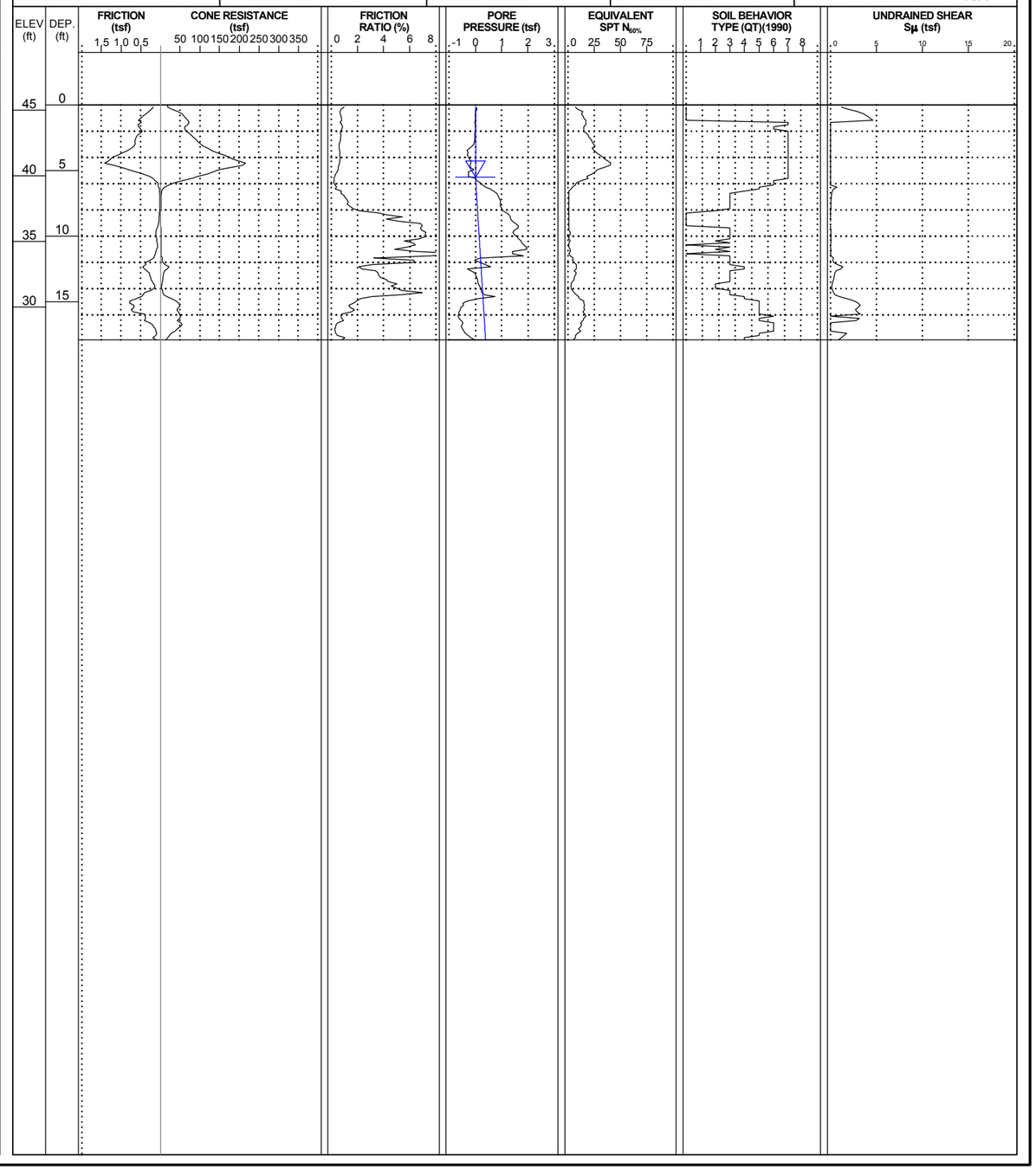
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_67600_CL	**STATION:** 676+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	8.0
COLLAR ELEV.: 45.4 ft	**TOTAL DEPTH:** 12.1 ft	**NORTHING:** 233,133	**EASTING:** 2,384,368	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/04/18	**COMP. DATE:** 10/04/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_68000_CL	**STATION:** 680+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	5.5
COLLAR ELEV.: 45.4 ft	**TOTAL DEPTH:** 17.9 ft	**NORTHING:** 233,273	**EASTING:** 2,384,743	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/05/18	**COMP. DATE:** 10/05/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

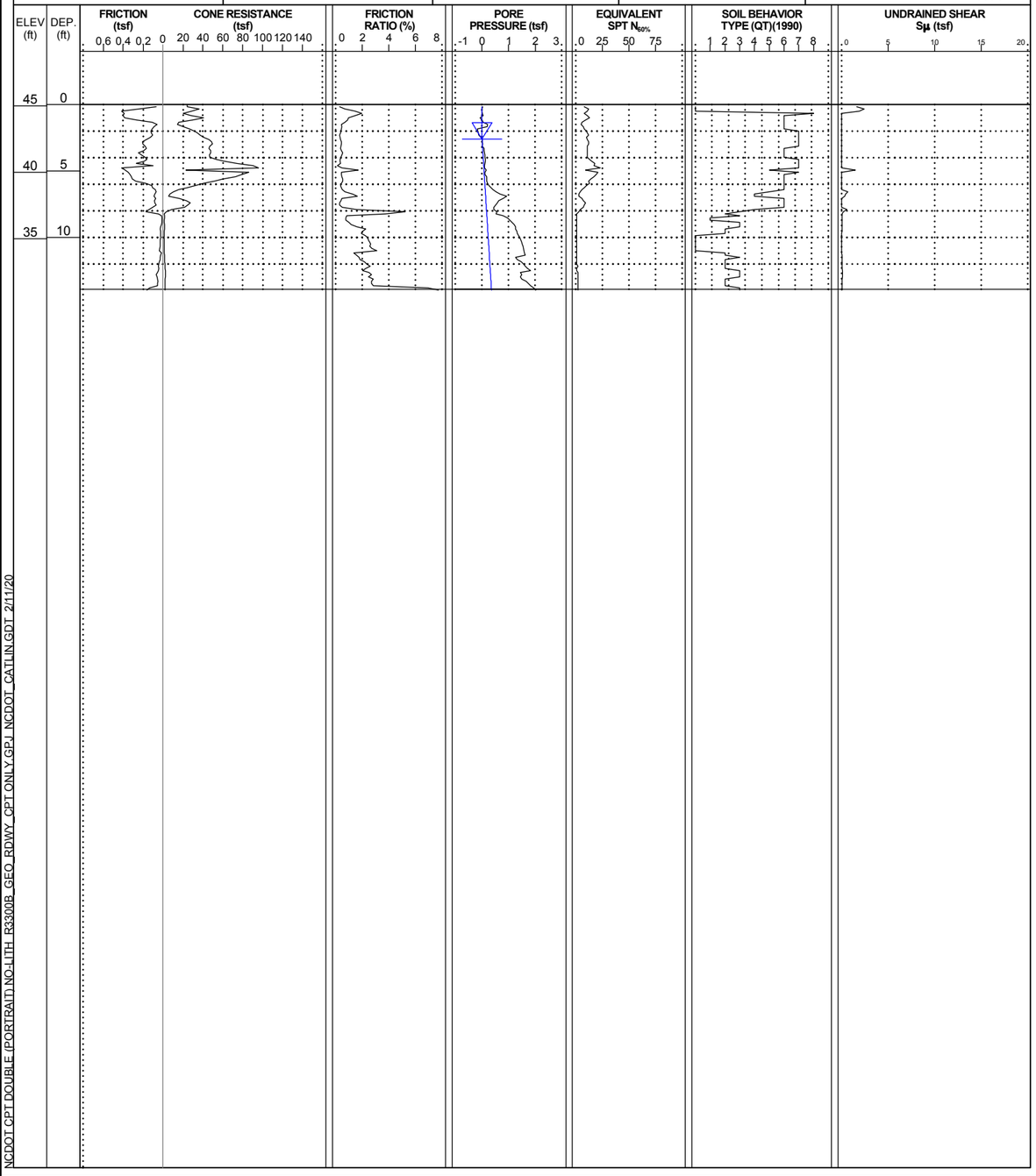
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

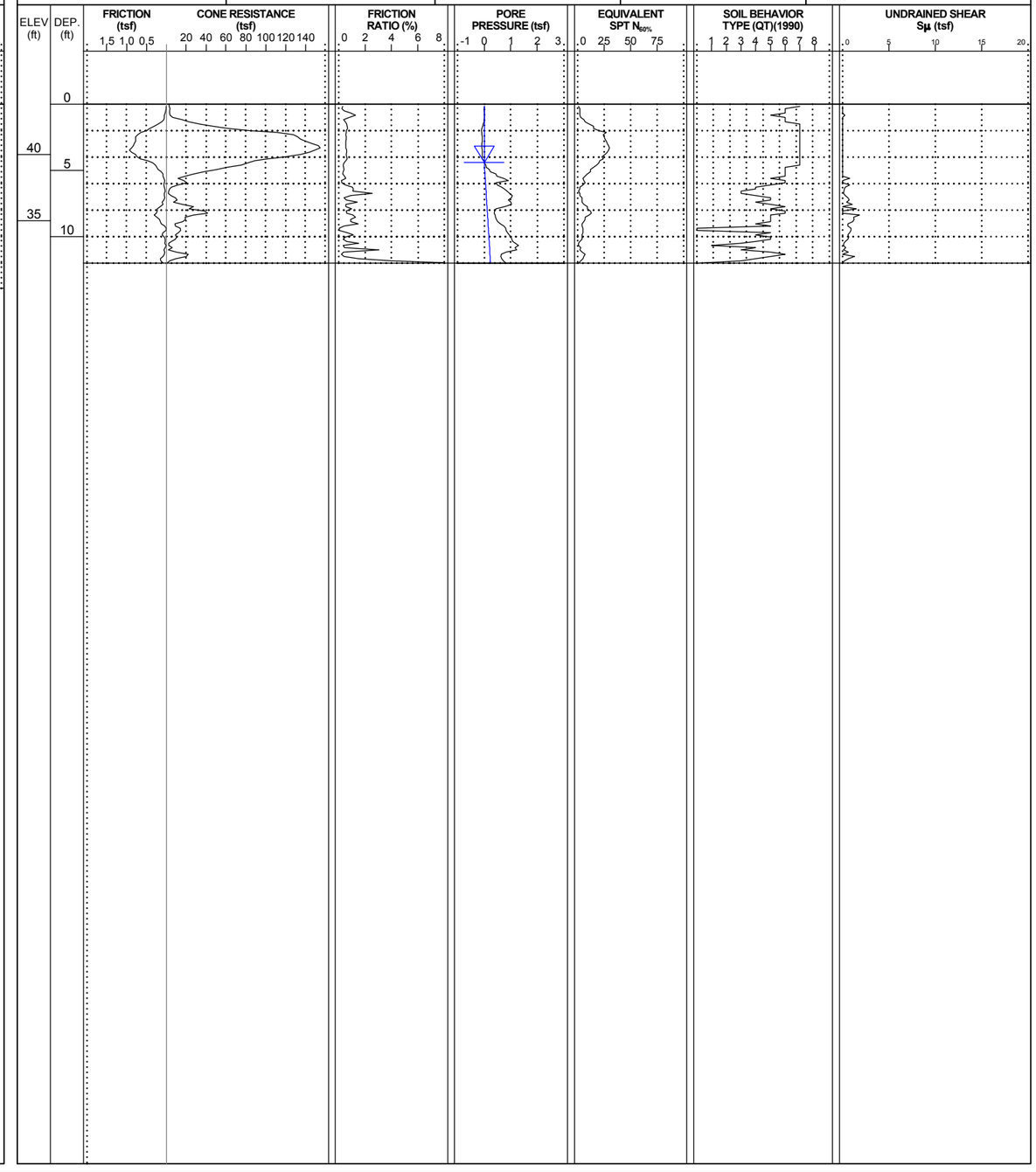
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	18

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_68200_CL	**STATION:** 682+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 2.6
COLLAR ELEV.: 45.1 ft	**TOTAL DEPTH:** 13.9 ft	**NORTHING:** 233,353	**EASTING:** 2,384,926	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/05/18	**COMP. DATE:** 10/05/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_68600_CL	**STATION:** 686+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 4.4
COLLAR ELEV.: 43.8 ft	**TOTAL DEPTH:** 12.0 ft	**NORTHING:** 233,535	**EASTING:** 2,385,282	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/05/18	**COMP. DATE:** 10/05/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

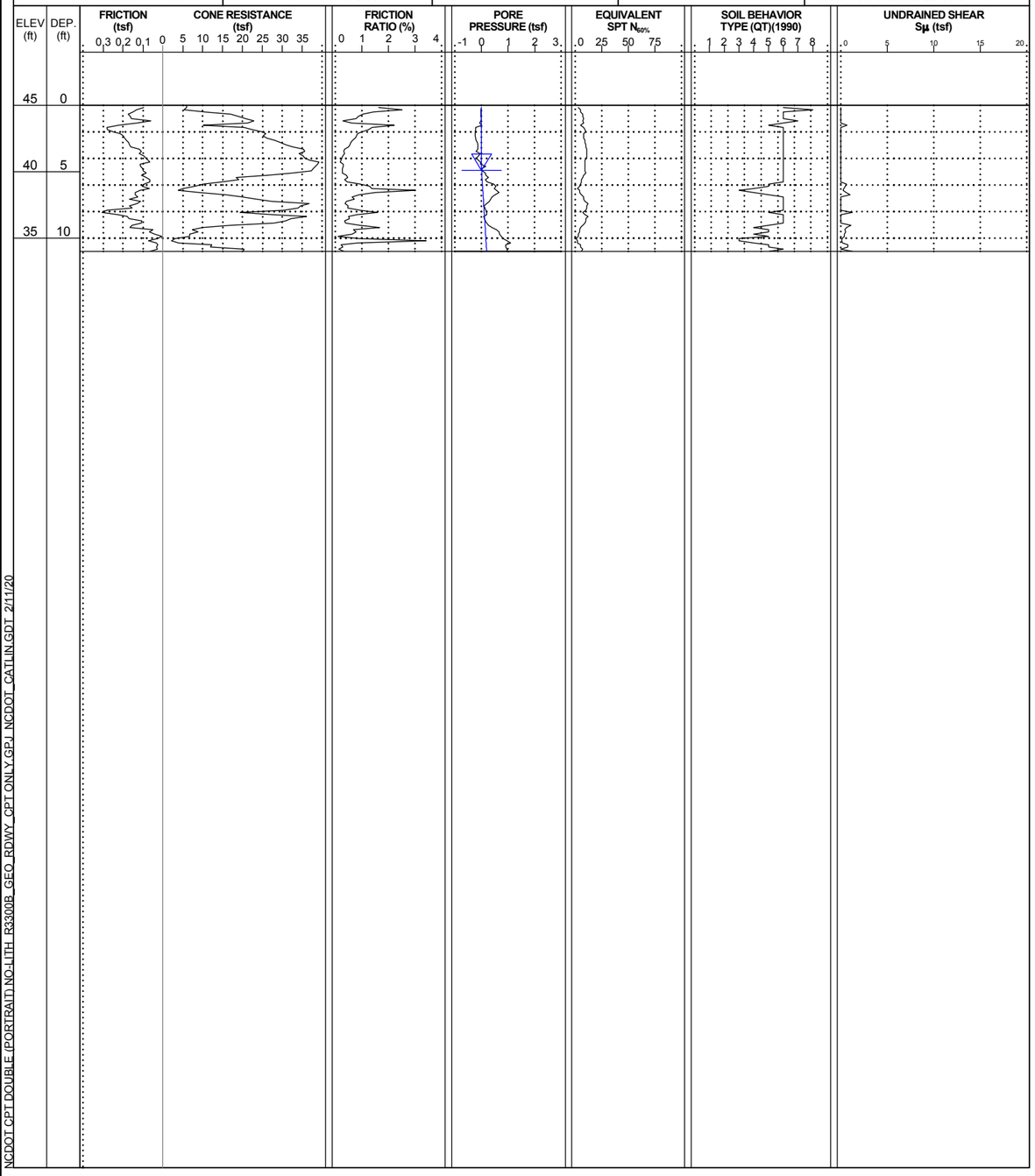
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

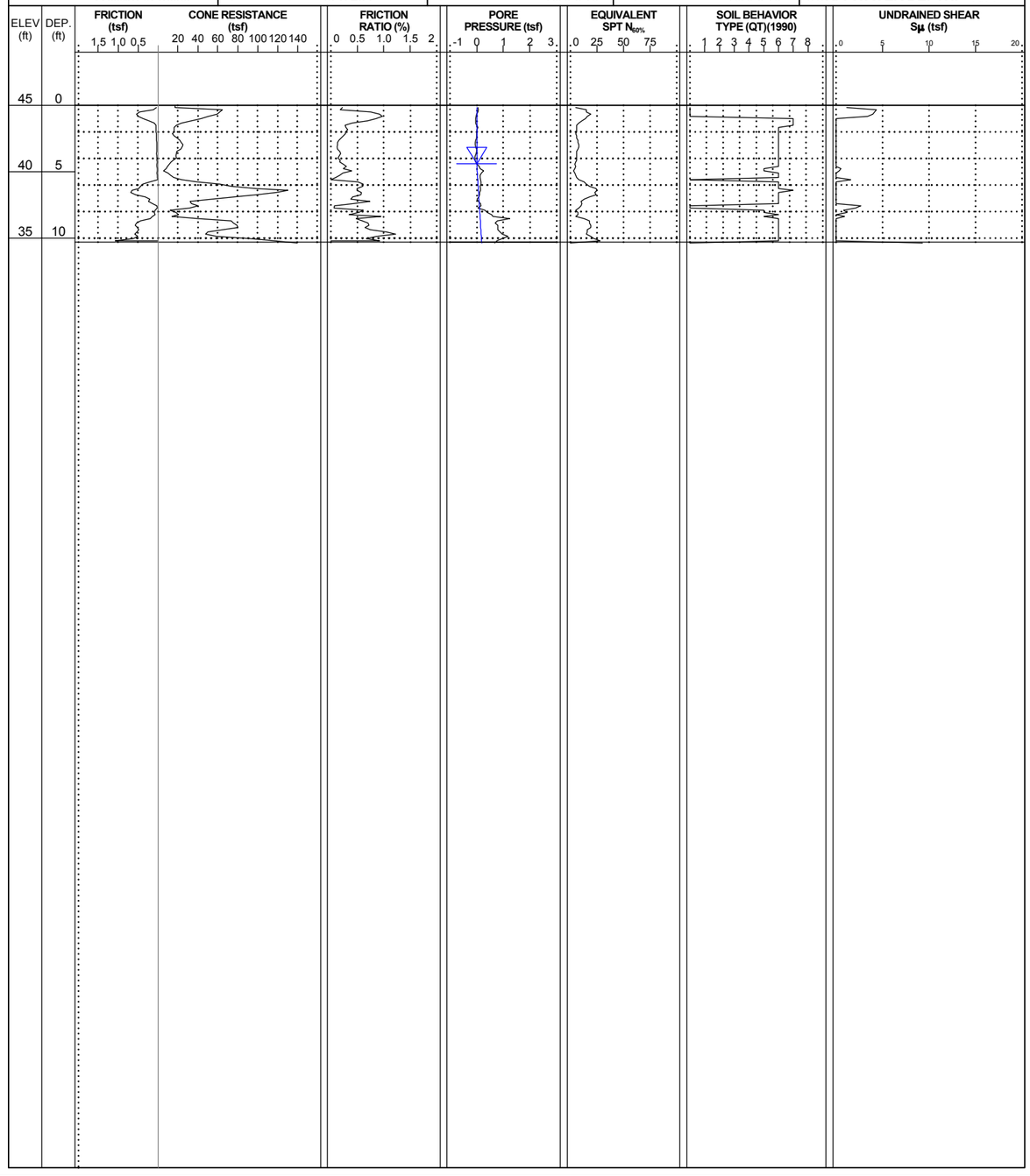
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	19

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_68800_CL	**STATION:** 688+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 4.9
COLLAR ELEV.: 45.0 ft	**TOTAL DEPTH:** 11.0 ft	**NORTHING:** 233,636	**EASTING:** 2,385,455	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/05/18	**COMP. DATE:** 10/05/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_69400_CL	**STATION:** 694+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 4.4
COLLAR ELEV.: 45.0 ft	**TOTAL DEPTH:** 10.3 ft	**NORTHING:** 233,972	**EASTING:** 2,385,952	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/04/18	**COMP. DATE:** 10/04/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

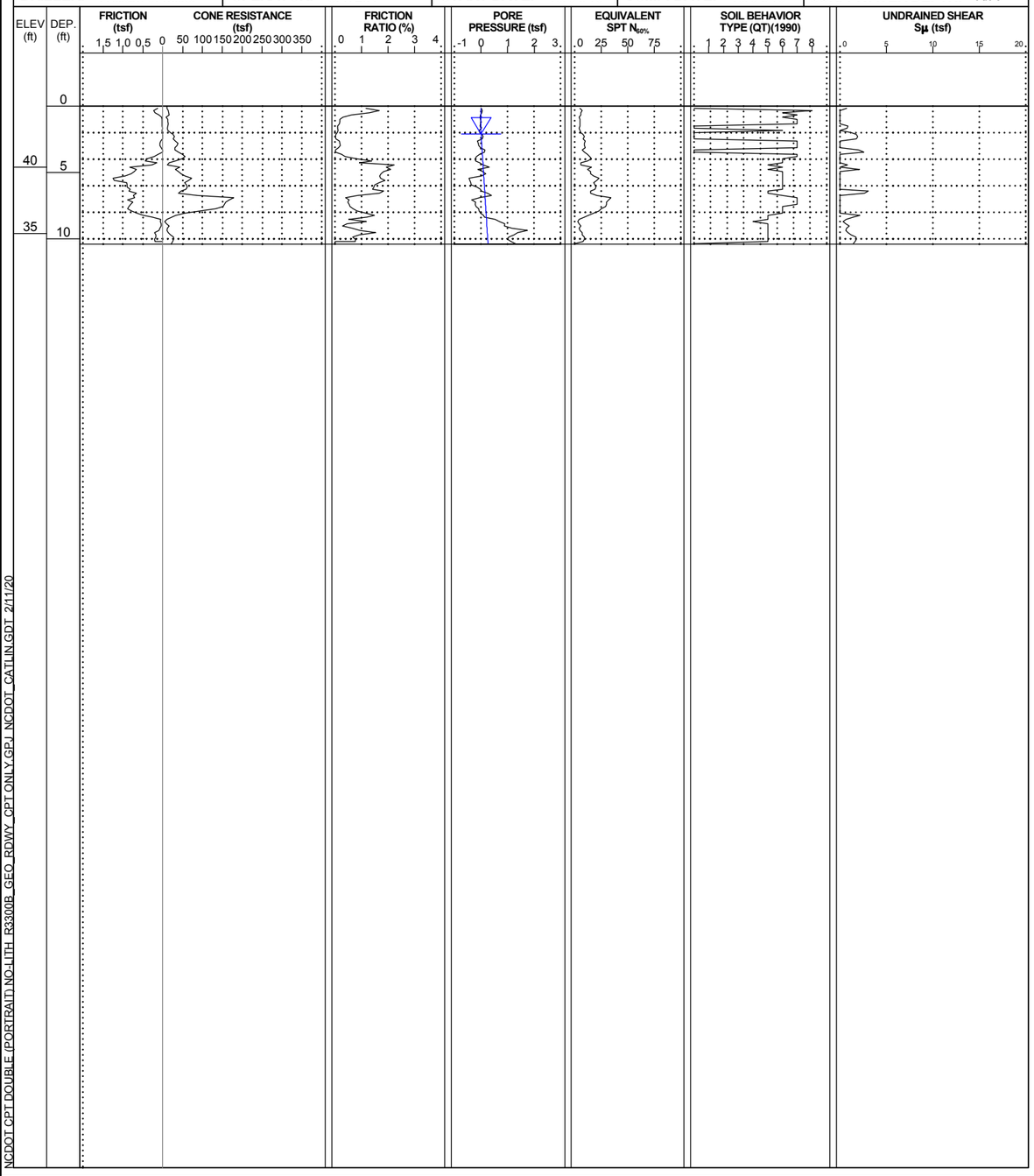
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

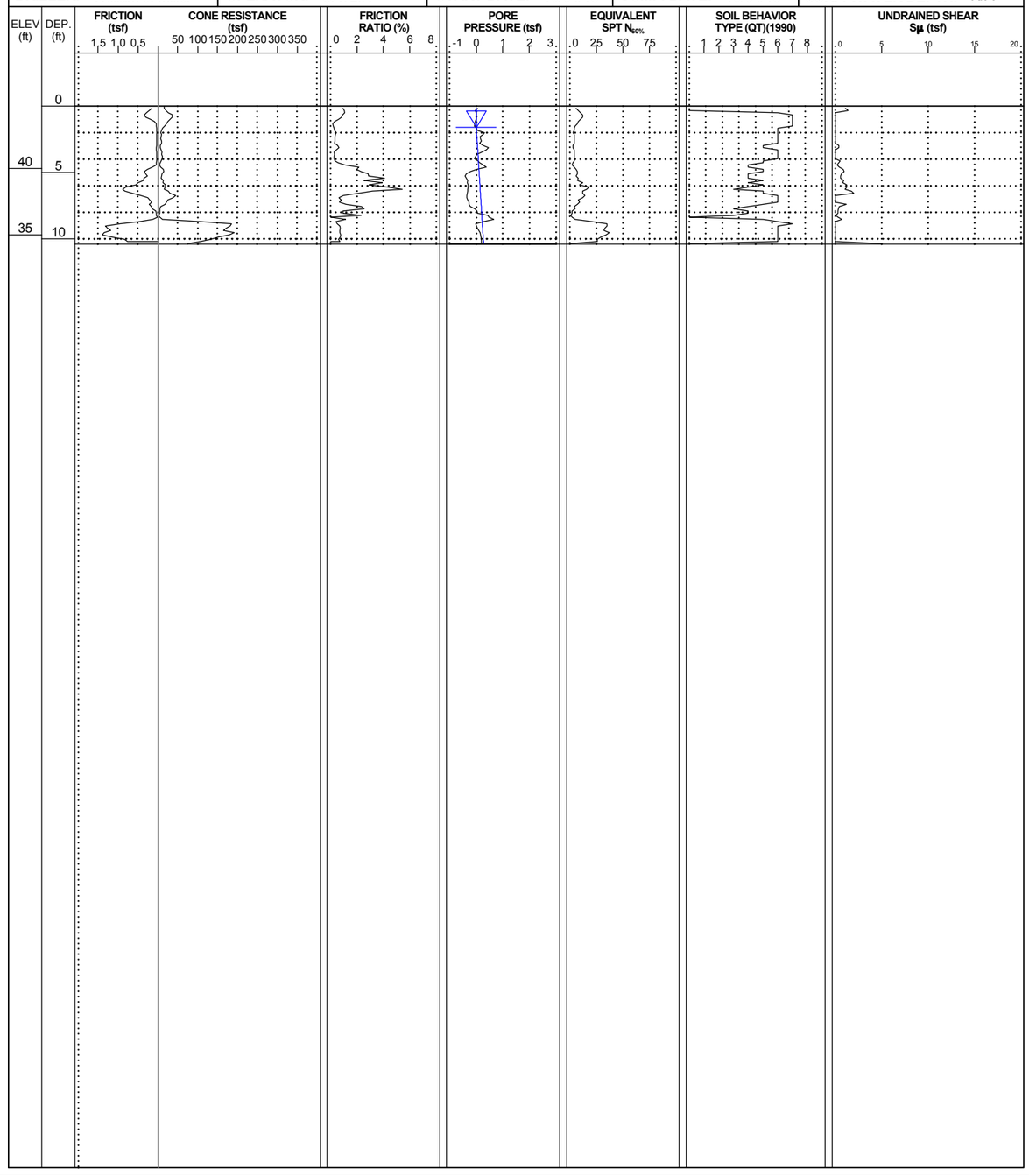
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	20

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_69800_CL	**STATION:** 698+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 2.1
COLLAR ELEV.: 44.6 ft	**TOTAL DEPTH:** 10.4 ft	**NORTHING:** 234,202	**EASTING:** 2,386,279	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO	**CONE ID:** DSG1156	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/04/18	**COMP. DATE:** 10/04/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_70000_CL	**STATION:** 700+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 1.6
COLLAR ELEV.: 44.7 ft	**TOTAL DEPTH:** 10.4 ft	**NORTHING:** 234,317	**EASTING:** 2,386,442	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO	**CONE ID:** DSG1156	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/04/18	**COMP. DATE:** 10/04/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

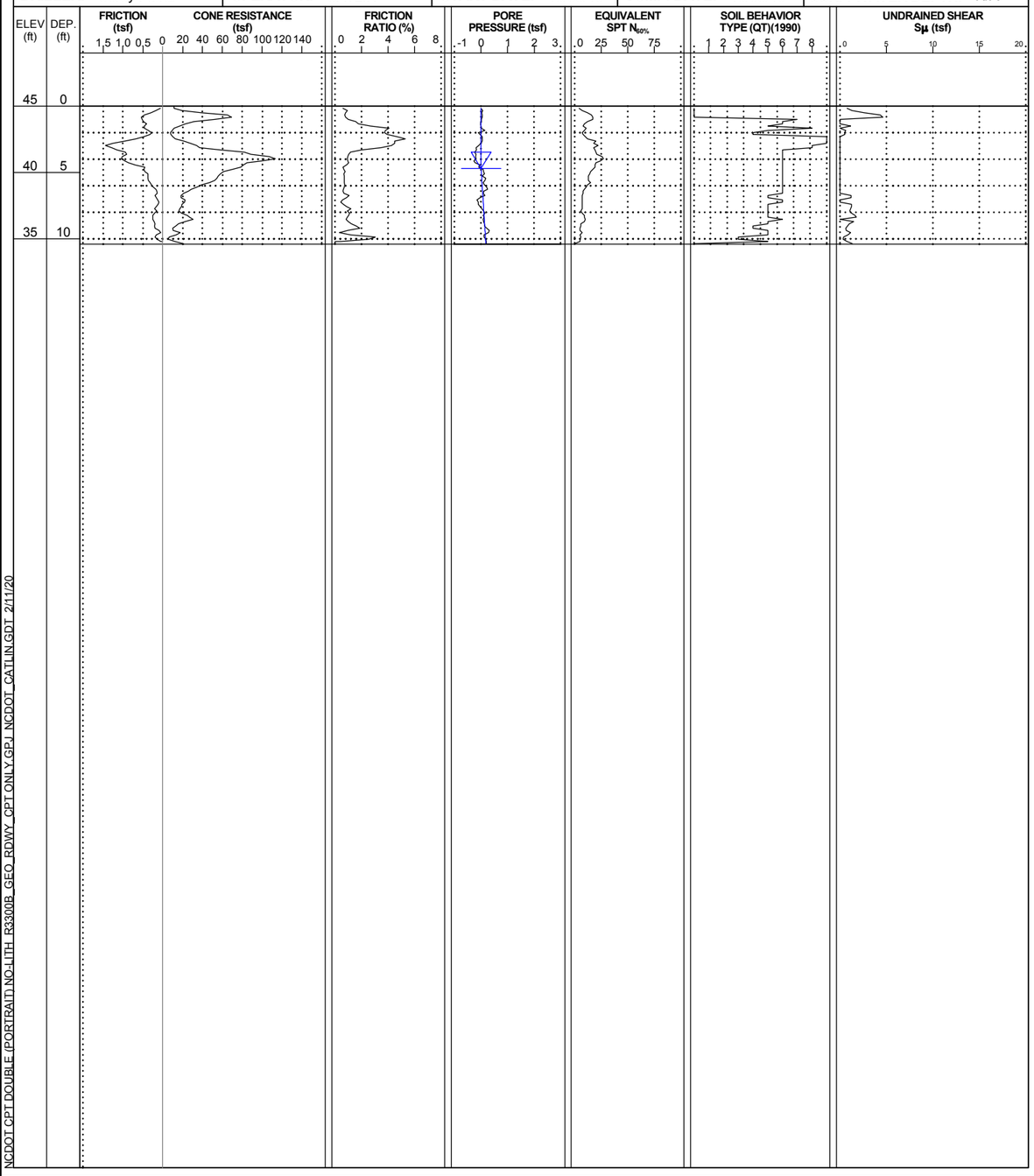
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

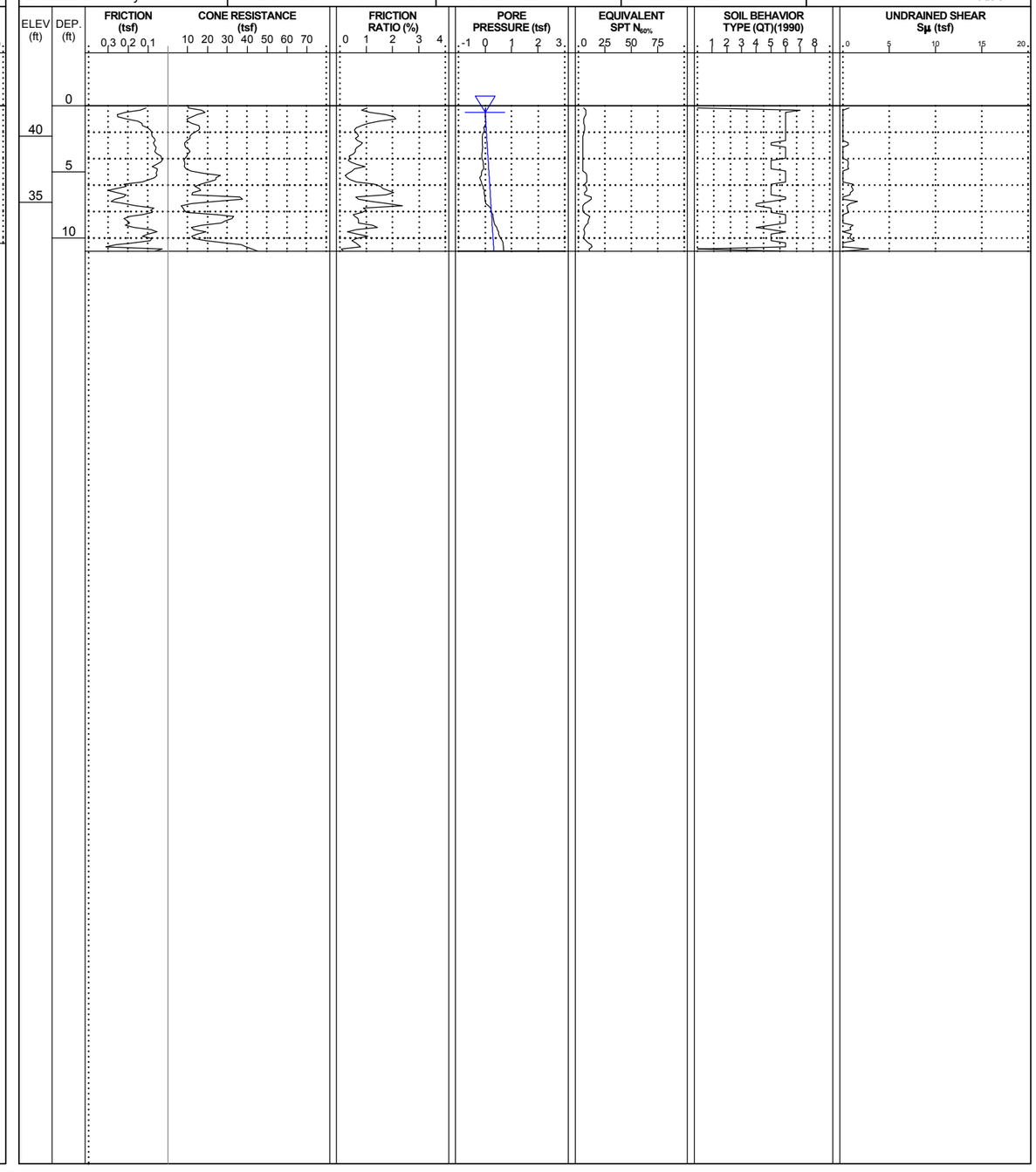
CATLIN Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405
Corporate Licensure No. for Engineering Services C-0586
217060

PROJECT REFERENCE NO.	SHEET
R-3300B	21

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_70400_CL	**STATION:** 704+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 4.7
COLLAR ELEV.: 45.0 ft	**TOTAL DEPTH:** 10.4 ft	**NORTHING:** 234,547	**EASTING:** 2,386,769	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/03/18	**COMP. DATE:** 10/03/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_70630_CL	**STATION:** 706+30	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.5
COLLAR ELEV.: 42.3 ft	**TOTAL DEPTH:** 11.0 ft	**NORTHING:** 234,680	**EASTING:** 2,386,957	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/03/18	**COMP. DATE:** 10/03/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

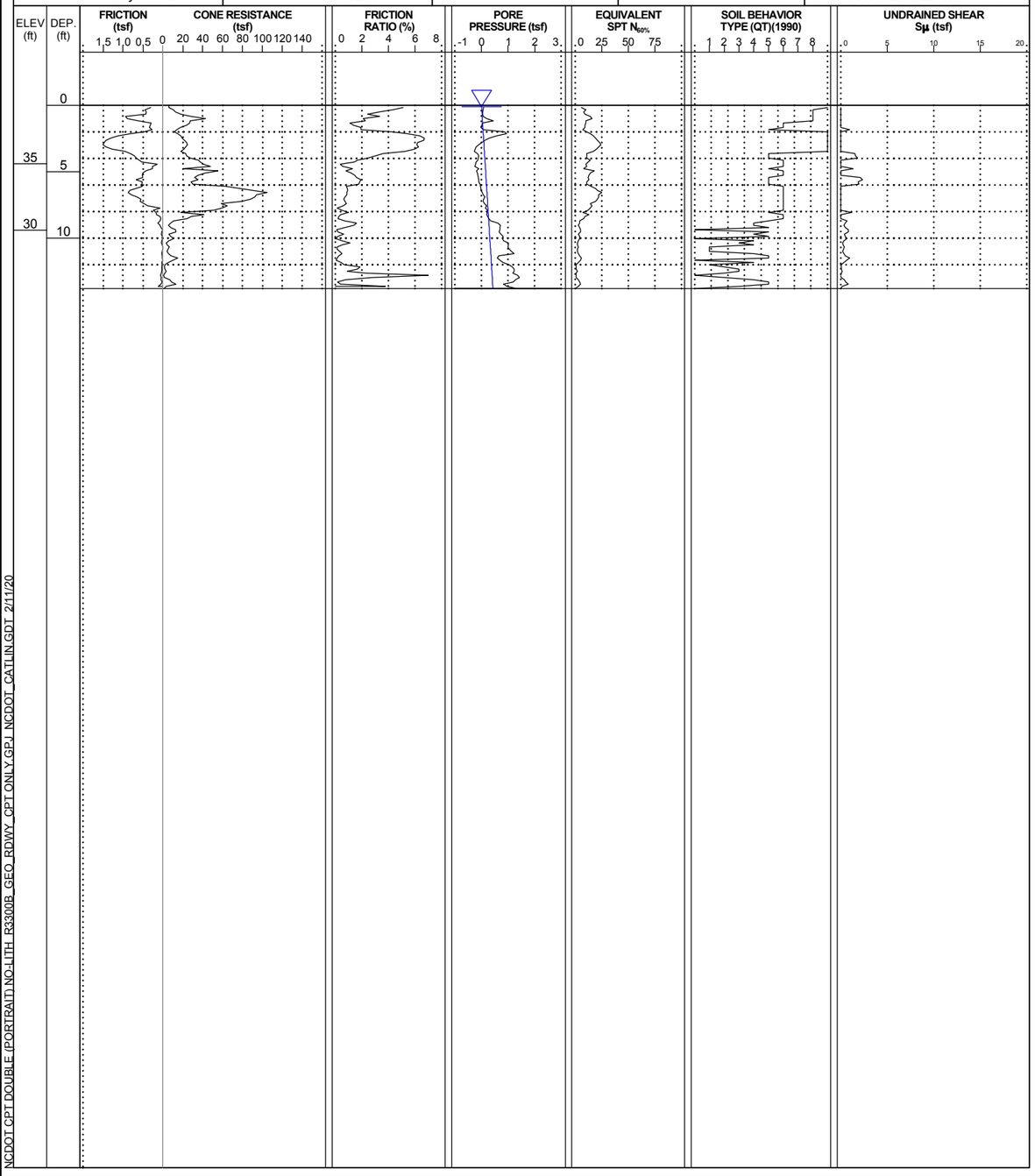
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

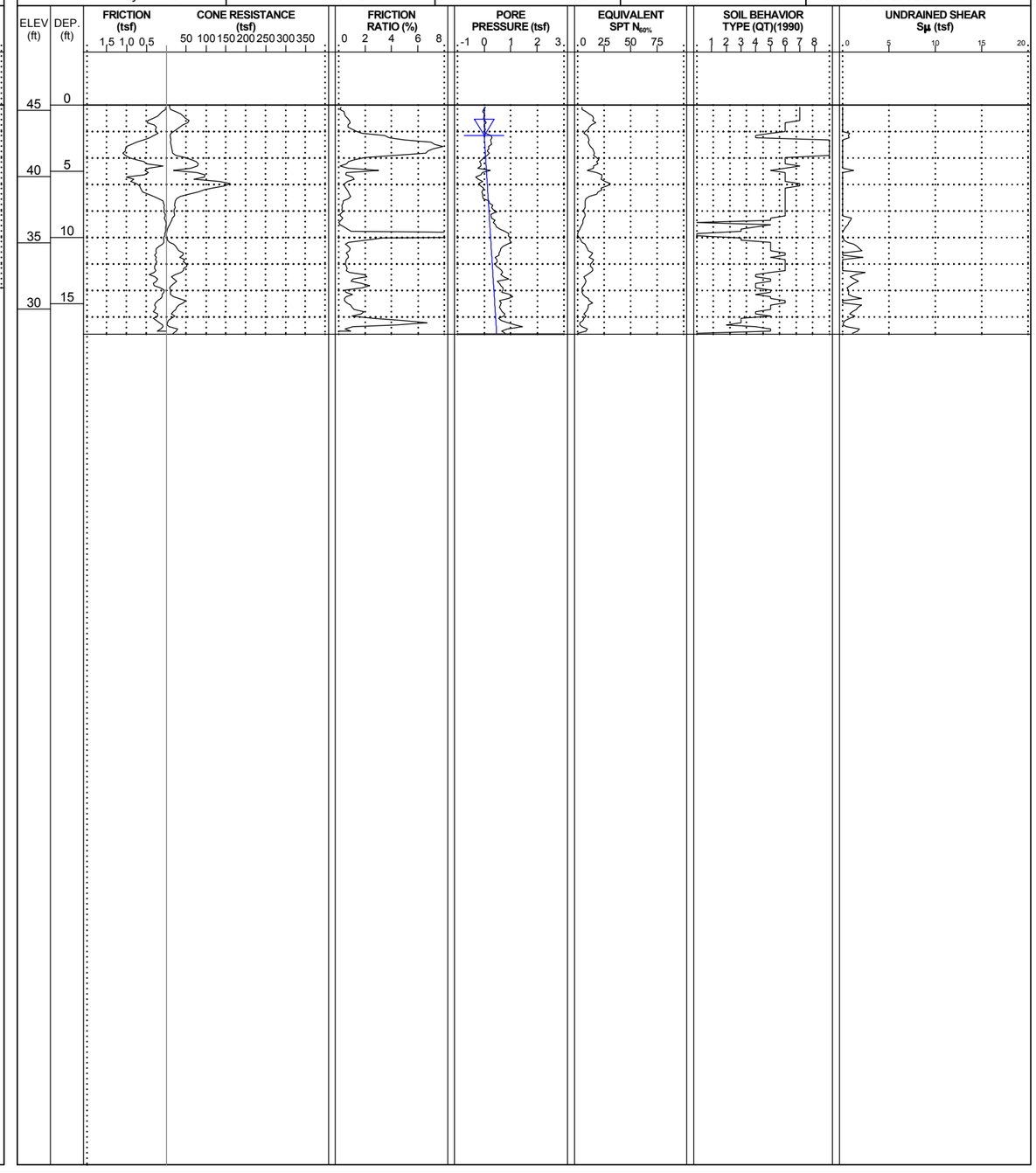
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	22

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_71000_CL	**STATION:** 710+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.1
COLLAR ELEV.: 39.4 ft	**TOTAL DEPTH:** 13.8 ft	**NORTHING:** 234,893	**EASTING:** 2,387,260	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/03/18	**COMP. DATE:** 10/03/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_71600_CL	**STATION:** 716+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 2.3
COLLAR ELEV.: 45.4 ft	**TOTAL DEPTH:** 17.3 ft	**NORTHING:** 235,219	**EASTING:** 2,387,763	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/02/18	**COMP. DATE:** 10/02/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

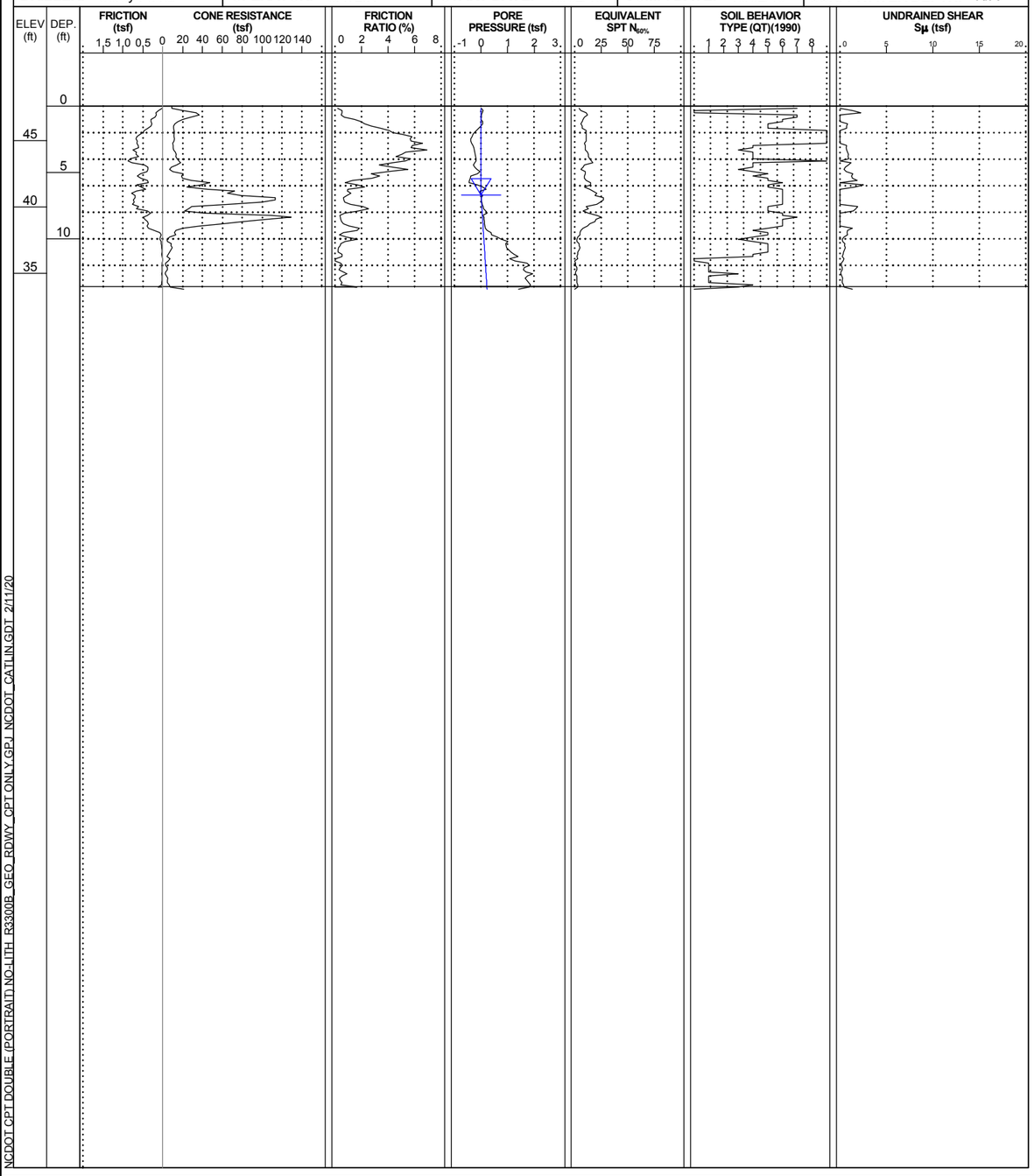
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

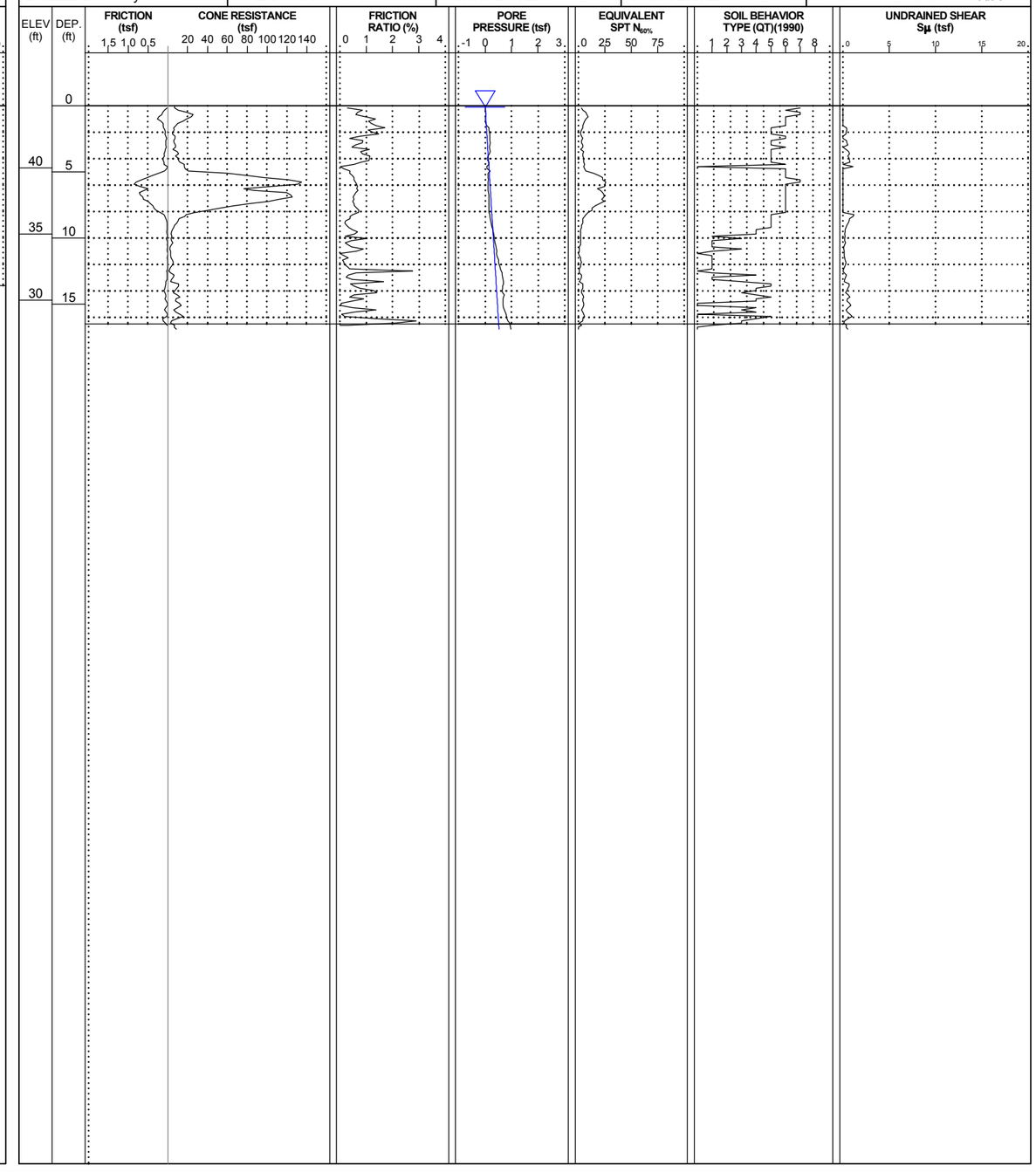
217060 | CATLIN Engineers and Scientists, 220 Old Dairy Road, Wilmington, NC 28405, Corporate Licensure No. for Engineering Services C-0566

PROJECT REFERENCE NO.	SHEET
R-3300B	23

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_71800_CL	**STATION:** 718+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 6.7
COLLAR ELEV.: 47.6 ft	**TOTAL DEPTH:** 13.6 ft	**NORTHING:** 235,313	**EASTING:** 2,387,940	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/02/18	**COMP. DATE:** 10/02/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_72200_CL	**STATION:** 722+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.1
COLLAR ELEV.: 44.7 ft	**TOTAL DEPTH:** 16.5 ft	**NORTHING:** 235,473	**EASTING:** 2,388,306	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/02/18	**COMP. DATE:** 10/02/18	**SURF. WATER DEPTH:** N/A



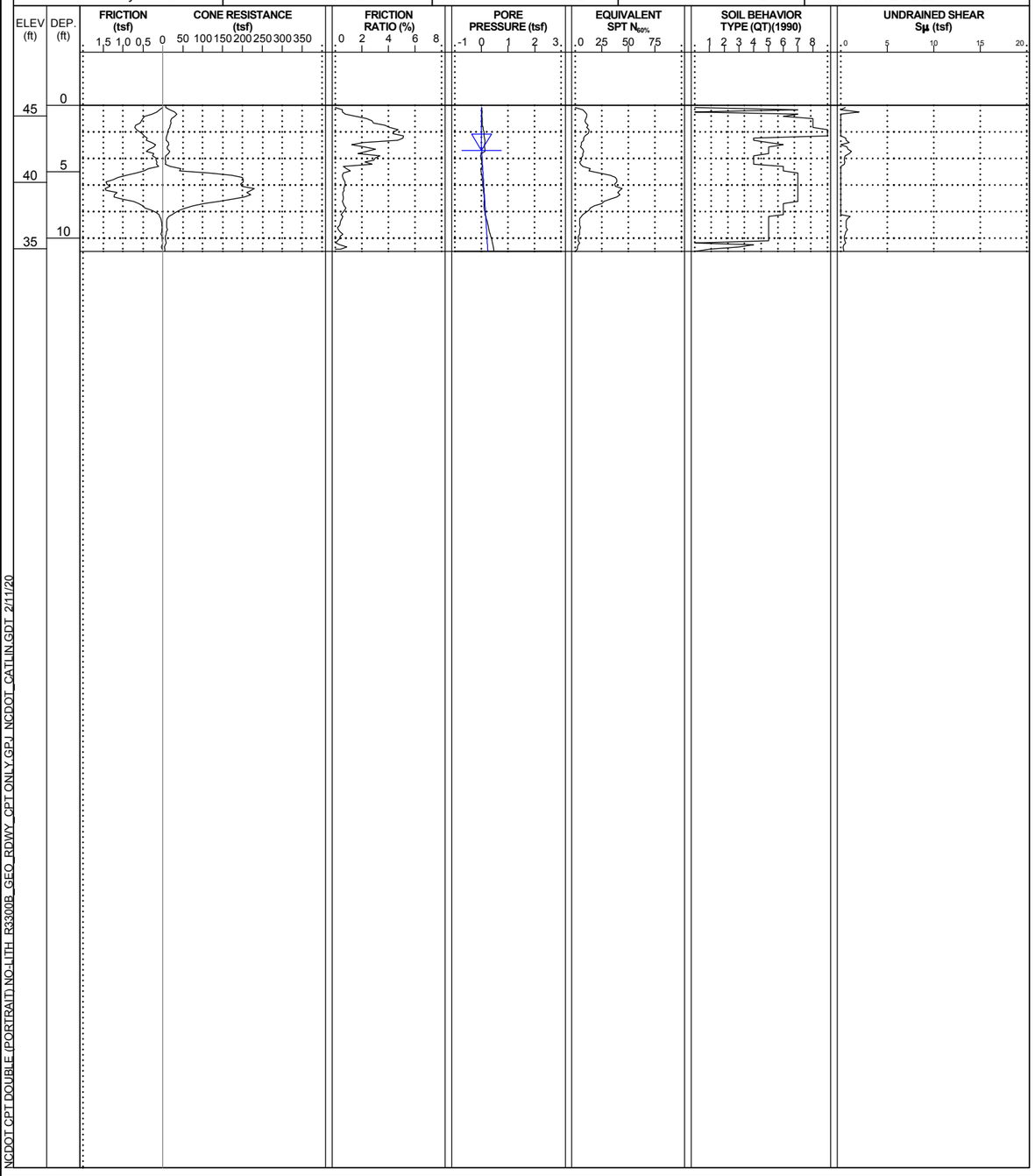
NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

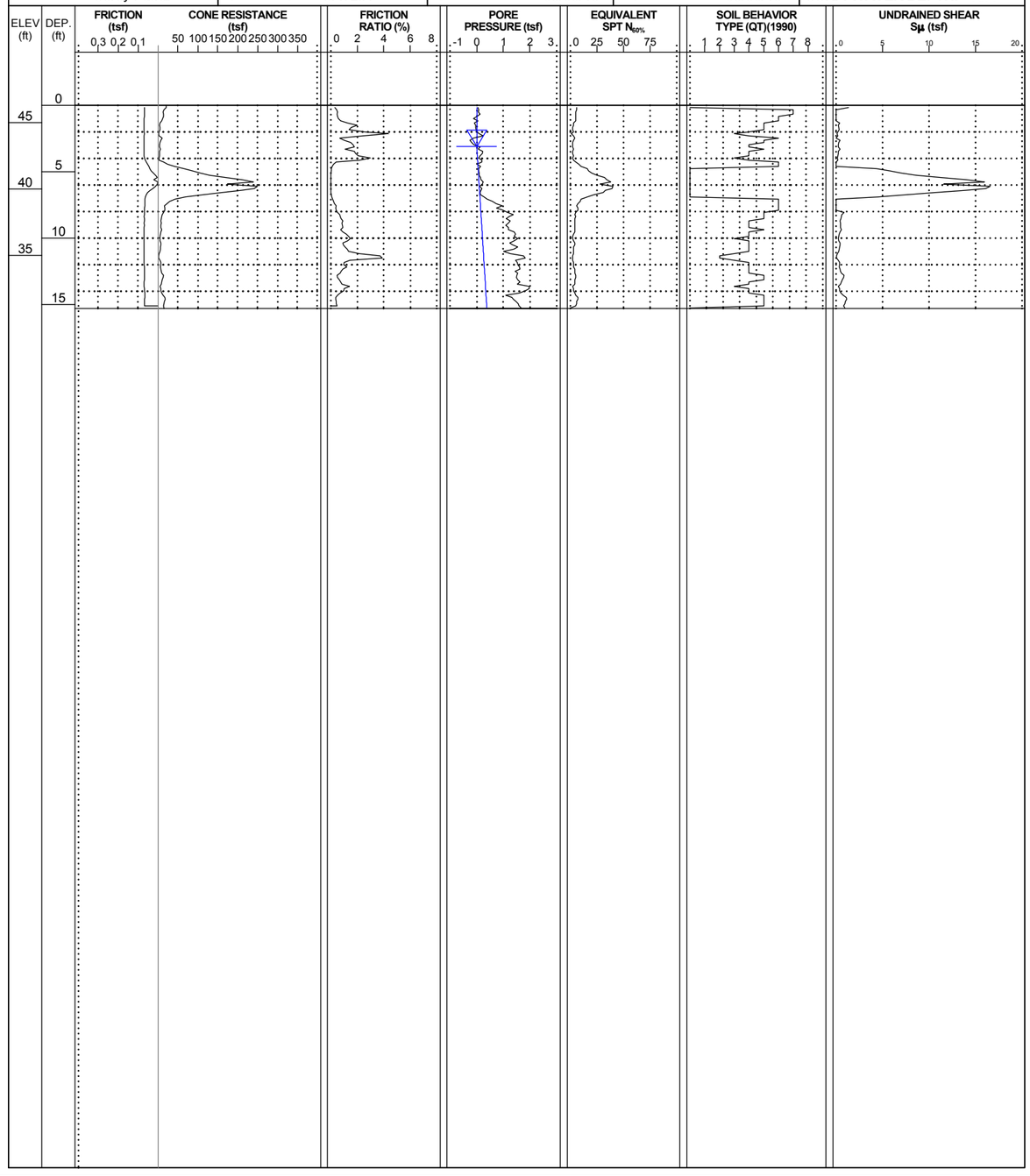
CONE PENETROMETER TEST BORING REPORT

217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586	PROJECT REFERENCE NO.	SHEET
	R-3300B	24

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_72400_CL	**STATION:** 724+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 3.4
COLLAR ELEV.: 45.8 ft	**TOTAL DEPTH:** 11.0 ft	**NORTHING:** 235,540	**EASTING:** 2,388,494	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/02/18	**COMP. DATE:** 10/02/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_72800_CL	**STATION:** 728+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 3.1
COLLAR ELEV.: 46.3 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 235,647	**EASTING:** 2,388,880	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/30/18	**COMP. DATE:** 08/30/18	**SURF. WATER DEPTH:** N/A

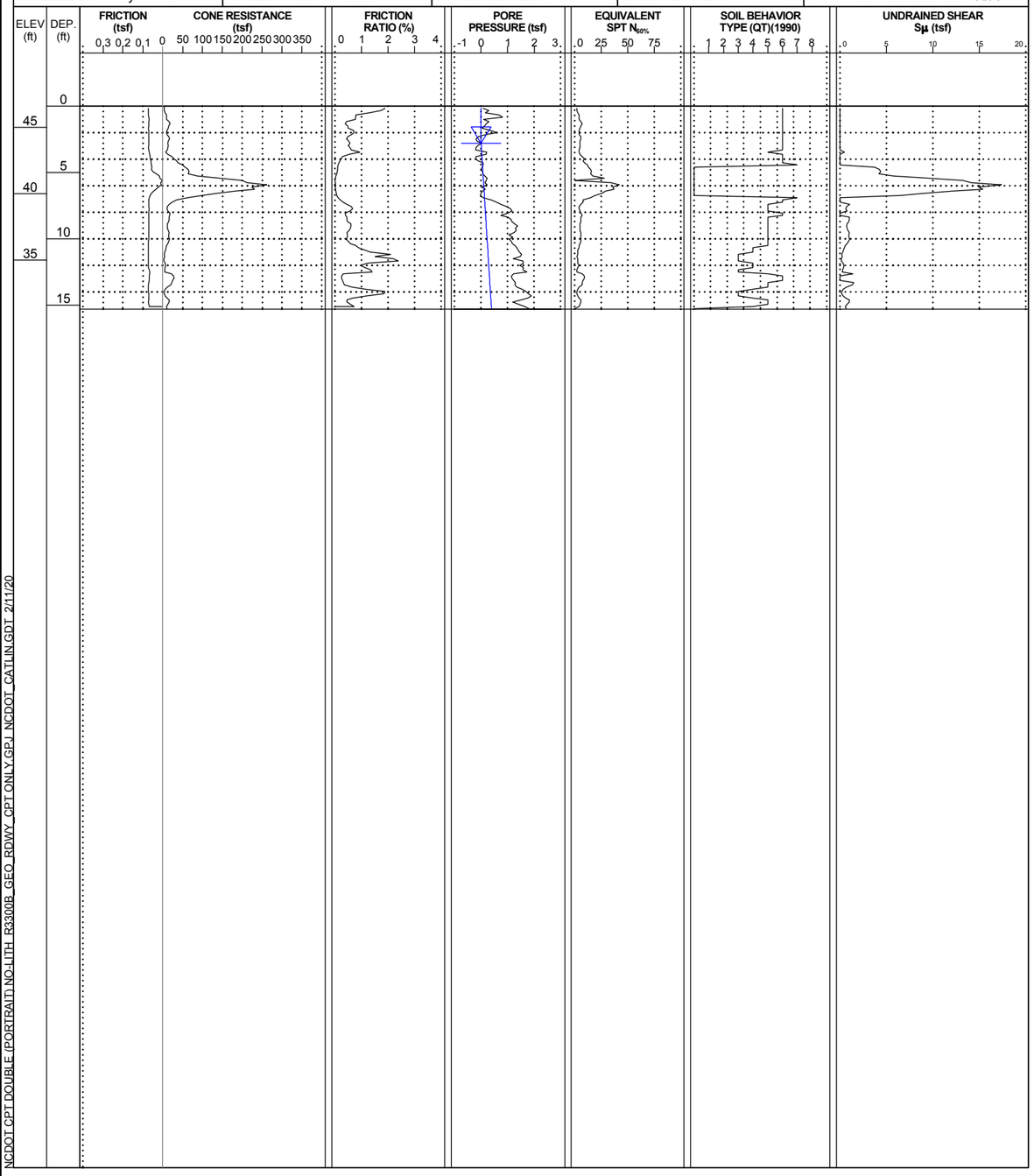


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

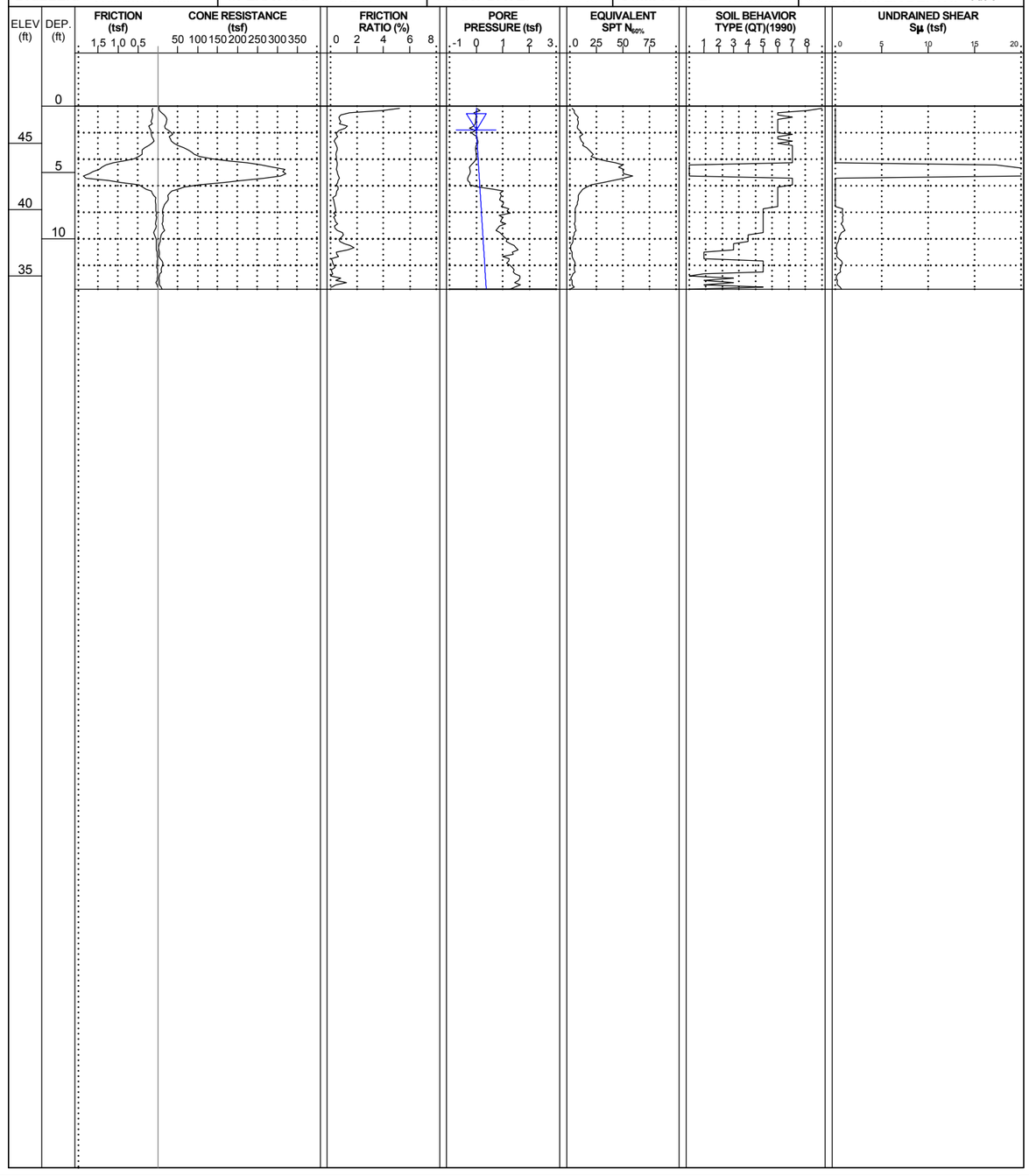
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_73000_CL	**STATION:** 730+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	2.8
COLLAR ELEV.: 46.6 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 235,686	**EASTING:** 2,389,076	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/30/18	**COMP. DATE:** 08/30/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_73400_CL	**STATION:** 734+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	1.8
COLLAR ELEV.: 47.8 ft	**TOTAL DEPTH:** 13.8 ft	**NORTHING:** 235,735	**EASTING:** 2,389,473	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/09/18	**COMP. DATE:** 10/09/18	**SURF. WATER DEPTH:** N/A	

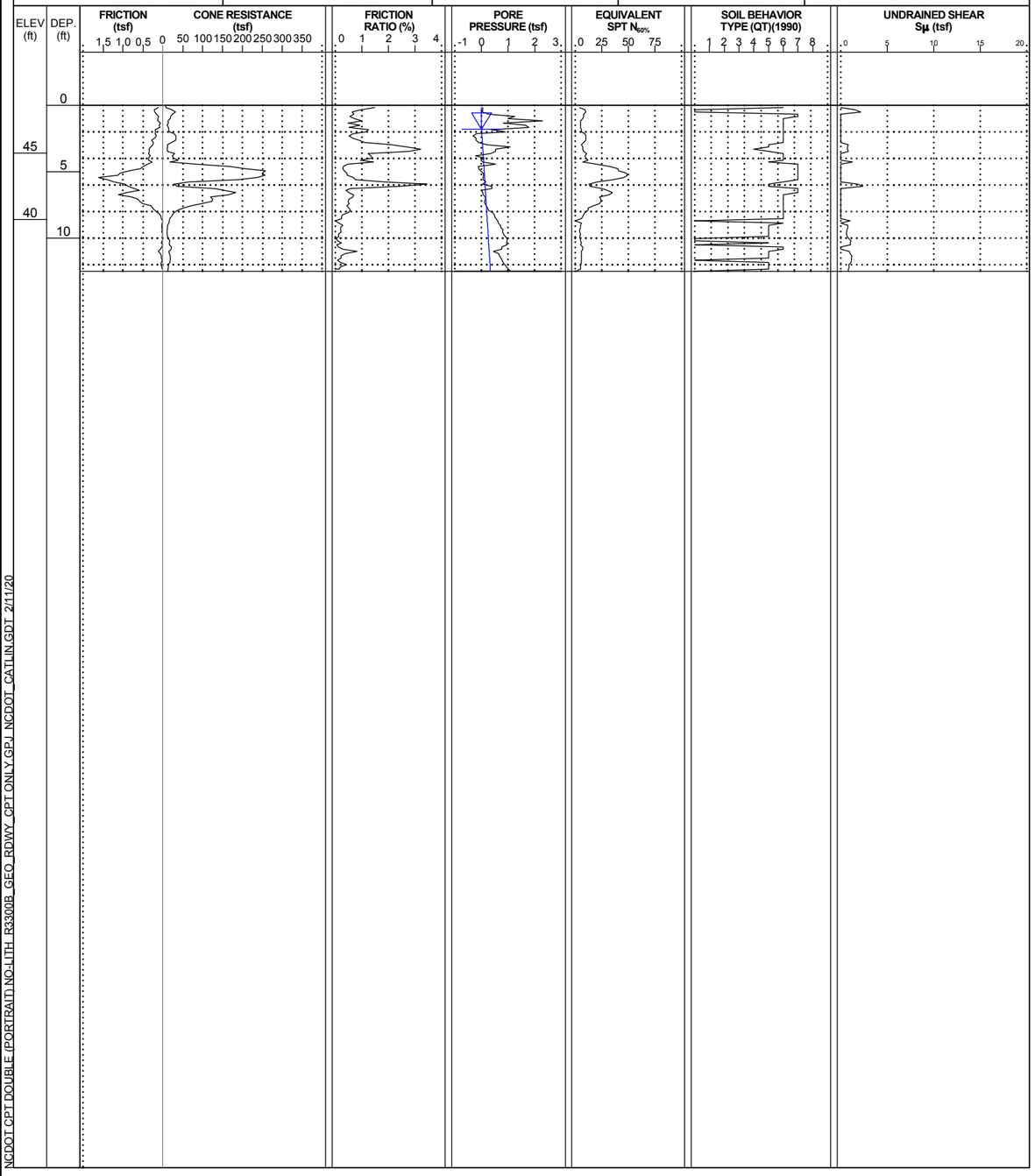


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

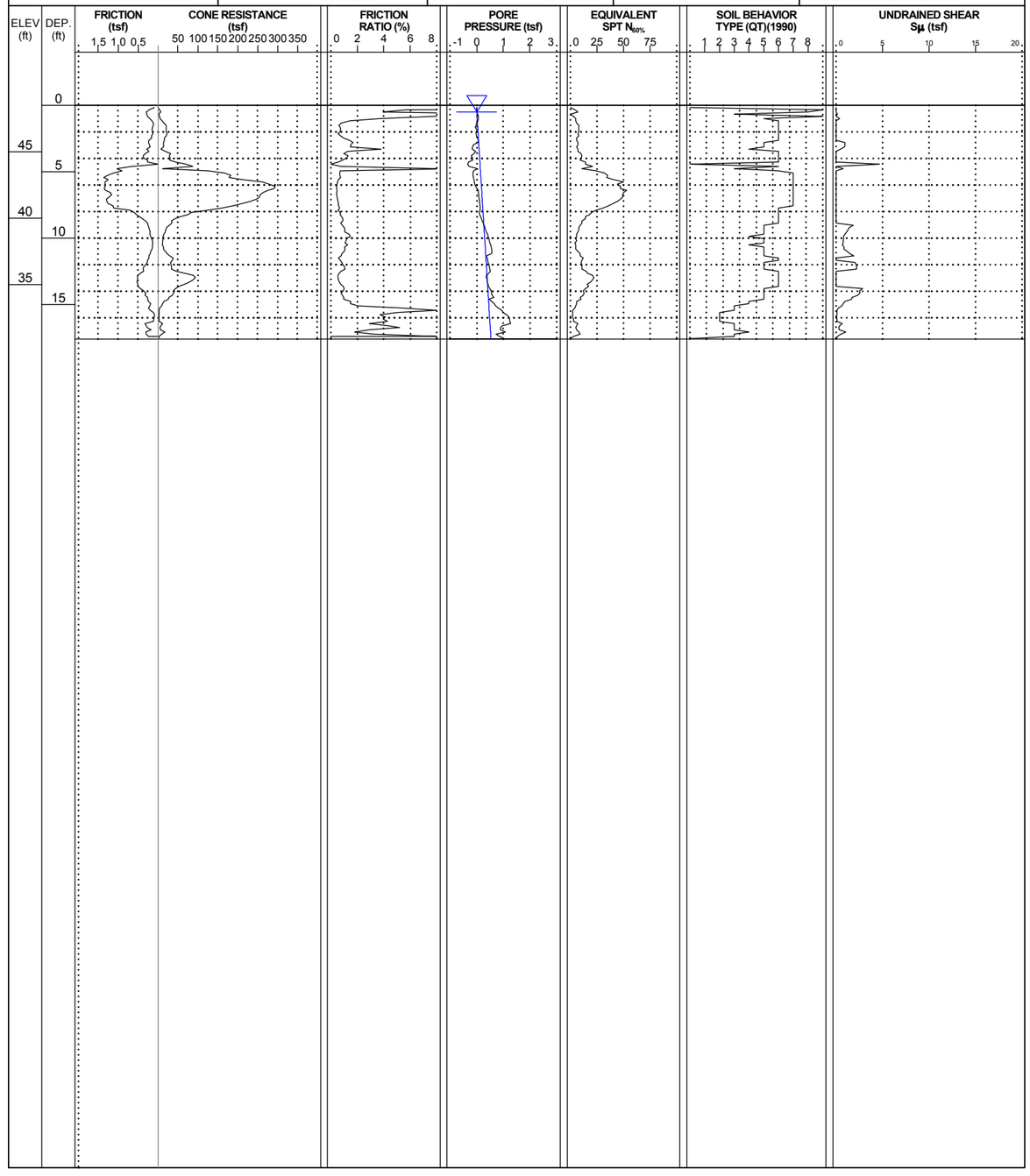
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_73600_CL	**STATION:** 736+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	1.8
COLLAR ELEV.: 48.6 ft	**TOTAL DEPTH:** 12.5 ft	**NORTHING:** 235,746	**EASTING:** 2,389,672	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/09/18	**COMP. DATE:** 10/09/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_74000_CL	**STATION:** 740+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	0.5
COLLAR ELEV.: 48.5 ft	**TOTAL DEPTH:** 17.6 ft	**NORTHING:** 235,758	**EASTING:** 2,390,072	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/09/18	**COMP. DATE:** 10/09/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH_R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

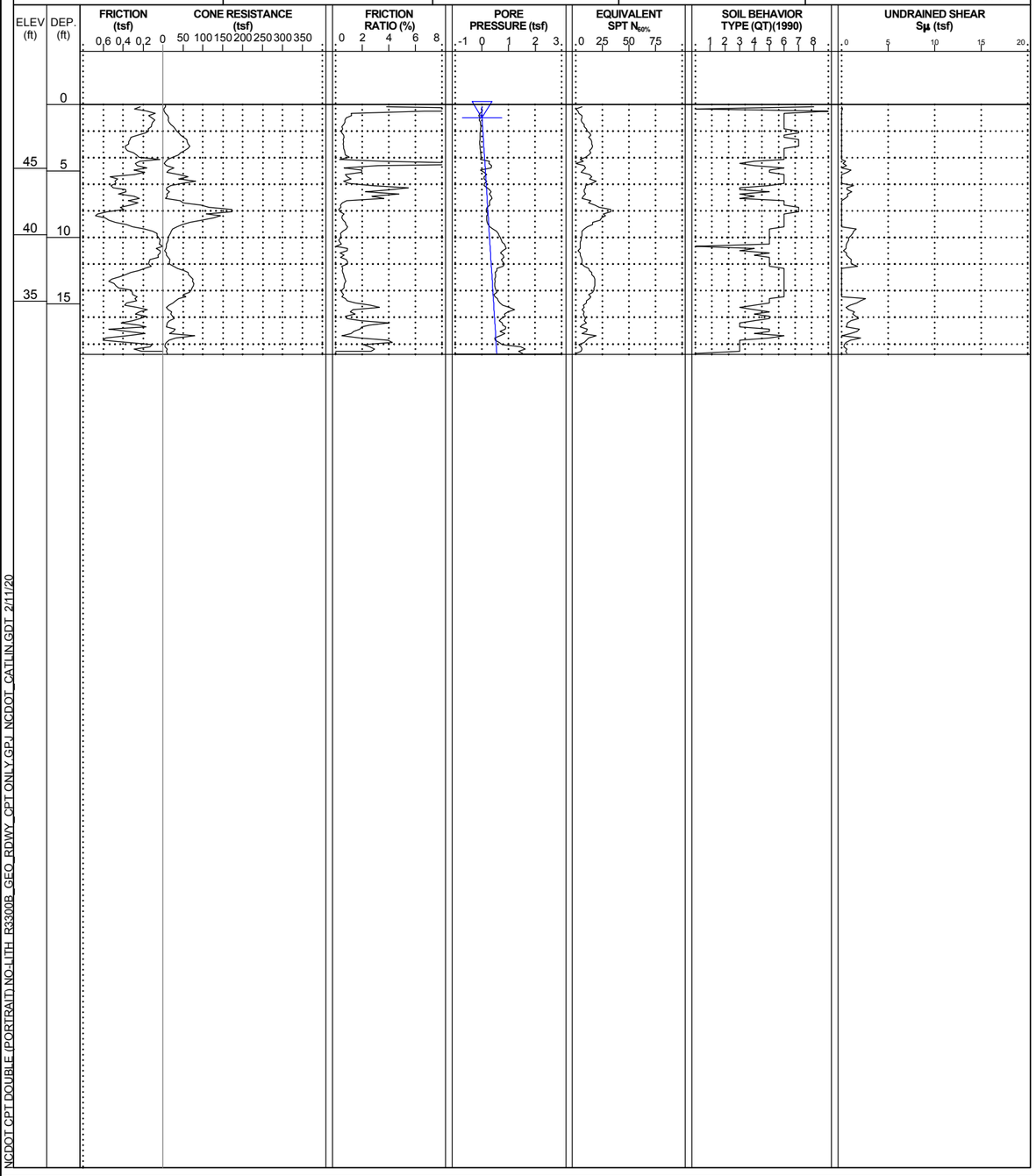
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

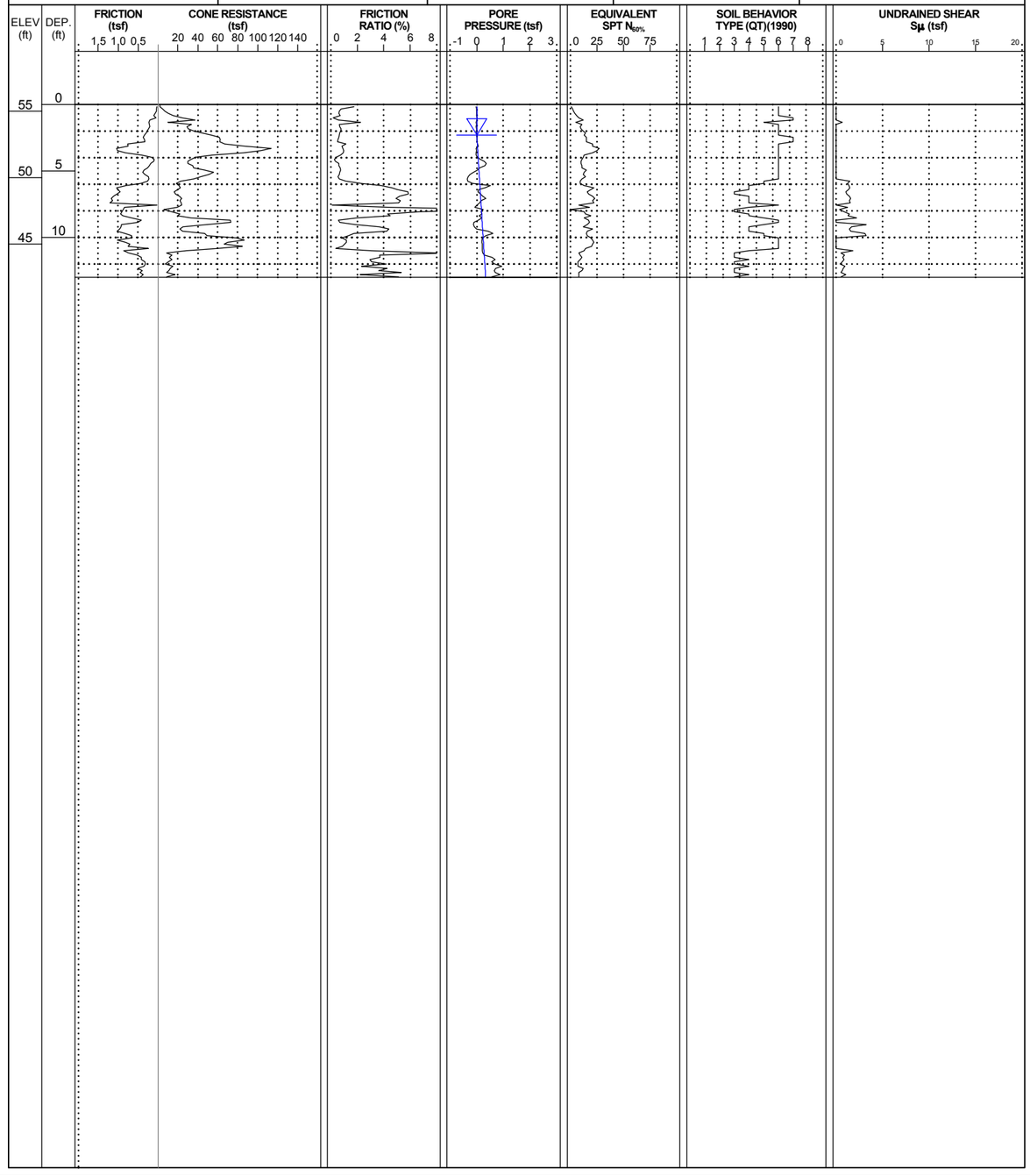
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	27

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_74200_CL	**STATION:** 742+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 1.0
COLLAR ELEV.: 49.8 ft	**TOTAL DEPTH:** 18.8 ft	**NORTHING:** 235,764	**EASTING:** 2,390,272	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/09/18	**COMP. DATE:** 10/09/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_74600_CL	**STATION:** 746+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 2.3
COLLAR ELEV.: 55.5 ft	**TOTAL DEPTH:** 13.0 ft	**NORTHING:** 235,776	**EASTING:** 2,390,672	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/11/18	**COMP. DATE:** 10/11/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

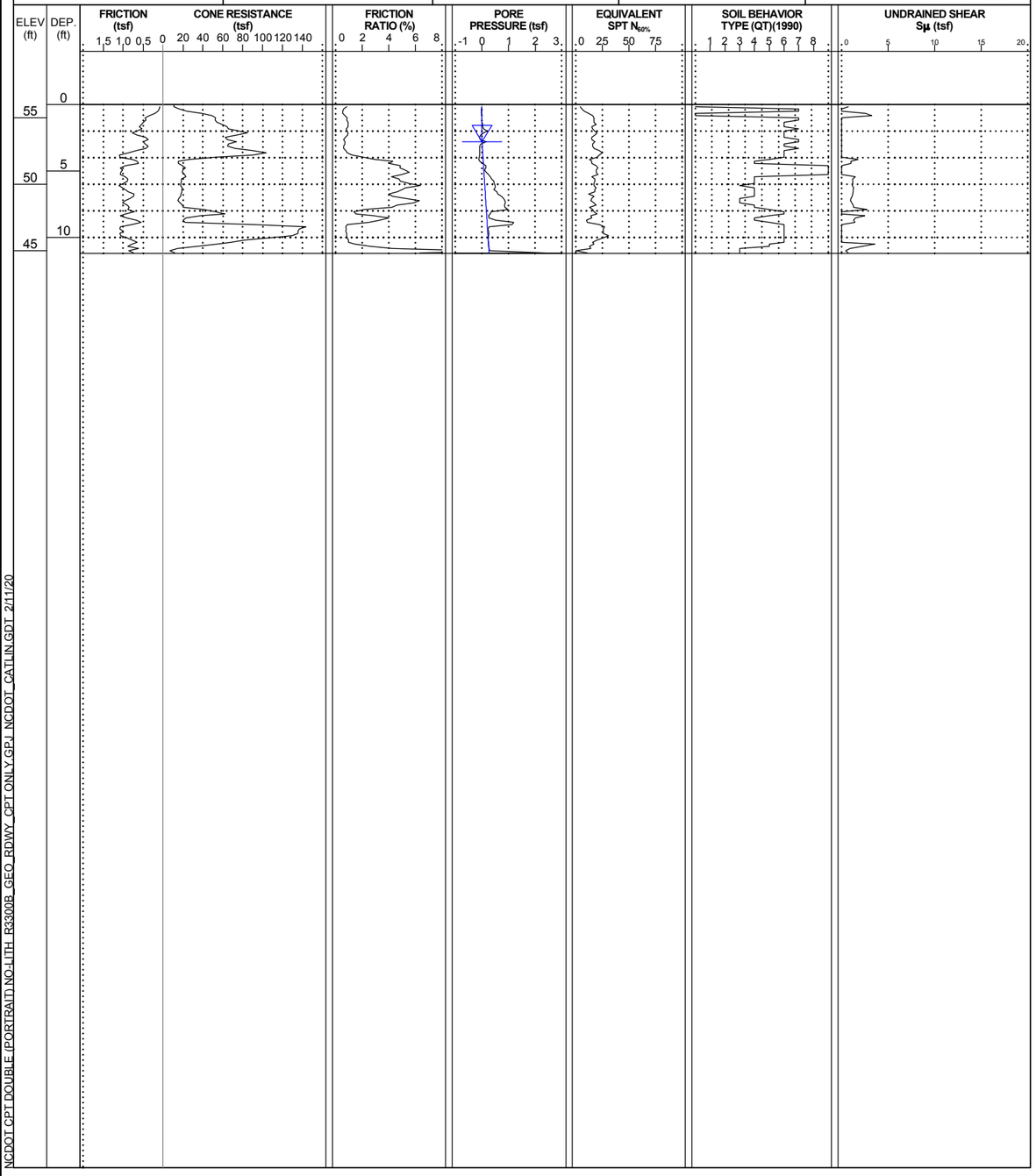
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

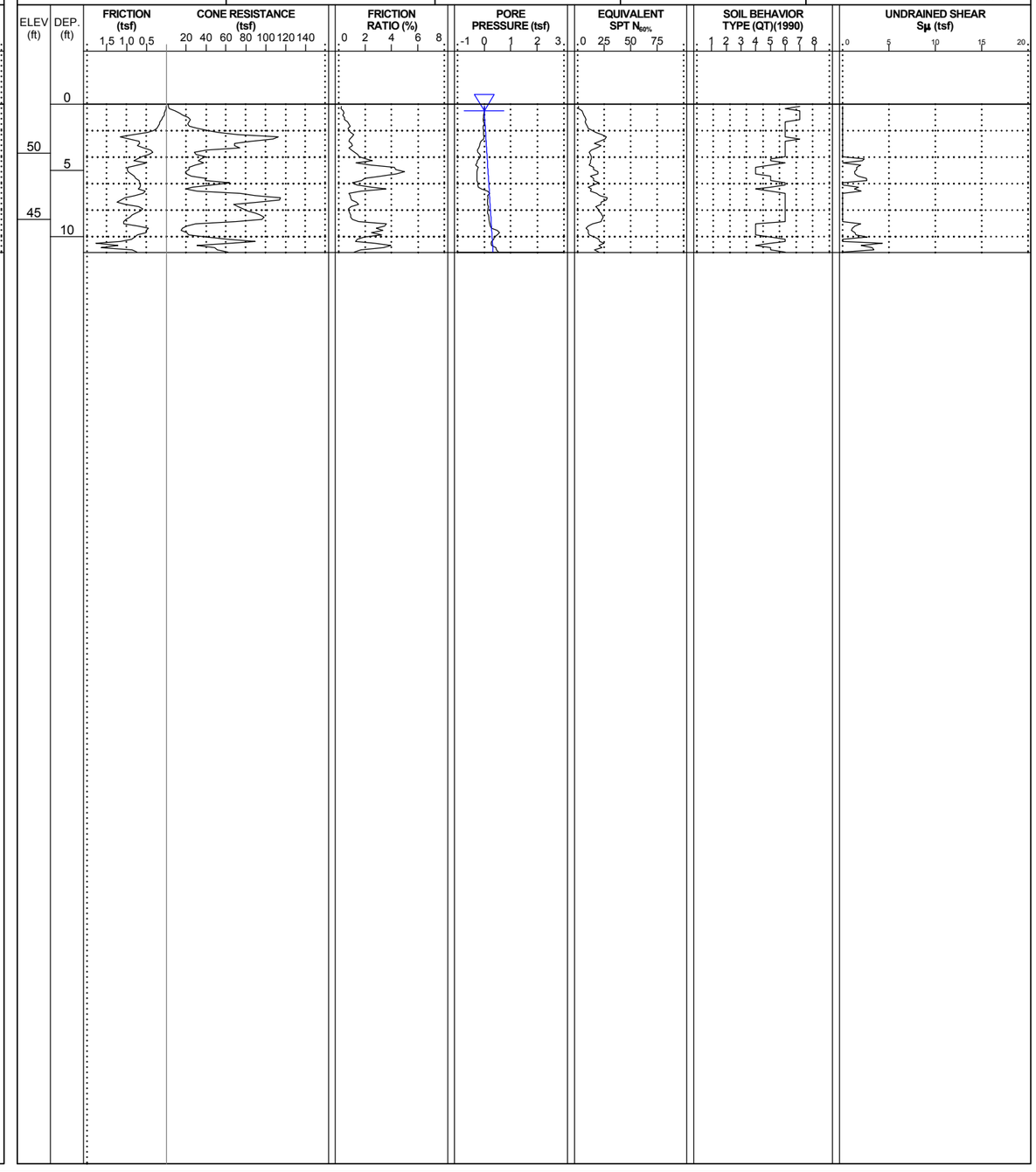
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	28

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_74800_CL	**STATION:** 748+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 2.8
COLLAR ELEV.: 56.0 ft	**TOTAL DEPTH:** 11.2 ft	**NORTHING:** 235,782	**EASTING:** 2,390,872	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/11/18	**COMP. DATE:** 10/11/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_75200_CL	**STATION:** 752+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.5
COLLAR ELEV.: 53.7 ft	**TOTAL DEPTH:** 11.2 ft	**NORTHING:** 235,795	**EASTING:** 2,391,272	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/11/18	**COMP. DATE:** 10/11/18	**SURF. WATER DEPTH:** N/A

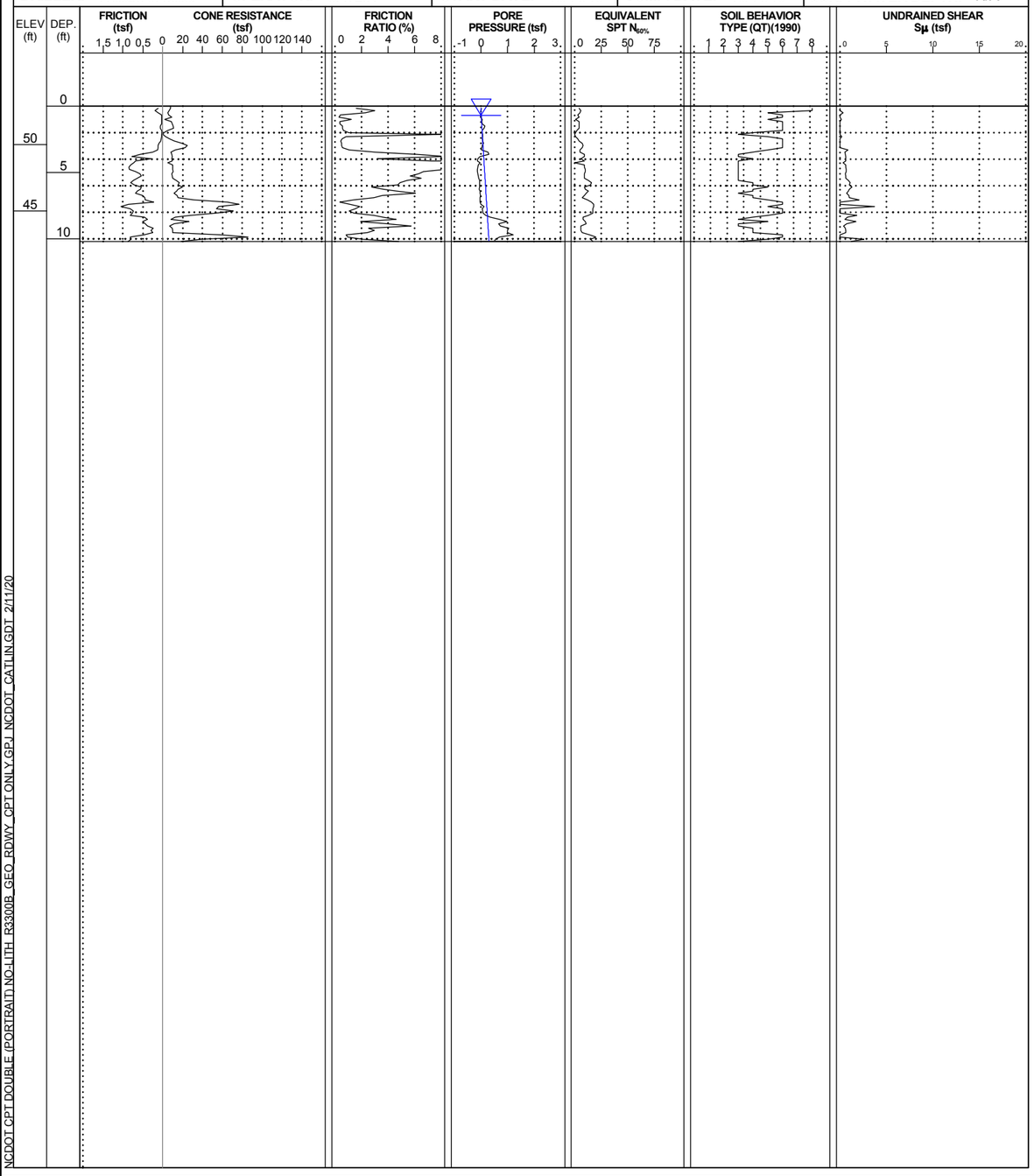


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

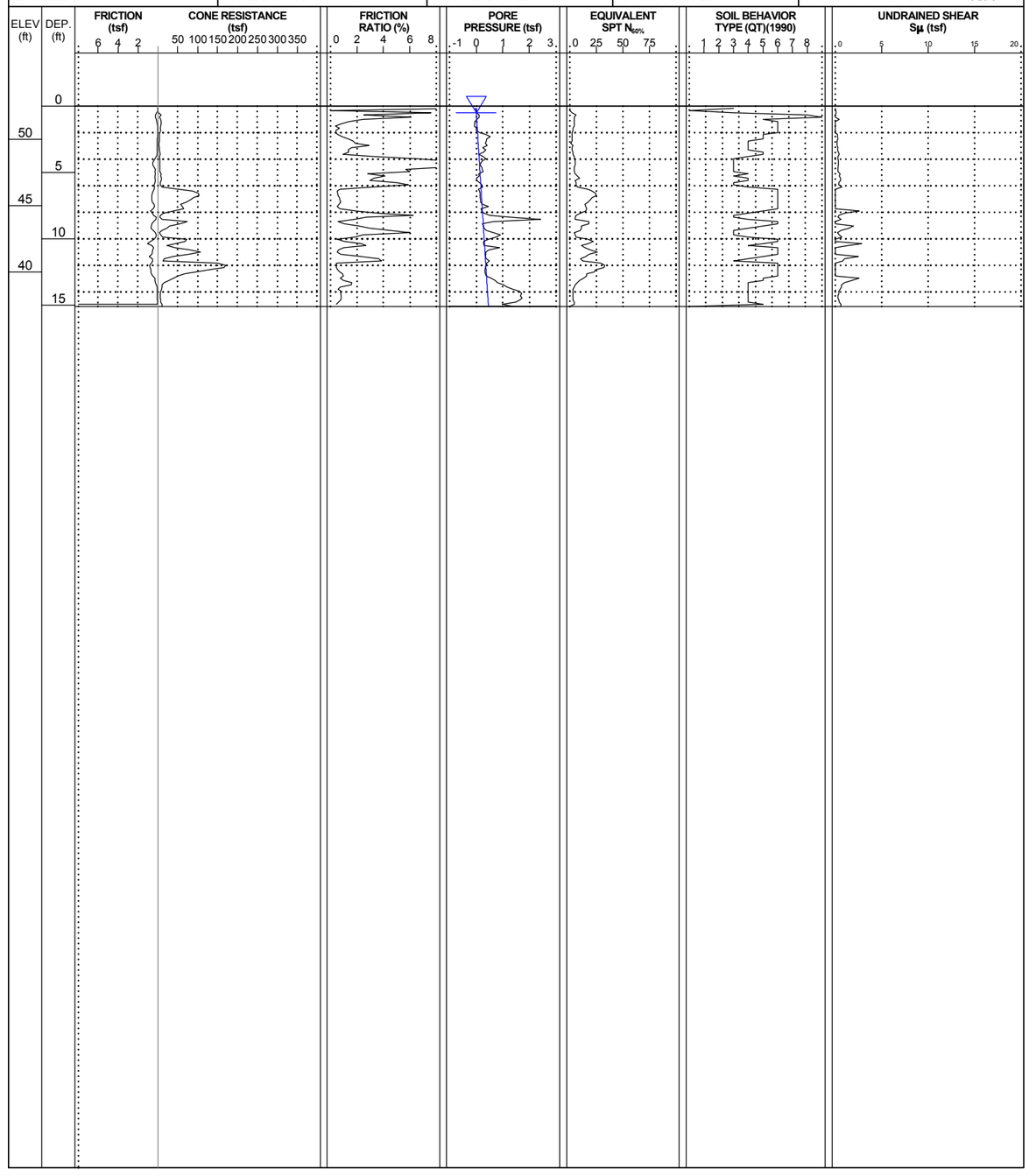
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_75400_CL	**STATION:** 754+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	0.7
COLLAR ELEV.: 52.9 ft	**TOTAL DEPTH:** 10.2 ft	**NORTHING:** 235,801	**EASTING:** 2,391,471	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/11/18	**COMP. DATE:** 10/11/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_75800_CL	**STATION:** 758+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	0.5
COLLAR ELEV.: 52.5 ft	**TOTAL DEPTH:** 15.1 ft	**NORTHING:** 235,813	**EASTING:** 2,391,871	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/11/18	**COMP. DATE:** 10/11/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

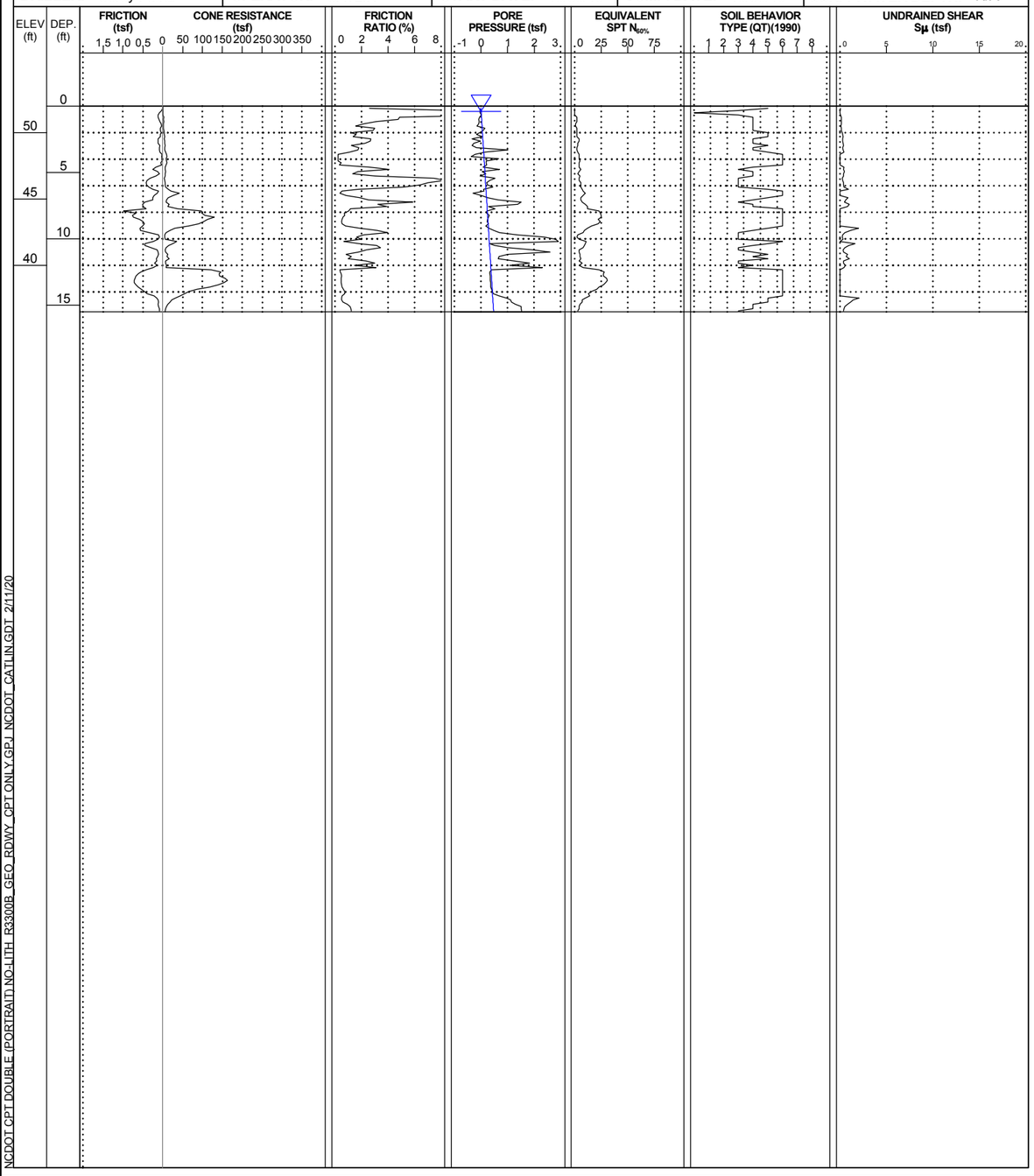
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

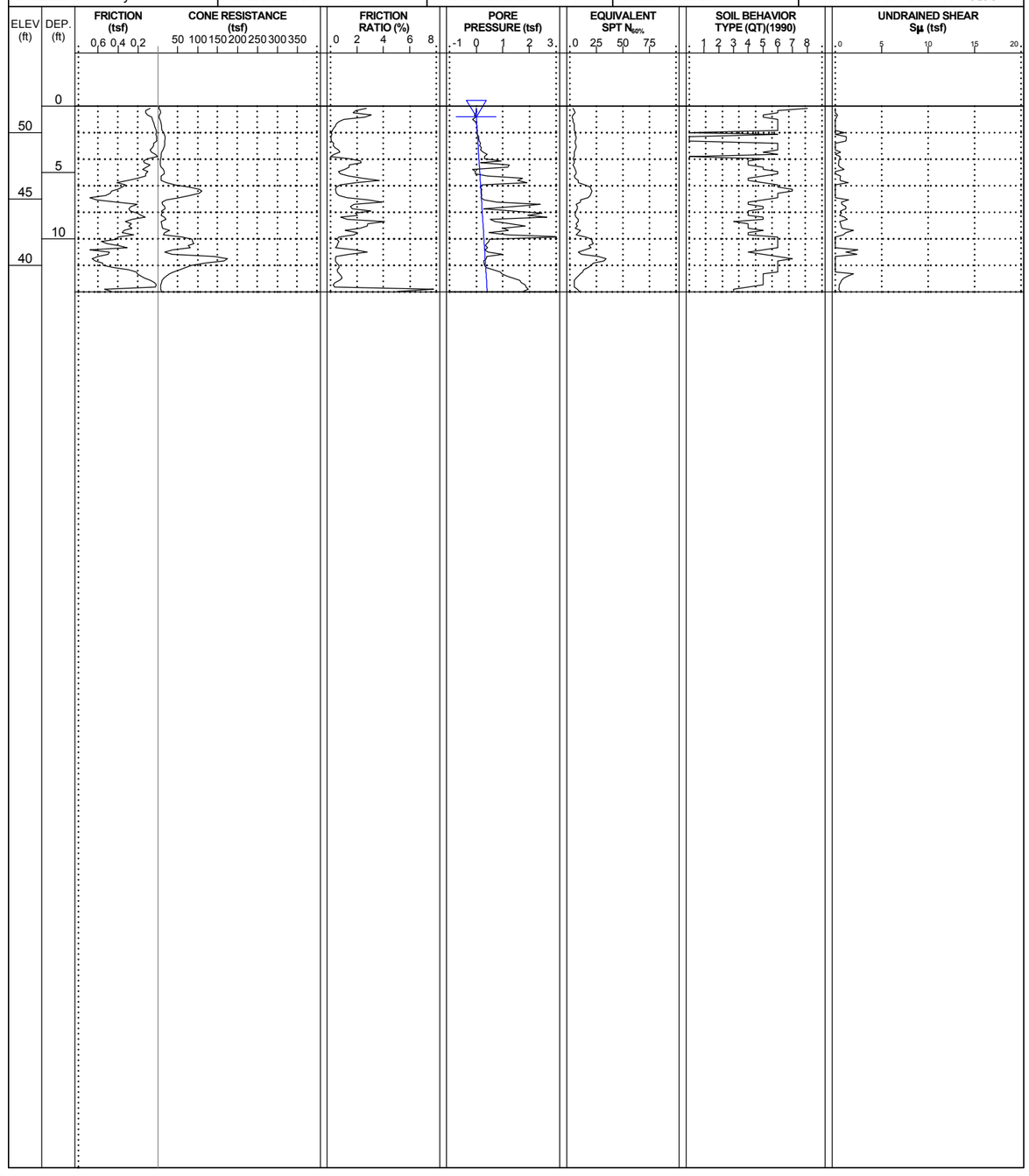
217060 | CATLIN Engineers and Scientists, 220 Old Dairy Road, Wilmington, NC 28405, Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	30

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_76000_CL	**STATION:** 760+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.4
COLLAR ELEV.: 52.0 ft	**TOTAL DEPTH:** 15.5 ft	**NORTHING:** 235,819	**EASTING:** 2,392,071	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/30/18	**COMP. DATE:** 10/30/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_76400_CL	**STATION:** 764+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.8
COLLAR ELEV.: 52.0 ft	**TOTAL DEPTH:** 14.0 ft	**NORTHING:** 235,831	**EASTING:** 2,392,471	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/01/18	**COMP. DATE:** 11/01/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

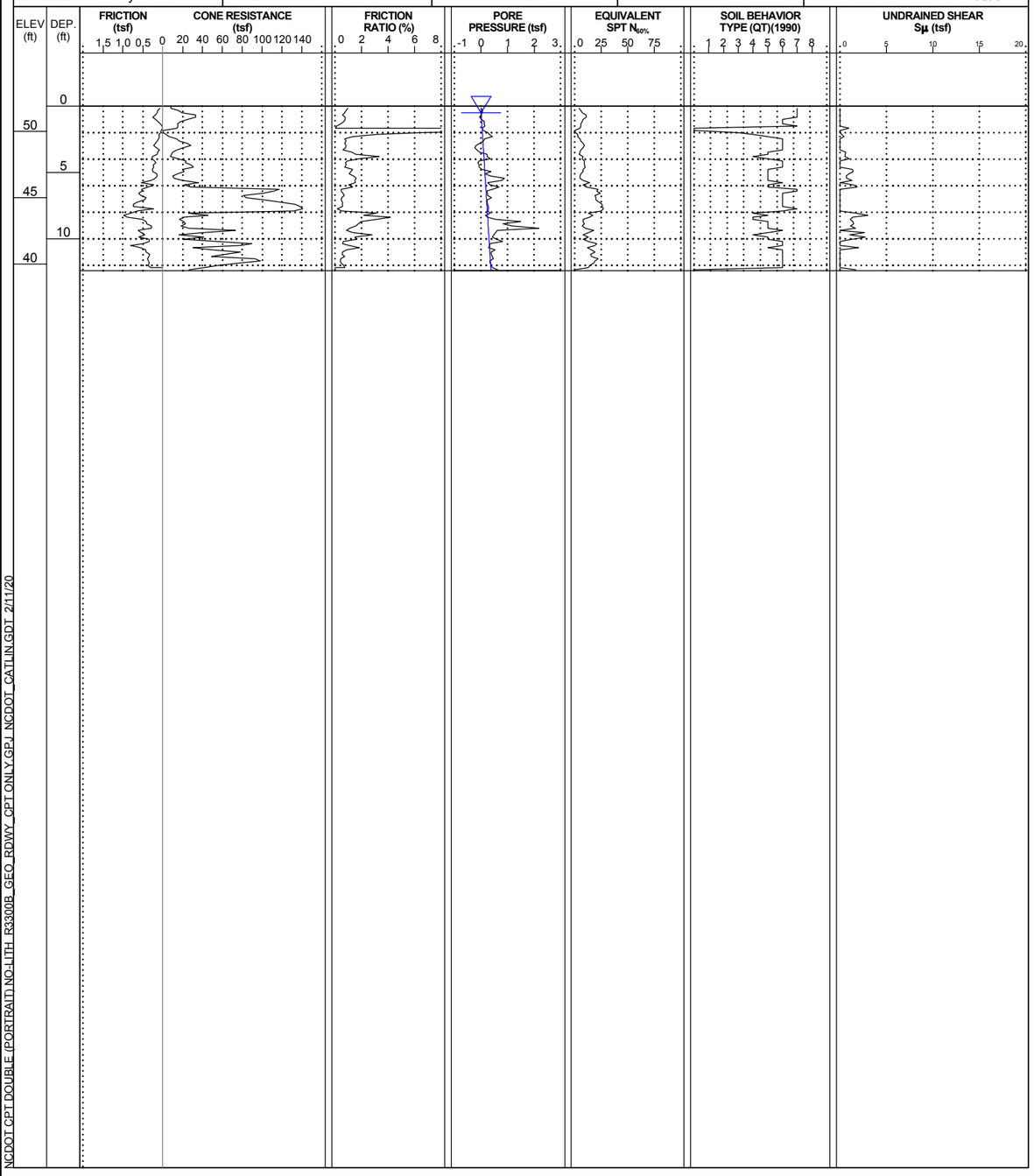
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

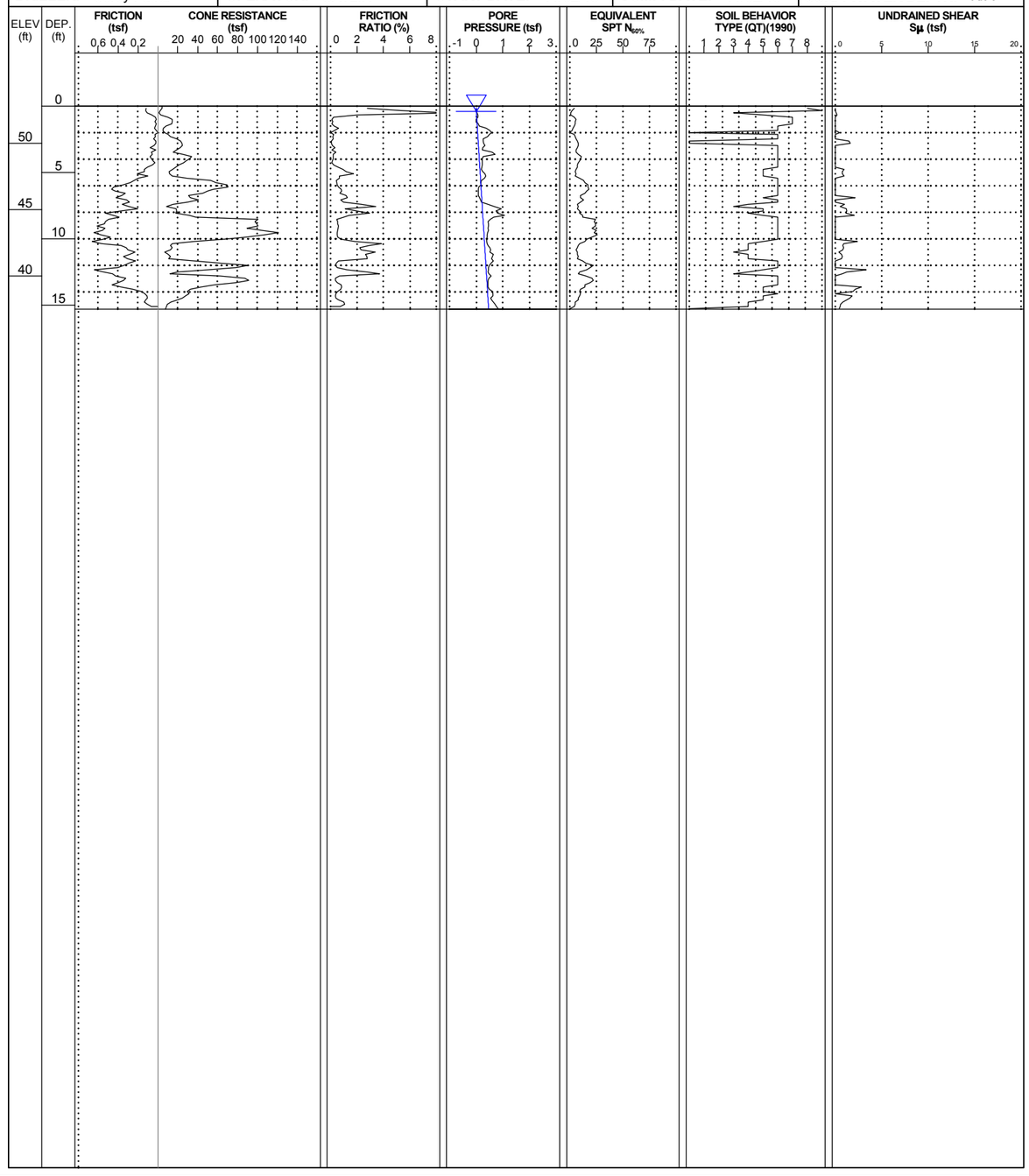
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	31

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_76700_CL	**STATION:** 767+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.5
COLLAR ELEV.: 51.9 ft	**TOTAL DEPTH:** 12.4 ft	**NORTHING:** 235,849	**EASTING:** 2,392,770	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/01/18	**COMP. DATE:** 11/01/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_77200_CL	**STATION:** 772+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.4
COLLAR ELEV.: 52.8 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 235,916	**EASTING:** 2,393,266	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/02/18	**COMP. DATE:** 11/02/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

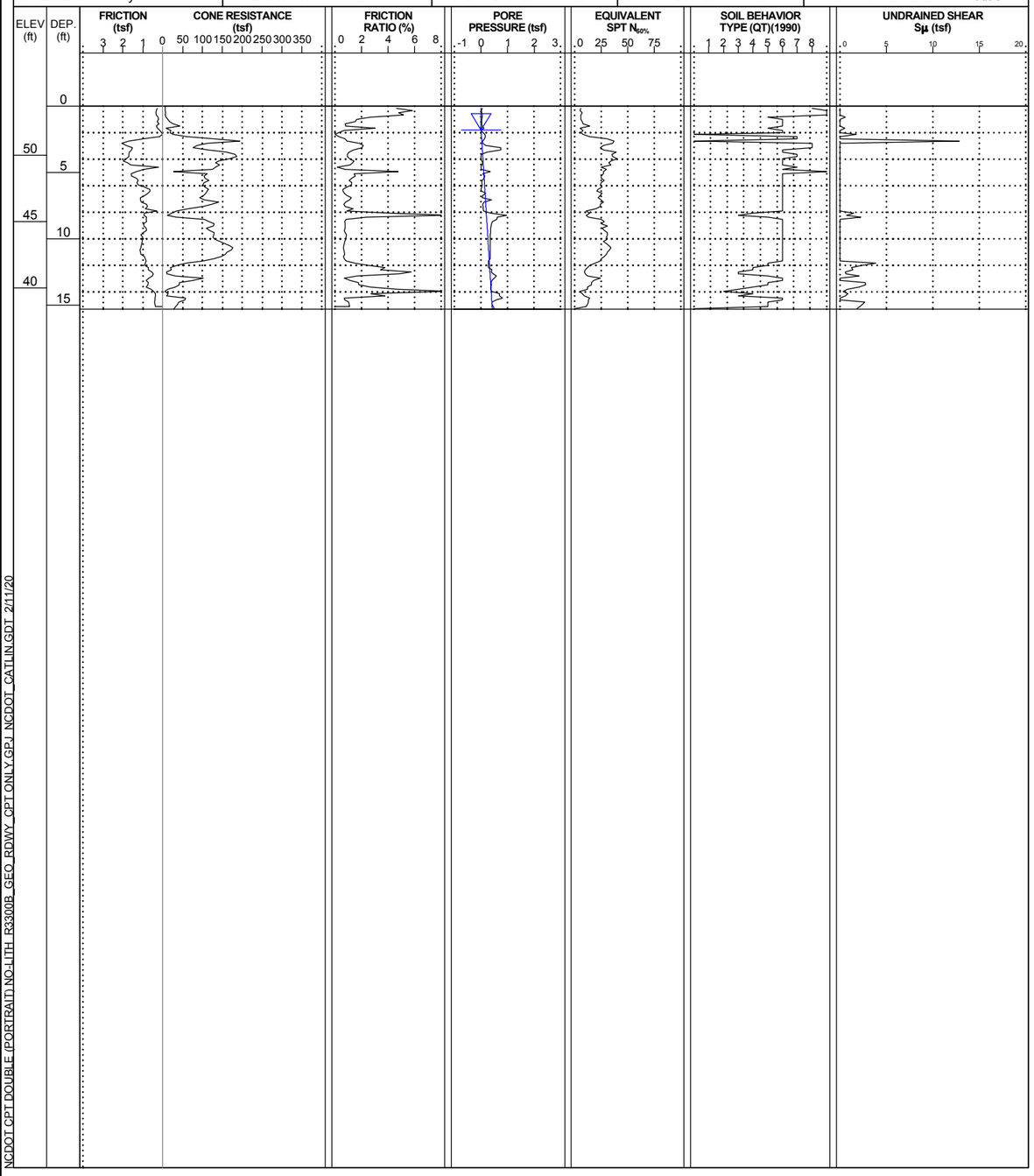
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

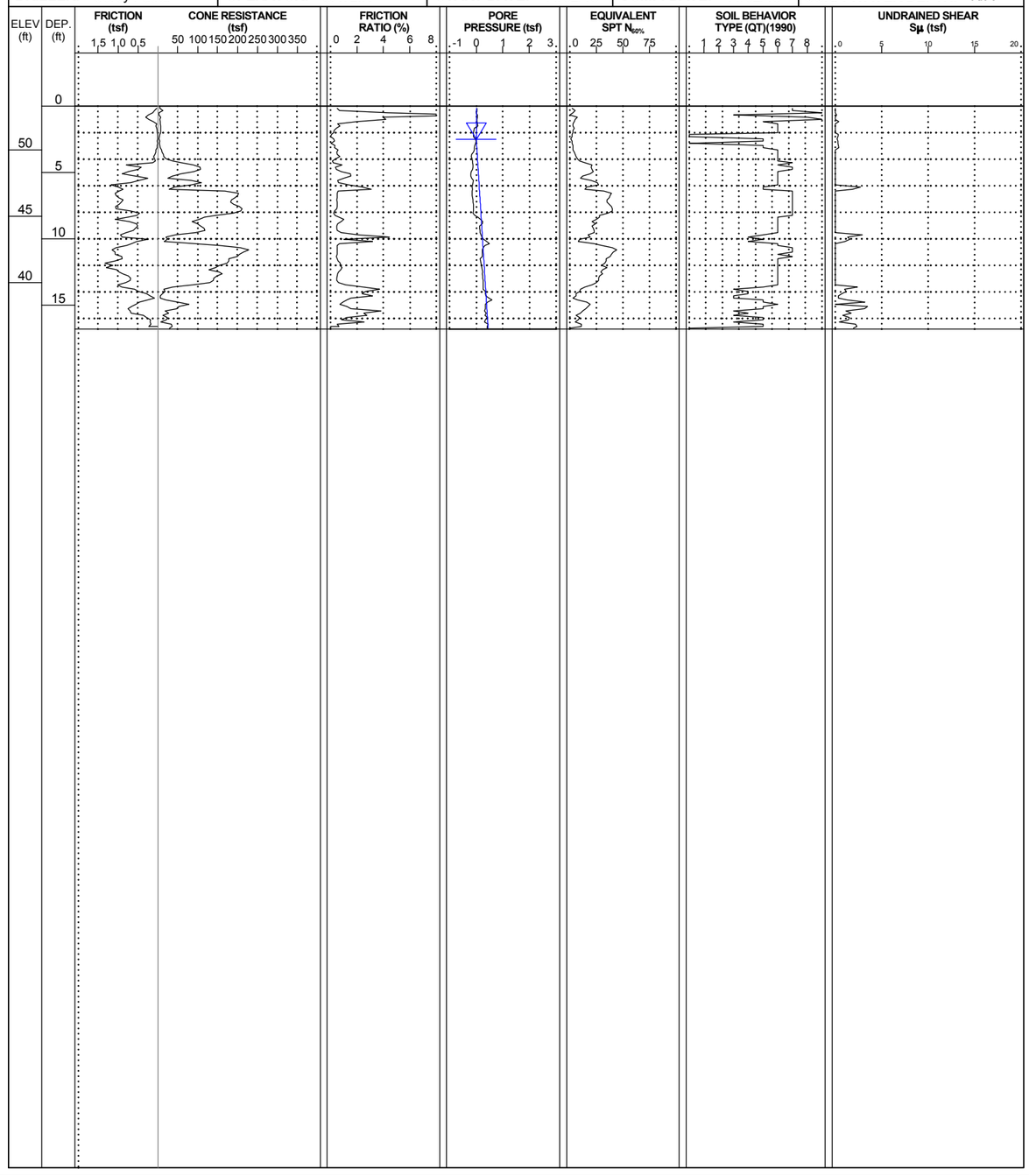
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	32

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_77600_CL	**STATION:** 776+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 1.8
COLLAR ELEV.: 53.7 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 236,003	**EASTING:** 2,393,656	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/02/18	**COMP. DATE:** 11/02/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_77800_CL	**STATION:** 778+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 2.5
COLLAR ELEV.: 53.3 ft	**TOTAL DEPTH:** 16.8 ft	**NORTHING:** 236,058	**EASTING:** 2,393,848	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/02/18	**COMP. DATE:** 11/02/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

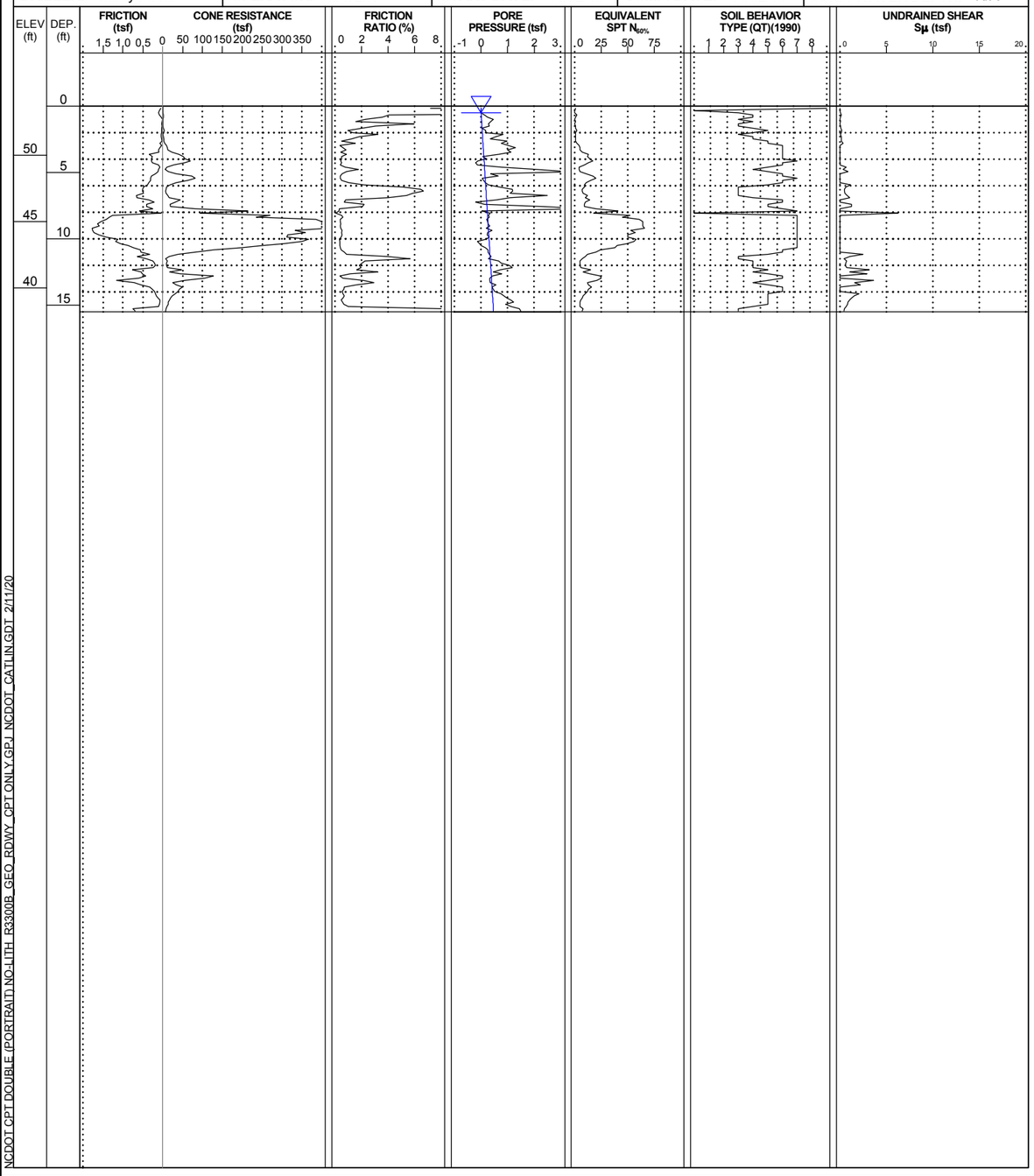
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

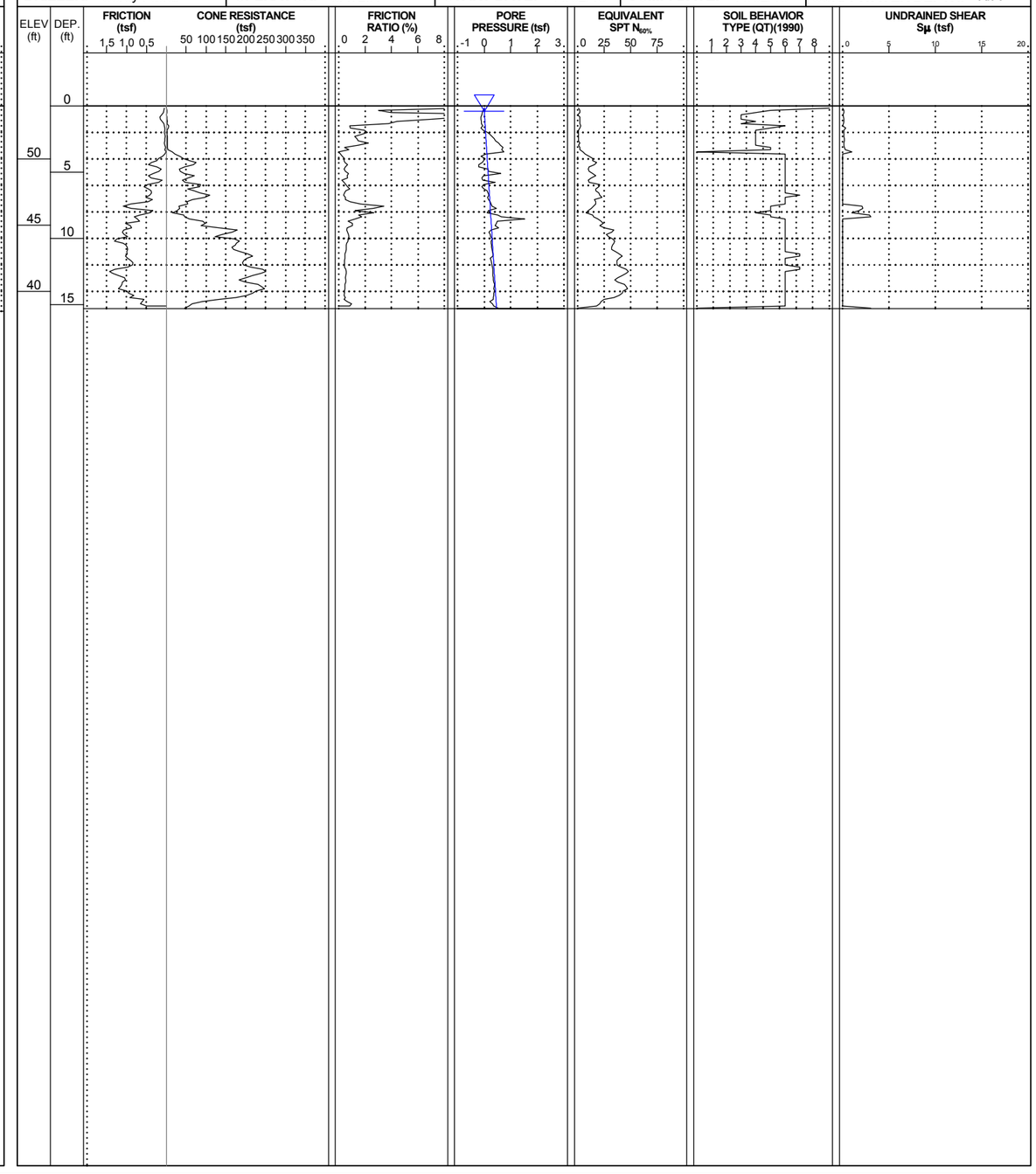
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	33

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_78200_CL	**STATION:** 782+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.5
COLLAR ELEV.: 53.7 ft	**TOTAL DEPTH:** 15.5 ft	**NORTHING:** 236,189	**EASTING:** 2,394,226	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/02/18	**COMP. DATE:** 11/02/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_78400_CL	**STATION:** 784+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.4
COLLAR ELEV.: 54.0 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 236,265	**EASTING:** 2,394,411	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/02/18	**COMP. DATE:** 11/02/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

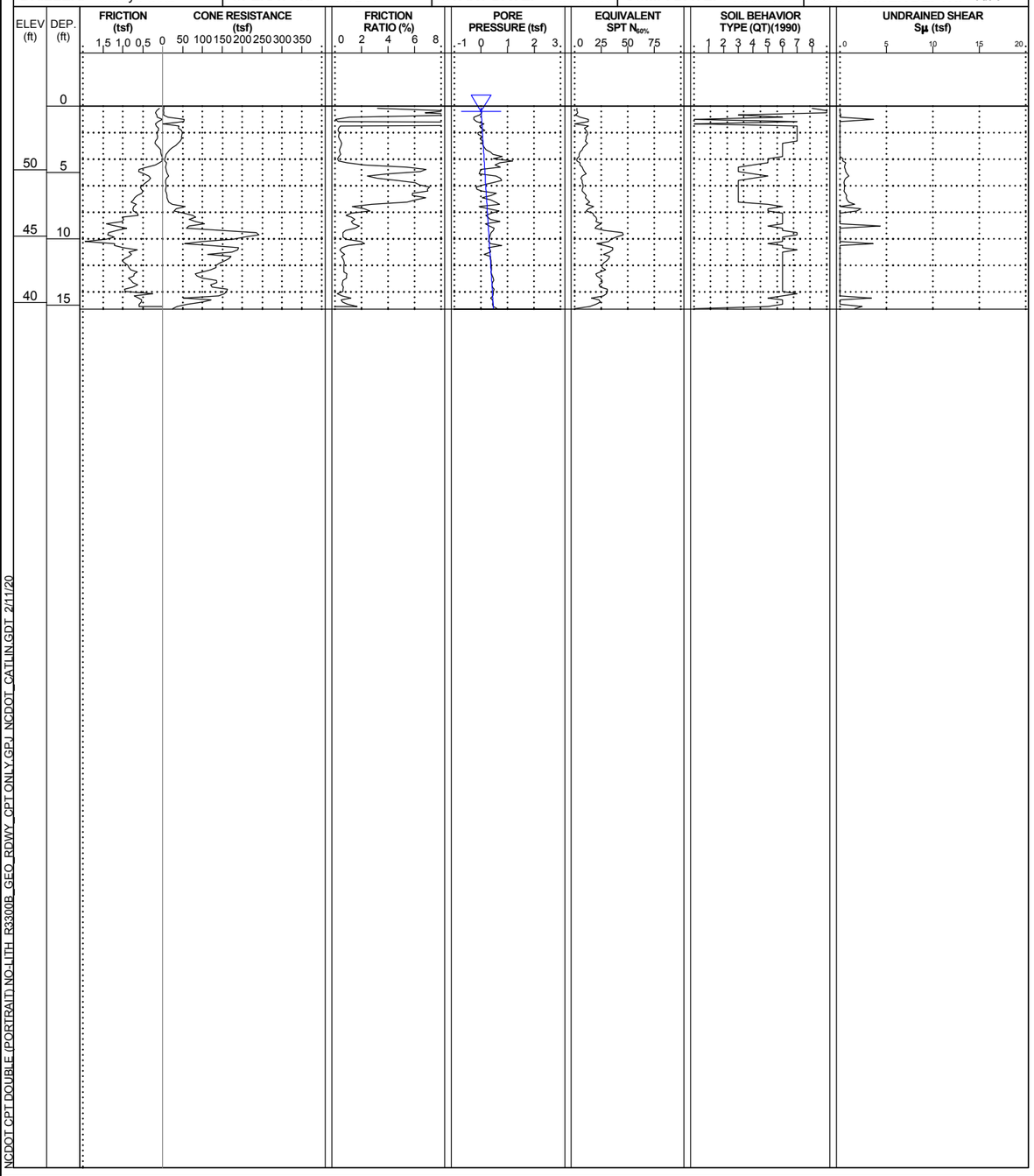
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

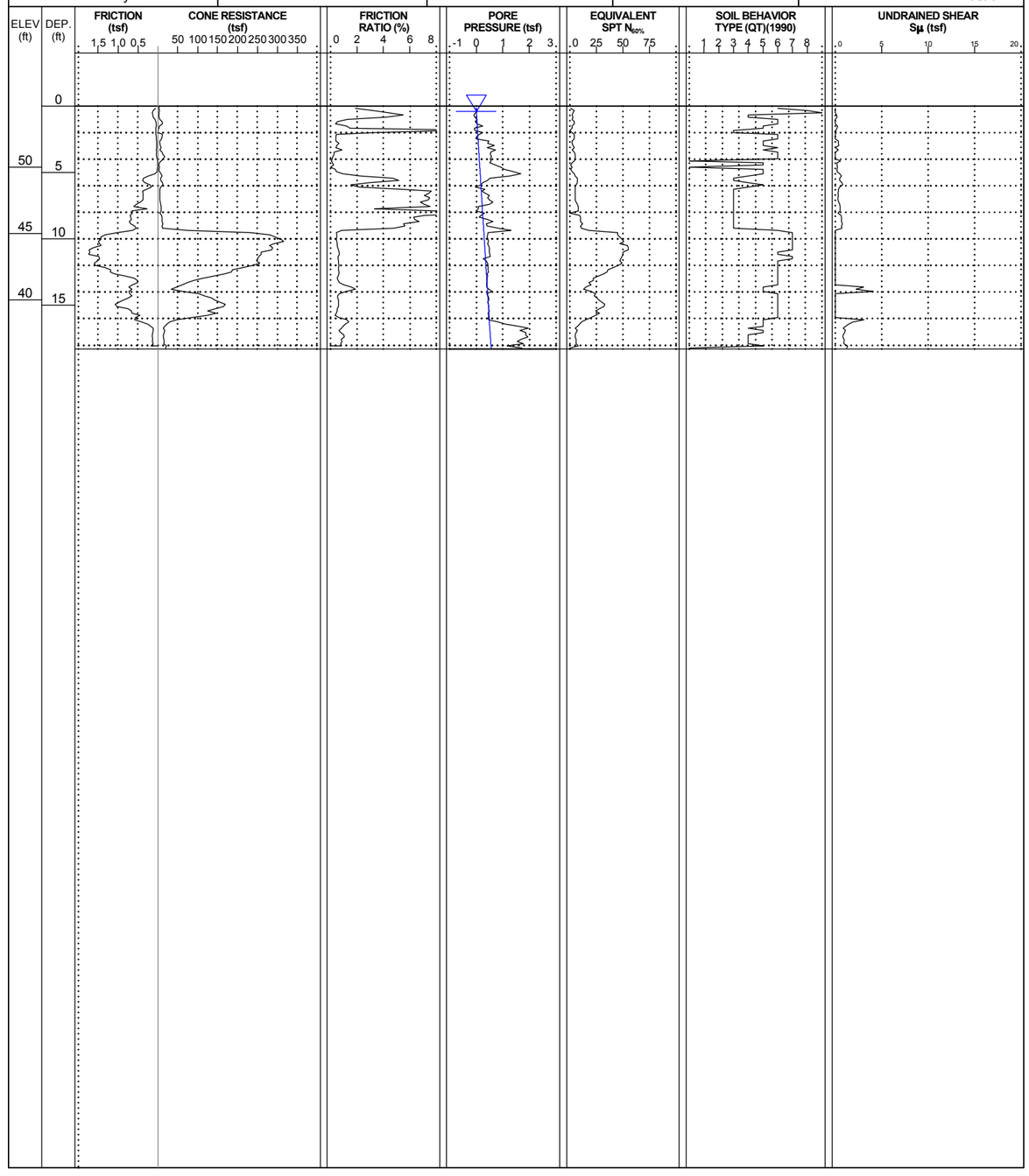
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	34

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_78800_CL	**STATION:** 788+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.4
COLLAR ELEV.: 54.8 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 236,439	**EASTING:** 2,394,771	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/05/18	**COMP. DATE:** 11/05/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_79000_CL	**STATION:** 790+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.4
COLLAR ELEV.: 54.6 ft	**TOTAL DEPTH:** 18.3 ft	**NORTHING:** 236,535	**EASTING:** 2,394,946	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/05/18	**COMP. DATE:** 11/05/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

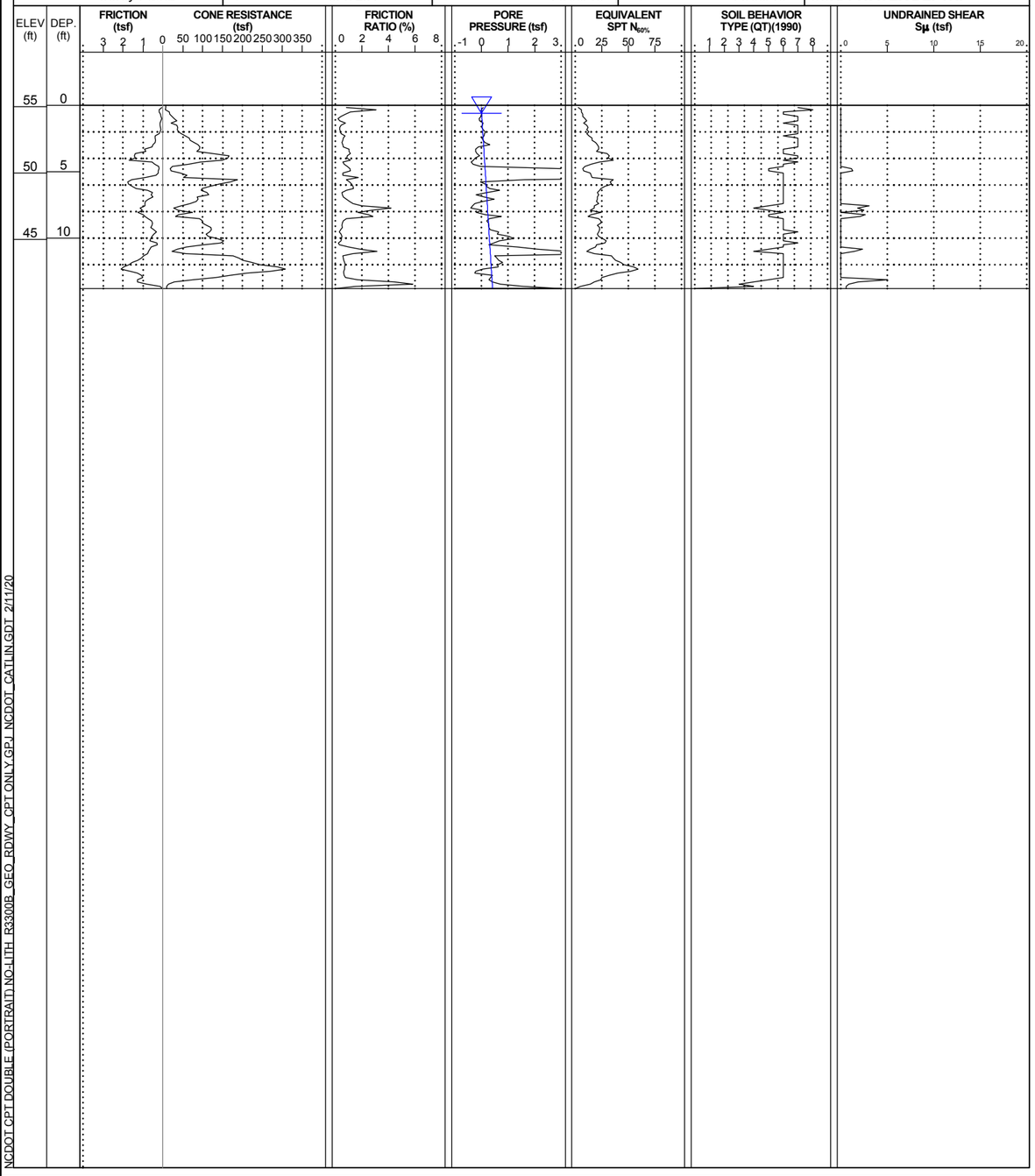
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

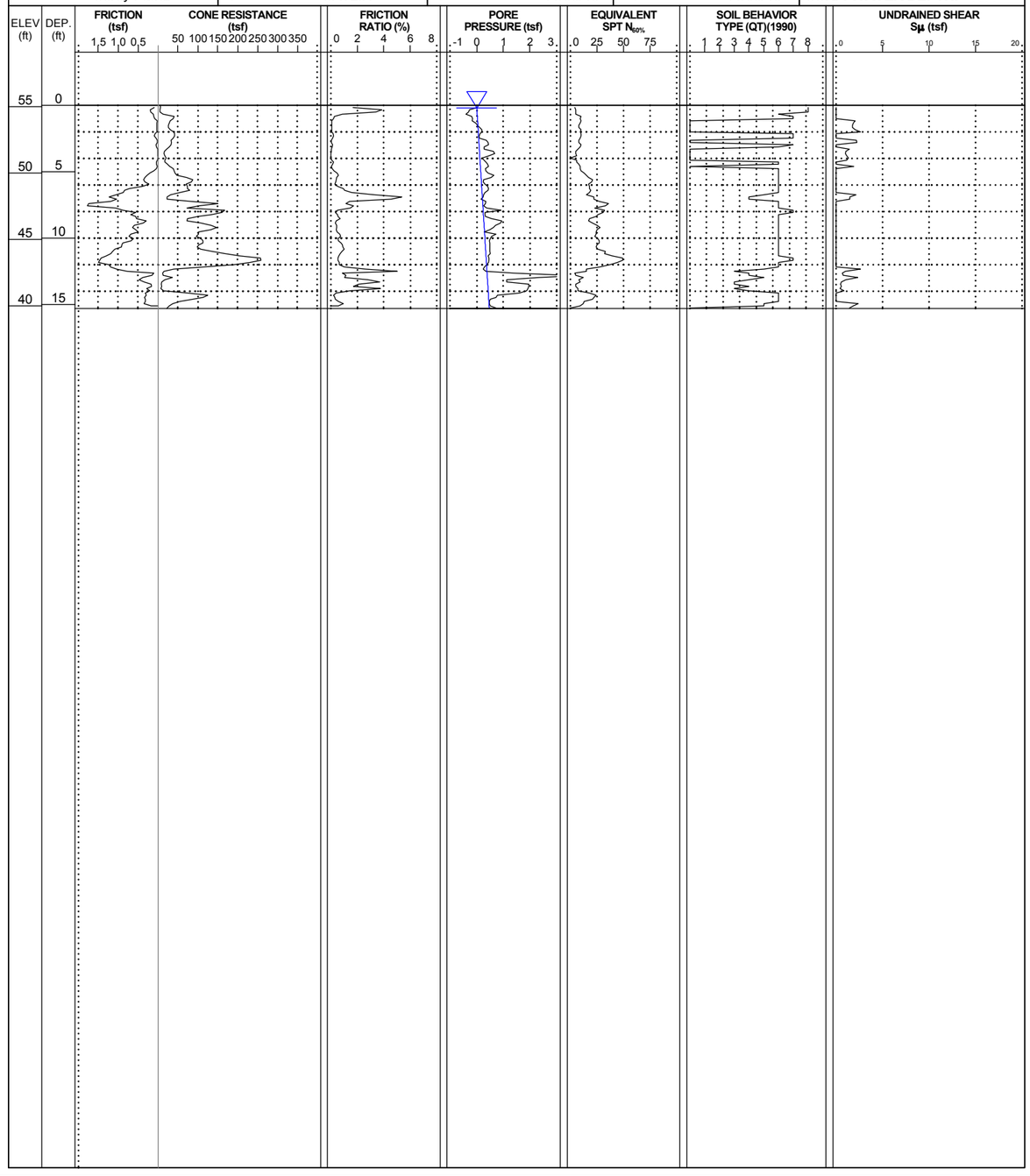
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	35

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_79450_CL	**STATION:** 794+50	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.6
COLLAR ELEV.: 55.1 ft	**TOTAL DEPTH:** 13.8 ft	**NORTHING:** 236,777	**EASTING:** 2,395,326	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/05/18	**COMP. DATE:** 11/05/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_79500_CL	**STATION:** 795+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.2
COLLAR ELEV.: 55.1 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 236,806	**EASTING:** 2,395,367	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/05/18	**COMP. DATE:** 11/05/18	**SURF. WATER DEPTH:** N/A

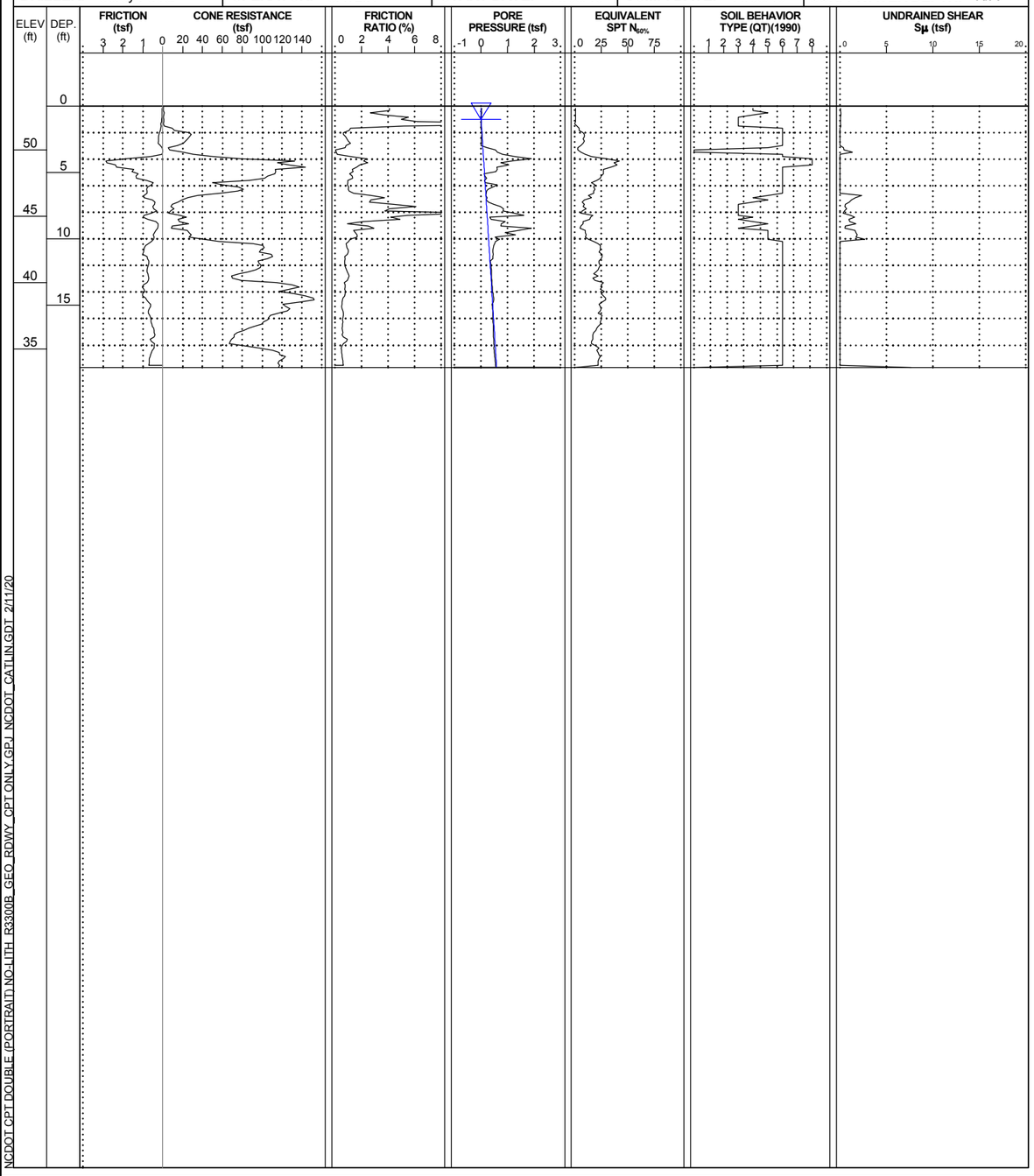


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

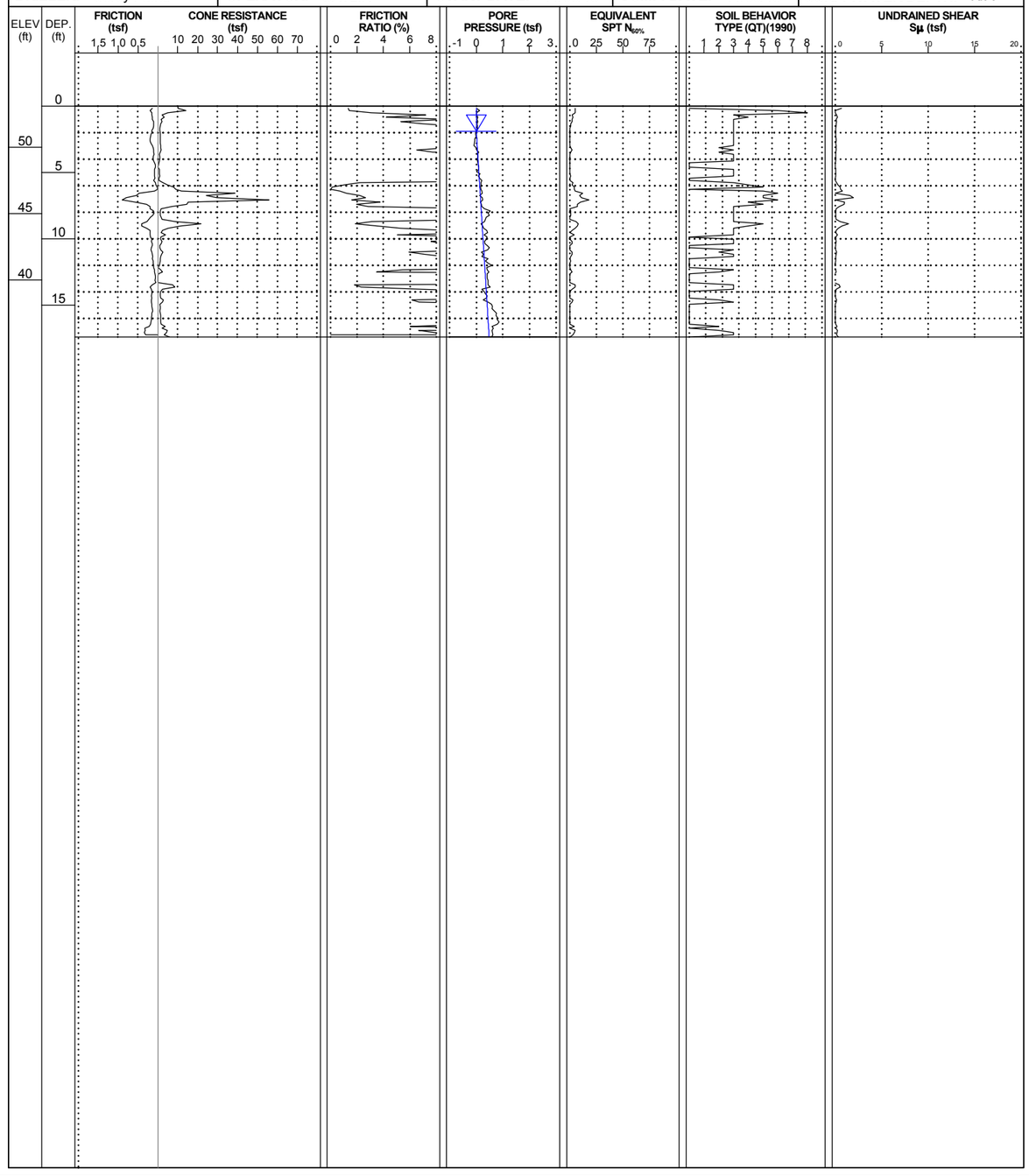
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_80000_CL	**STATION:** 800+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	1.0
COLLAR ELEV.: 53.3 ft	**TOTAL DEPTH:** 19.7 ft	**NORTHING:** 237,115	**EASTING:** 2,395,760	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/05/18	**COMP. DATE:** 11/05/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_80200_CL	**STATION:** 802+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	1.9
COLLAR ELEV.: 53.1 ft	**TOTAL DEPTH:** 17.4 ft	**NORTHING:** 237,247	**EASTING:** 2,395,909	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/06/18	**COMP. DATE:** 11/06/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

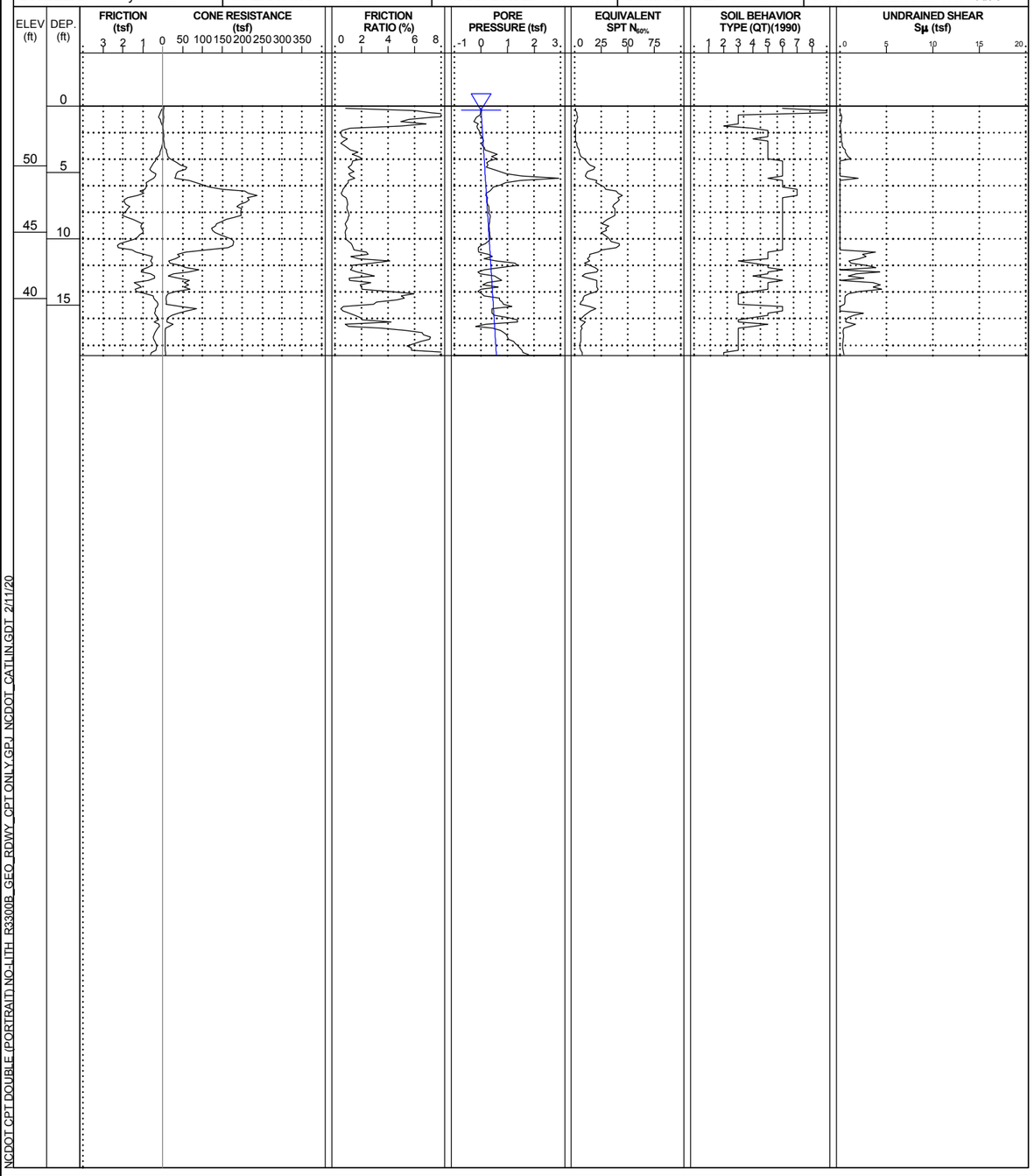
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

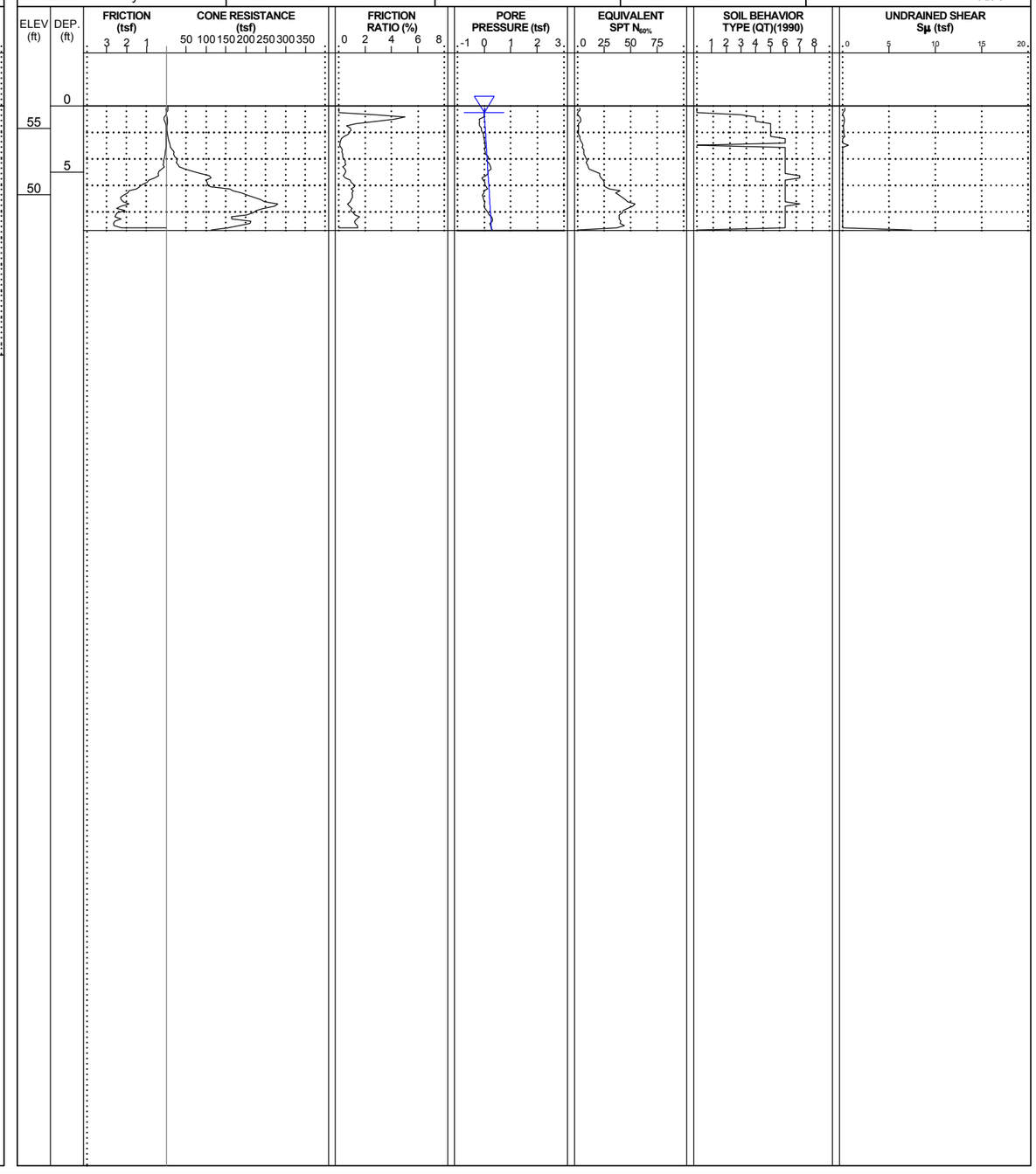
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	37

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_80600_CL	**STATION:** 806+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.3
COLLAR ELEV.: 54.5 ft	**TOTAL DEPTH:** 18.8 ft	**NORTHING:** 237,514	**EASTING:** 2,396,208	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/06/18	**COMP. DATE:** 11/06/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_81000_CL	**STATION:** 810+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 0.5
COLLAR ELEV.: 56.7 ft	**TOTAL DEPTH:** 9.4 ft	**NORTHING:** 237,780	**EASTING:** 2,396,506	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/06/18	**COMP. DATE:** 11/06/18	**SURF. WATER DEPTH:** N/A

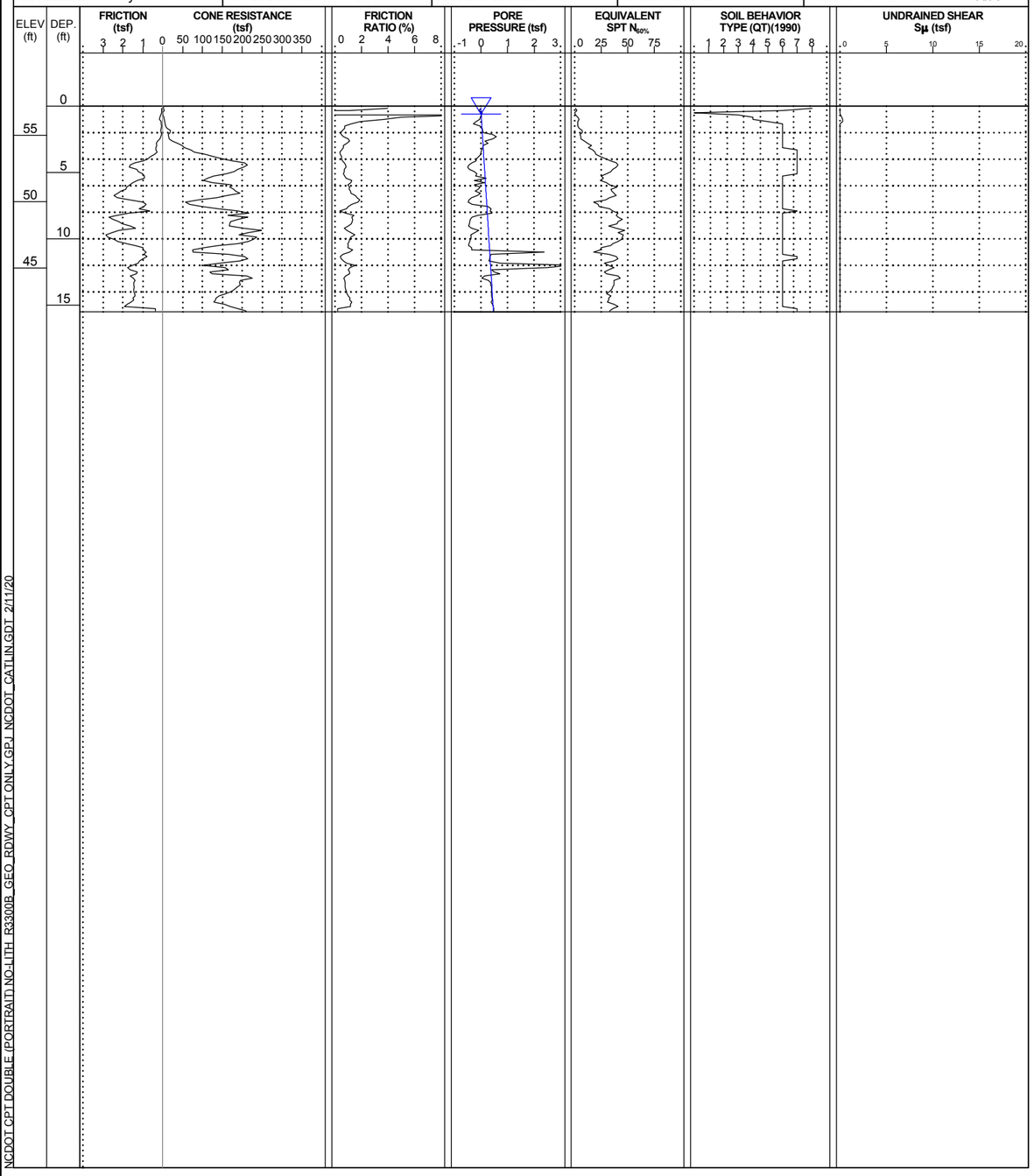


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

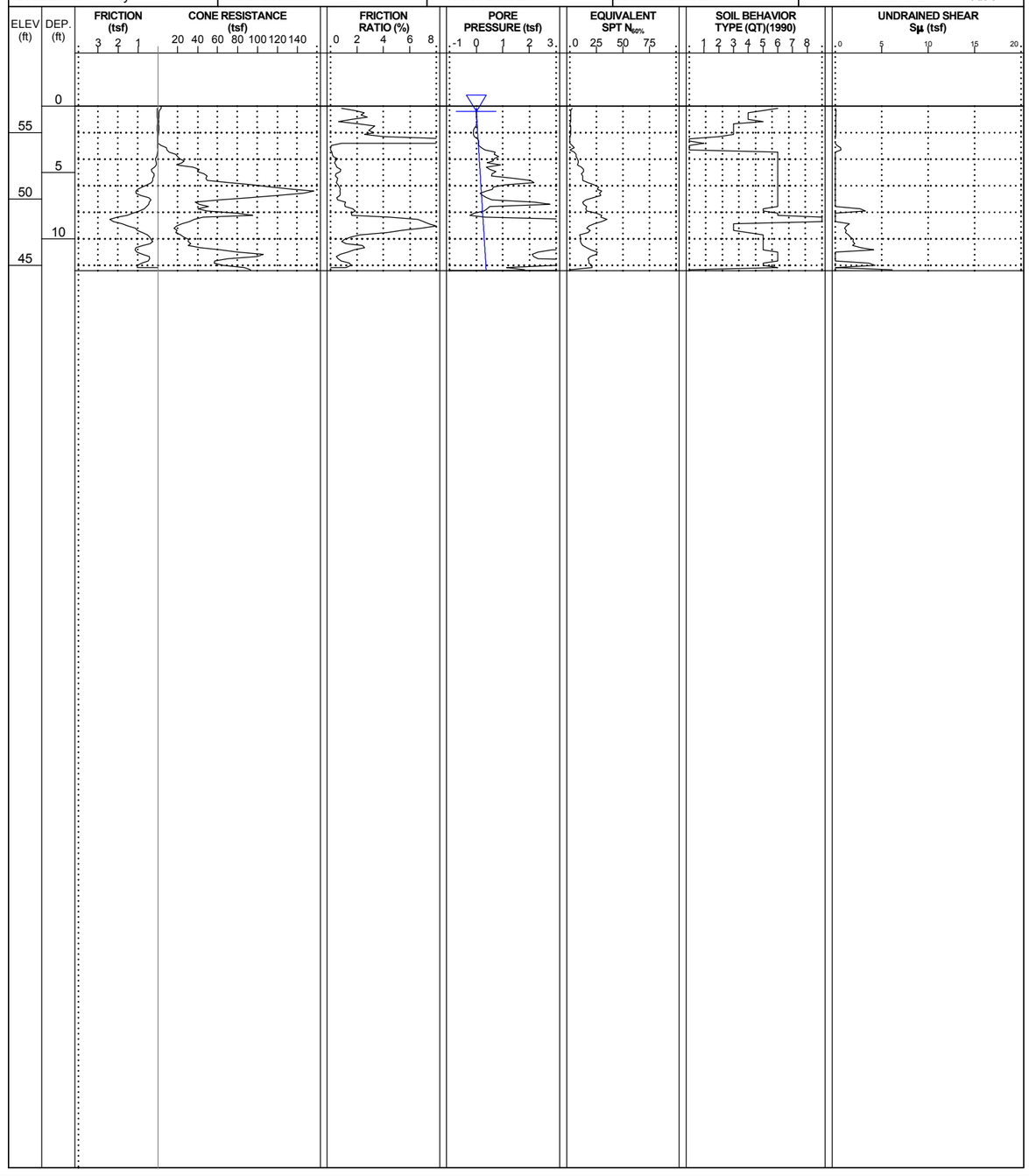
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_81200_CL	**STATION:** 812+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	0.6
COLLAR ELEV.: 57.2 ft	**TOTAL DEPTH:** 15.5 ft	**NORTHING:** 237,914	**EASTING:** 2,396,655	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/06/18	**COMP. DATE:** 11/06/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_81400_CL	**STATION:** 814+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	0.4
COLLAR ELEV.: 57.0 ft	**TOTAL DEPTH:** 12.4 ft	**NORTHING:** 238,047	**EASTING:** 2,396,804	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/06/18	**COMP. DATE:** 11/06/18	**SURF. WATER DEPTH:** N/A	

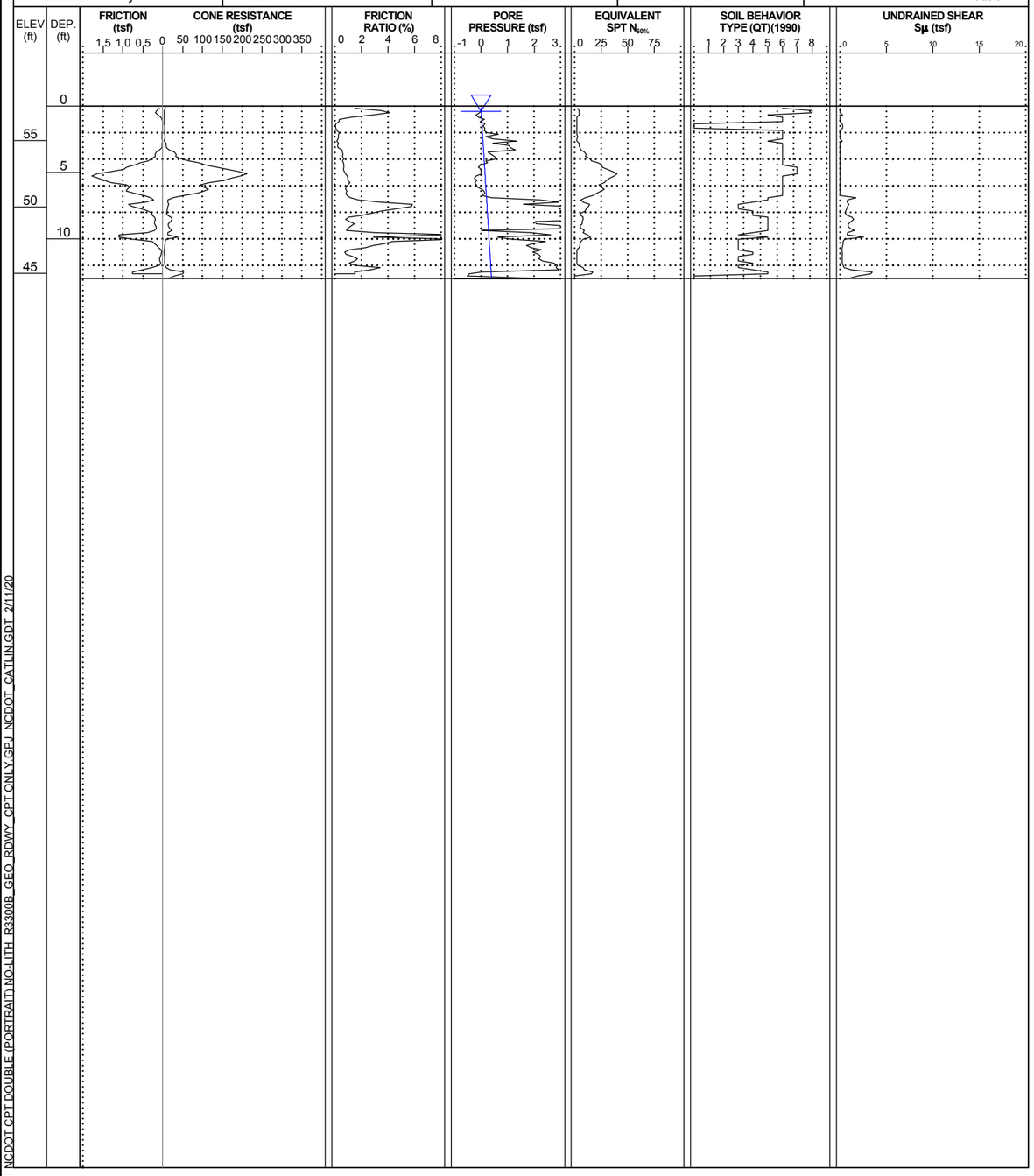


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

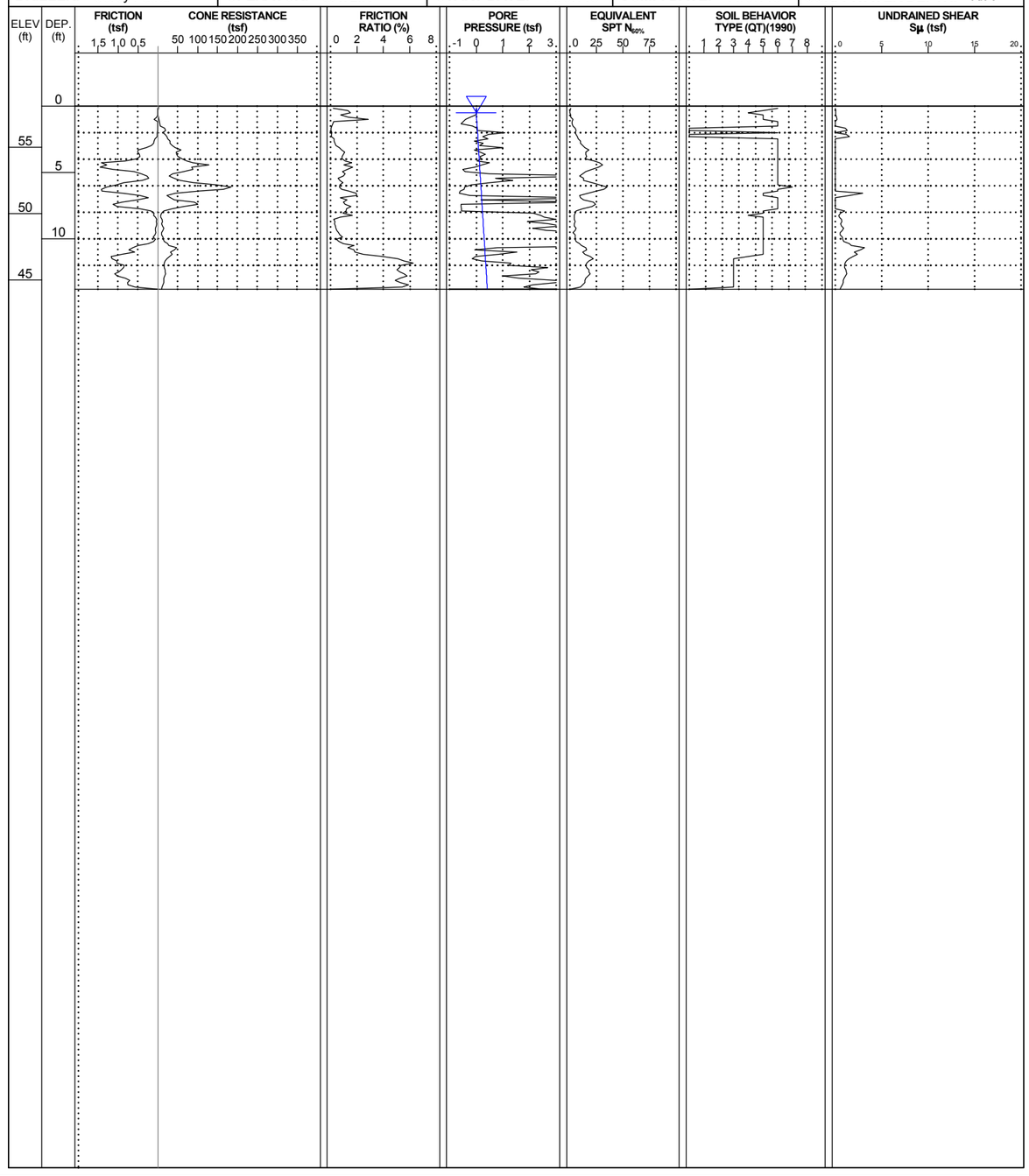
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_81800_CL	**STATION:** 818+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	0.4
COLLAR ELEV.: 57.6 ft	**TOTAL DEPTH:** 13.0 ft	**NORTHING:** 238,314	**EASTING:** 2,397,102	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/06/18	**COMP. DATE:** 11/06/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1_82000_CL	**STATION:** 820+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.**	0.5
COLLAR ELEV.: 58.1 ft	**TOTAL DEPTH:** 13.8 ft	**NORTHING:** 238,447	**EASTING:** 2,397,251	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/07/18	**COMP. DATE:** 11/07/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

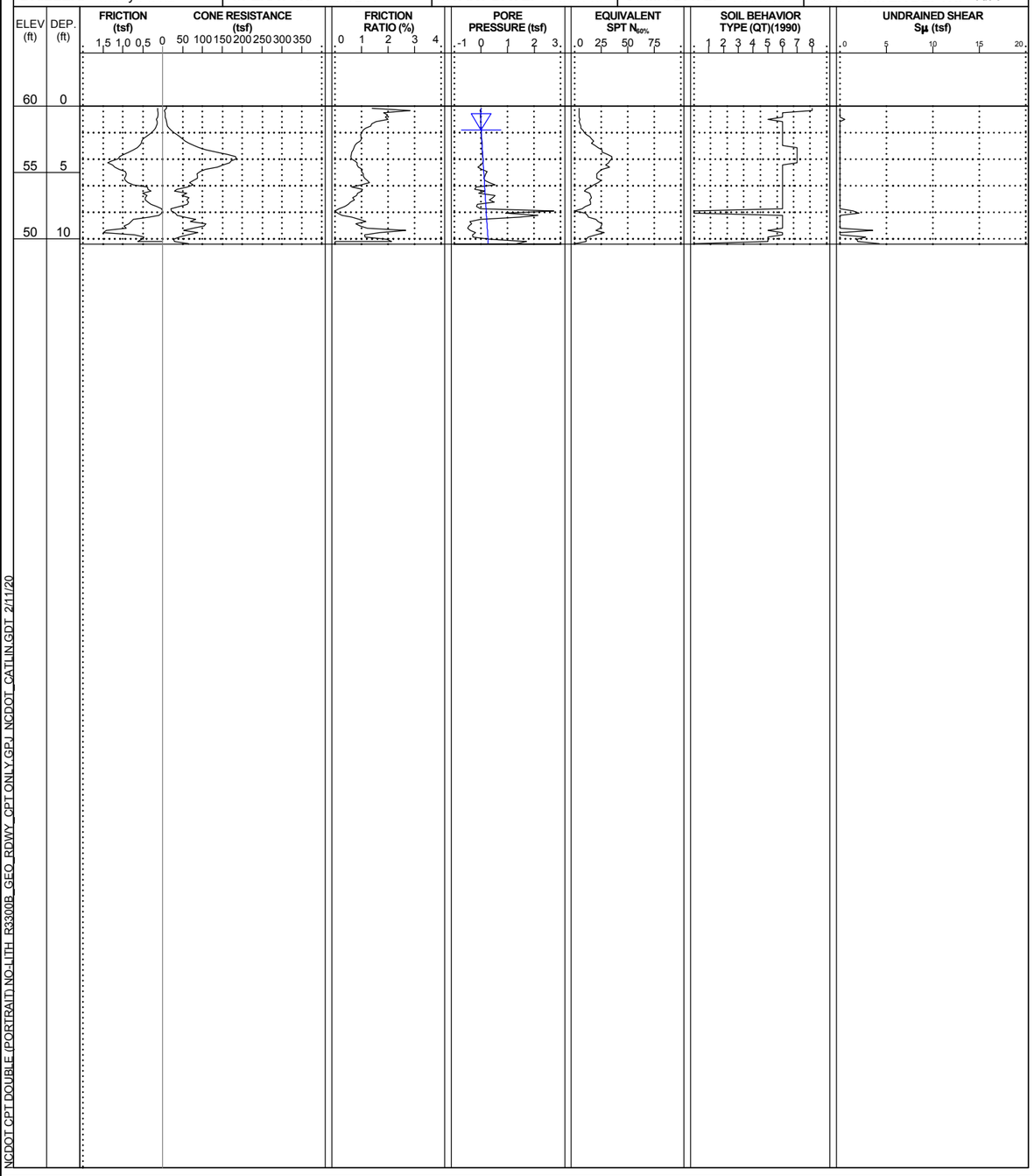
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

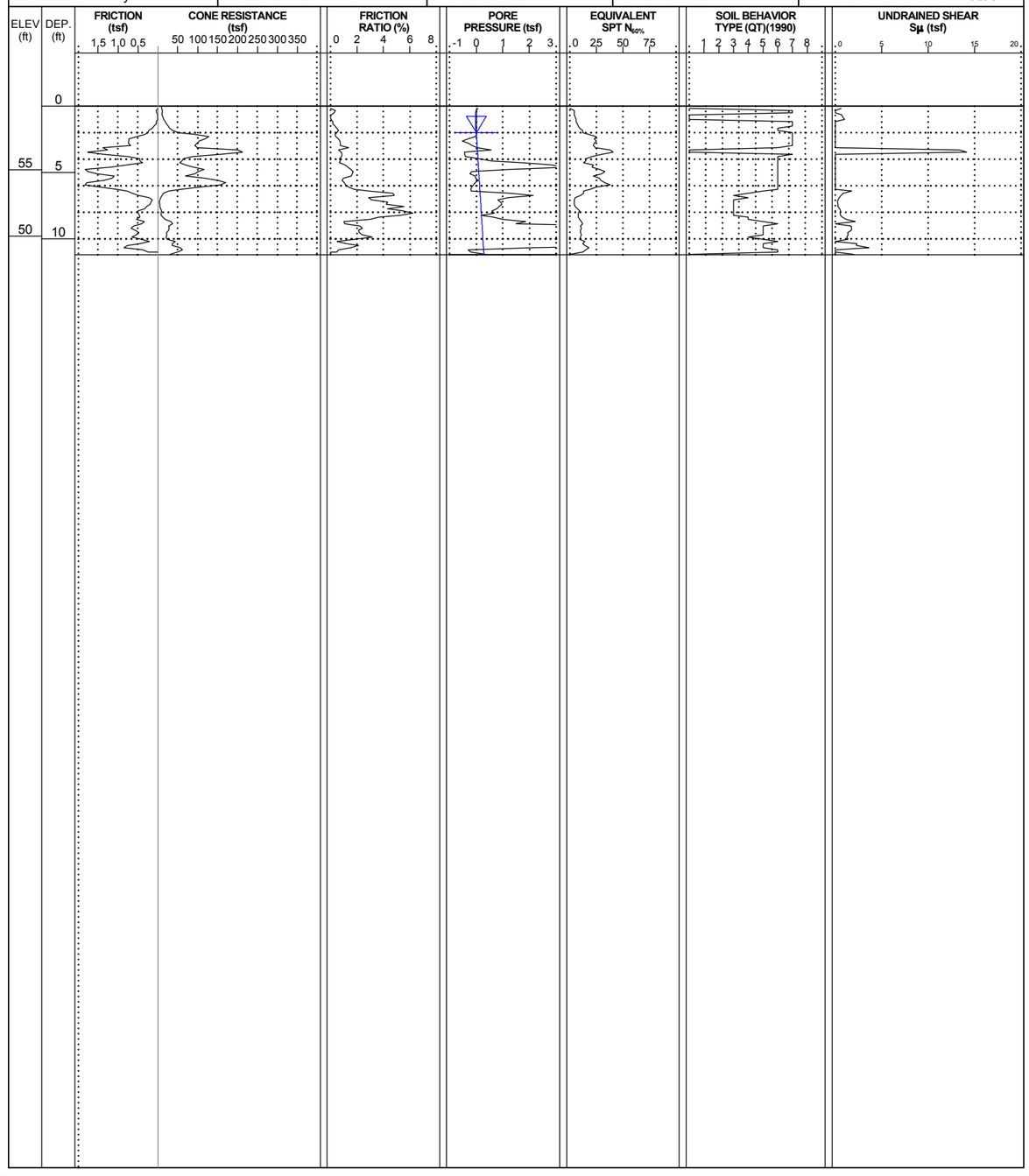
CATLIN Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405
Corporate Licensure No. for Engineering Services C-0586
217060

PROJECT REFERENCE NO.	SHEET
R-3300B	40

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_82400_CL	**STATION:** 824+00	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 1.8
COLLAR ELEV.: 60.0 ft	**TOTAL DEPTH:** 10.4 ft	**NORTHING:** 238,714	**EASTING:** 2,397,549	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/07/18	**COMP. DATE:** 11/07/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1_82650_CL	**STATION:** 826+50	**OFFSET:** CL	**ALIGNMENT:** -L1-	**EST. 0 HR.** 2.0
COLLAR ELEV.: 59.8 ft	**TOTAL DEPTH:** 11.2 ft	**NORTHING:** 238,880	**EASTING:** 2,397,736	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/07/18	**COMP. DATE:** 11/07/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH_R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

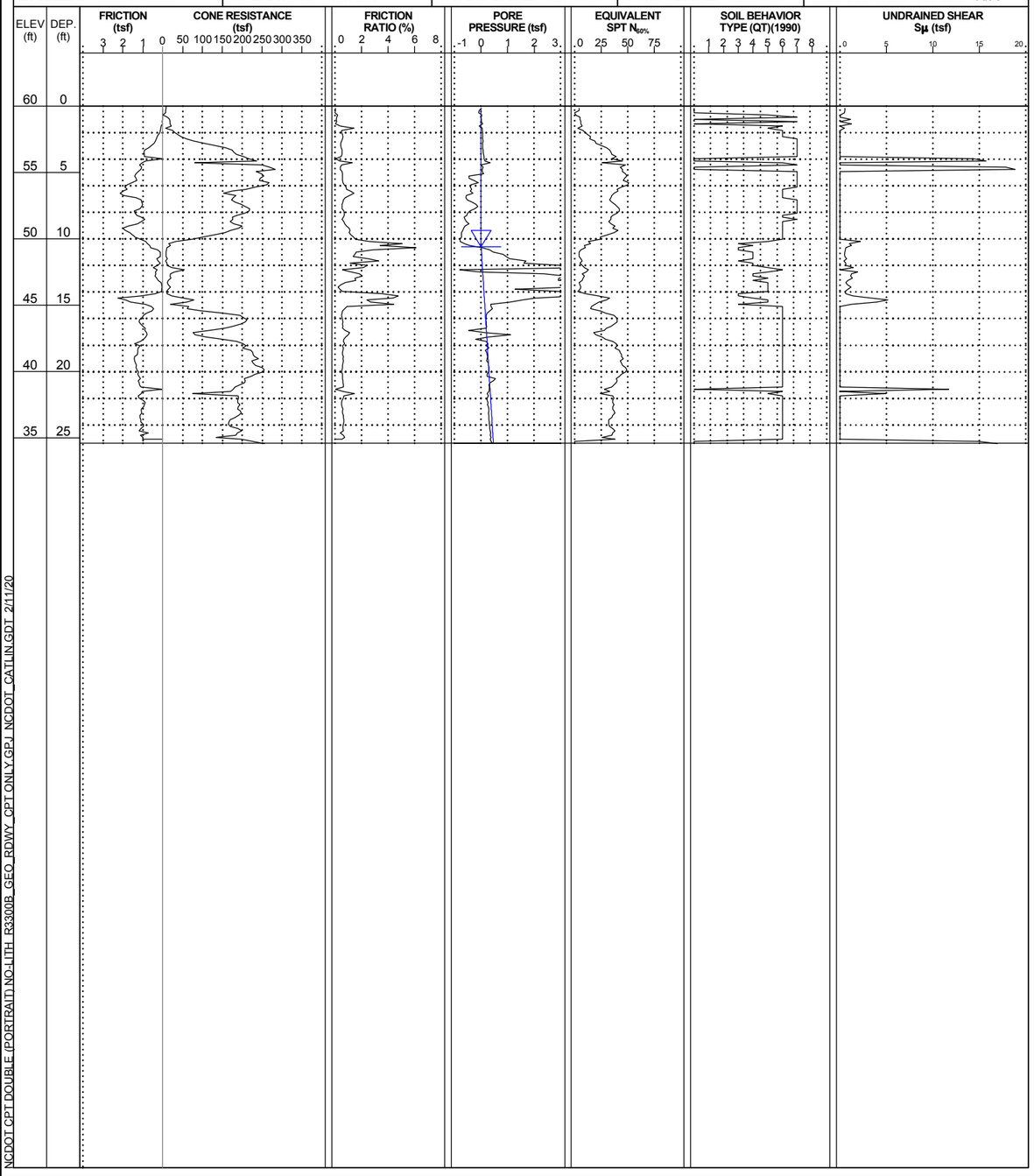
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

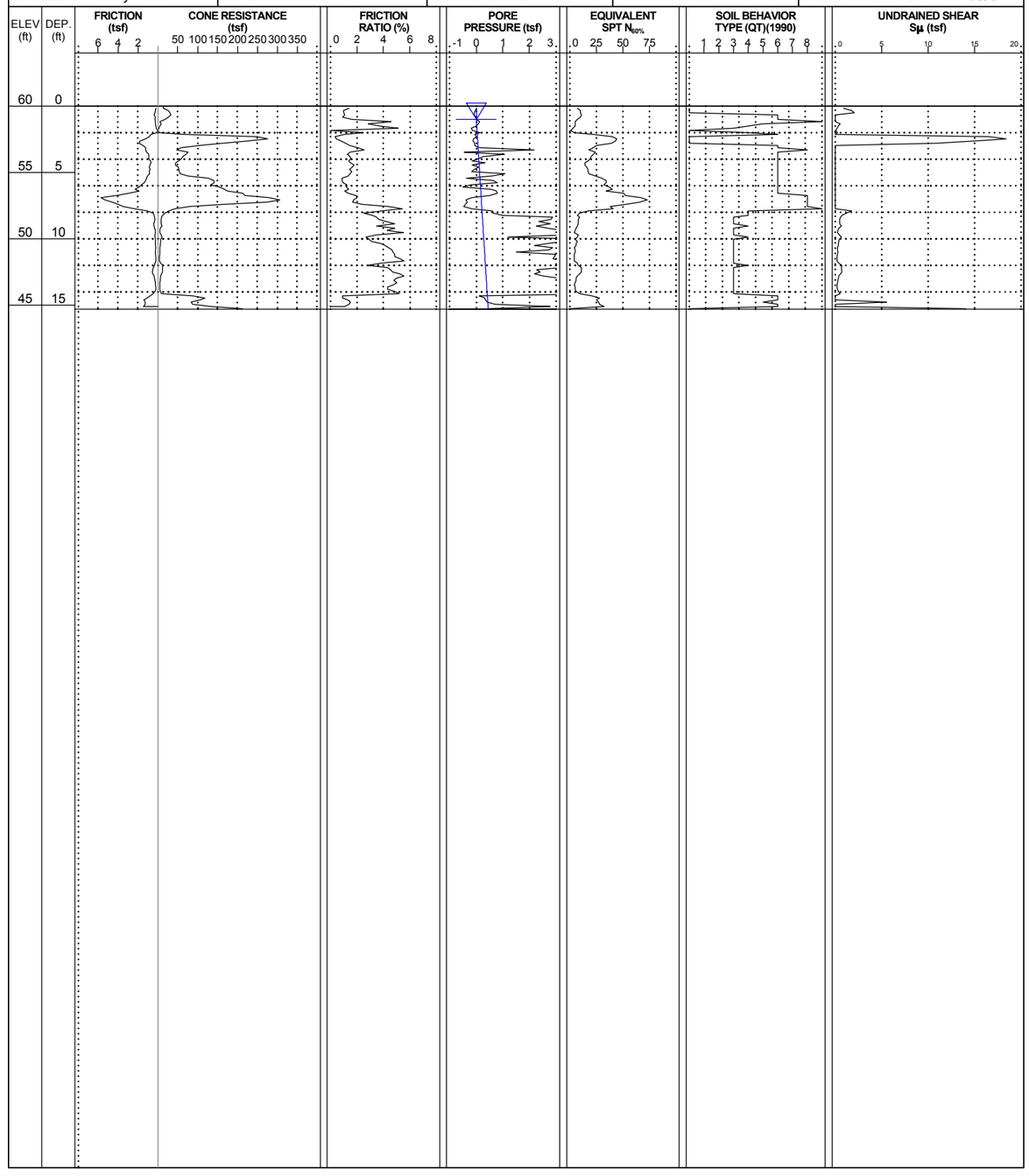
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	41

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** L.PUGH	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1N_82500	**STATION:** 825+00	**OFFSET:** CL	**ALIGNMENT:** -L1N-	**EST. 0 HR.** 10.6
COLLAR ELEV.: 60.0 ft	**TOTAL DEPTH:** 25.4 ft	**NORTHING:** 238,780	**EASTING:** 2,397,624	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Eddie Swain	**OPERATOR:** CATLIN	**START DATE:** 02/07/20	**COMP. DATE:** 02/07/20	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1N_83000_CL	**STATION:** 830+00	**OFFSET:** CL	**ALIGNMENT:** -L1N-	**EST. 0 HR.** 1.0
COLLAR ELEV.: 60.0 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 239,108	**EASTING:** 2,398,002	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/07/18	**COMP. DATE:** 11/07/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

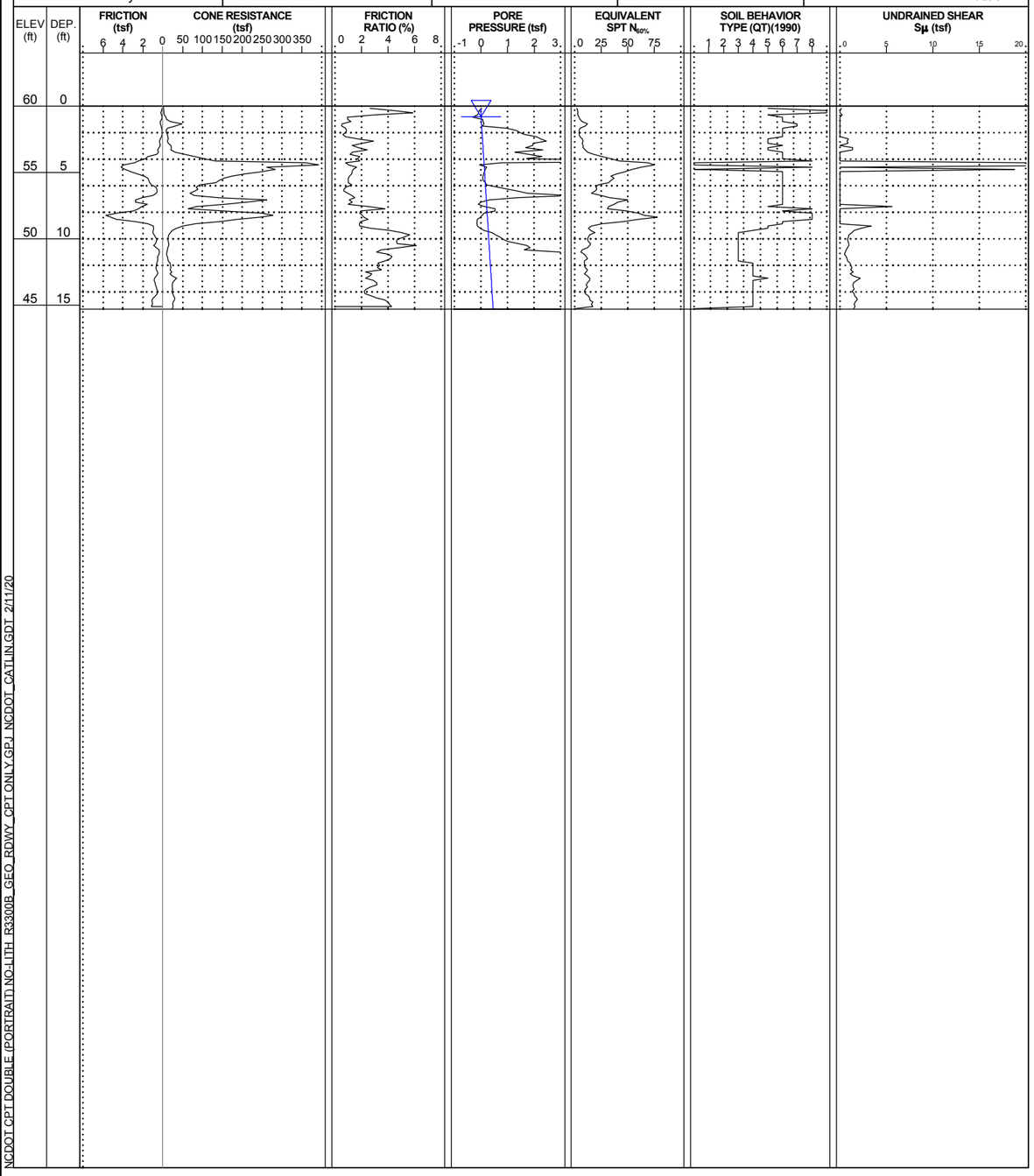
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

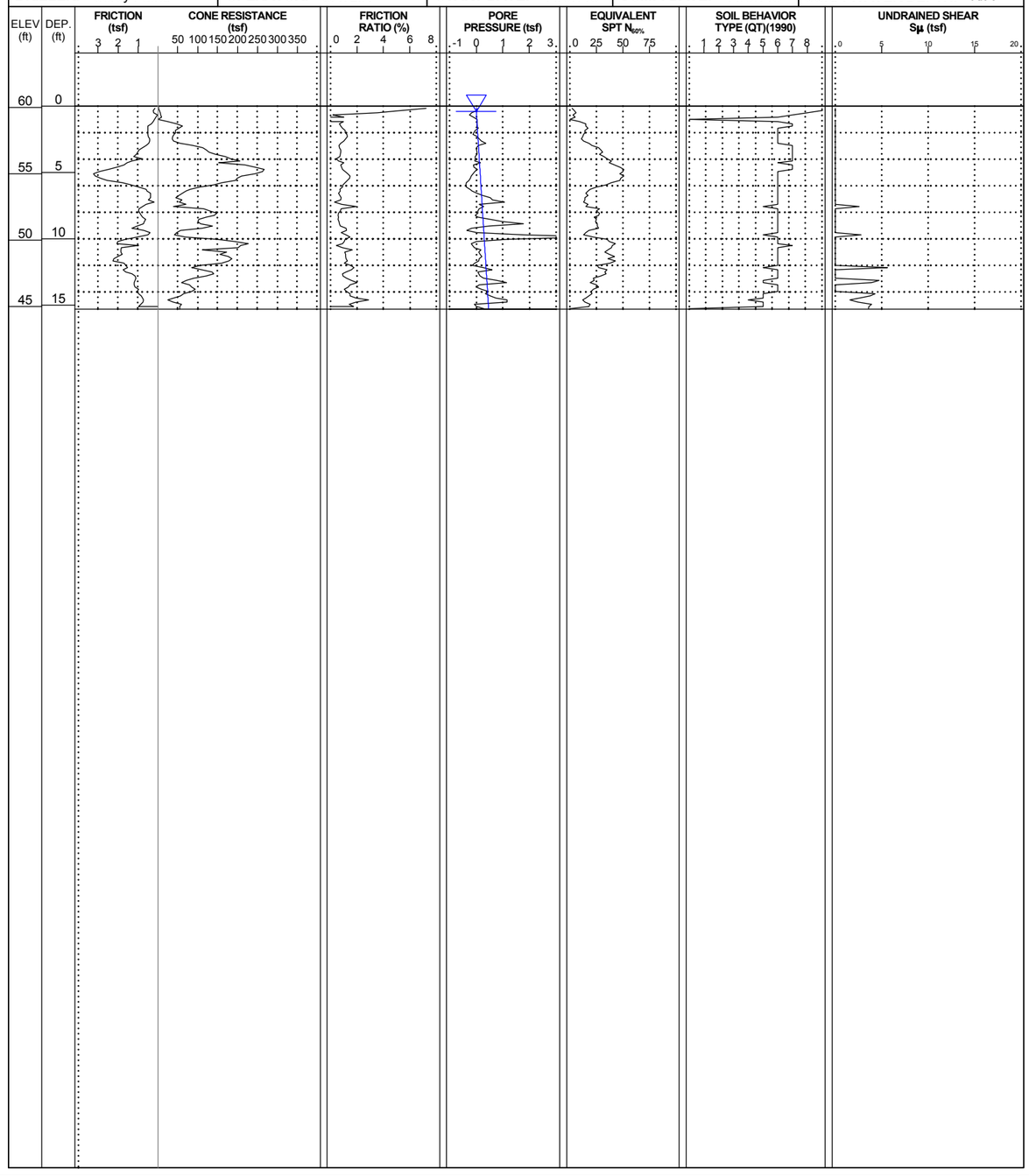
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	42

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1N_83200_CL	**STATION:** 832+00	**OFFSET:** CL	**ALIGNMENT:** -L1N-	**EST. 0 HR.** 0.8
COLLAR ELEV.: 60.0 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 239,219	**EASTING:** 2,398,168	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/07/18	**COMP. DATE:** 11/07/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1N_83400_CL	**STATION:** 834+00	**OFFSET:** CL	**ALIGNMENT:** -L1N-	**EST. 0 HR.** 0.4
COLLAR ELEV.: 60.1 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 239,306	**EASTING:** 2,398,348	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/07/18	**COMP. DATE:** 11/07/18	**SURF. WATER DEPTH:** N/A

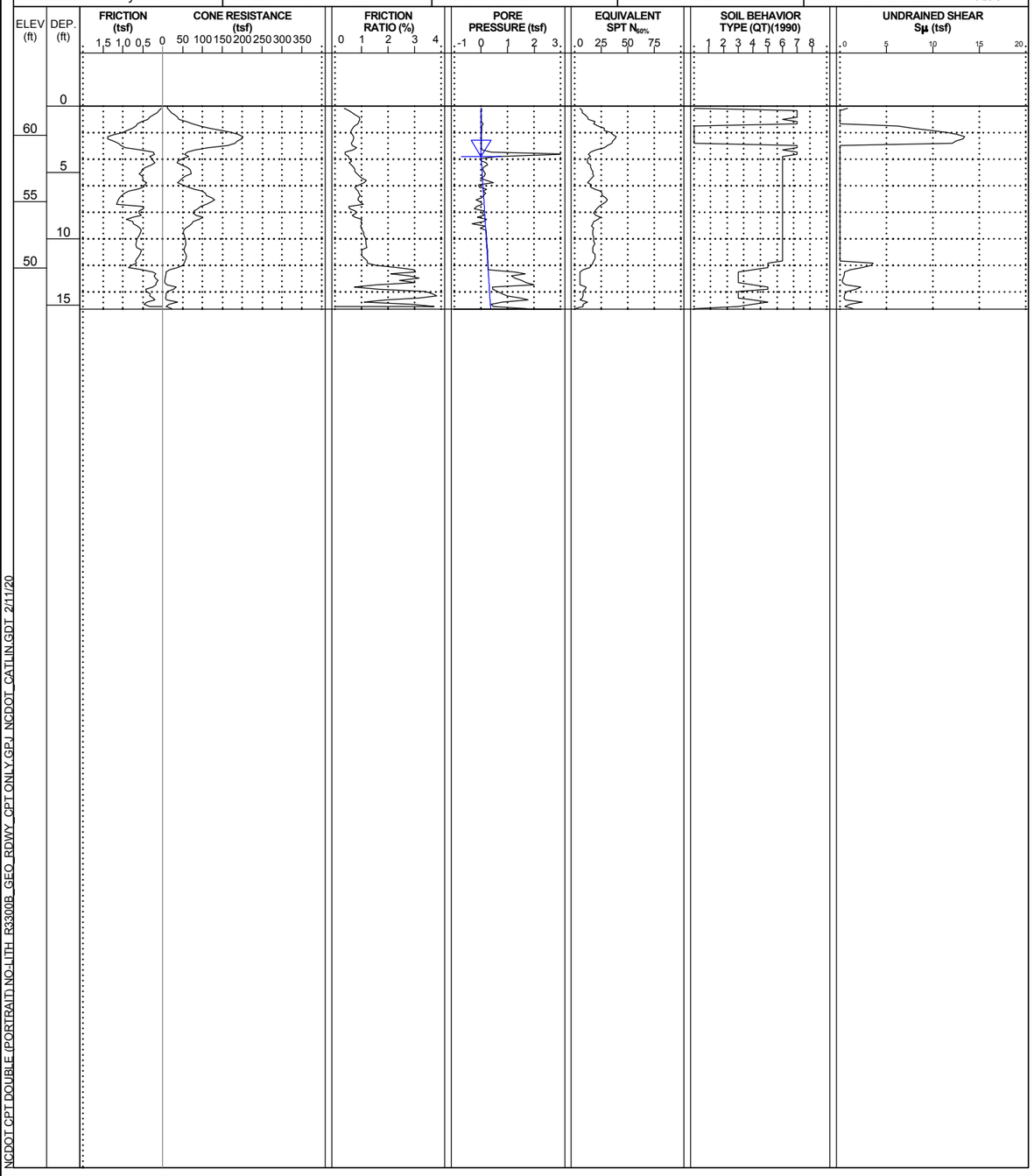


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

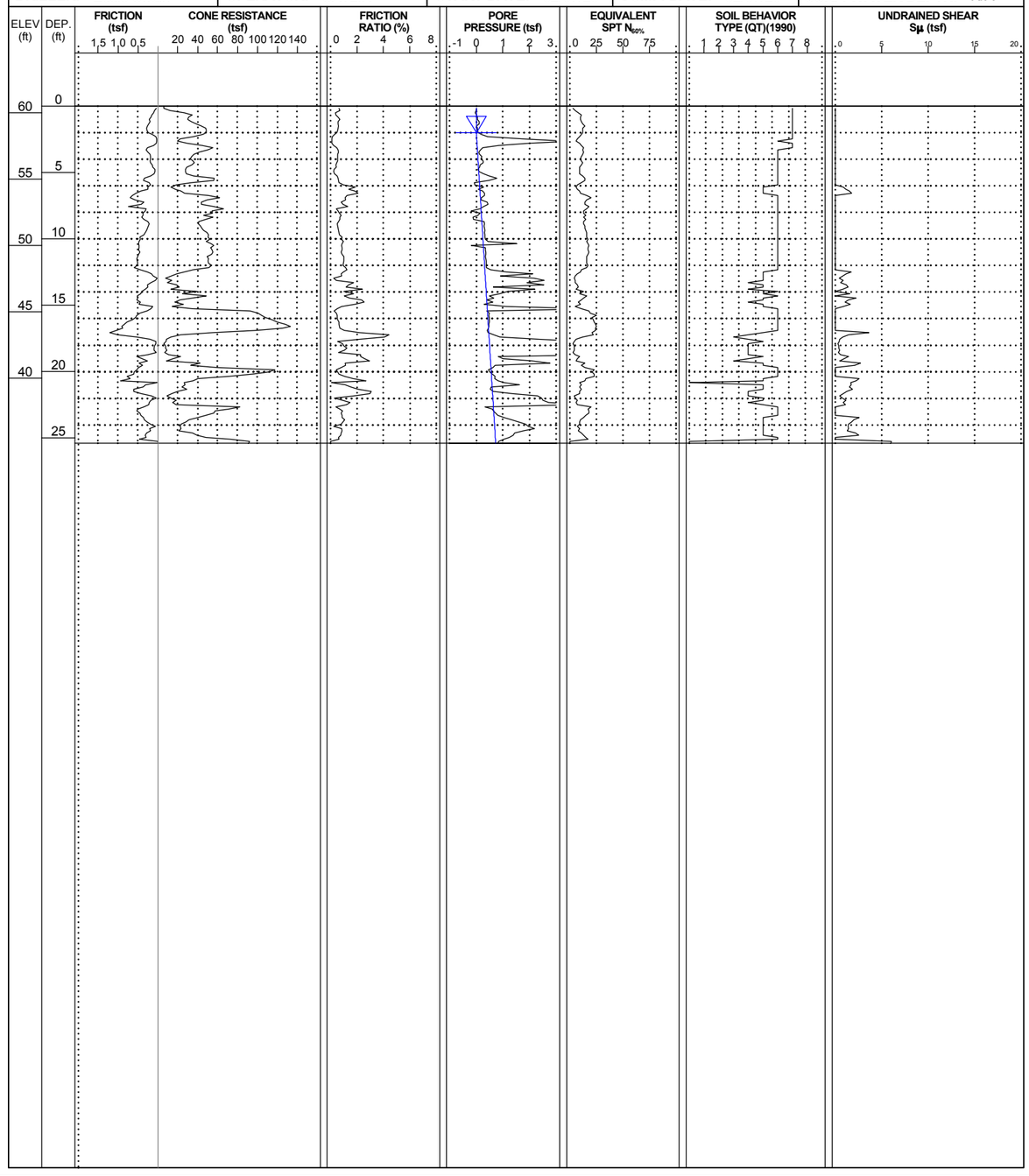
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1N_83600_40LT	**STATION:** 836+00	**OFFSET:** 40 ft LT	**ALIGNMENT:** -L1N-	**EST. 0 HR.**	3.8
COLLAR ELEV.: 62.2 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 239,407	**EASTING:** 2,398,528	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/07/18	**COMP. DATE:** 11/07/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** L.PUGH		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1N_83750	**STATION:** 837+50	**OFFSET:** CL	**ALIGNMENT:** -L1N-	**EST. 0 HR.**	2.0
COLLAR ELEV.: 60.5 ft	**TOTAL DEPTH:** 25.4 ft	**NORTHING:** 239,398	**EASTING:** 2,398,686	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867	
DRILLER: Eddie Swain	**OPERATOR:** CATLIN	**START DATE:** 02/07/20	**COMP. DATE:** 02/07/20	**SURF. WATER DEPTH:** N/A	

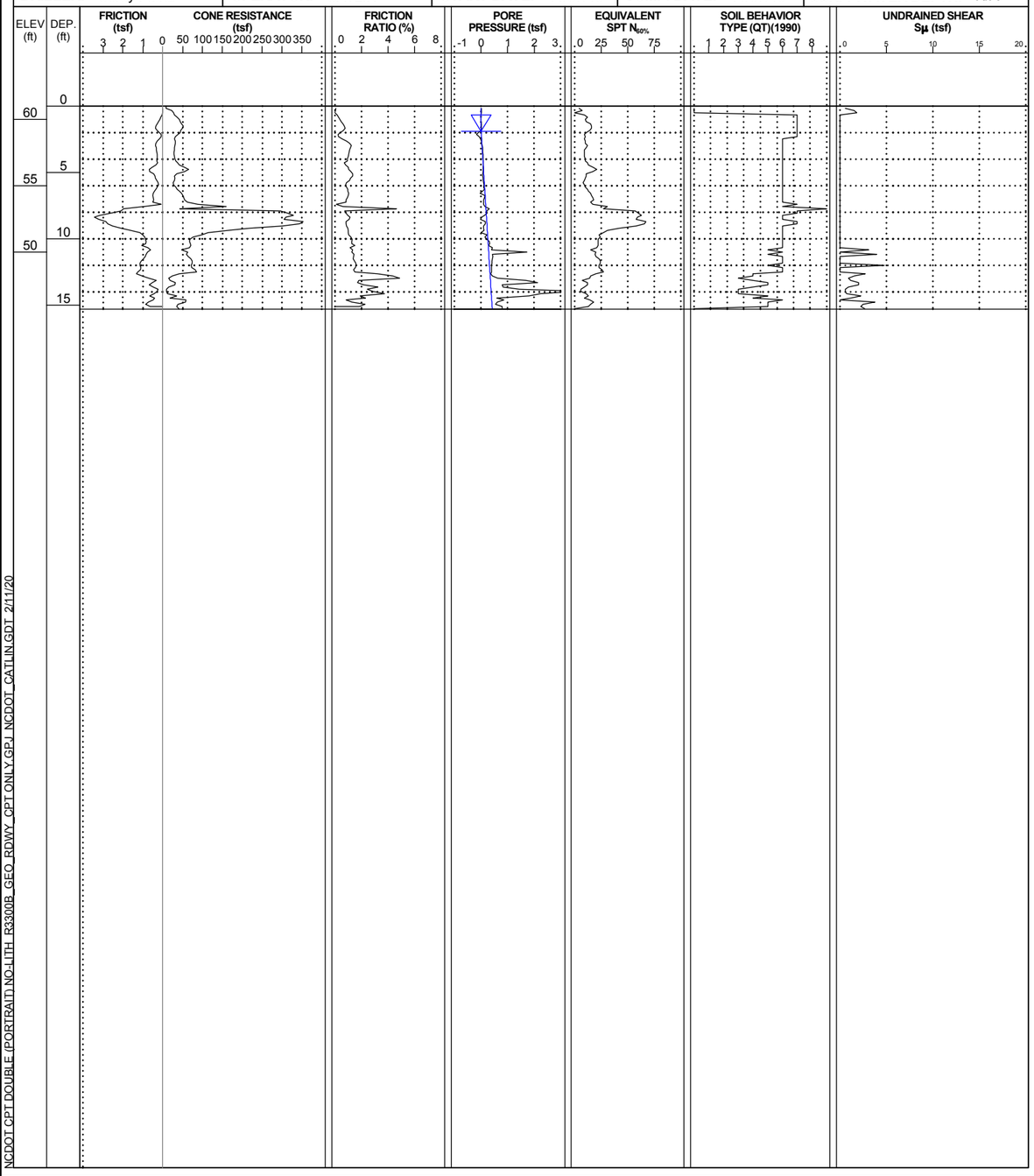


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

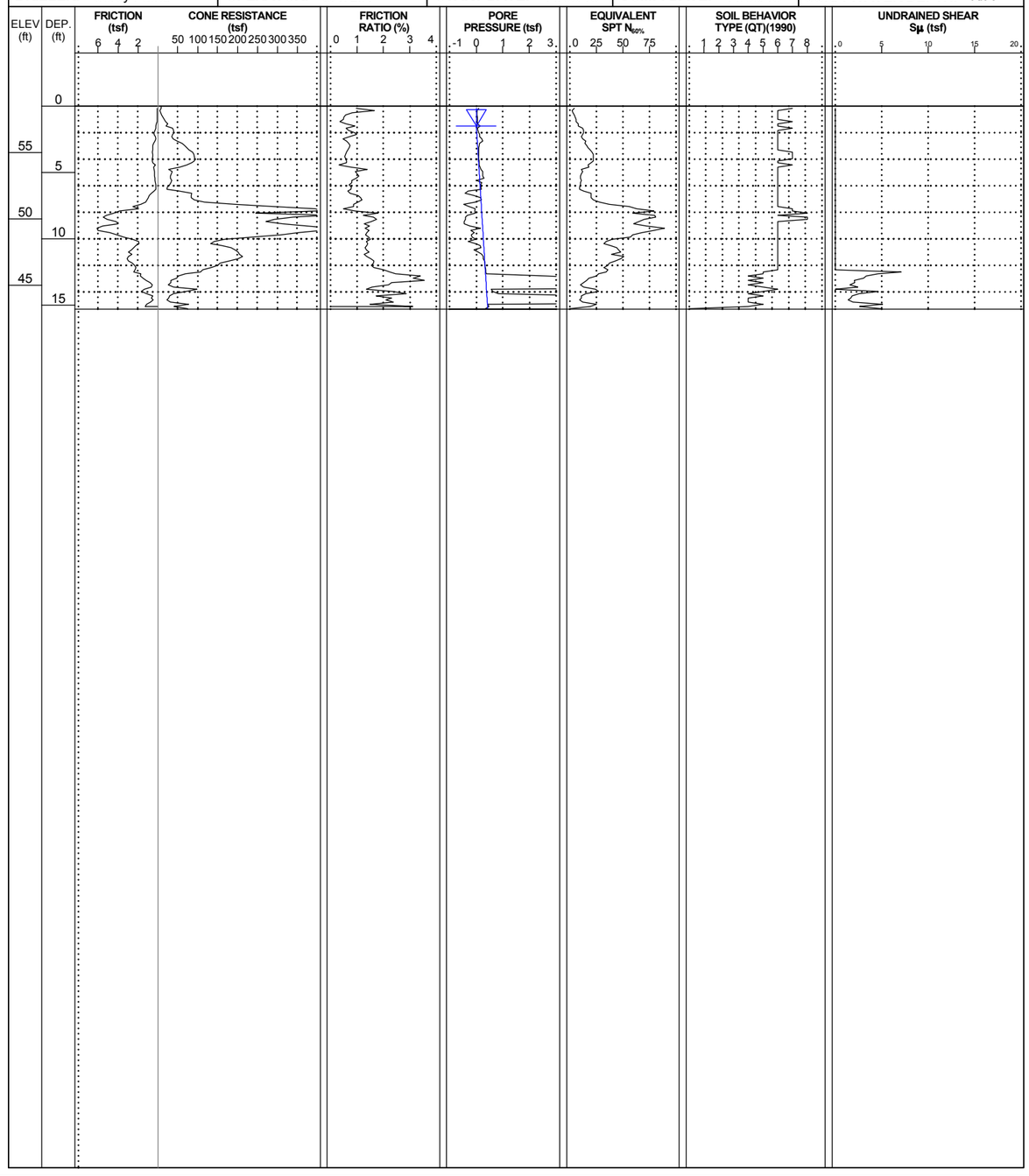
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1N_83800_CL	**STATION:** 838+00	**OFFSET:** CL	**ALIGNMENT:** -L1N-	**EST. 0 HR.**	1.9
COLLAR ELEV.: 61.0 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 239,404	**EASTING:** 2,398,734	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/07/18	**COMP. DATE:** 11/07/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: L1N_84200_CL	**STATION:** 842+00	**OFFSET:** CL	**ALIGNMENT:** -L1N-	**EST. 0 HR.**	1.5
COLLAR ELEV.: 58.5 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 239,395	**EASTING:** 2,399,133	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/08/18	**COMP. DATE:** 11/08/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

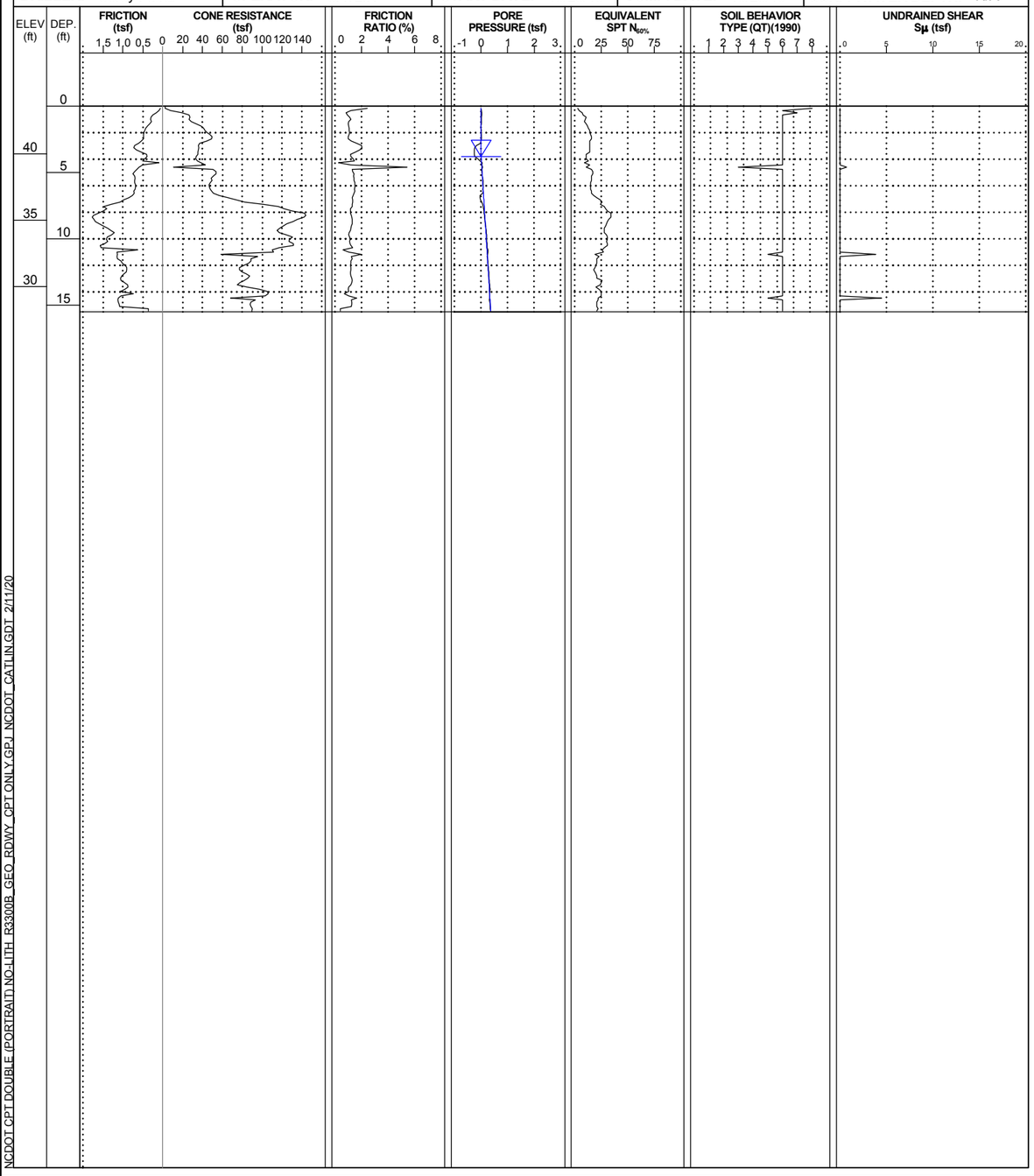
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

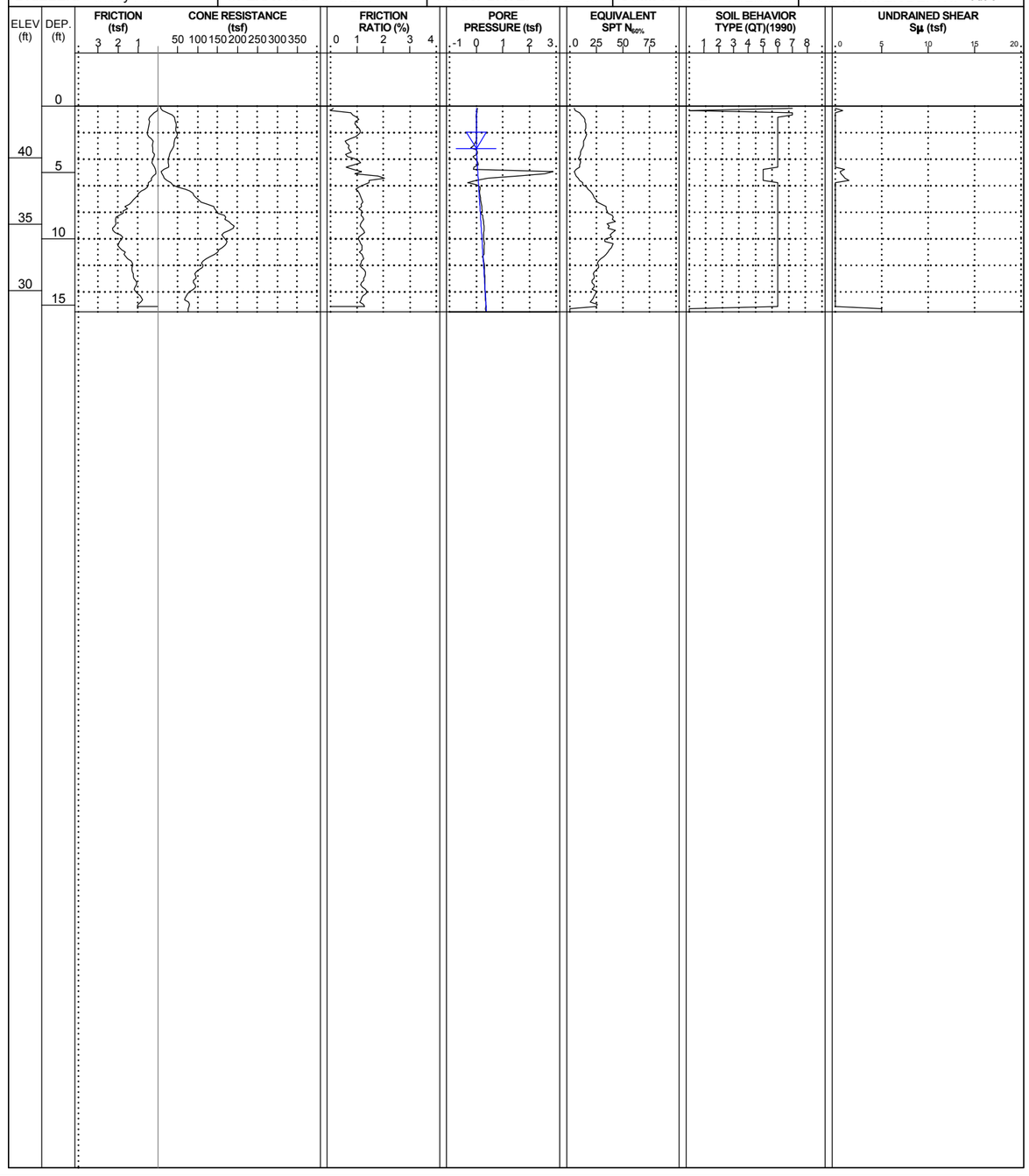
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	45

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1N_85600_CL	**STATION:** 856+00	**OFFSET:** CL	**ALIGNMENT:** -L1N-	**EST. 0 HR.** 3.8
COLLAR ELEV.: 43.6 ft	**TOTAL DEPTH:** 15.5 ft	**NORTHING:** 238,996	**EASTING:** 2,400,463	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/23/18	**COMP. DATE:** 10/23/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: L1N_85800_CL	**STATION:** 858+00	**OFFSET:** CL	**ALIGNMENT:** -L1N-	**EST. 0 HR.** 3.2
COLLAR ELEV.: 43.9 ft	**TOTAL DEPTH:** 15.5 ft	**NORTHING:** 239,009	**EASTING:** 2,400,662	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/23/18	**COMP. DATE:** 10/23/18	**SURF. WATER DEPTH:** N/A

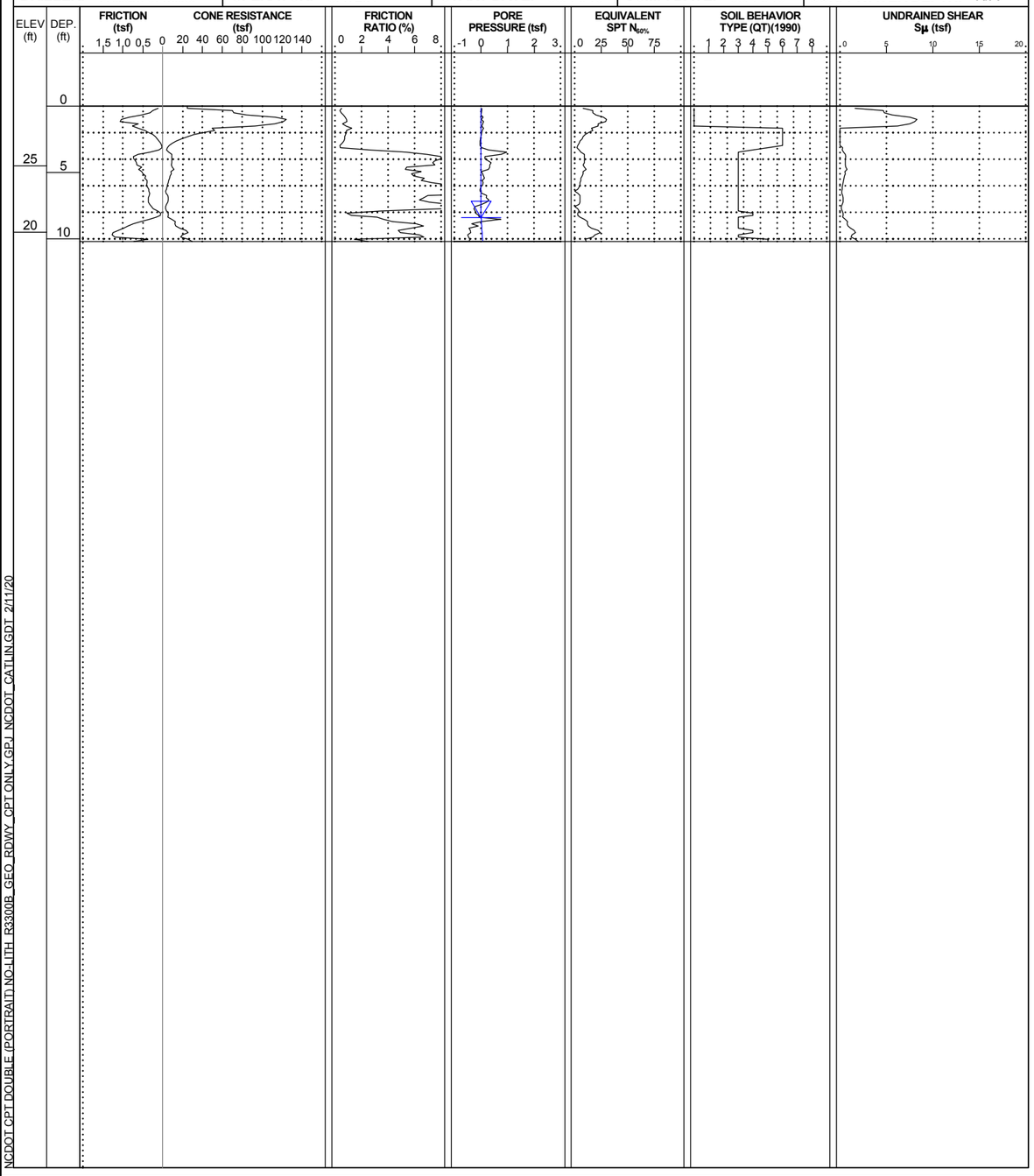


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

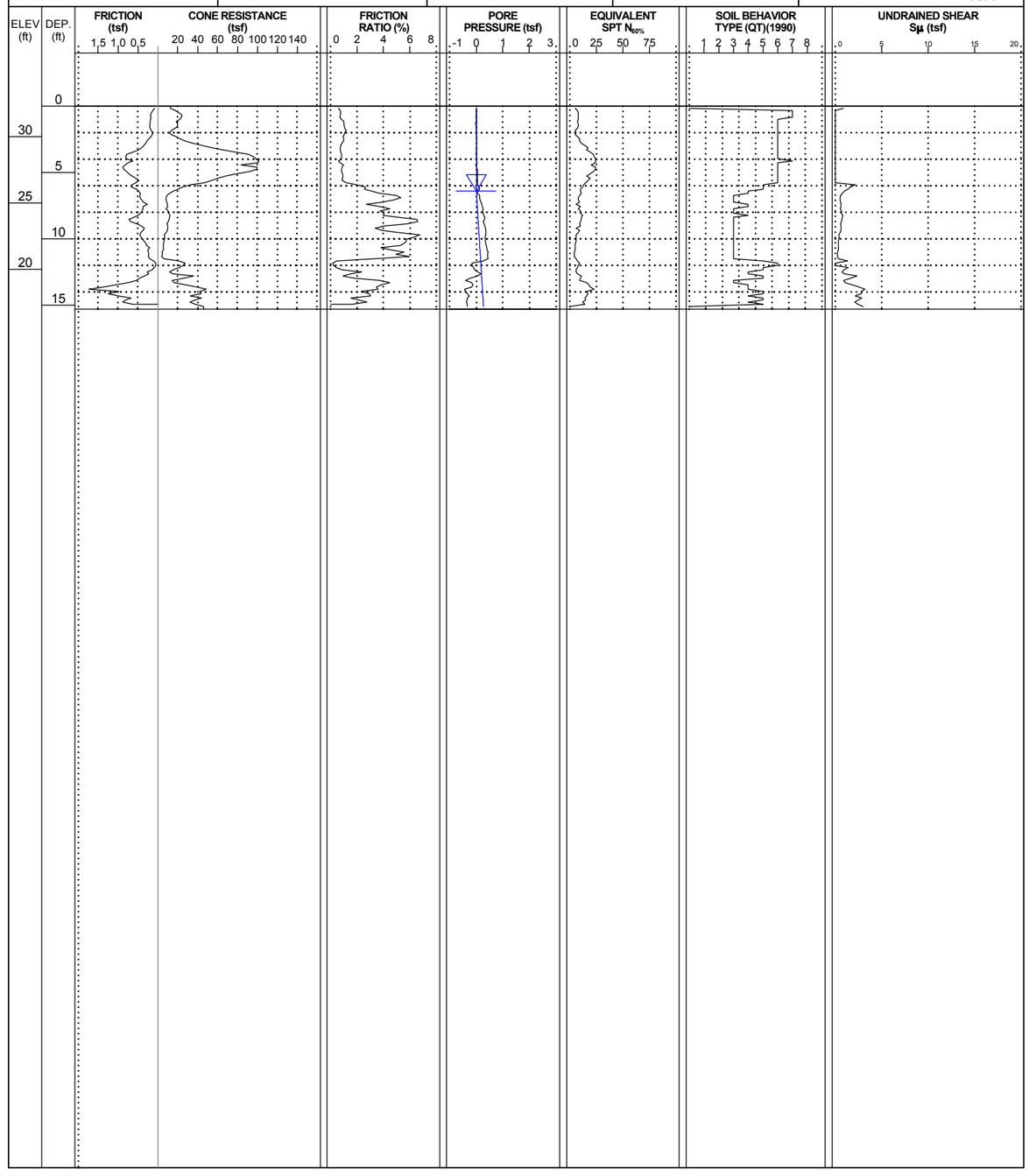
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: SR4_1300_CL	**STATION:** 13+00	**OFFSET:** CL	**ALIGNMENT:** -SR4-	**EST. 0 HR.**	8.4
COLLAR ELEV.: 29.5 ft	**TOTAL DEPTH:** 10.2 ft	**NORTHING:** 232,032	**EASTING:** 2,376,167	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/14/18	**COMP. DATE:** 08/14/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: SR4_1500_CL	**STATION:** 15+00	**OFFSET:** CL	**ALIGNMENT:** -SR4-	**EST. 0 HR.**	6.4
COLLAR ELEV.: 32.3 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 231,959	**EASTING:** 2,376,352	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/14/18	**COMP. DATE:** 08/14/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

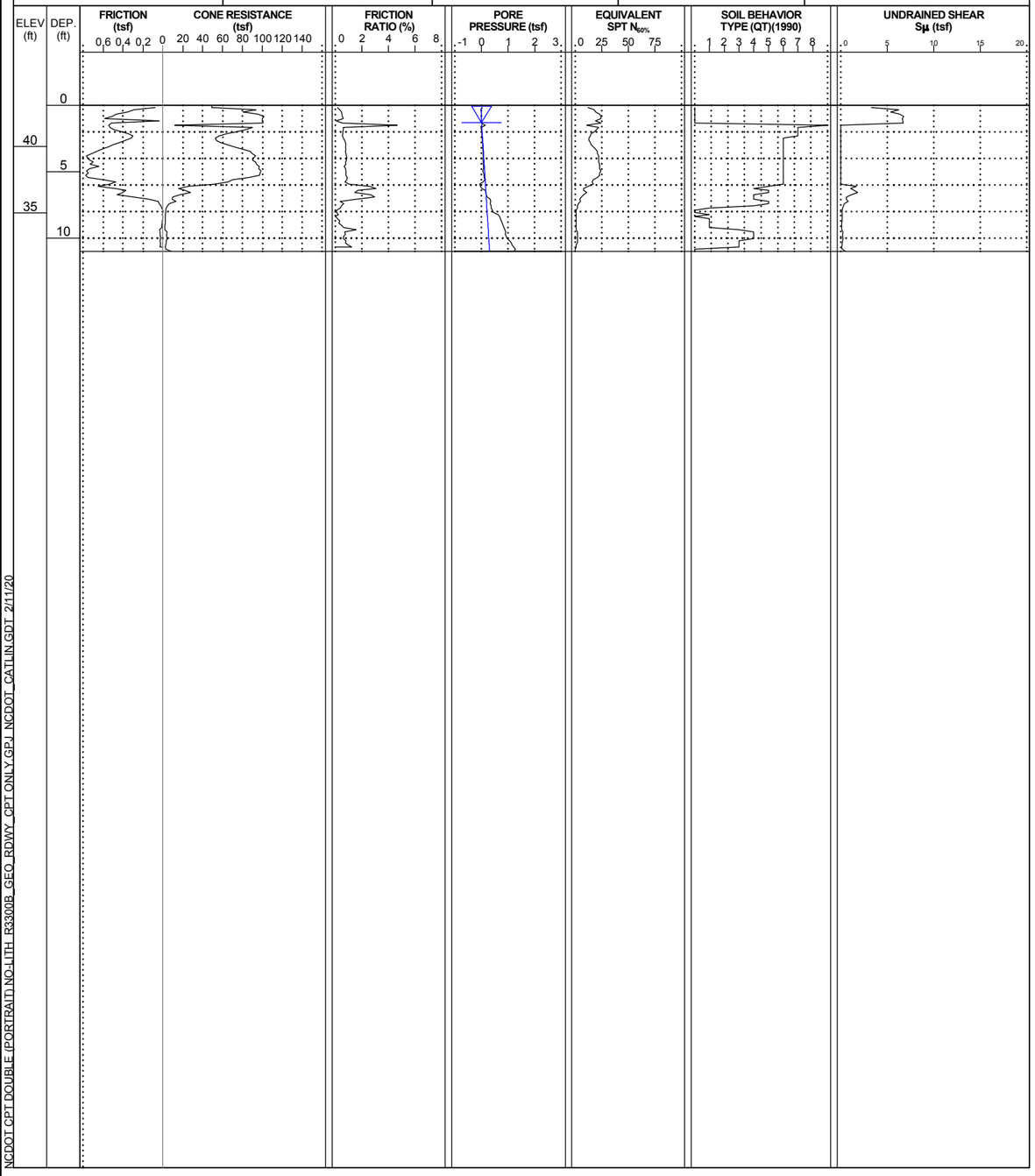
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

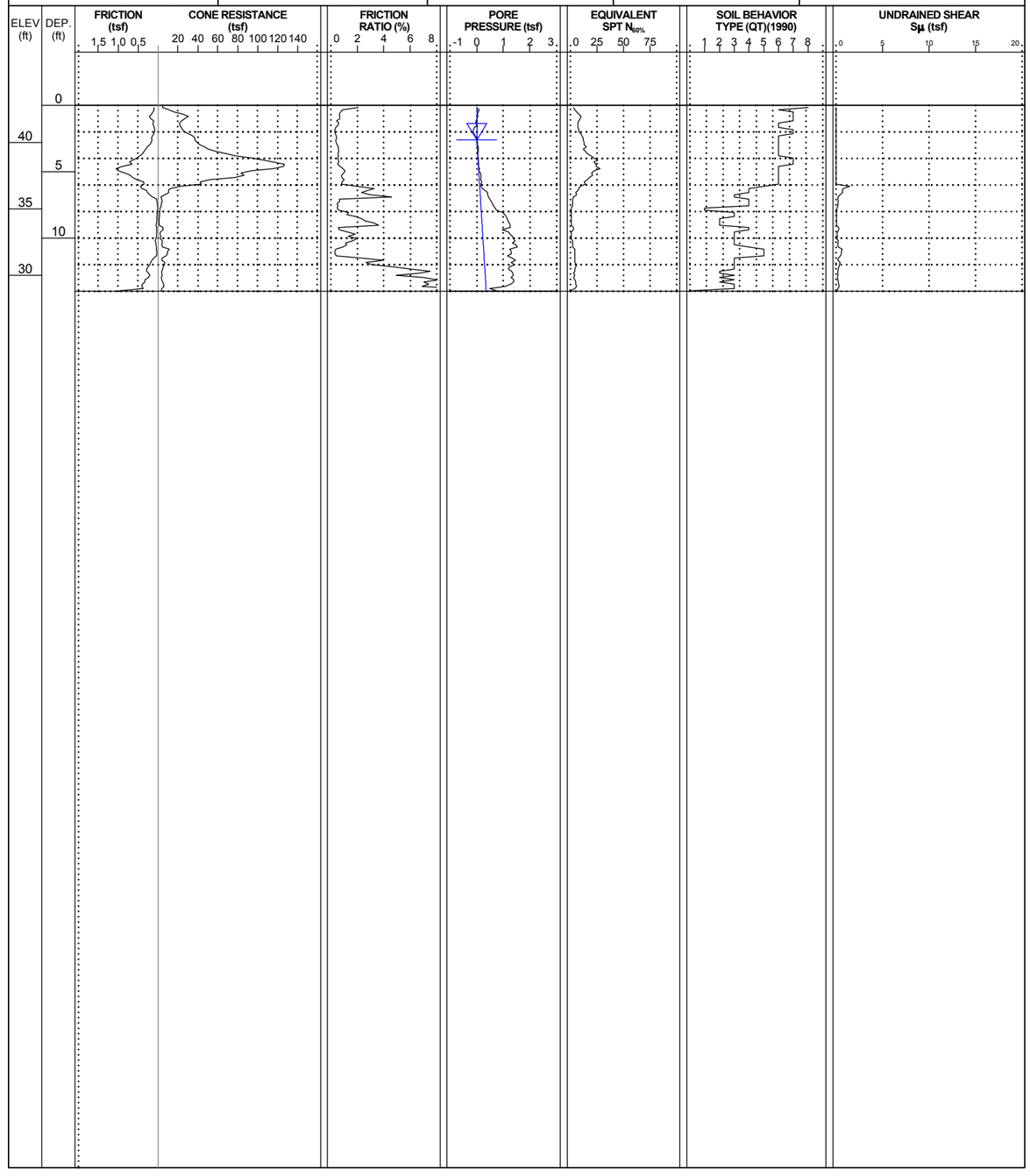
217060 | CATLIN Engineers and Scientists, 220 Old Dairy Road, Wilmington, NC 28405, Corporate Licensure No. for Engineering Services C-0566

PROJECT REFERENCE NO.	SHEET
R-3300B	47

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR4_1960_25LT	**STATION:** 19+60	**OFFSET:** 25 ft LT	**ALIGNMENT:** -SR4-	**EST. 0 HR.** 1.3
COLLAR ELEV.: 43.1 ft	**TOTAL DEPTH:** 11.0 ft	**NORTHING:** 231,804	**EASTING:** 2,376,784	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/14/18	**COMP. DATE:** 08/14/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR4_2100_CL	**STATION:** 21+00	**OFFSET:** CL	**ALIGNMENT:** -SR4-	**EST. 0 HR.** 2.6
COLLAR ELEV.: 42.8 ft	**TOTAL DEPTH:** 14.0 ft	**NORTHING:** 231,710	**EASTING:** 2,376,895	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/13/18	**COMP. DATE:** 08/13/18	**SURF. WATER DEPTH:** N/A

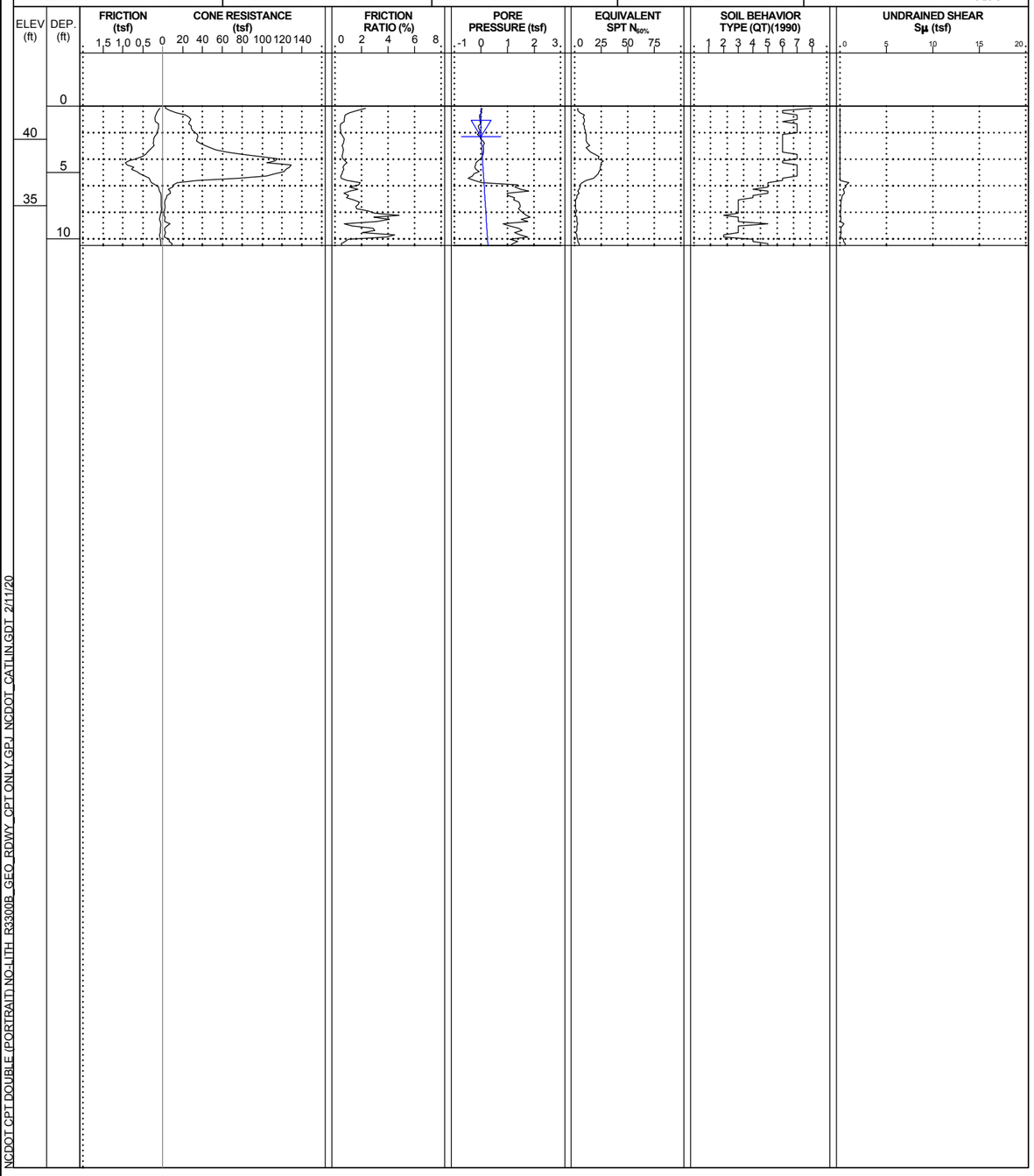


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

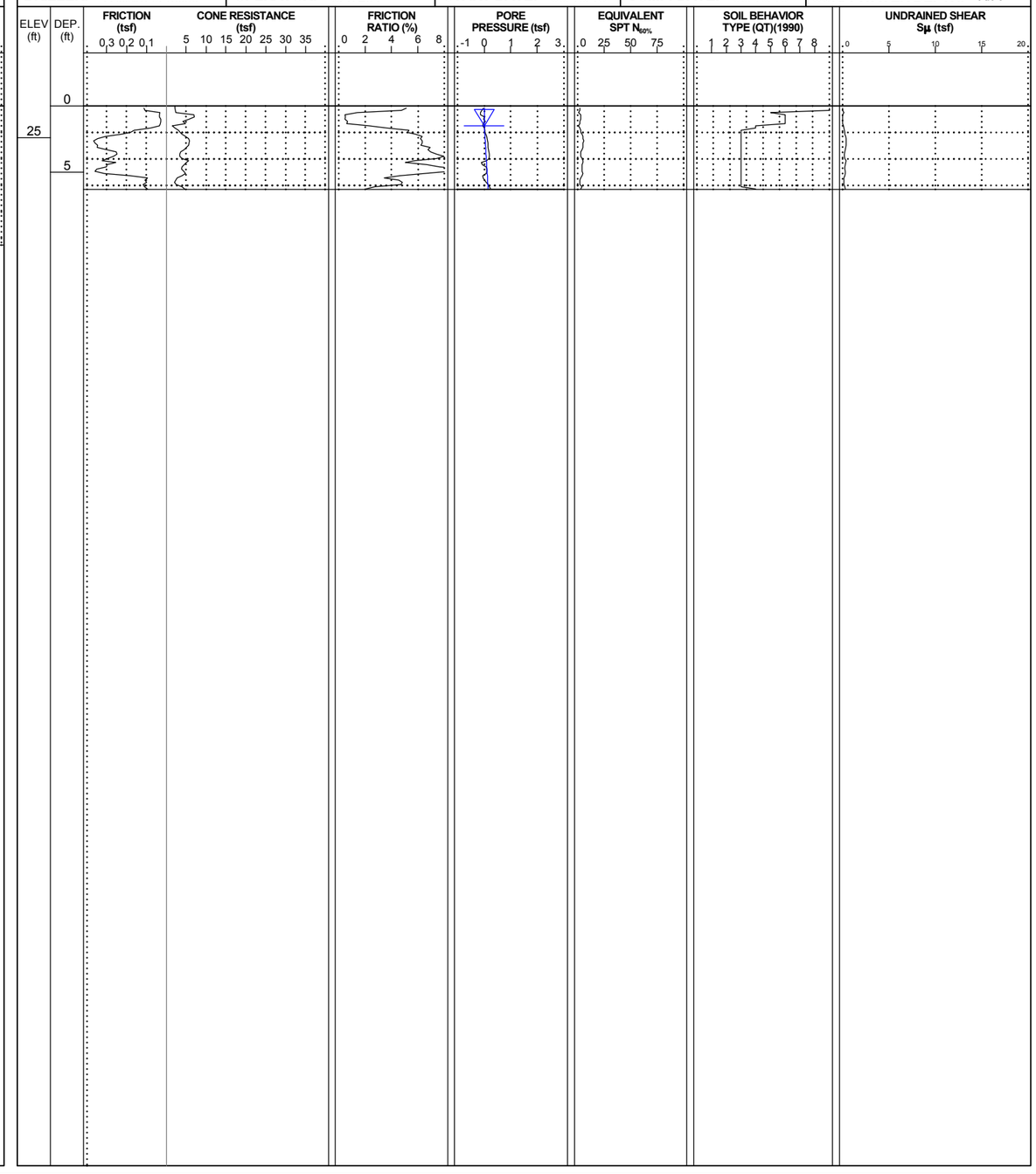
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR4_2500_CL	**STATION:** 25+00	**OFFSET:** CL	**ALIGNMENT:** -SR4-	**EST. 0 HR.** 2.3
COLLAR ELEV.: 42.5 ft	**TOTAL DEPTH:** 10.5 ft	**NORTHING:** 231,337	**EASTING:** 2,376,912	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/13/18	**COMP. DATE:** 08/13/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR6_2400_CL	**STATION:** 24+00	**OFFSET:** CL	**ALIGNMENT:** -SR6-	**EST. 0 HR.** 1.5
COLLAR ELEV.: 27.4 ft	**TOTAL DEPTH:** 6.3 ft	**NORTHING:** 232,315	**EASTING:** 2,377,628	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/15/18	**COMP. DATE:** 08/15/18	**SURF. WATER DEPTH:** N/A

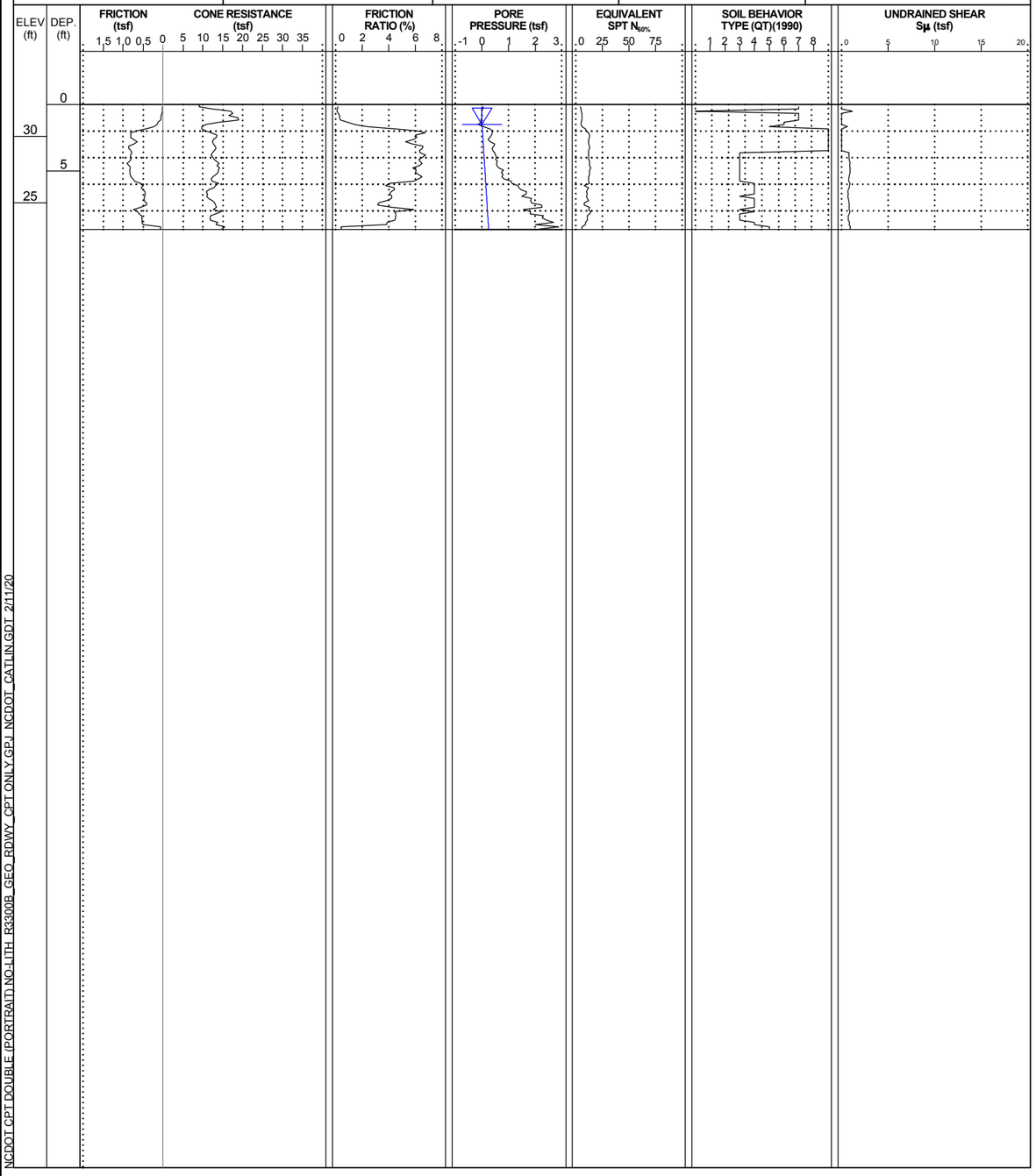


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

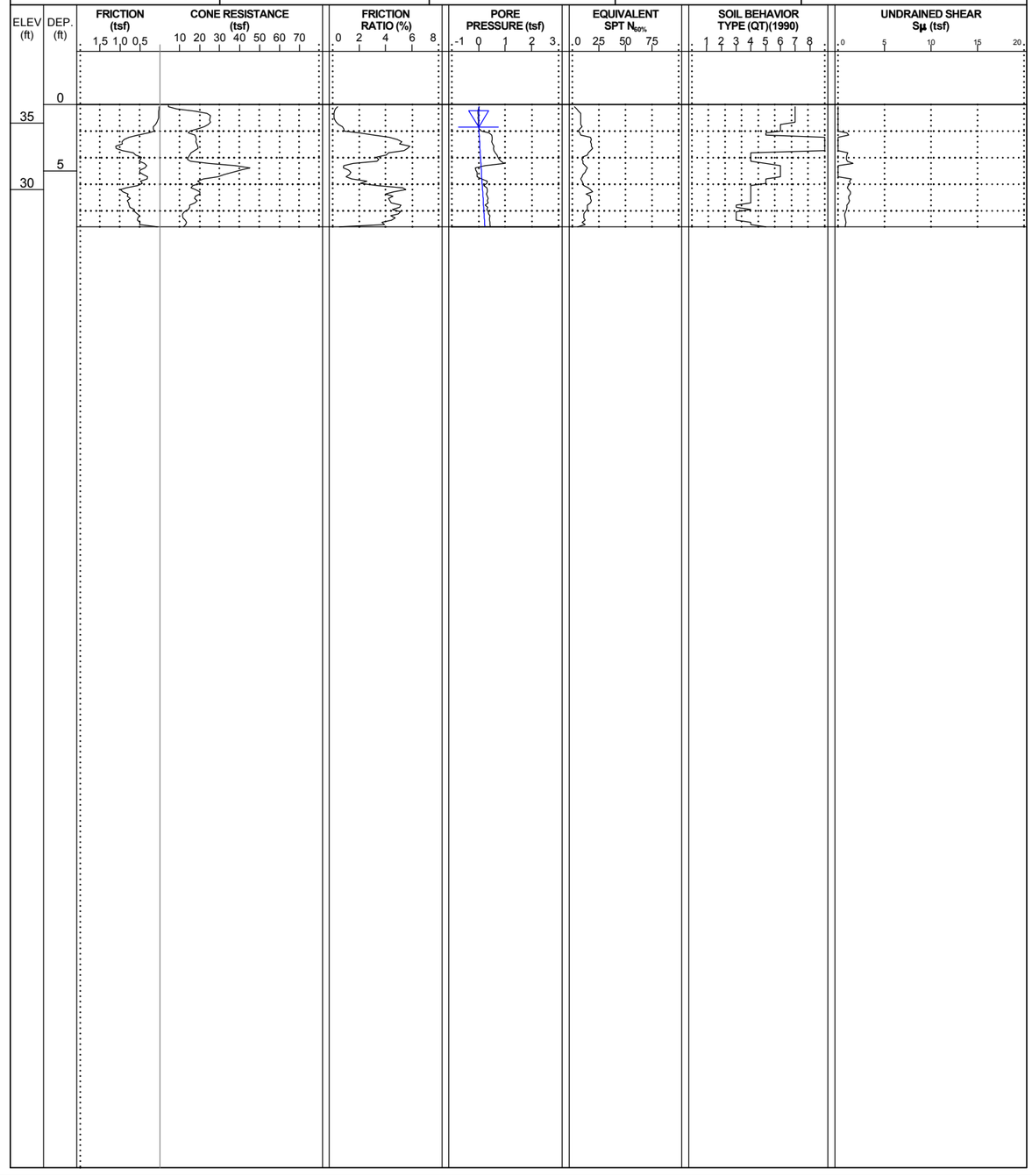
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR6_2850_CL	**STATION:** 28+50	**OFFSET:** CL	**ALIGNMENT:** -SR6-	**EST. 0 HR.** 1.5
COLLAR ELEV.: 32.4 ft	**TOTAL DEPTH:** 9.4 ft	**NORTHING:** 232,495	**EASTING:** 2,378,041	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/16/18	**COMP. DATE:** 08/16/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR6_3000_CL	**STATION:** 30+00	**OFFSET:** CL	**ALIGNMENT:** -SR6-	**EST. 0 HR.** 1.7
COLLAR ELEV.: 36.4 ft	**TOTAL DEPTH:** 9.2 ft	**NORTHING:** 232,538	**EASTING:** 2,378,184	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/16/18	**COMP. DATE:** 08/16/18	**SURF. WATER DEPTH:** N/A

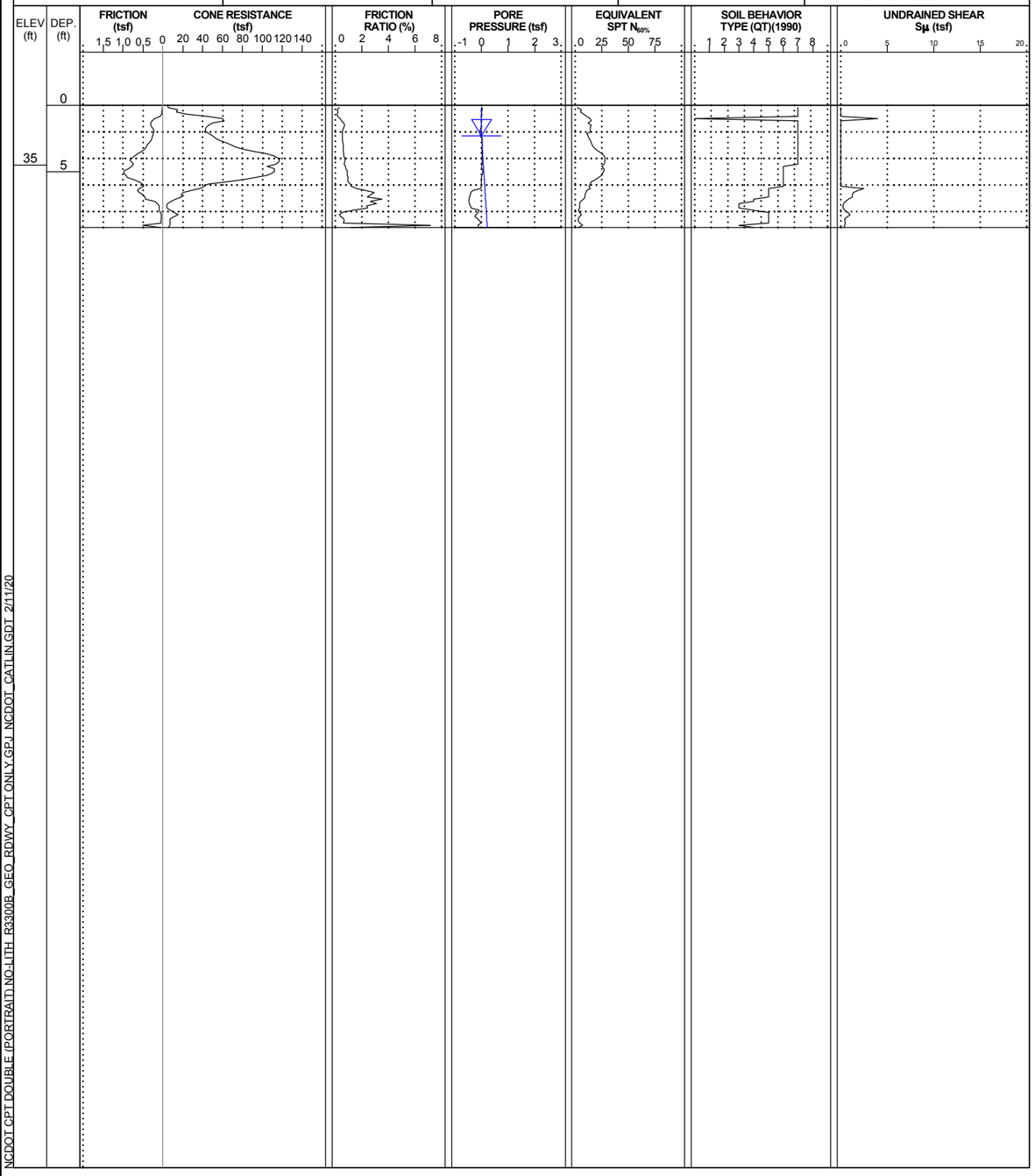


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

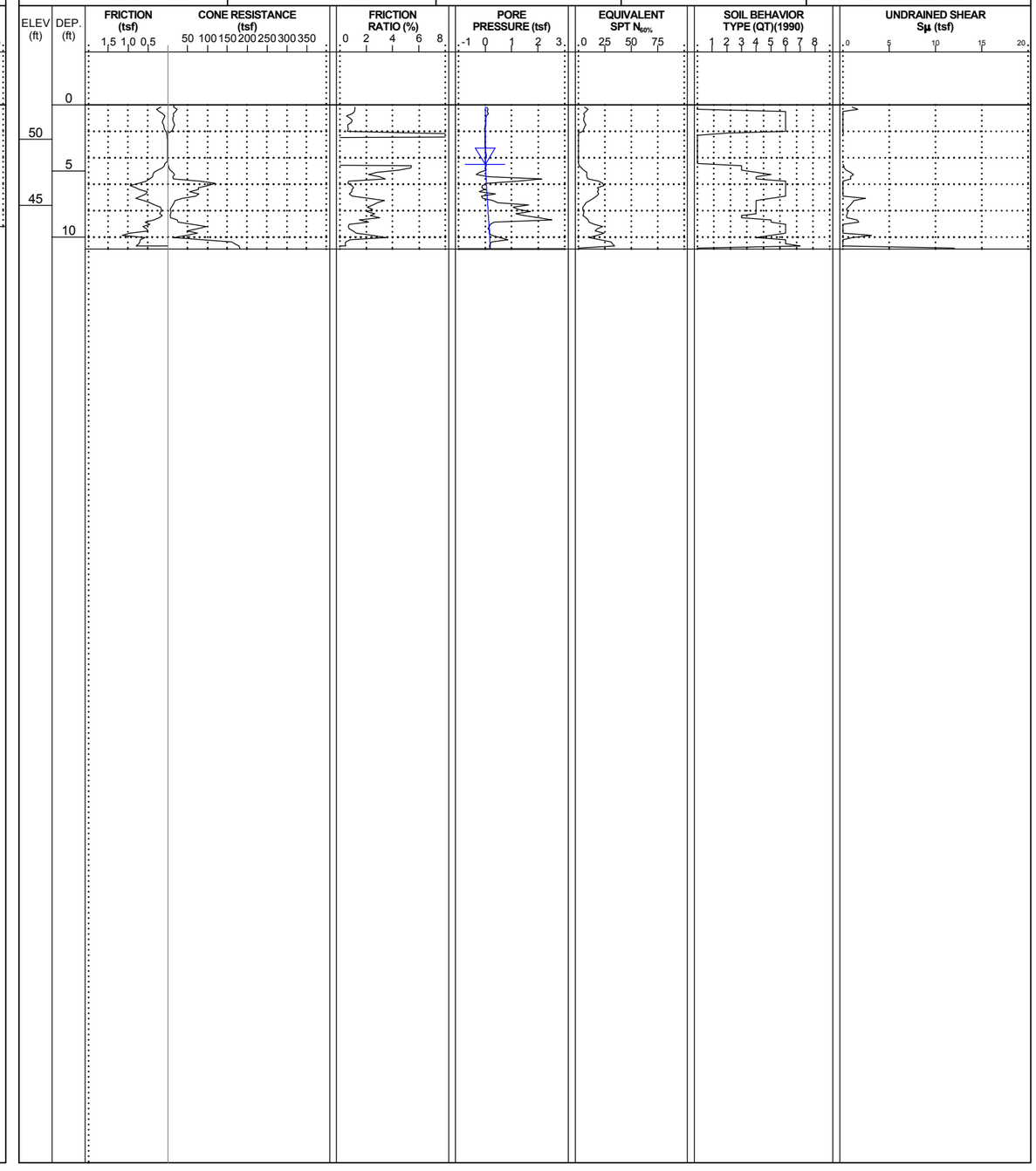
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: SR6_3400_CL	**STATION:** 34+00	**OFFSET:** CL	**ALIGNMENT:** -SR6-	**EST. 0 HR.**	2.3
COLLAR ELEV.: 39.5 ft	**TOTAL DEPTH:** 9.2 ft	**NORTHING:** 232,693	**EASTING:** 2,378,553	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/16/18	**COMP. DATE:** 08/16/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: SR7_1400_CL	**STATION:** 14+00	**OFFSET:** CL	**ALIGNMENT:** -SR7-	**EST. 0 HR.**	4.5
COLLAR ELEV.: 52.6 ft	**TOTAL DEPTH:** 10.9 ft	**NORTHING:** 236,218	**EASTING:** 2,389,588	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/10/18	**COMP. DATE:** 10/10/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

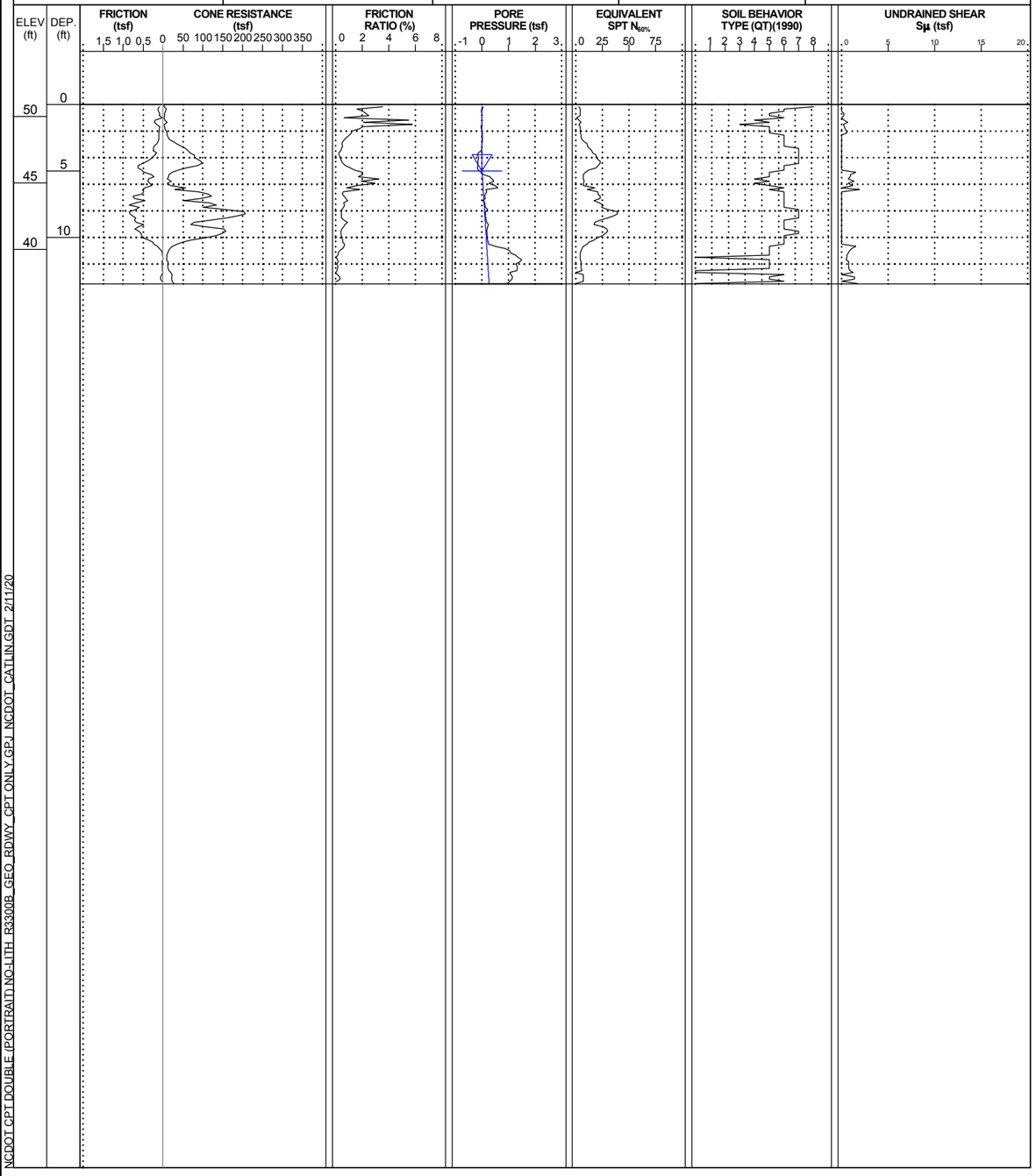
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

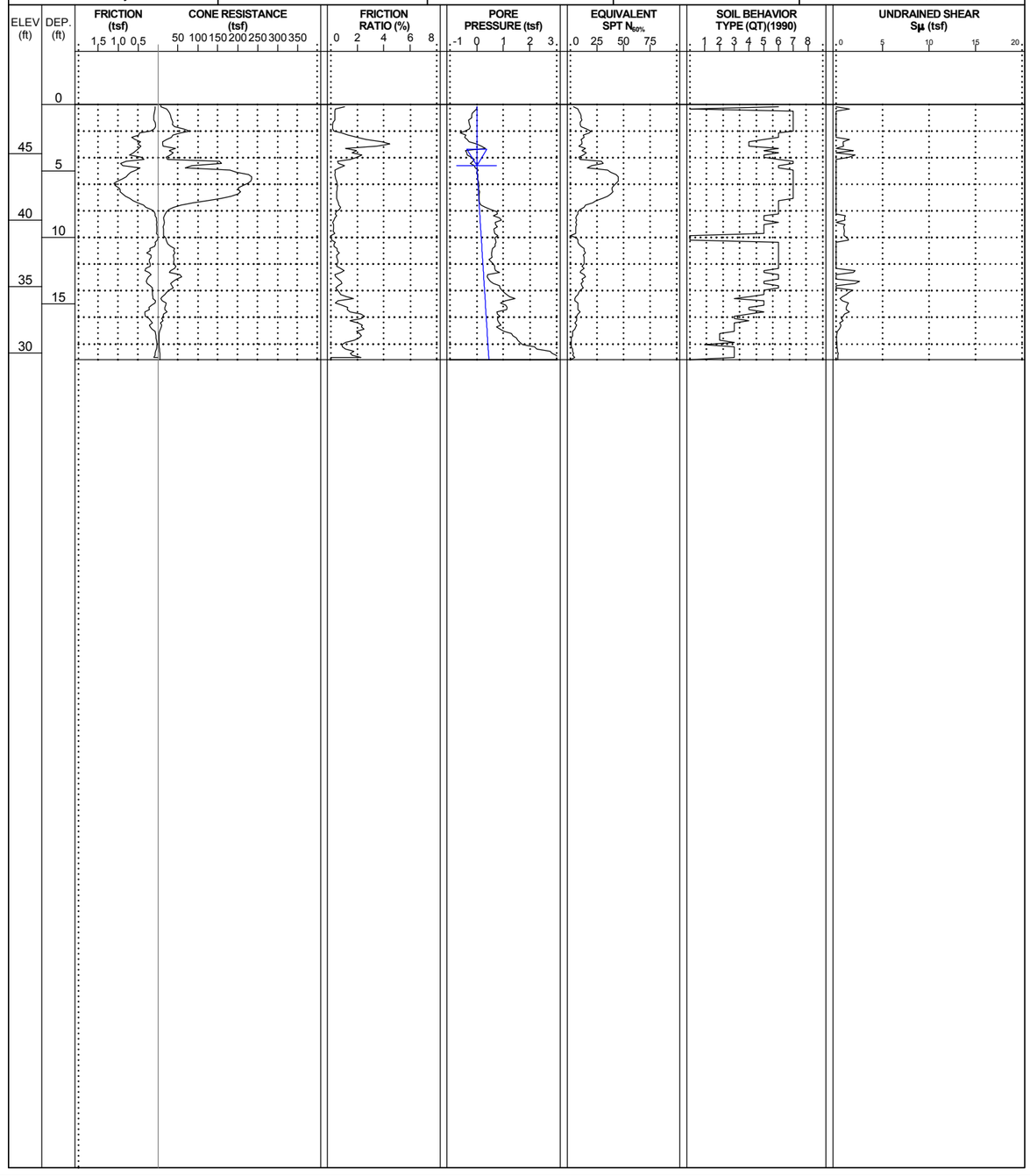
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	51

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR7_1600_CL	**STATION:** 16+00	**OFFSET:** CL	**ALIGNMENT:** -SR7-	**EST. 0 HR.** 5.0
COLLAR ELEV.: 50.9 ft	**TOTAL DEPTH:** 13.5 ft	**NORTHING:** 236,087	**EASTING:** 2,389,739	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/10/18	**COMP. DATE:** 10/10/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR7_1800_CL	**STATION:** 18+00	**OFFSET:** CL	**ALIGNMENT:** -SR7-	**EST. 0 HR.** 4.6
COLLAR ELEV.: 48.7 ft	**TOTAL DEPTH:** 19.2 ft	**NORTHING:** 235,990	**EASTING:** 2,389,913	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/18/18	**COMP. DATE:** 10/18/18	**SURF. WATER DEPTH:** N/A

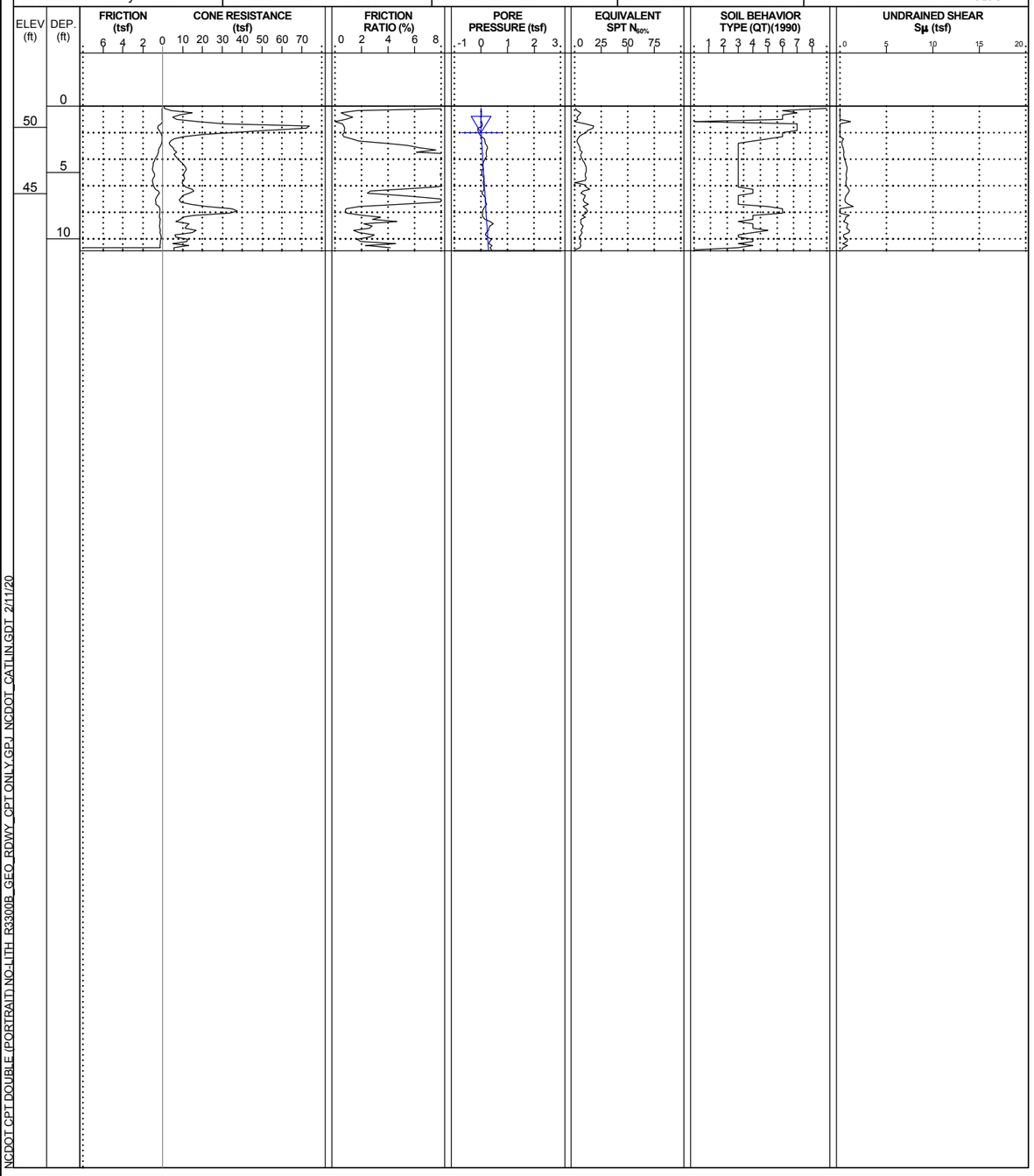


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

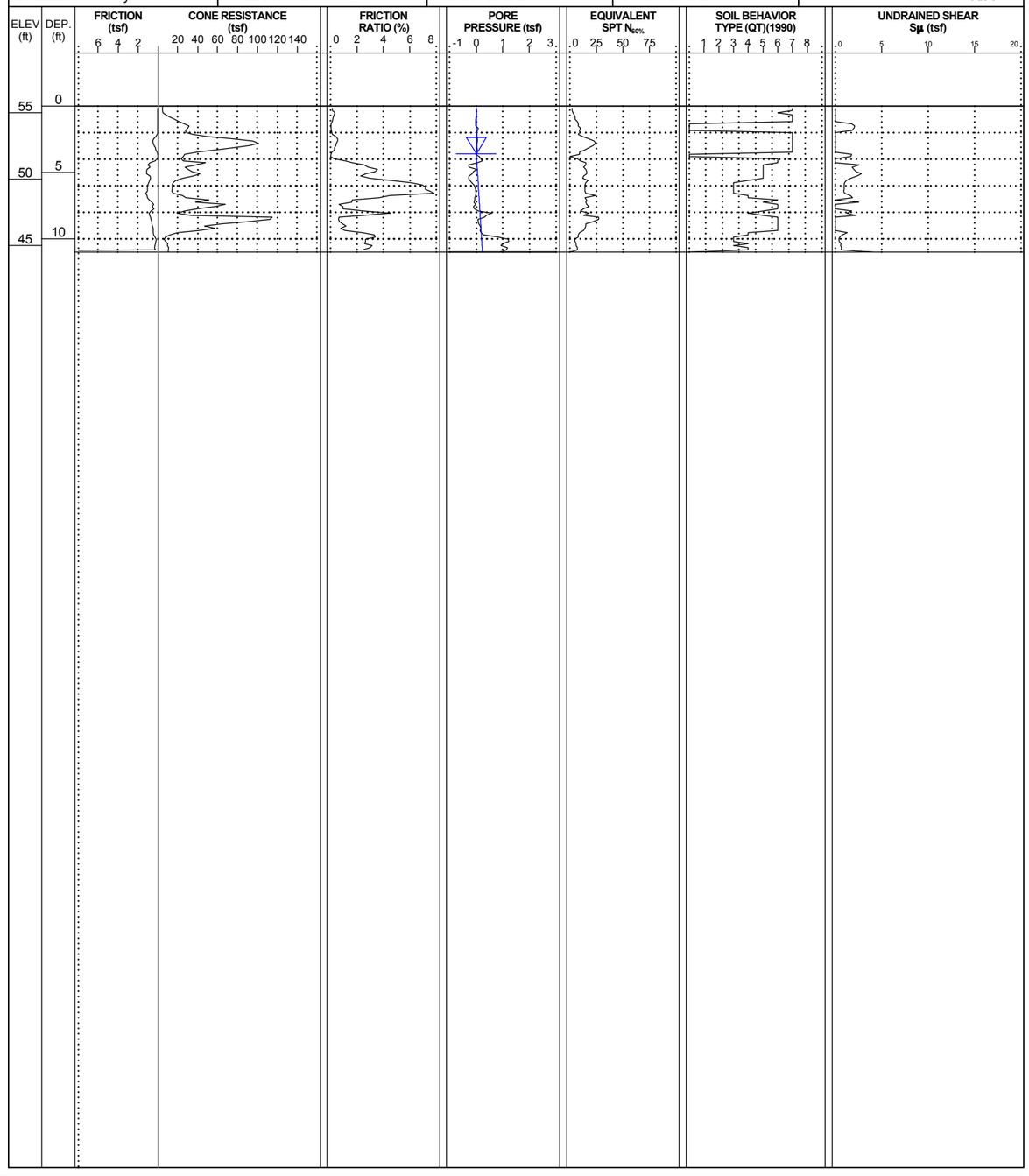
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: SR7_2200_CL	**STATION:** 22+00	**OFFSET:** CL	**ALIGNMENT:** -SR7-	**EST. 0 HR.**	2.0
COLLAR ELEV.: 51.6 ft	**TOTAL DEPTH:** 10.9 ft	**NORTHING:** 235,947	**EASTING:** 2,390,307	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/18/18	**COMP. DATE:** 10/18/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: SR7_2400_CL	**STATION:** 24+00	**OFFSET:** CL	**ALIGNMENT:** -SR7-	**EST. 0 HR.**	3.6
COLLAR ELEV.: 55.5 ft	**TOTAL DEPTH:** 11.0 ft	**NORTHING:** 235,953	**EASTING:** 2,390,507	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/18/18	**COMP. DATE:** 10/18/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

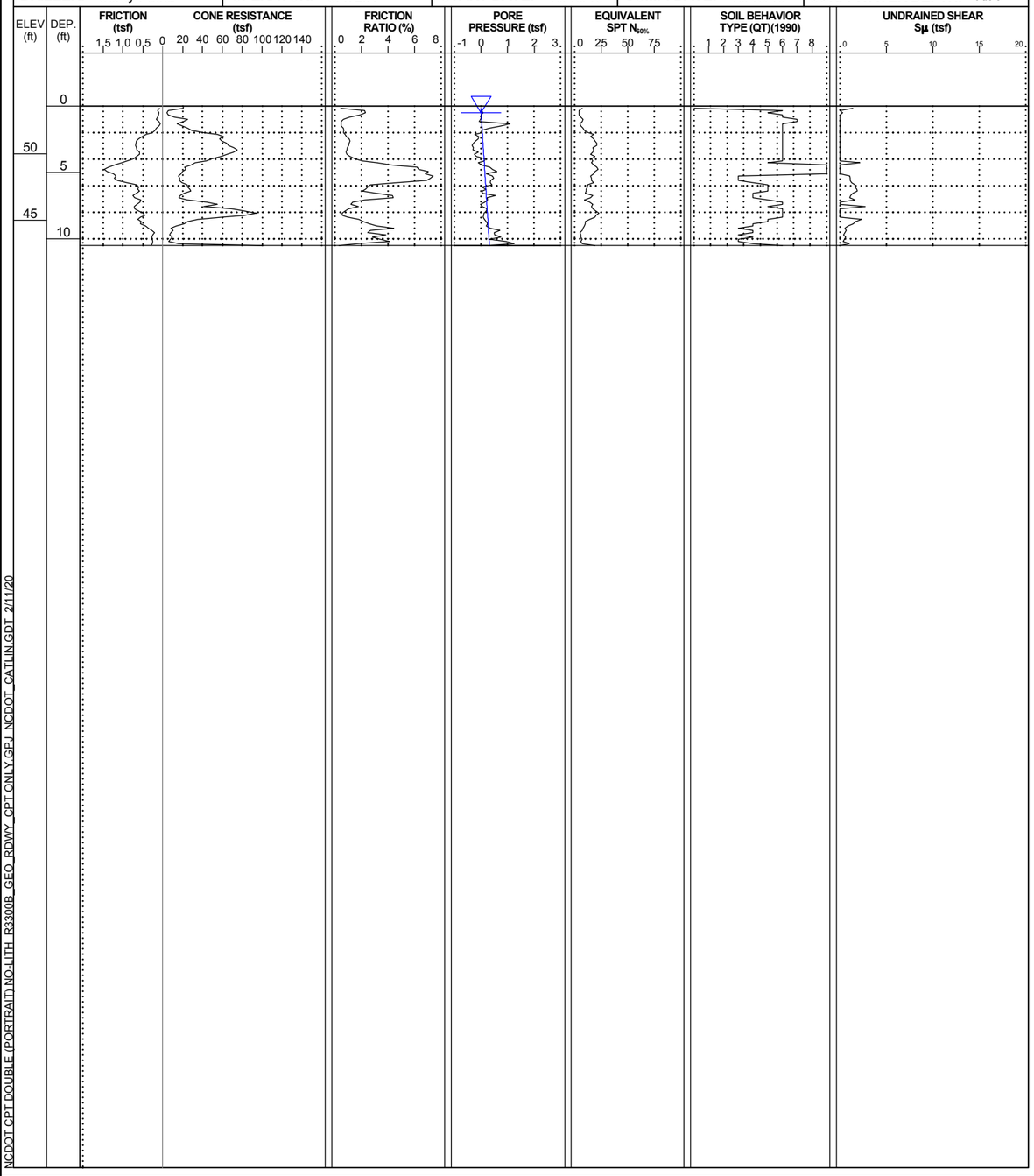
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

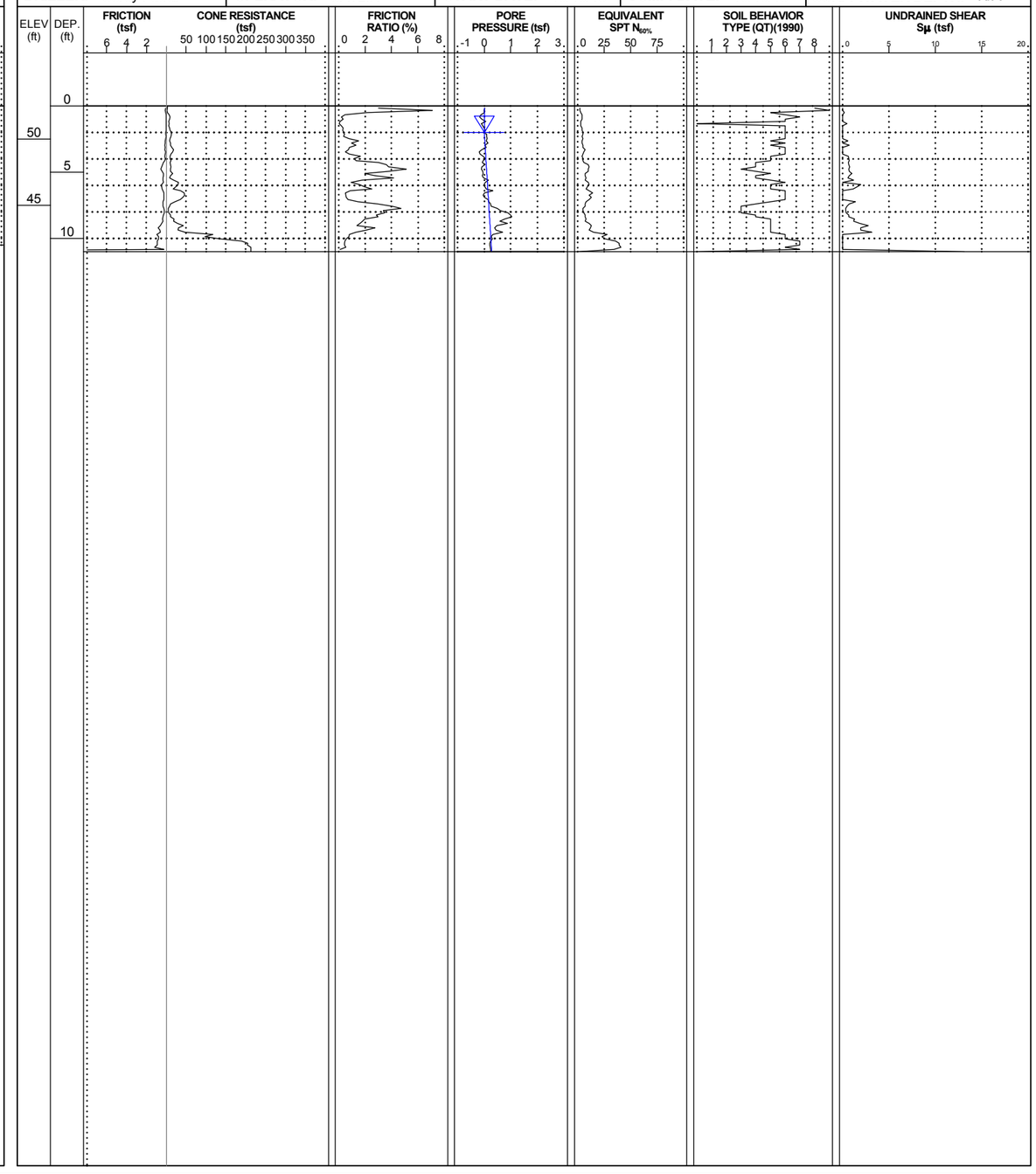
217060 | CATLIN Engineers and Scientists, 220 Old Dairy Road, Wilmington, NC 28405, Corporate Licensure No. for Engineering Services C-0566

PROJECT REFERENCE NO.	SHEET
R-3300B	53

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR7_2800_CL	**STATION:** 28+00	**OFFSET:** CL	**ALIGNMENT:** -SR7-	**EST. 0 HR.** 0.5
COLLAR ELEV.: 53.6 ft	**TOTAL DEPTH:** 10.5 ft	**NORTHING:** 235,965	**EASTING:** 2,390,907	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/18/18	**COMP. DATE:** 10/18/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR7_3000_CL	**STATION:** 30+00	**OFFSET:** CL	**ALIGNMENT:** -SR7-	**EST. 0 HR.** 2.0
COLLAR ELEV.: 52.5 ft	**TOTAL DEPTH:** 11.0 ft	**NORTHING:** 235,971	**EASTING:** 2,391,107	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/18/18	**COMP. DATE:** 10/18/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

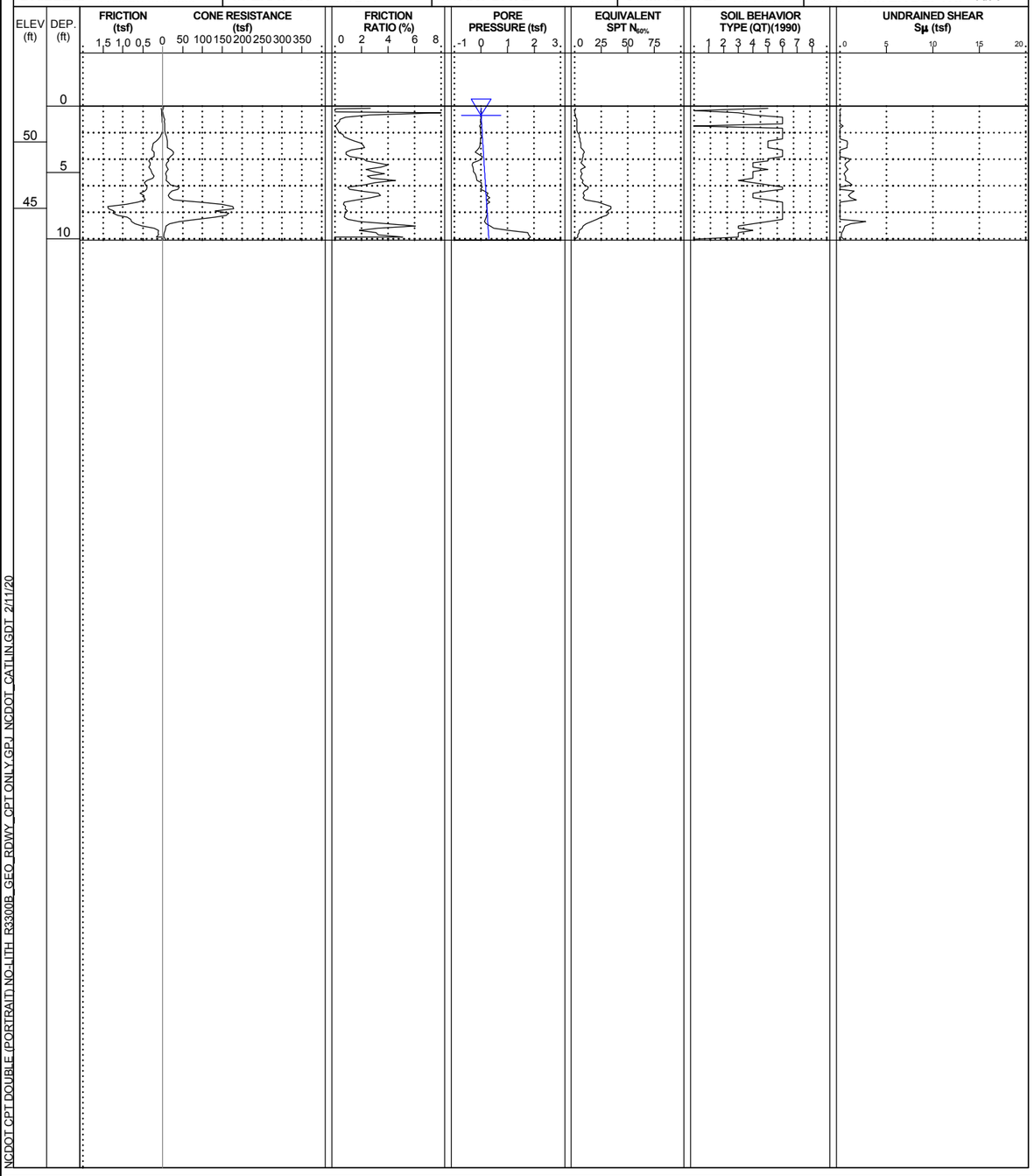
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

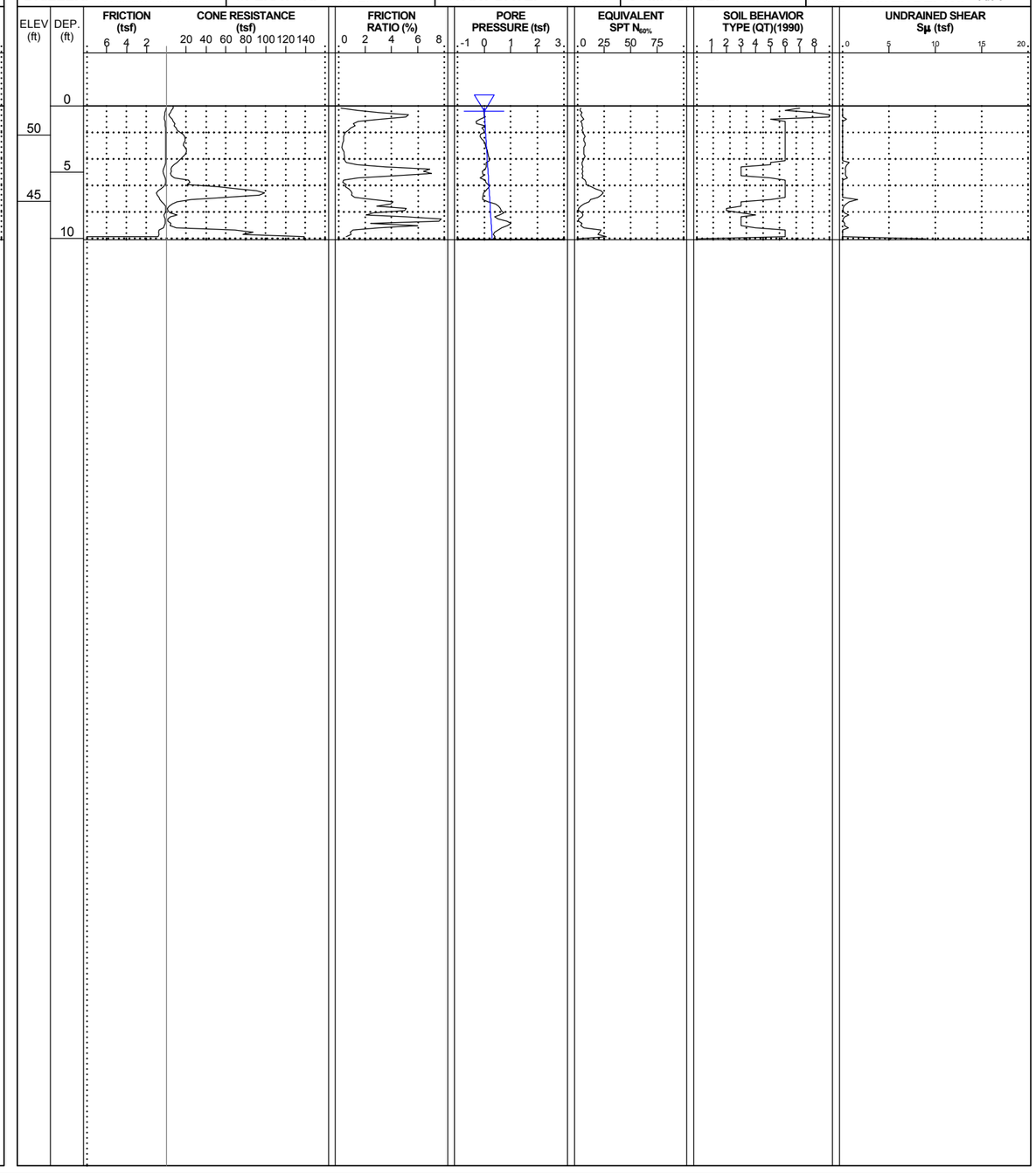
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	54

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR7_3400_CL	**STATION:** 34+00	**OFFSET:** CL	**ALIGNMENT:** -SR7-	**EST. 0 HR.** 0.7
COLLAR ELEV.: 52.7 ft	**TOTAL DEPTH:** 10.1 ft	**NORTHING:** 235,983	**EASTING:** 2,391,507	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/11/18	**COMP. DATE:** 10/11/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR7_3600_CL	**STATION:** 36+00	**OFFSET:** CL	**ALIGNMENT:** -SR7-	**EST. 0 HR.** 0.4
COLLAR ELEV.: 52.2 ft	**TOTAL DEPTH:** 10.1 ft	**NORTHING:** 235,989	**EASTING:** 2,391,707	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/11/18	**COMP. DATE:** 10/11/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

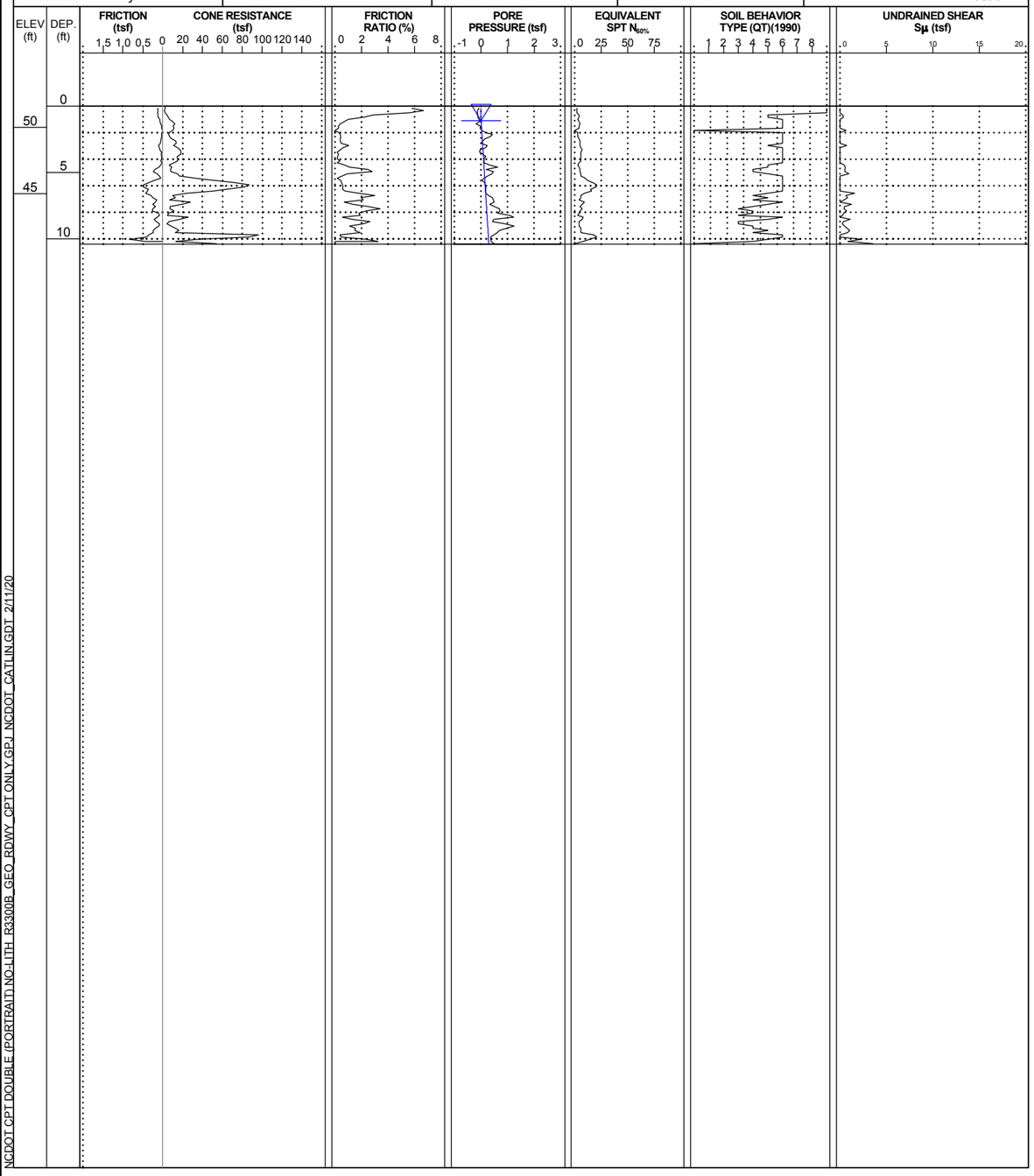
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

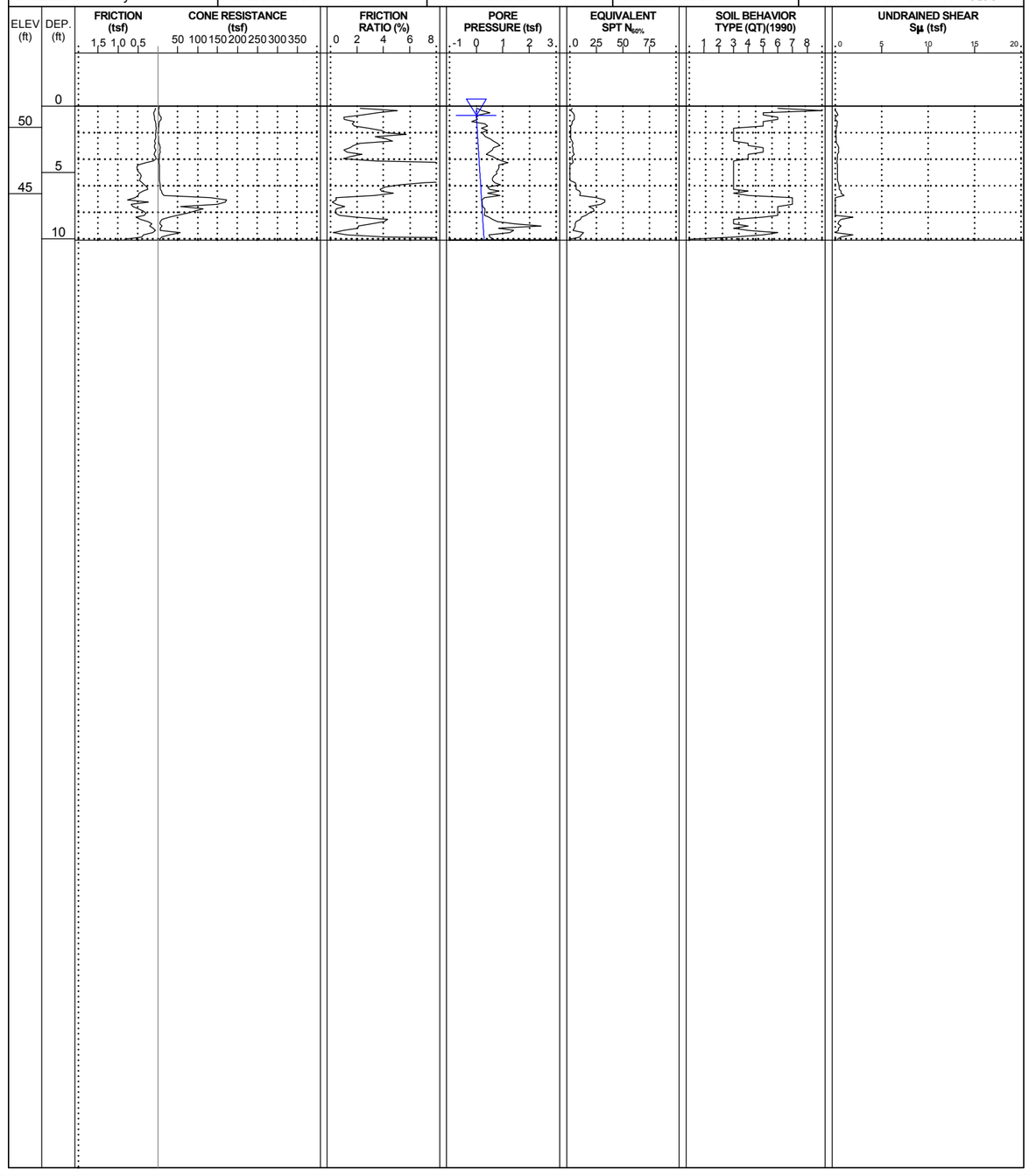
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	55

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR7_4000_CL	**STATION:** 40+00	**OFFSET:** CL	**ALIGNMENT:** -SR7-	**EST. 0 HR.** 1.1
COLLAR ELEV.: 51.6 ft	**TOTAL DEPTH:** 10.4 ft	**NORTHING:** 236,001	**EASTING:** 2,392,106	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO	**CONE ID:** DSG0867	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/01/18	**COMP. DATE:** 11/01/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR7_4200_CL	**STATION:** 42+00	**OFFSET:** CL	**ALIGNMENT:** -SR7-	**EST. 0 HR.** 0.7
COLLAR ELEV.: 51.6 ft	**TOTAL DEPTH:** 10.1 ft	**NORTHING:** 236,007	**EASTING:** 2,392,306	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO	**CONE ID:** DSG0867	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/01/18	**COMP. DATE:** 11/01/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

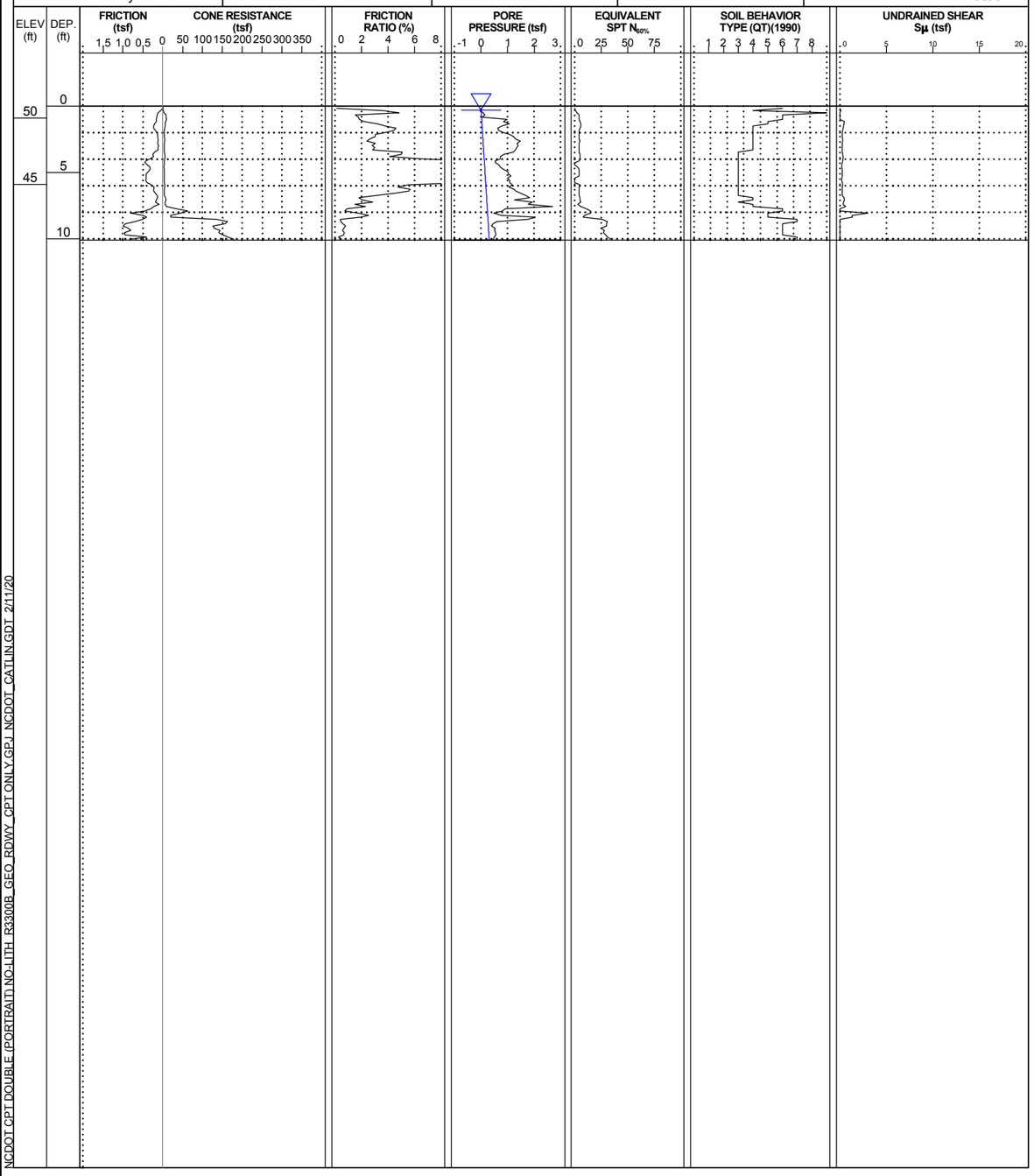
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

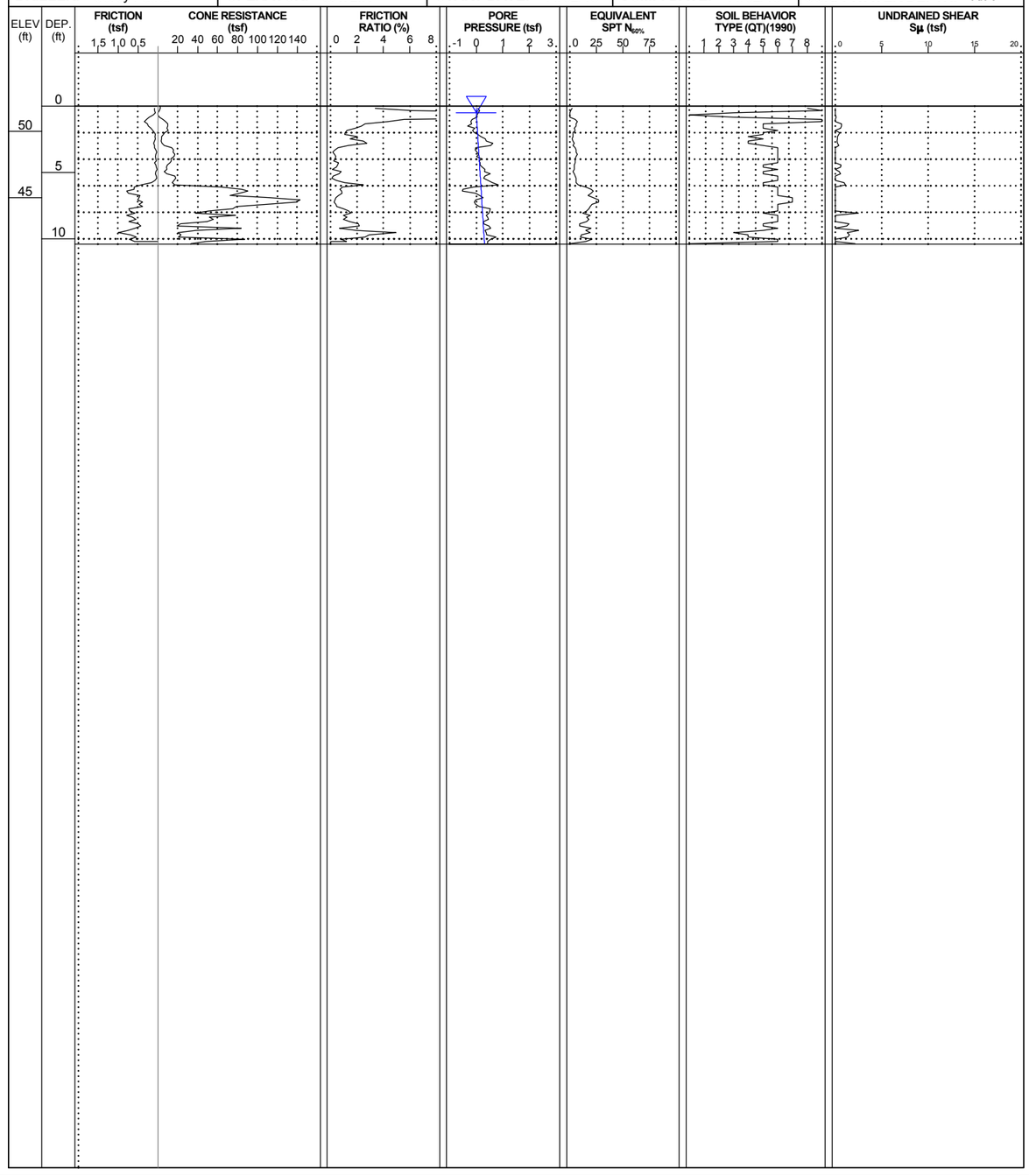
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	56

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR7_4600_CL	**STATION:** 46+00	**OFFSET:** CL	**ALIGNMENT:** -SR7-	**EST. 0 HR.** 0.3
COLLAR ELEV.: 50.9 ft	**TOTAL DEPTH:** 10.1 ft	**NORTHING:** 236,019	**EASTING:** 2,392,706	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/01/18	**COMP. DATE:** 11/01/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR7_5200_CL	**STATION:** 52+00	**OFFSET:** CL	**ALIGNMENT:** -SR7-	**EST. 0 HR.** 0.5
COLLAR ELEV.: 51.9 ft	**TOTAL DEPTH:** 10.4 ft	**NORTHING:** 236,159	**EASTING:** 2,393,286	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/02/18	**COMP. DATE:** 11/02/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

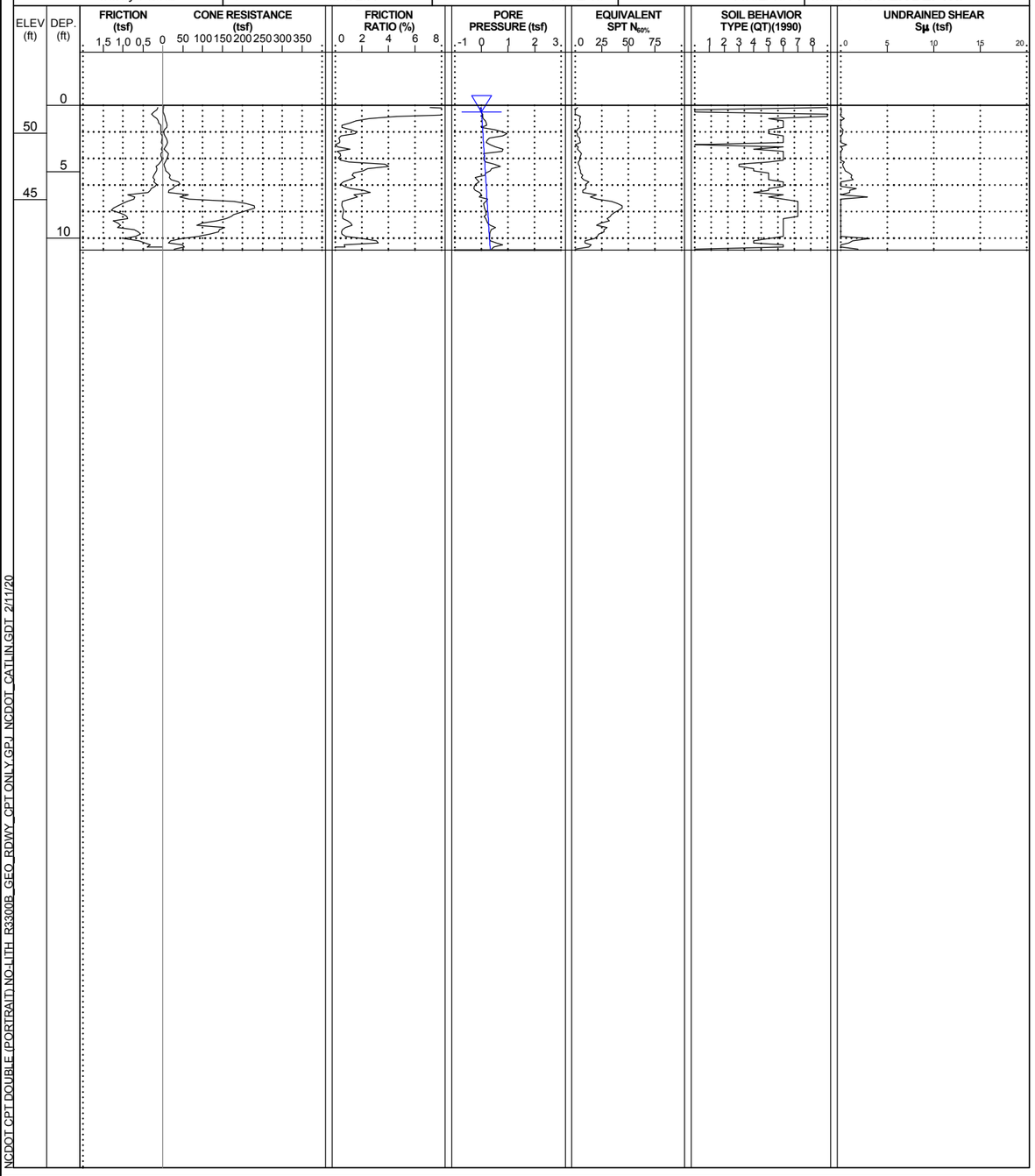
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

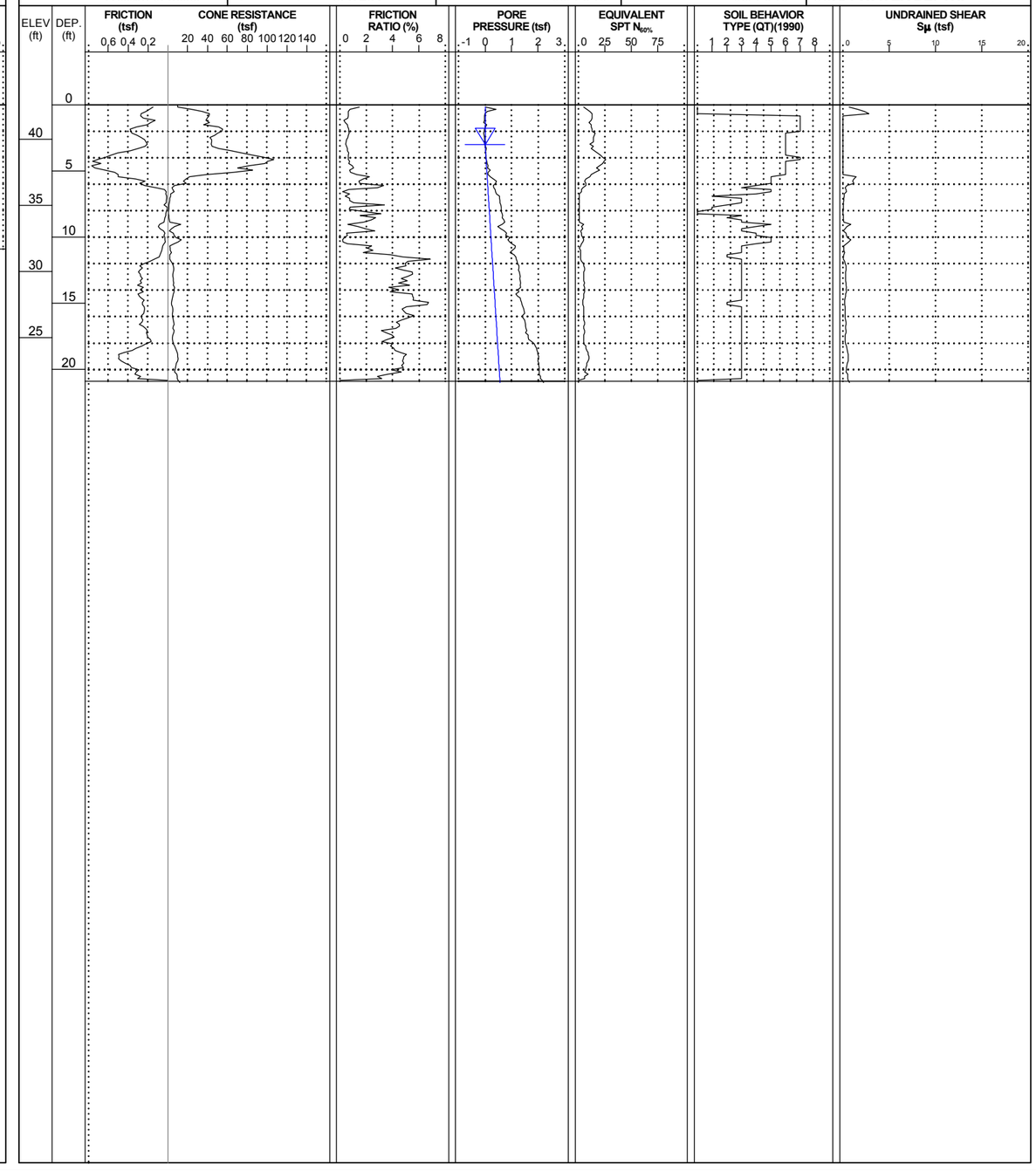
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	57

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: SR7_5400_10LT	**STATION:** 54+00	**OFFSET:** 10 ft LT	**ALIGNMENT:** -SR7-	**EST. 0 HR.** 0.5
COLLAR ELEV.: 52.1 ft	**TOTAL DEPTH:** 10.9 ft	**NORTHING:** 236,263	**EASTING:** 2,393,455	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 11/02/18	**COMP. DATE:** 11/02/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30_3200_35LT	**STATION:** 32+00	**OFFSET:** 35 ft LT	**ALIGNMENT:** -Y30-	**EST. 0 HR.** 3.0
COLLAR ELEV.: 42.6 ft	**TOTAL DEPTH:** 20.9 ft	**NORTHING:** 231,826	**EASTING:** 2,377,185	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/14/18	**COMP. DATE:** 08/14/18	**SURF. WATER DEPTH:** N/A

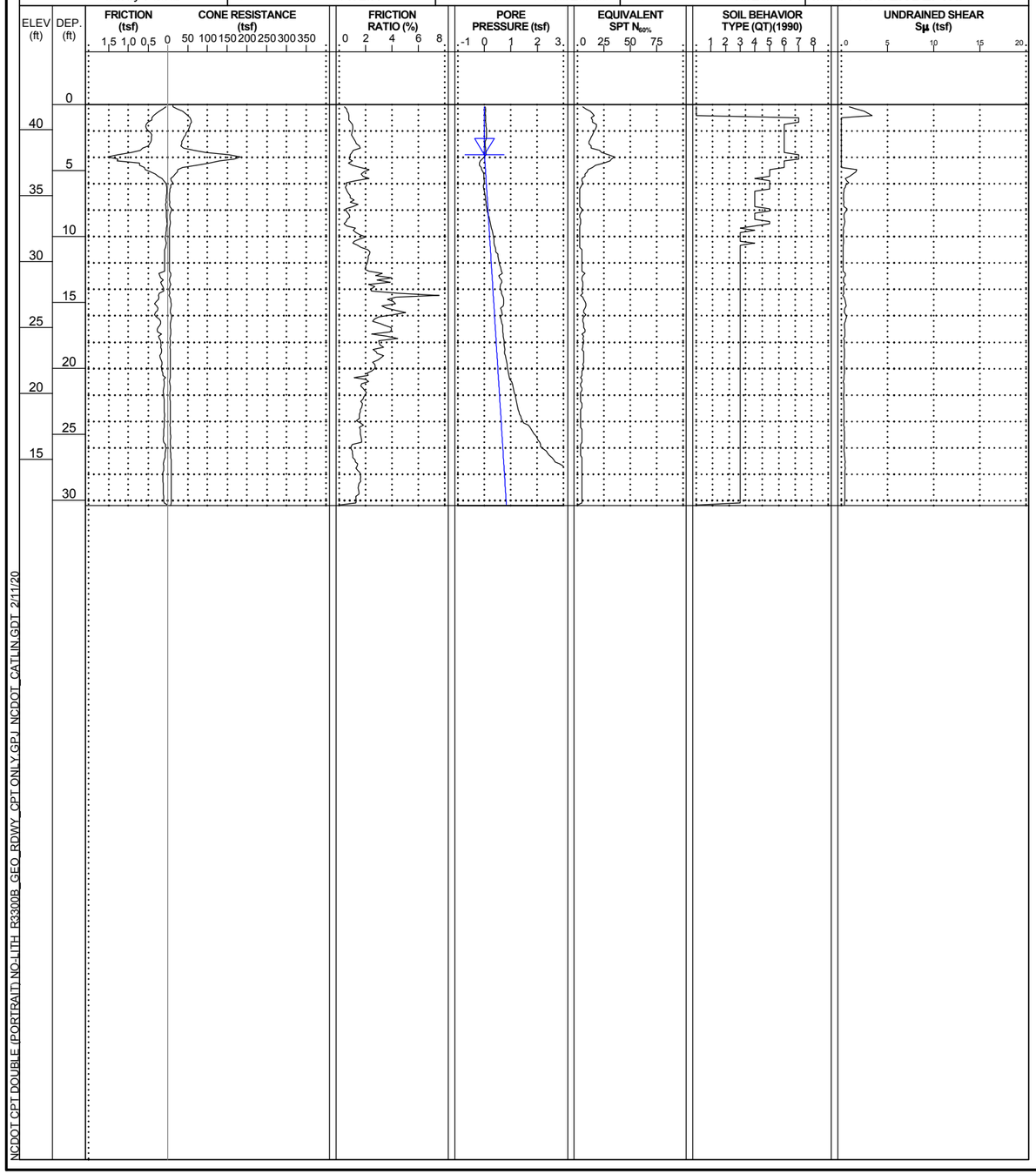


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

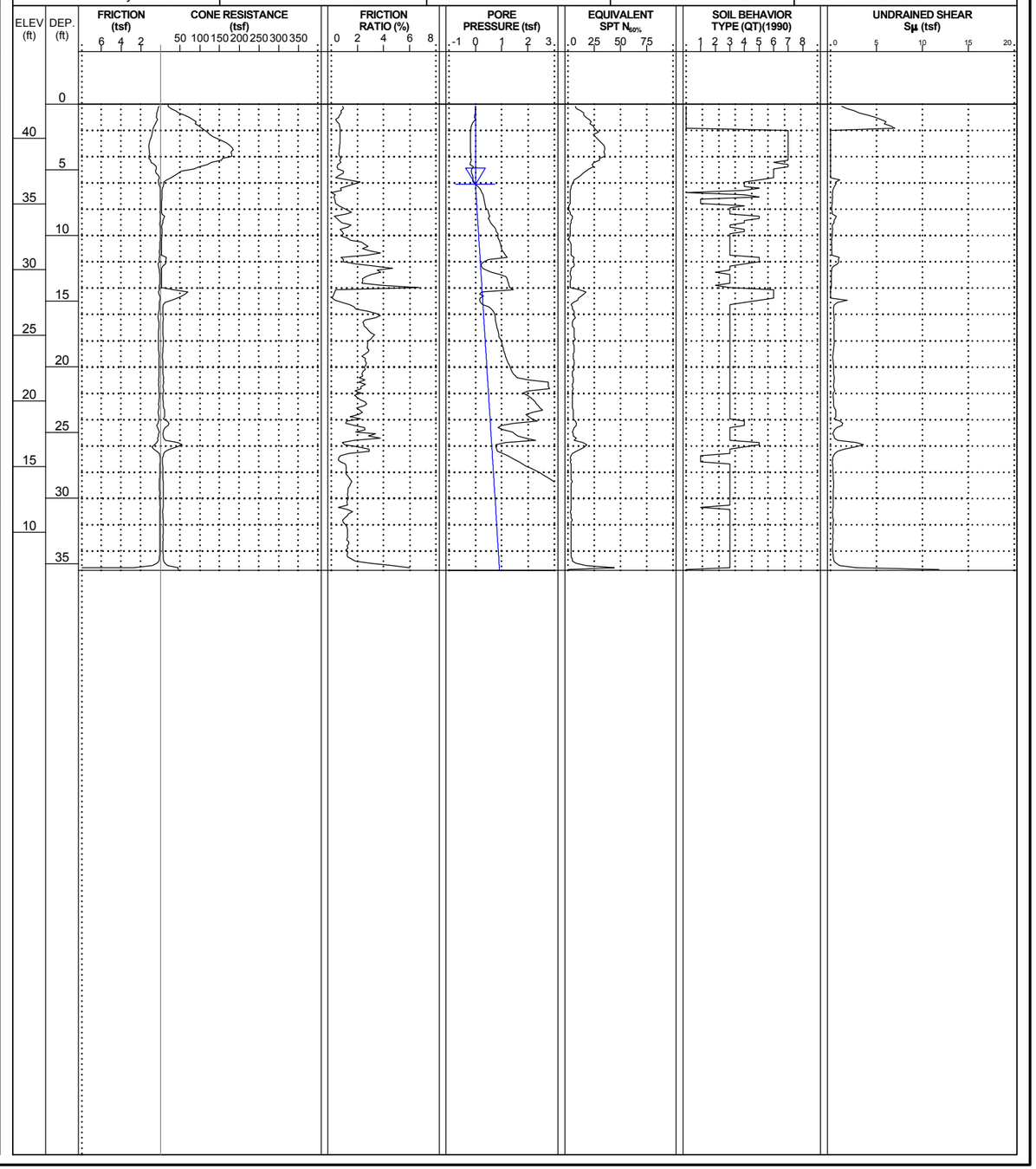
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30_3400_35LT	**STATION:** 34+00	**OFFSET:** 35 ft LT	**ALIGNMENT:** -Y30-	**EST. 0 HR.** 3.8
COLLAR ELEV.: 41.9 ft	**TOTAL DEPTH:** 30.4 ft	**NORTHING:** 231,760	**EASTING:** 2,377,374	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/25/18	**COMP. DATE:** 10/25/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30_3800_35LT	**STATION:** 38+00	**OFFSET:** 35 ft LT	**ALIGNMENT:** -Y30-	**EST. 0 HR.** 6.1
COLLAR ELEV.: 42.6 ft	**TOTAL DEPTH:** 35.5 ft	**NORTHING:** 231,628	**EASTING:** 2,377,752	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/25/18	**COMP. DATE:** 10/25/18	**SURF. WATER DEPTH:** N/A

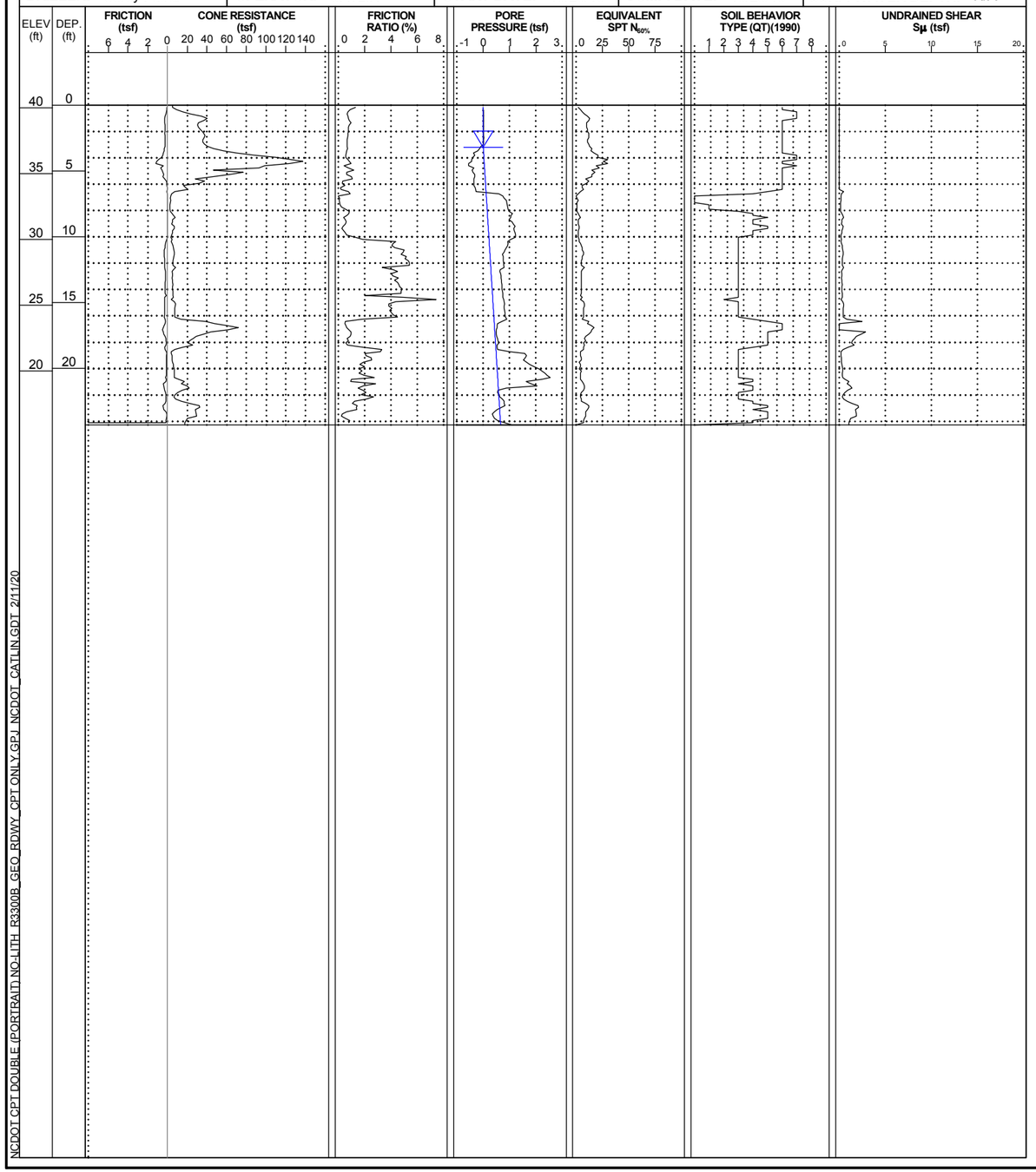


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH_R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

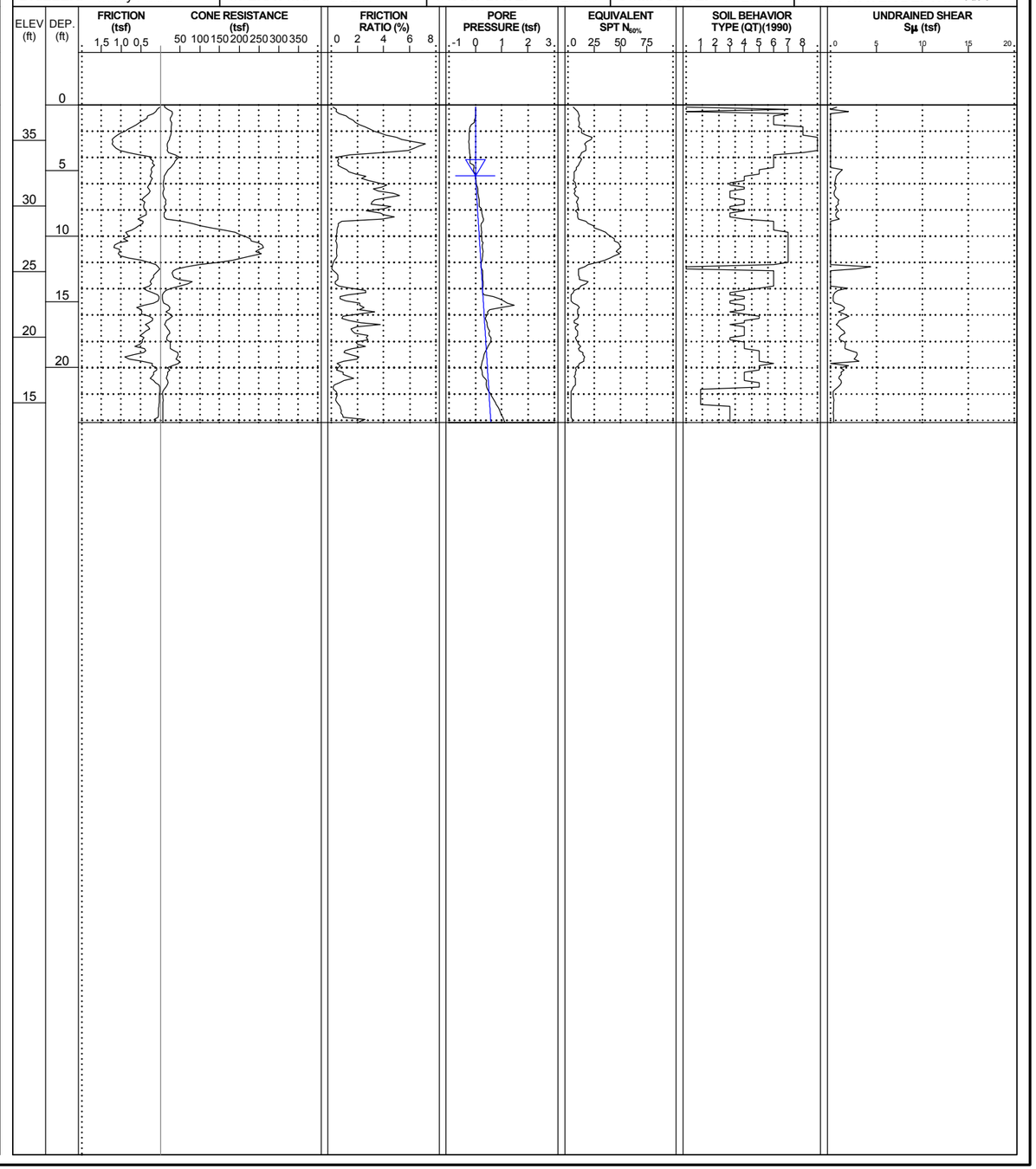
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: Y30_4350_35RT	**STATION:** 43+50	**OFFSET:** 35 ft RT	**ALIGNMENT:** -Y30-	**EST. 0 HR.**	3.2
COLLAR ELEV.: 40.2 ft	**TOTAL DEPTH:** 24.3 ft	**NORTHING:** 231,380	**EASTING:** 2,378,248	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/25/18	**COMP. DATE:** 10/25/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: Y30_4800_25RT	**STATION:** 48+00	**OFFSET:** 25 ft RT	**ALIGNMENT:** -Y30-	**EST. 0 HR.**	5.4
COLLAR ELEV.: 37.7 ft	**TOTAL DEPTH:** 24.2 ft	**NORTHING:** 231,241	**EASTING:** 2,378,676	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/25/18	**COMP. DATE:** 10/25/18	**SURF. WATER DEPTH:** N/A	

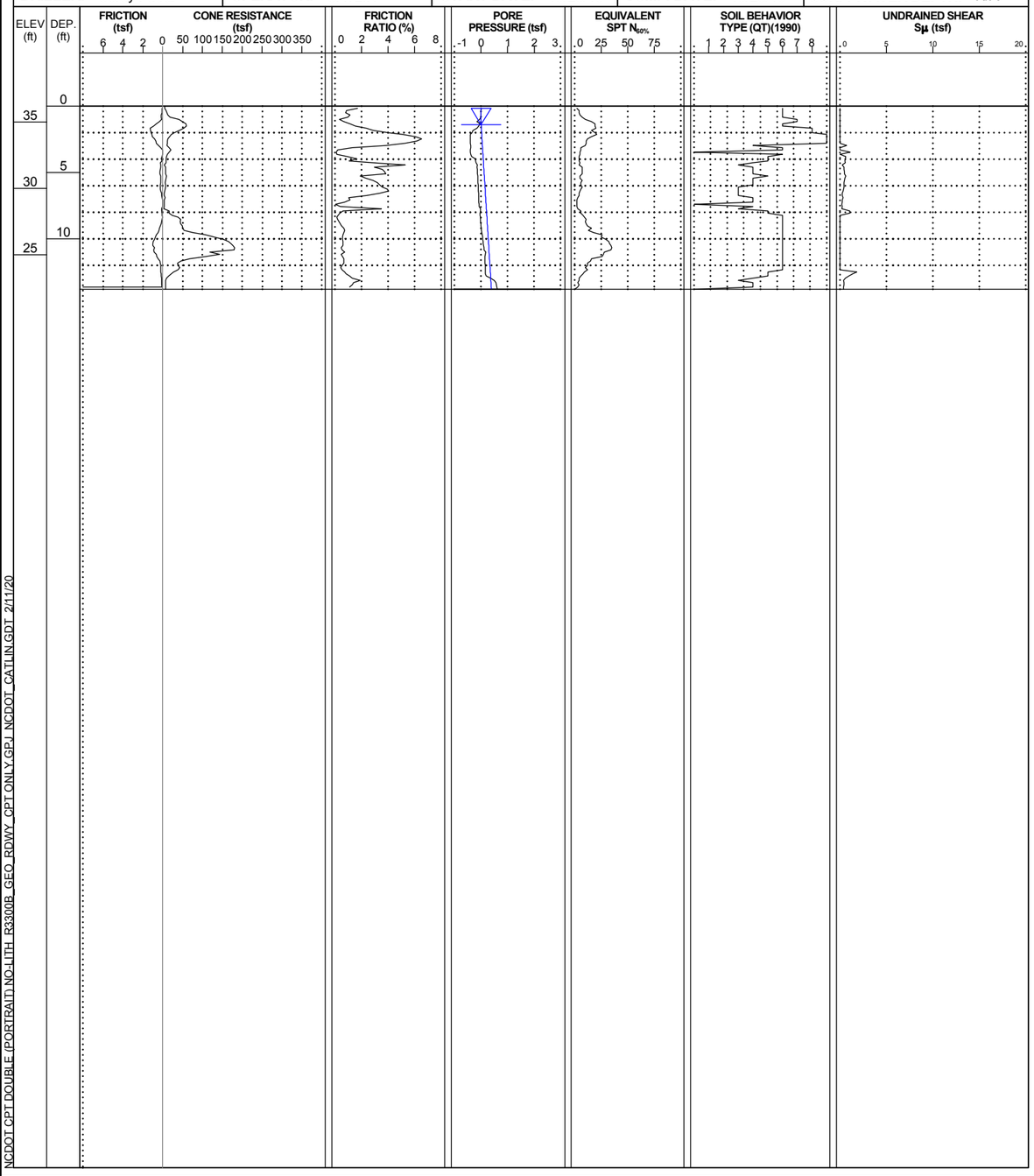


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH_R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

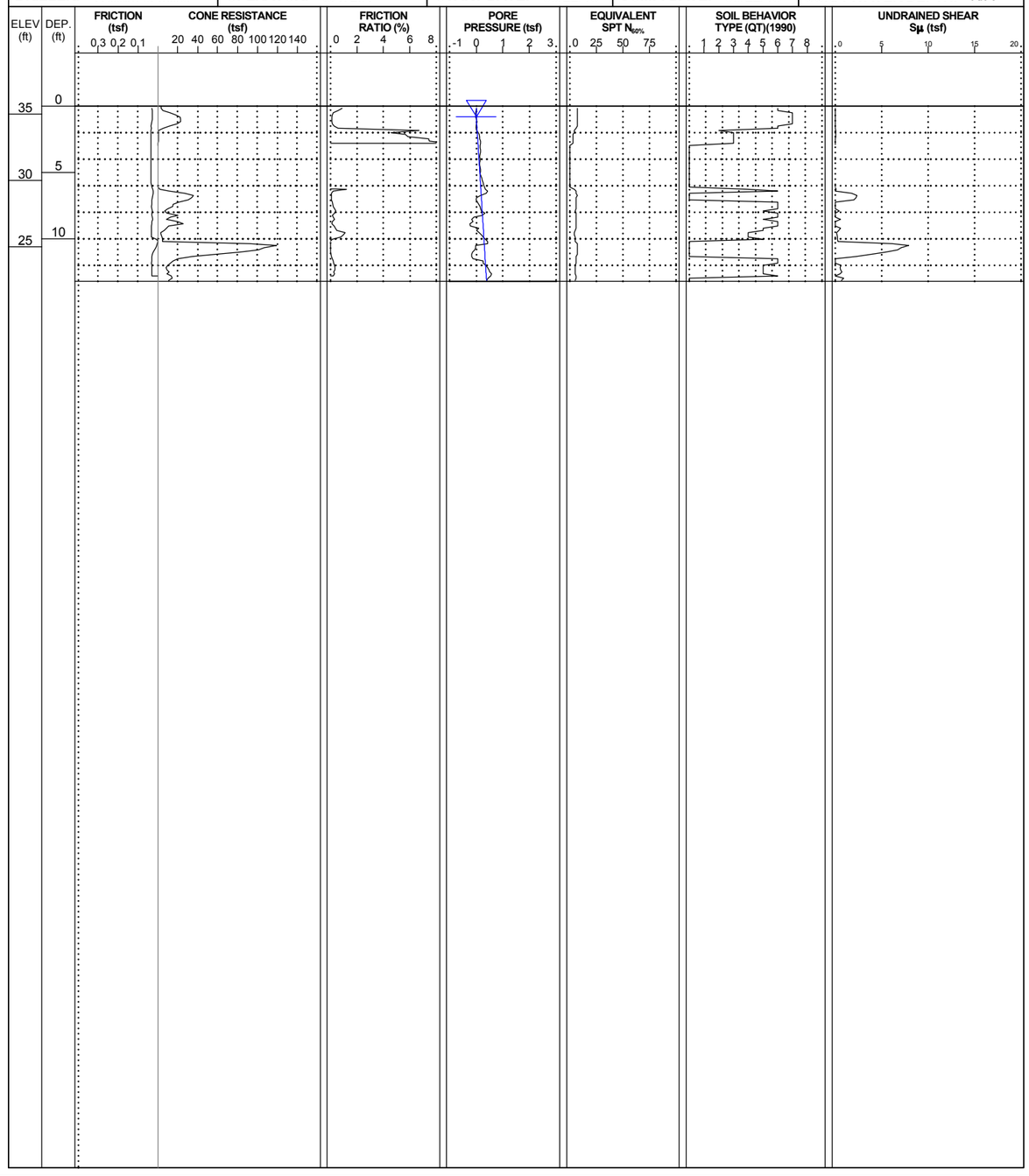
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: Y30_5000_30RT	**STATION:** 50+00	**OFFSET:** 30 ft RT	**ALIGNMENT:** -Y30-	**EST. 0 HR.**	1.4
COLLAR ELEV.: 36.2 ft	**TOTAL DEPTH:** 13.8 ft	**NORTHING:** 231,168	**EASTING:** 2,378,861	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/25/18	**COMP. DATE:** 10/25/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: Y30_5600	**STATION:** 56+00	**OFFSET:** 20 ft LT	**ALIGNMENT:** -Y30-	**EST. 0 HR.**	0.8
COLLAR ELEV.: 35.6 ft	**TOTAL DEPTH:** 13.2 ft	**NORTHING:** 230,992	**EASTING:** 2,379,437	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/22/18	**COMP. DATE:** 08/22/18	**SURF. WATER DEPTH:** N/A	

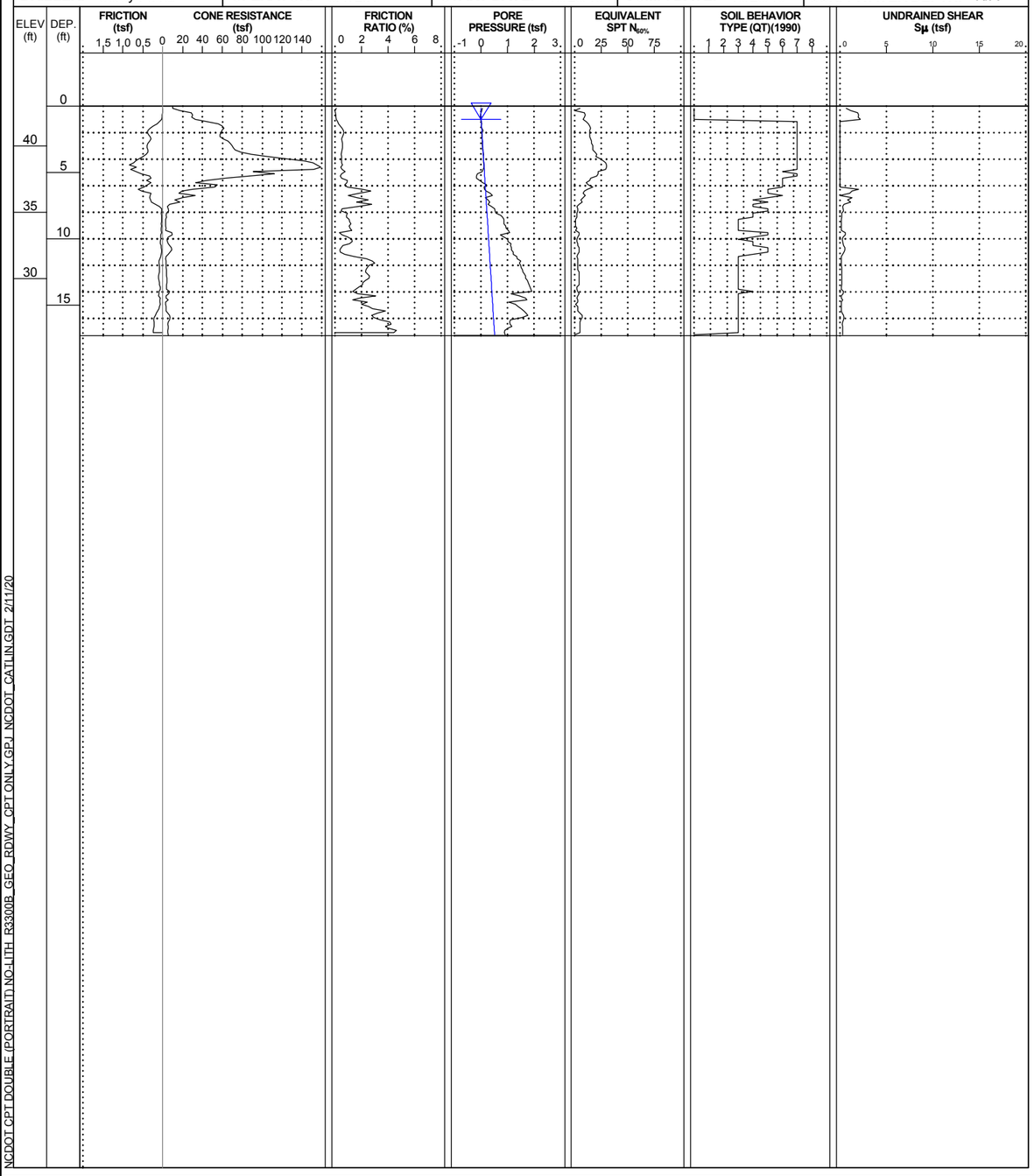


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

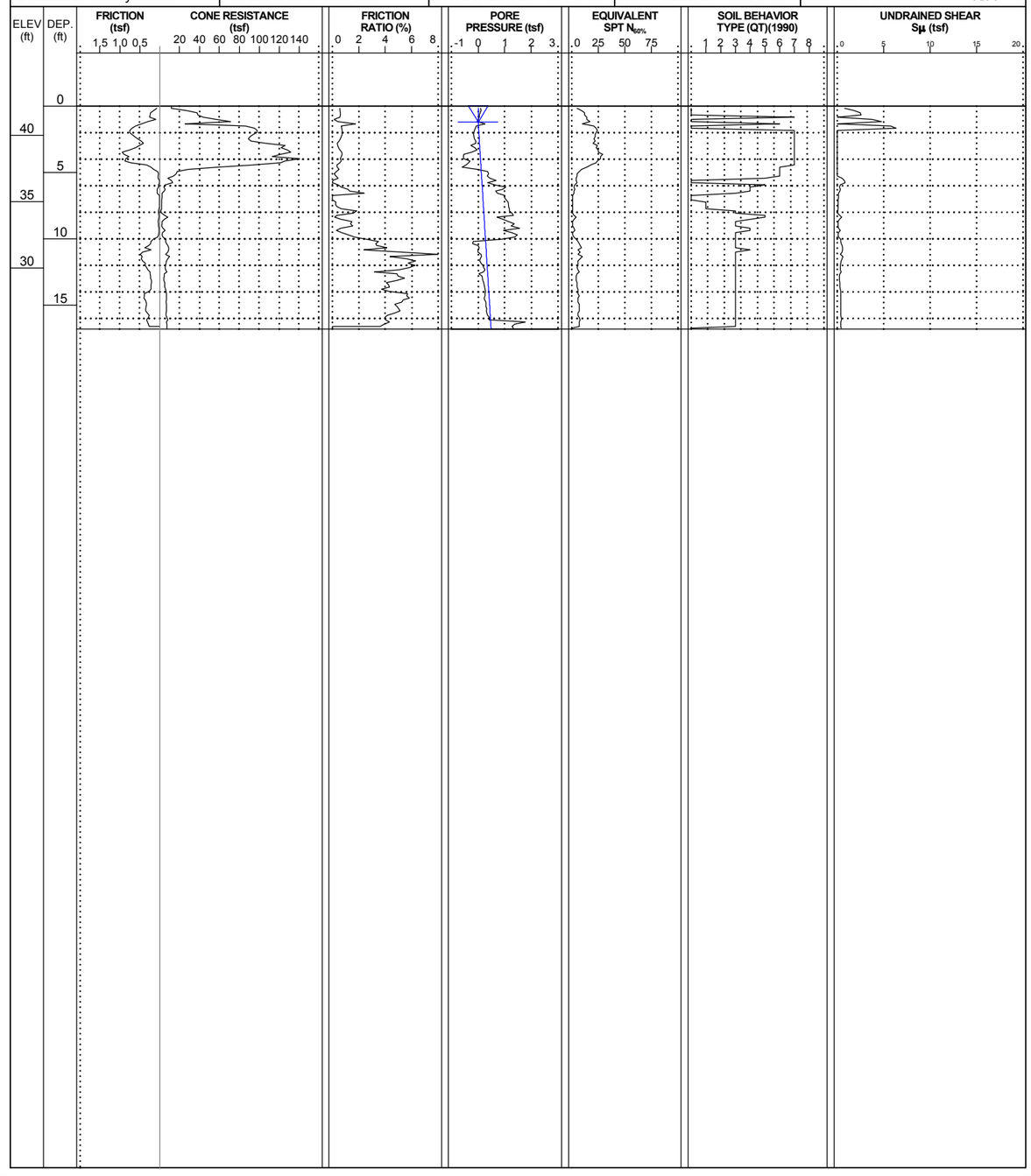
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30DET_3300_CL	**STATION:** 33+00	**OFFSET:** CL	**ALIGNMENT:** -Y30DET-	**EST. 0 HR.** 1.0
COLLAR ELEV.: 43.0 ft	**TOTAL DEPTH:** 17.3 ft	**NORTHING:** 231,598	**EASTING:** 2,377,197	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/25/18	**COMP. DATE:** 10/25/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30DET_3600_CL	**STATION:** 36+00	**OFFSET:** CL	**ALIGNMENT:** -Y30DET-	**EST. 0 HR.** 1.2
COLLAR ELEV.: 42.2 ft	**TOTAL DEPTH:** 16.8 ft	**NORTHING:** 231,478	**EASTING:** 2,377,472	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/25/18	**COMP. DATE:** 10/25/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

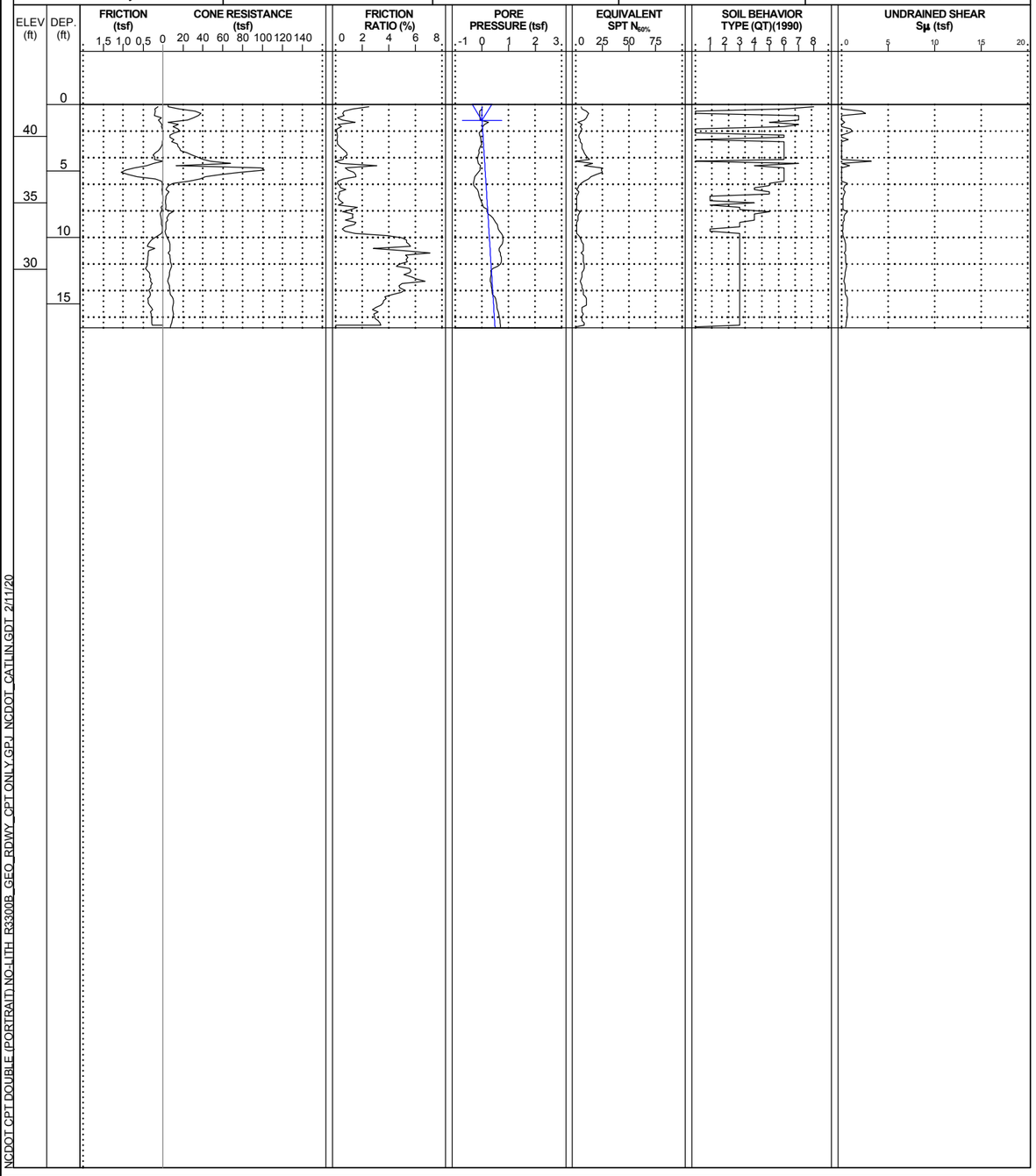
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

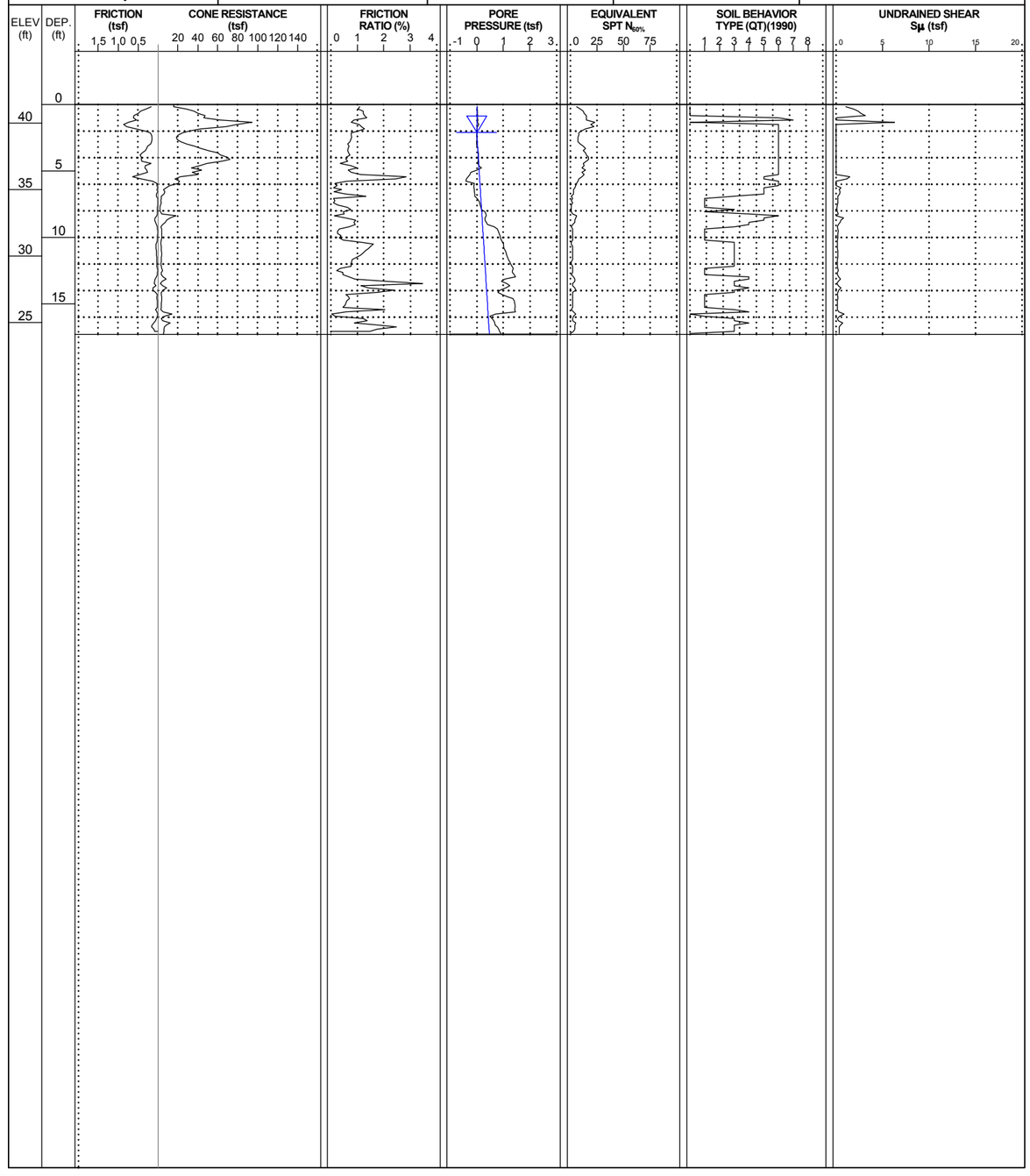
217060 | CATLIN Engineers and Scientists, 220 Old Dairy Road, Wilmington, NC 28405, Corporate Licensure No. for Engineering Services C-0566

PROJECT REFERENCE NO.	SHEET
R-3300B	62

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30DET_3800_CL	**STATION:** 38+00	**OFFSET:** CL	**ALIGNMENT:** -Y30DET-	**EST. 0 HR.** 1.2
COLLAR ELEV.: 42.4 ft	**TOTAL DEPTH:** 16.8 ft	**NORTHING:** 231,398	**EASTING:** 2,377,655	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/25/18	**COMP. DATE:** 10/25/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30DET_4100_CL	**STATION:** 41+00	**OFFSET:** CL	**ALIGNMENT:** -Y30DET-	**EST. 0 HR.** 2.1
COLLAR ELEV.: 41.4 ft	**TOTAL DEPTH:** 17.3 ft	**NORTHING:** 231,292	**EASTING:** 2,377,935	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/25/18	**COMP. DATE:** 10/25/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

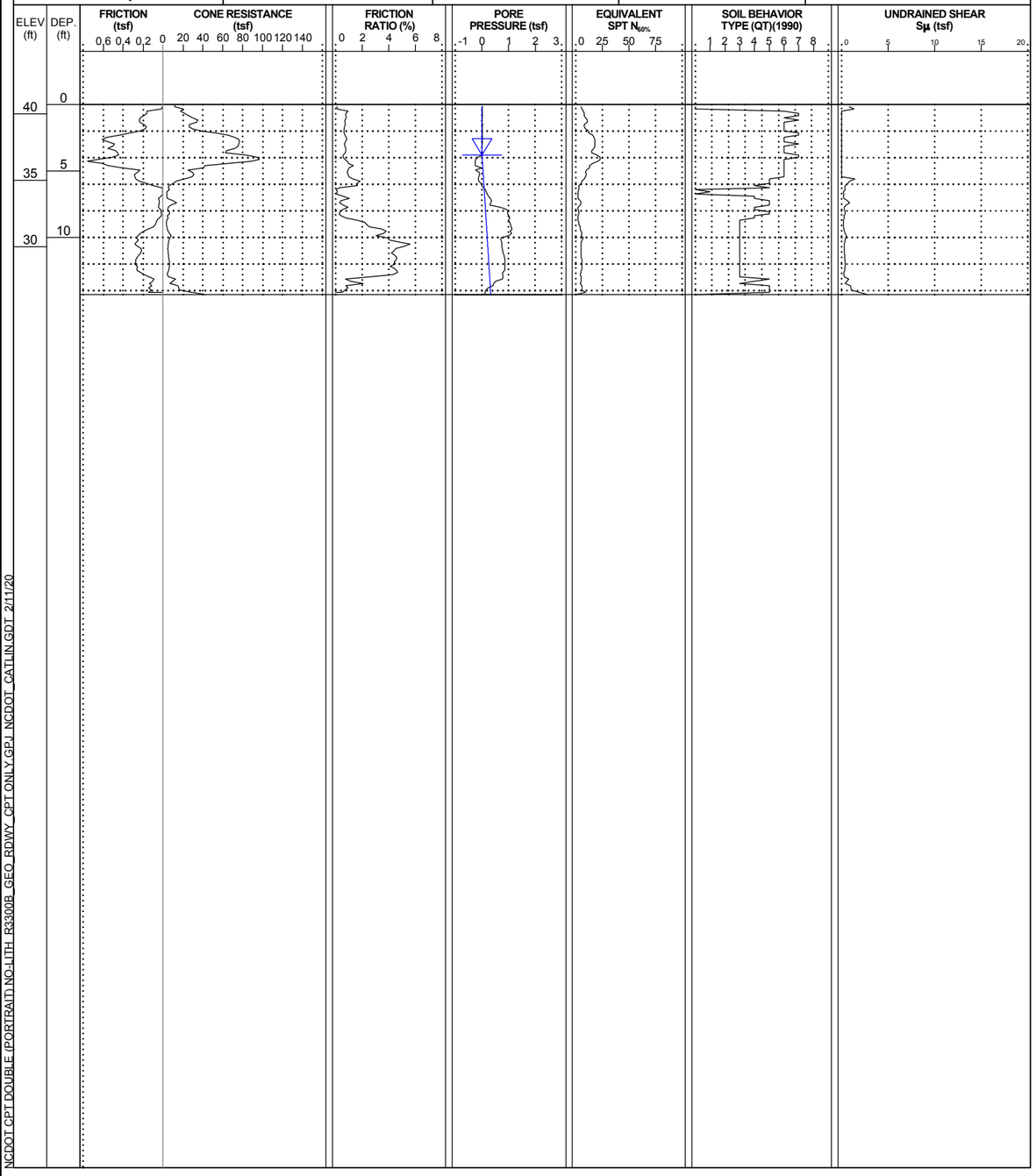
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

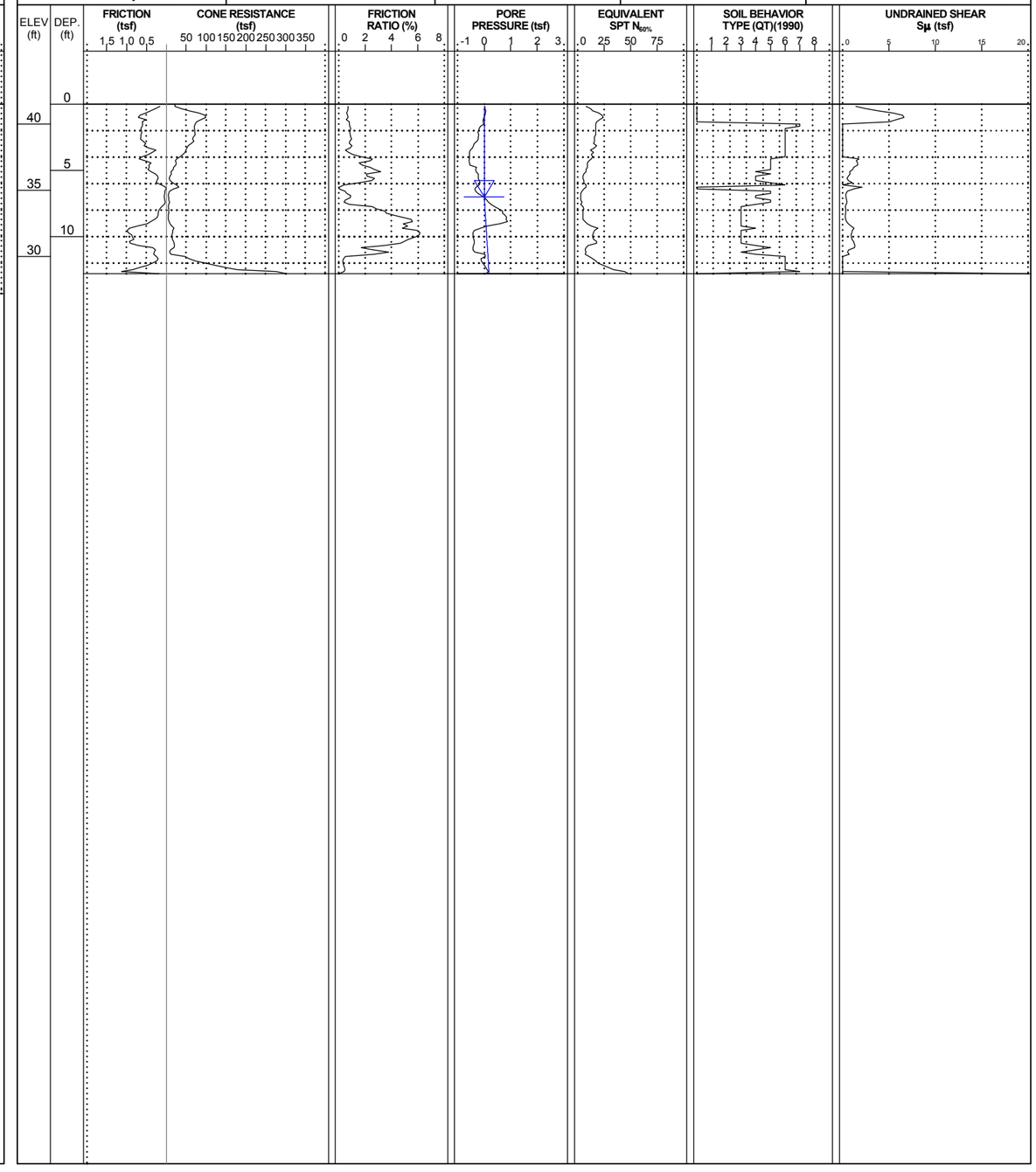
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	63

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30DET_4300_CL	**STATION:** 43+00	**OFFSET:** CL	**ALIGNMENT:** -Y30DET-	**EST. 0 HR.** 3.8
COLLAR ELEV.: 40.7 ft	**TOTAL DEPTH:** 14.3 ft	**NORTHING:** 231,247	**EASTING:** 2,378,130	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/25/18	**COMP. DATE:** 10/25/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30DET_4750_CL	**STATION:** 47+50	**OFFSET:** CL	**ALIGNMENT:** -Y30DET-	**EST. 0 HR.** 7.0
COLLAR ELEV.: 41.5 ft	**TOTAL DEPTH:** 12.8 ft	**NORTHING:** 231,147	**EASTING:** 2,378,569	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/25/18	**COMP. DATE:** 10/25/18	**SURF. WATER DEPTH:** N/A

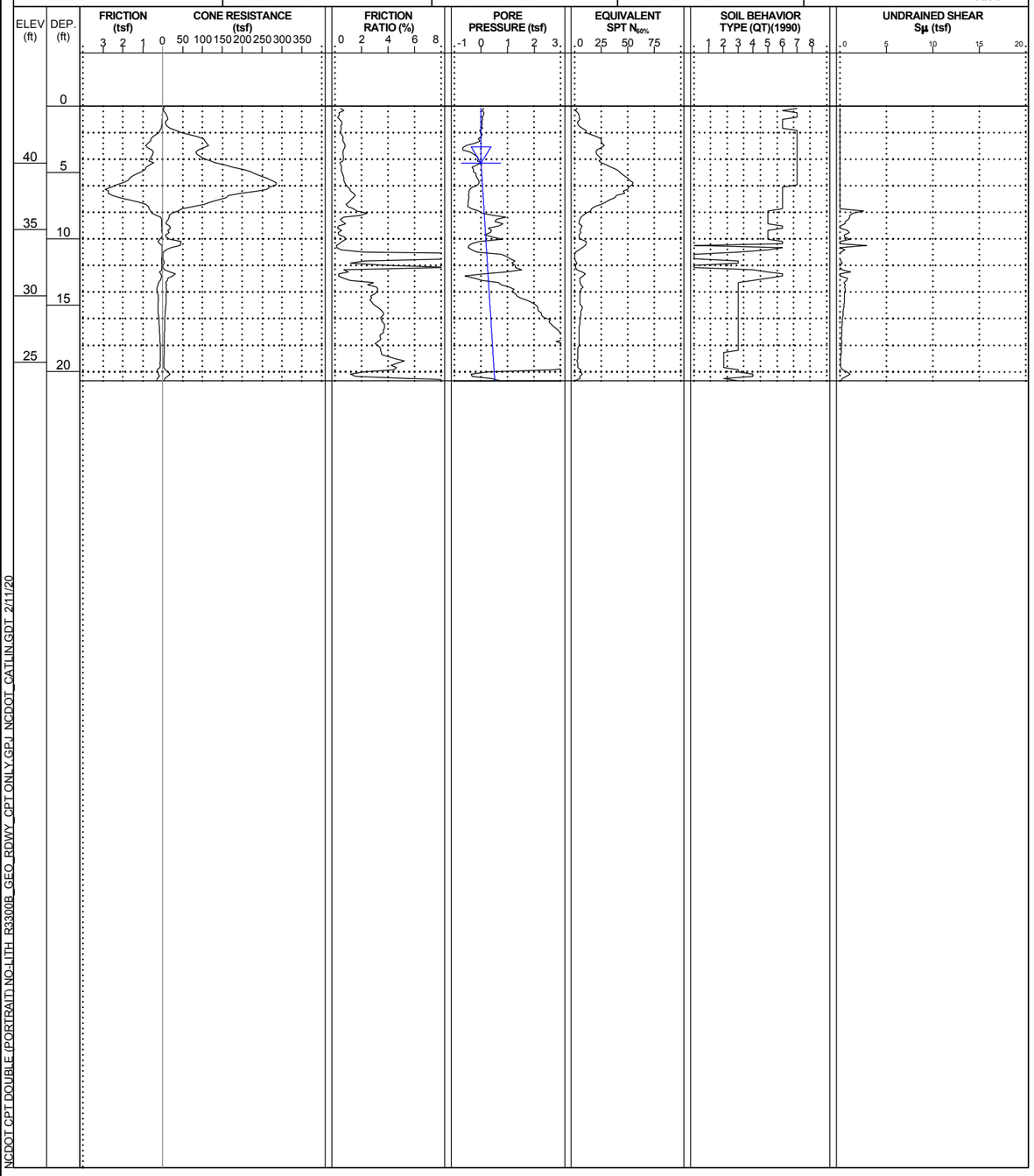


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

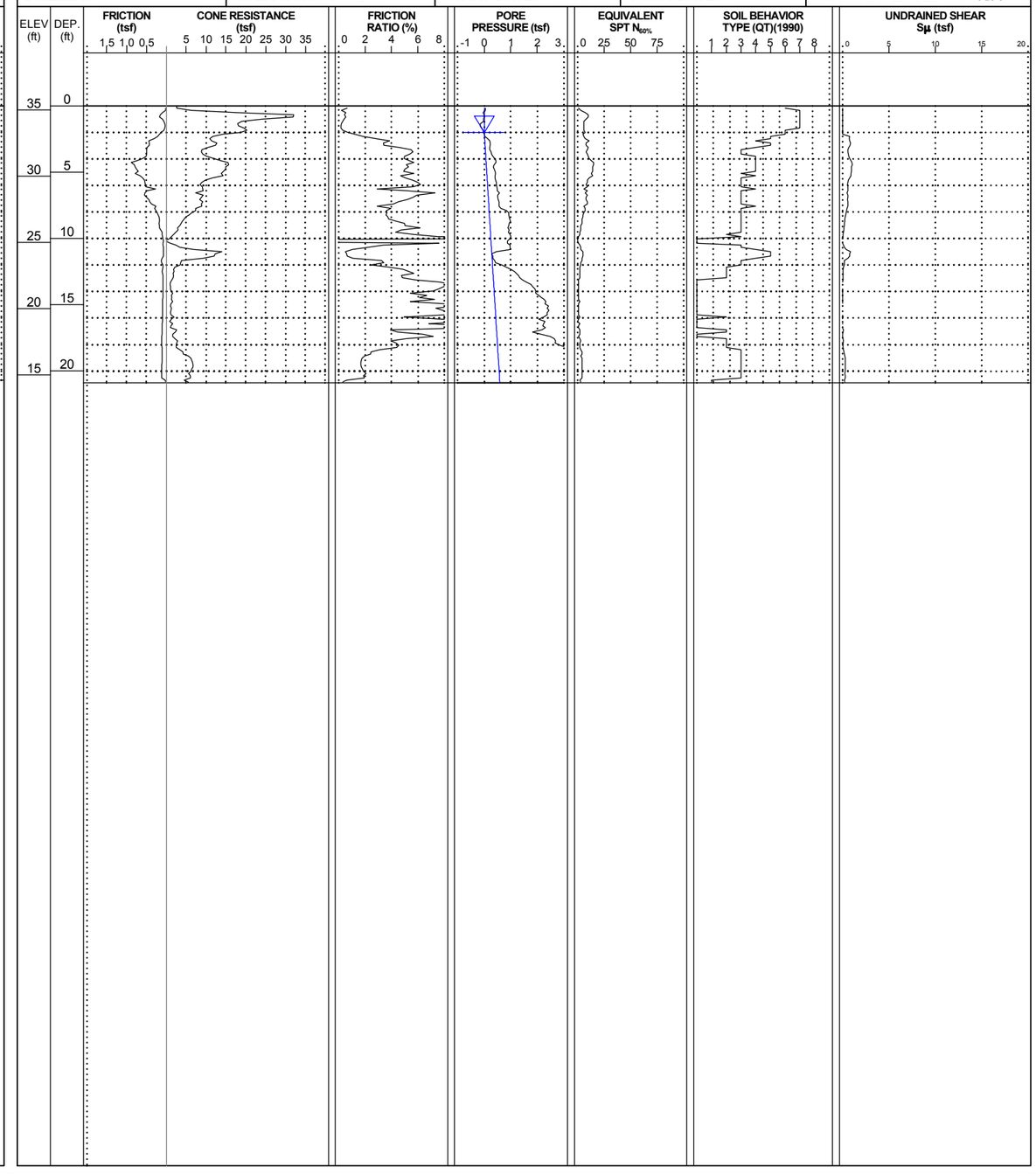
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: Y30RPA_0500	**STATION:** 5+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPA-	**EST. 0 HR.**	4.3
COLLAR ELEV.: 44.3 ft	**TOTAL DEPTH:** 20.7 ft	**NORTHING:** 232,729	**EASTING:** 2,379,028	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/16/18	**COMP. DATE:** 08/16/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: Y30RPA_1000_CL	**STATION:** 10+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPA-	**EST. 0 HR.**	2.0
COLLAR ELEV.: 35.3 ft	**TOTAL DEPTH:** 20.9 ft	**NORTHING:** 232,486	**EASTING:** 2,378,591	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/16/18	**COMP. DATE:** 08/16/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

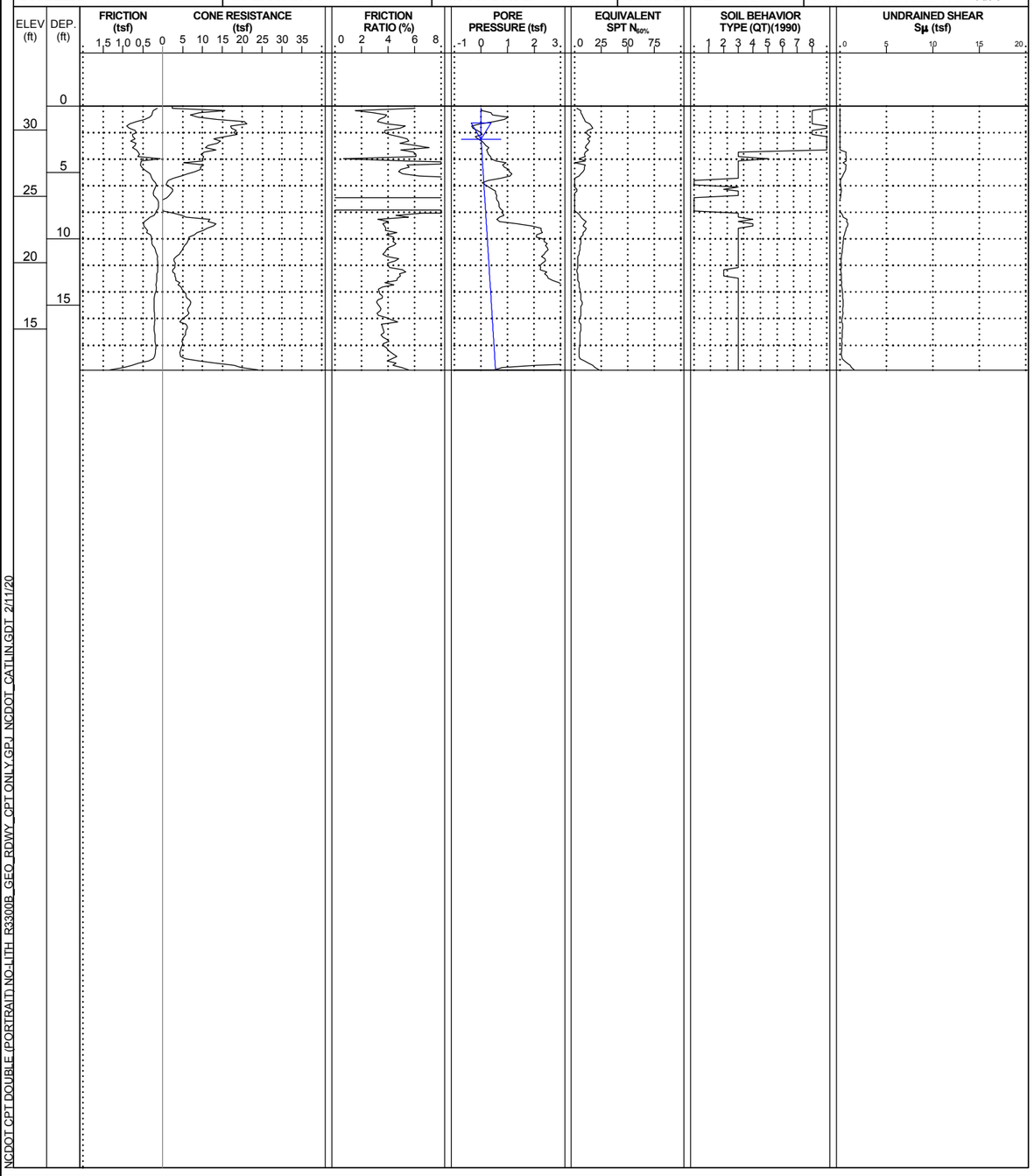
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

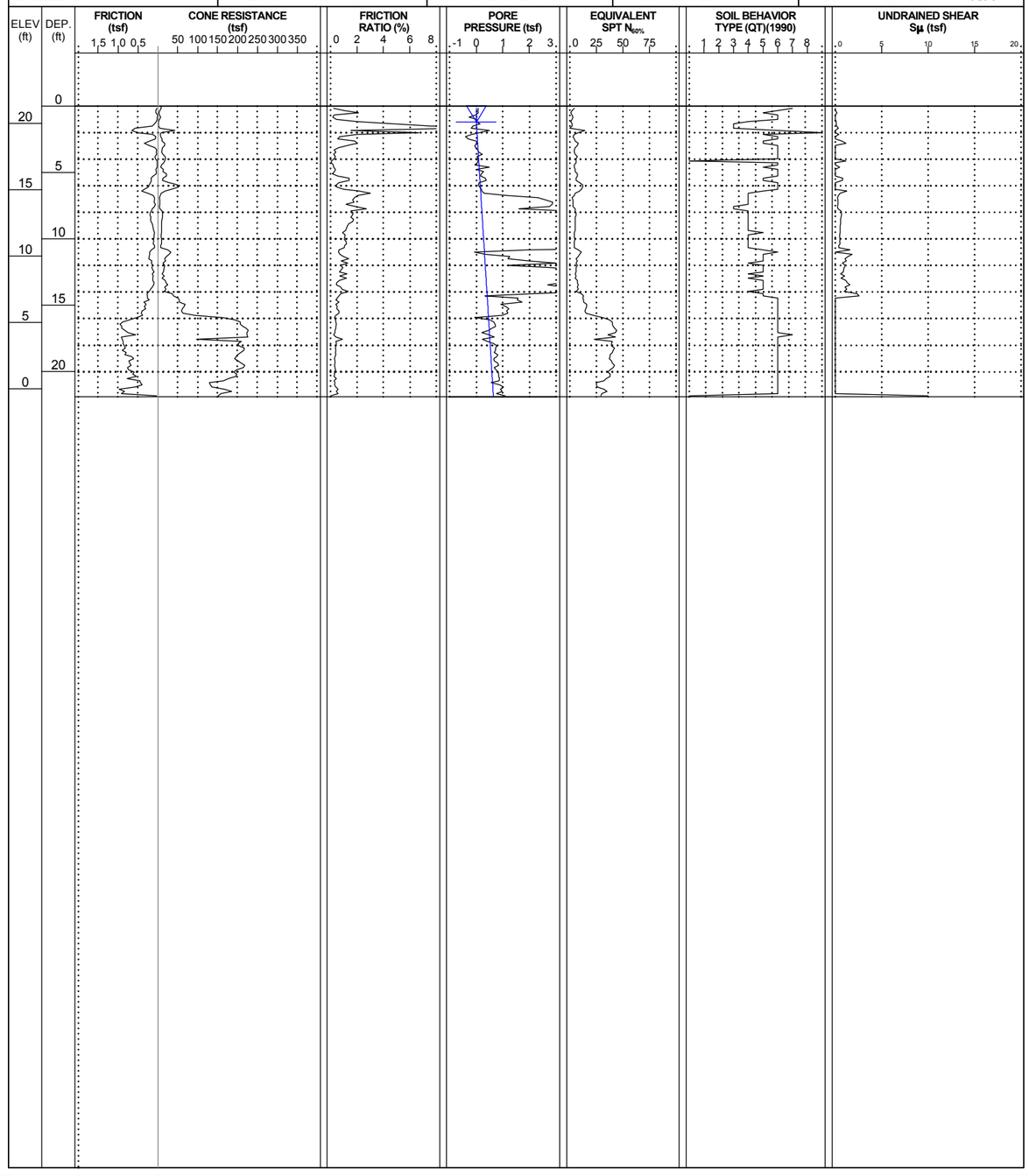
217060 | CATLIN Engineers and Scientists, 220 Old Dairy Road, Wilmington, NC 28405, Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	65

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30RPA_1200_15LT	**STATION:** 12+00	**OFFSET:** 15 ft LT	**ALIGNMENT:** -Y30RPA-	**EST. 0 HR.** 2.5
COLLAR ELEV.: 31.8 ft	**TOTAL DEPTH:** 19.9 ft	**NORTHING:** 232,401	**EASTING:** 2,378,409	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/21/18	**COMP. DATE:** 08/21/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30RPA_1600_CL	**STATION:** 16+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPA-	**EST. 0 HR.** 1.2
COLLAR ELEV.: 21.3 ft	**TOTAL DEPTH:** 21.9 ft	**NORTHING:** 232,340	**EASTING:** 2,378,012	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/16/18	**COMP. DATE:** 08/16/18	**SURF. WATER DEPTH:** N/A

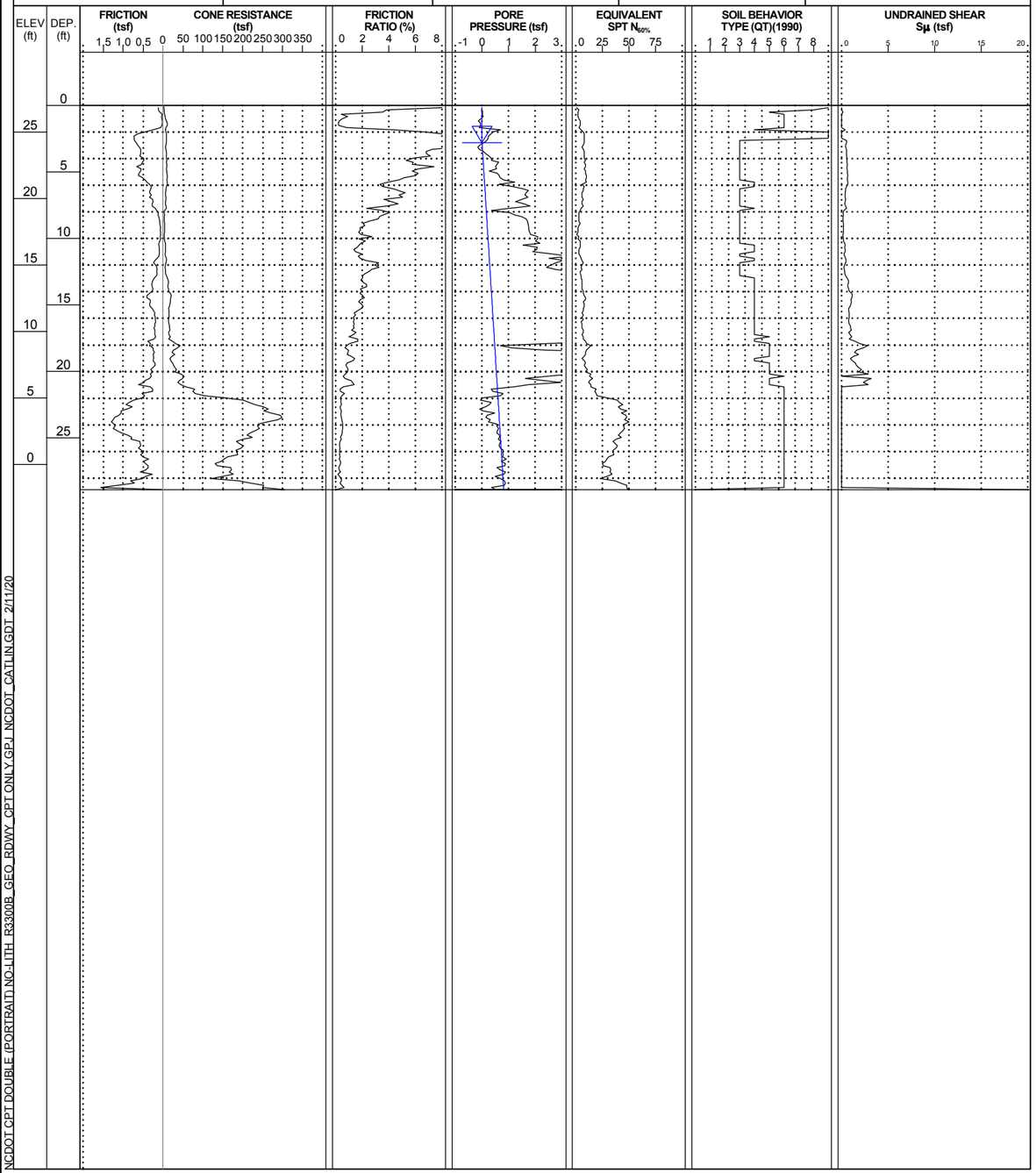


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

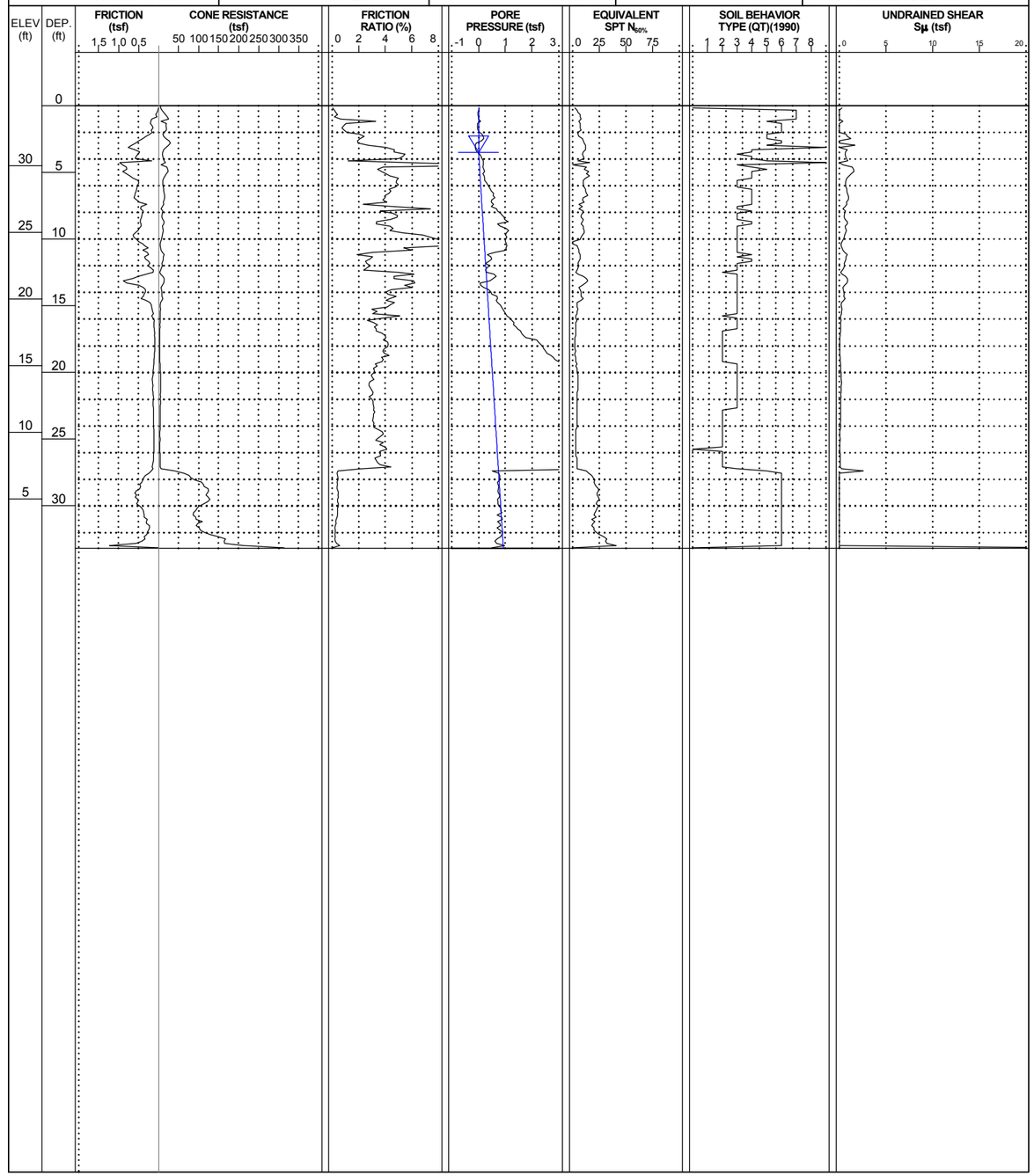
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: Y30RPA_1800_CL	**STATION:** 18+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPA-	**EST. 0 HR.**	2.8
COLLAR ELEV.: 27.0 ft	**TOTAL DEPTH:** 28.9 ft	**NORTHING:** 232,290	**EASTING:** 2,377,819	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/15/18	**COMP. DATE:** 08/15/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: Y30RPA_2200_CL	**STATION:** 22+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPA-	**EST. 0 HR.**	3.5
COLLAR ELEV.: 34.5 ft	**TOTAL DEPTH:** 33.2 ft	**NORTHING:** 232,029	**EASTING:** 2,377,526	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/15/18	**COMP. DATE:** 08/15/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH_R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

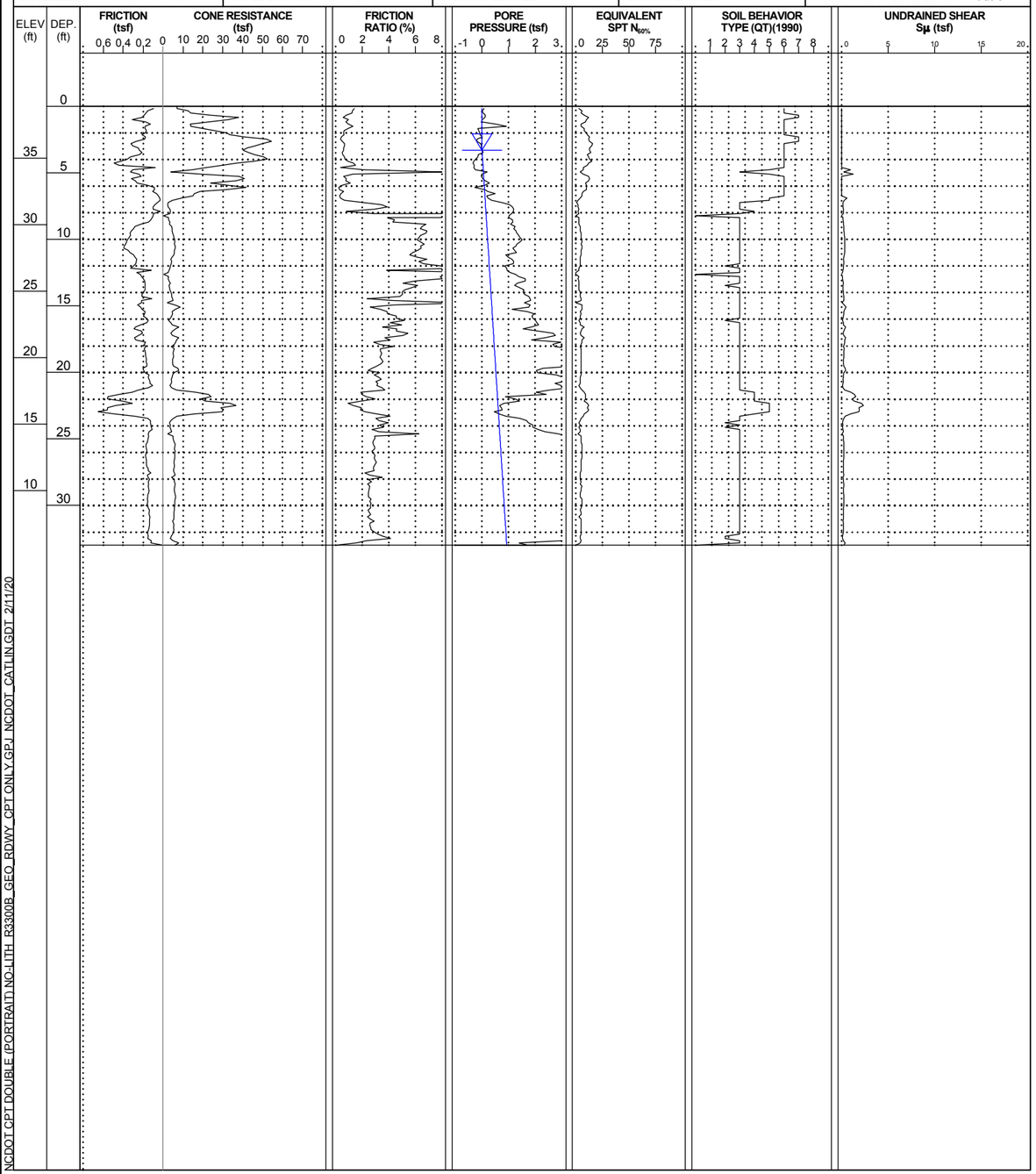
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

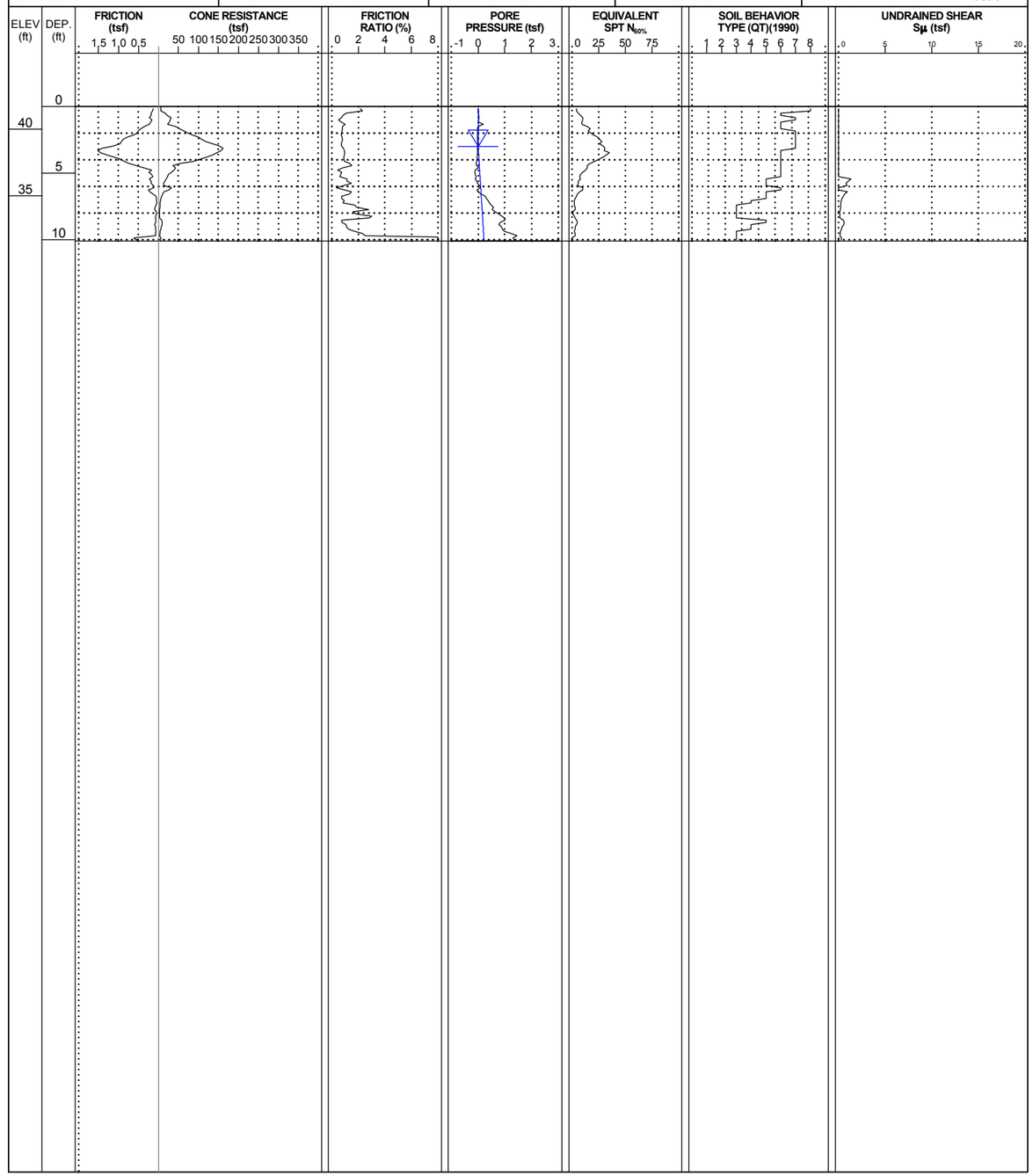
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	67

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30RPA_2400_CL	**STATION:** 24+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPA-	**EST. 0 HR.** 3.3
COLLAR ELEV.: 38.9 ft	**TOTAL DEPTH:** 33.0 ft	**NORTHING:** 231,844	**EASTING:** 2,377,451	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/15/18	**COMP. DATE:** 08/15/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30RPB_1150	**STATION:** 11+50	**OFFSET:** CL	**ALIGNMENT:** -Y30RPB-	**EST. 0 HR.** 3.0
COLLAR ELEV.: 41.7 ft	**TOTAL DEPTH:** 10.1 ft	**NORTHING:** 230,723	**EASTING:** 2,376,980	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/17/18	**COMP. DATE:** 07/17/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

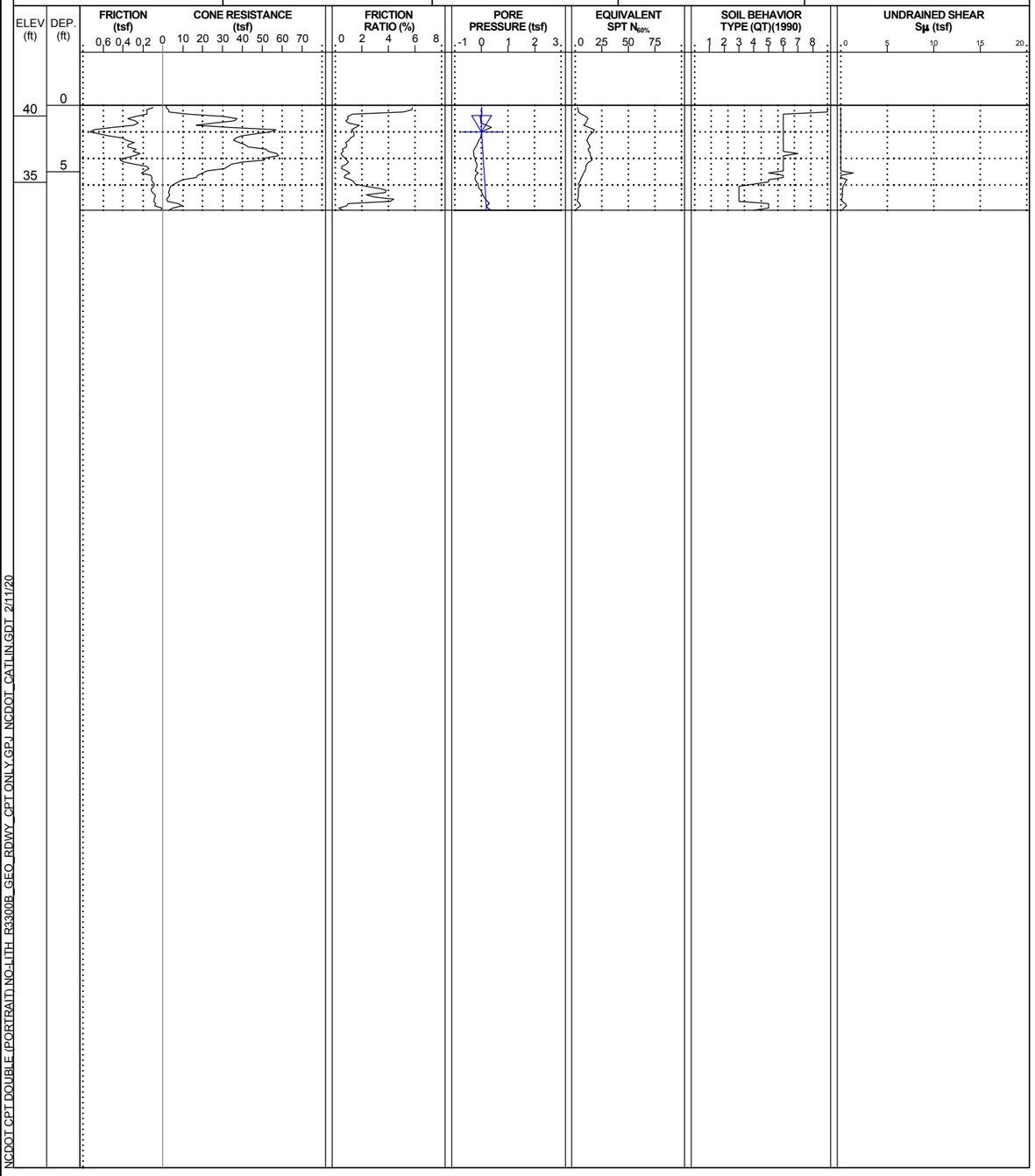
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

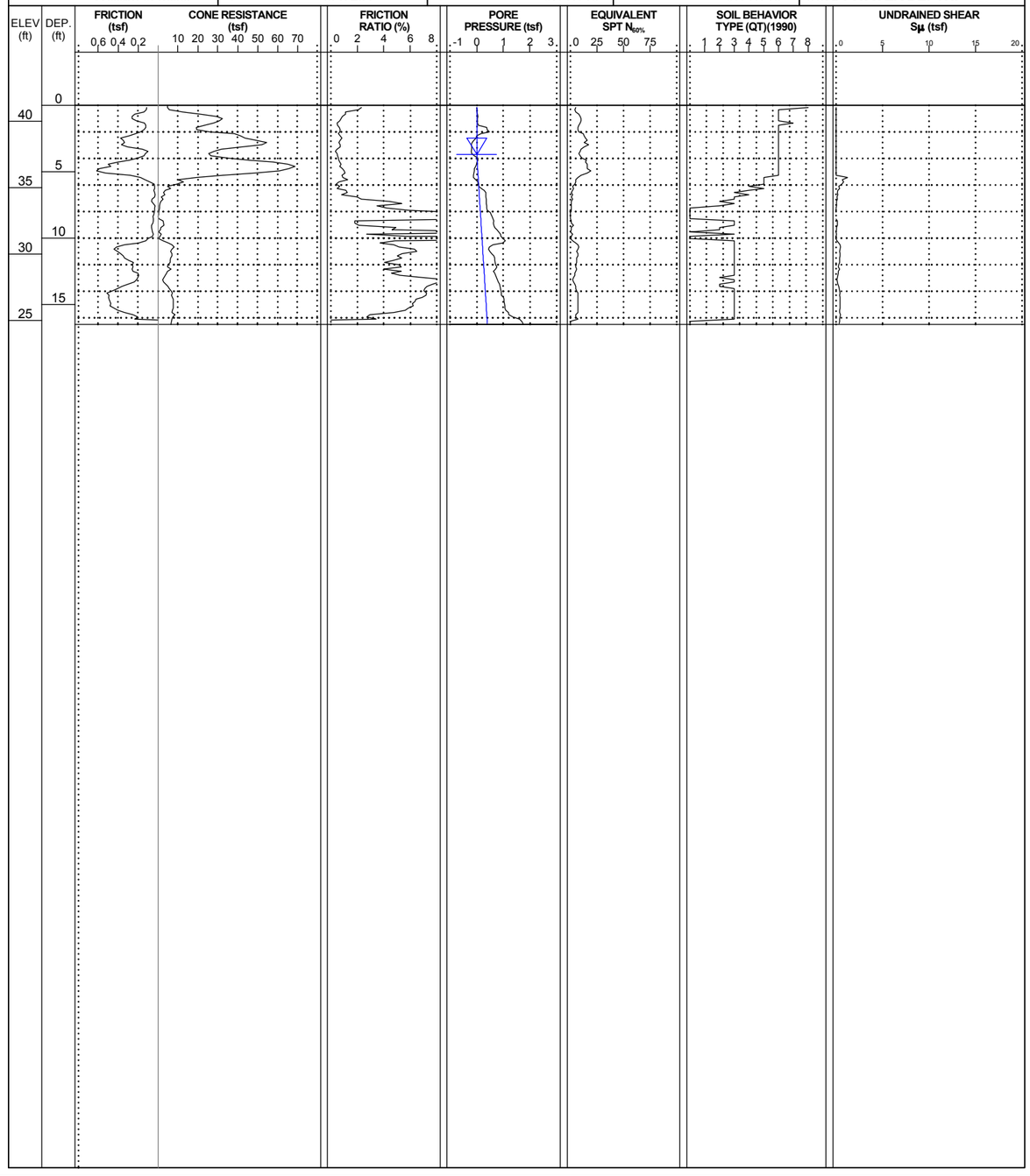
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	68

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30RPB_1350	**STATION:** 13+50	**OFFSET:** CL	**ALIGNMENT:** -Y30RPB-	**EST. 0 HR.** 2.0
COLLAR ELEV.: 40.8 ft	**TOTAL DEPTH:** 7.9 ft	**NORTHING:** 230,887	**EASTING:** 2,377,095	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/17/18	**COMP. DATE:** 07/17/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30RPB_1700	**STATION:** 17+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPB-	**EST. 0 HR.** 3.7
COLLAR ELEV.: 41.2 ft	**TOTAL DEPTH:** 16.5 ft	**NORTHING:** 231,205	**EASTING:** 2,377,240	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/17/18	**COMP. DATE:** 07/17/18	**SURF. WATER DEPTH:** N/A

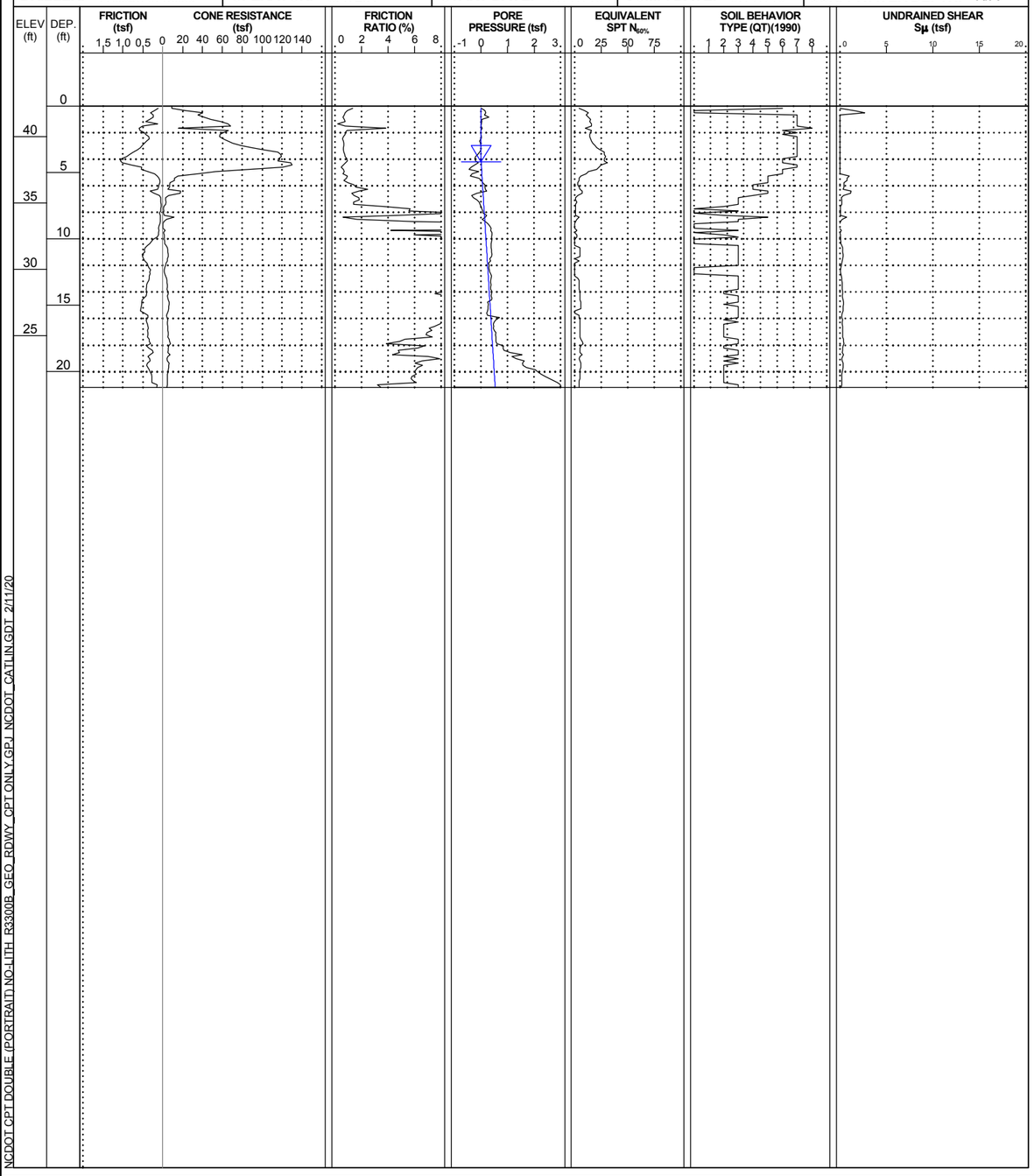


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

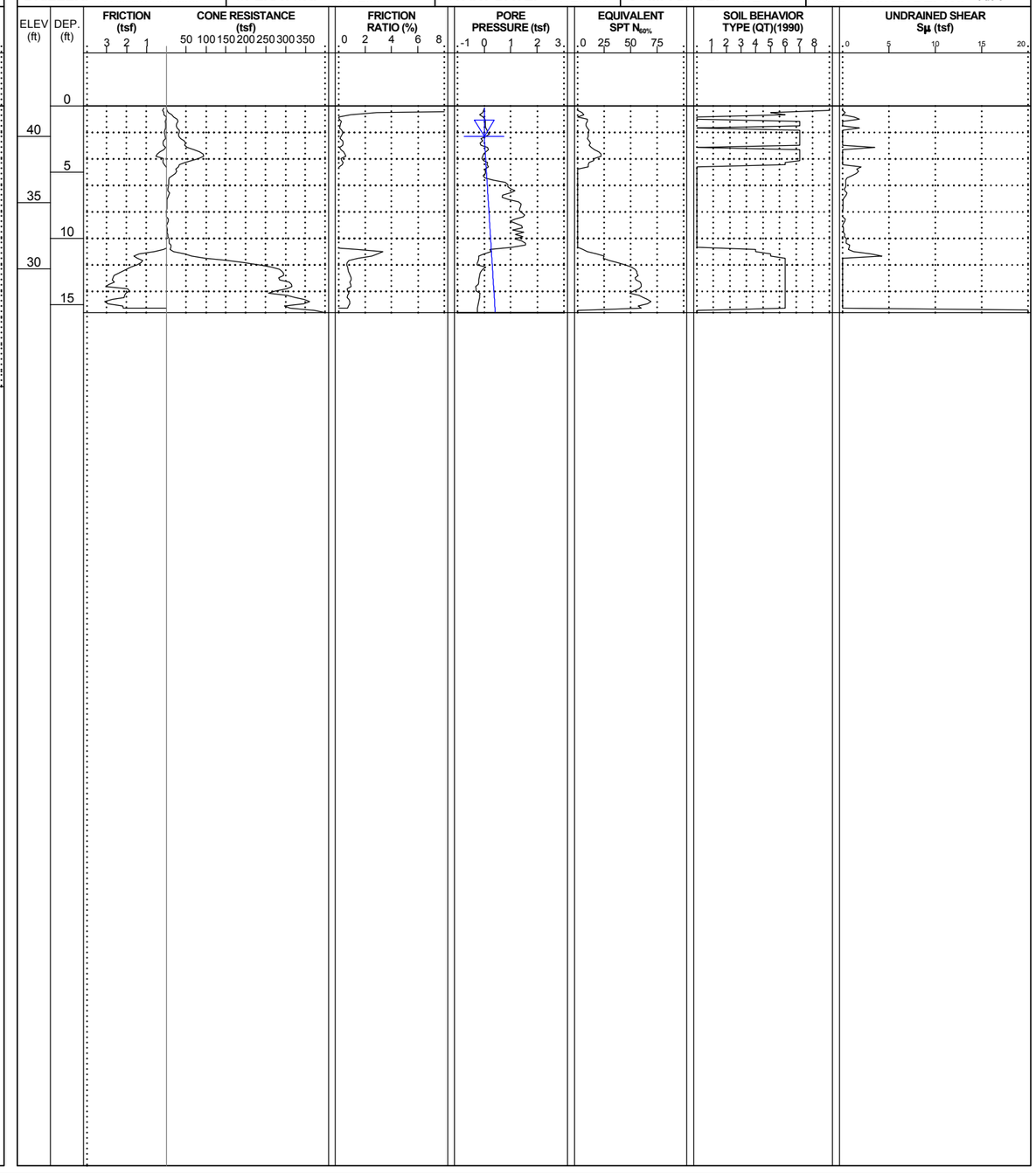
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: Y30RPB_1900	**STATION:** 19+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPB-	**EST. 0 HR.**	4.2
COLLAR ELEV.: 42.3 ft	**TOTAL DEPTH:** 21.2 ft	**NORTHING:** 231,393	**EASTING:** 2,377,306	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/17/18	**COMP. DATE:** 07/17/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: Y30RPC_1100	**STATION:** 11+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPC-	**EST. 0 HR.**	2.3
COLLAR ELEV.: 42.3 ft	**TOTAL DEPTH:** 15.6 ft	**NORTHING:** 230,621	**EASTING:** 2,377,242	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/23/18	**COMP. DATE:** 07/23/18	**SURF. WATER DEPTH:** N/A	



NCDOT GPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_GPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

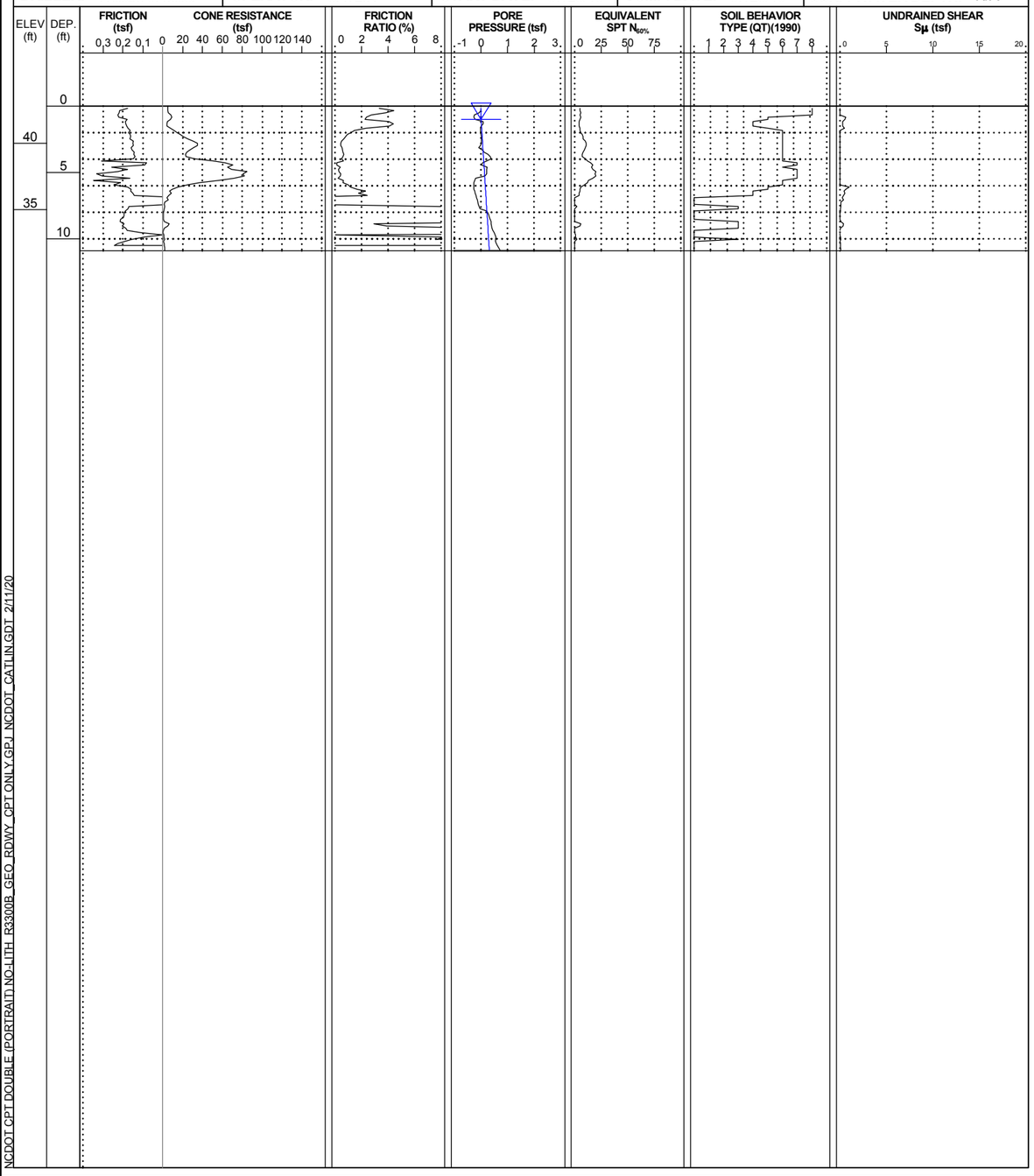
CONE PENETROMETER TEST BORING REPORT

CATLIN Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405
Corporate Licensure No. for Engineering Services C-0586

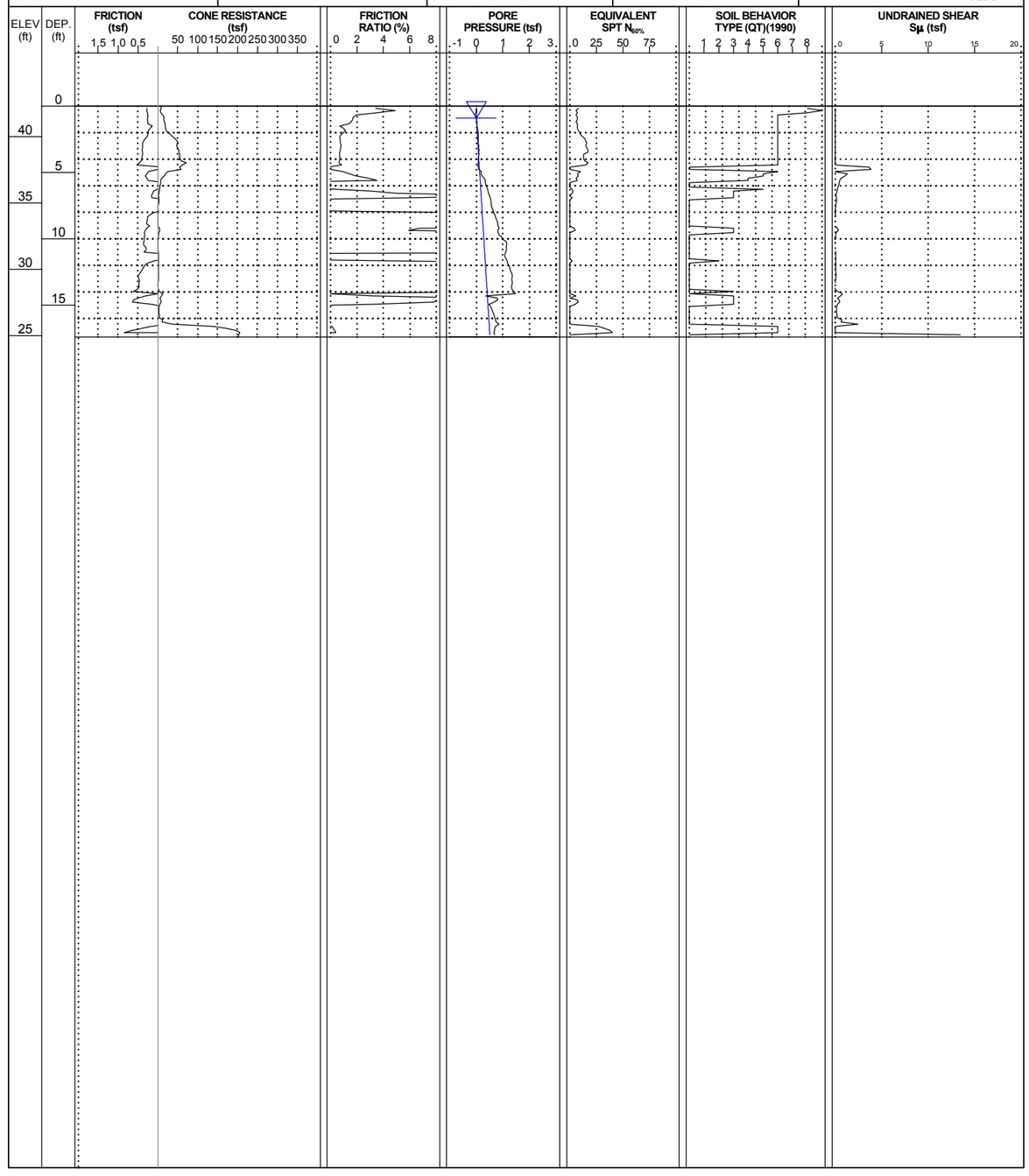
217060

PROJECT REFERENCE NO.	SHEET
R-3300B	70

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30RPC_1500	**STATION:** 15+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPC-	**EST. 0 HR.** 1.0
COLLAR ELEV.: 42.8 ft	**TOTAL DEPTH:** 10.9 ft	**NORTHING:** 230,711	**EASTING:** 2,377,630	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/23/18	**COMP. DATE:** 07/23/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30RPC_1700	**STATION:** 17+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPC-	**EST. 0 HR.** 0.9
COLLAR ELEV.: 42.3 ft	**TOTAL DEPTH:** 17.4 ft	**NORTHING:** 230,733	**EASTING:** 2,377,829	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 07/23/18	**COMP. DATE:** 07/23/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

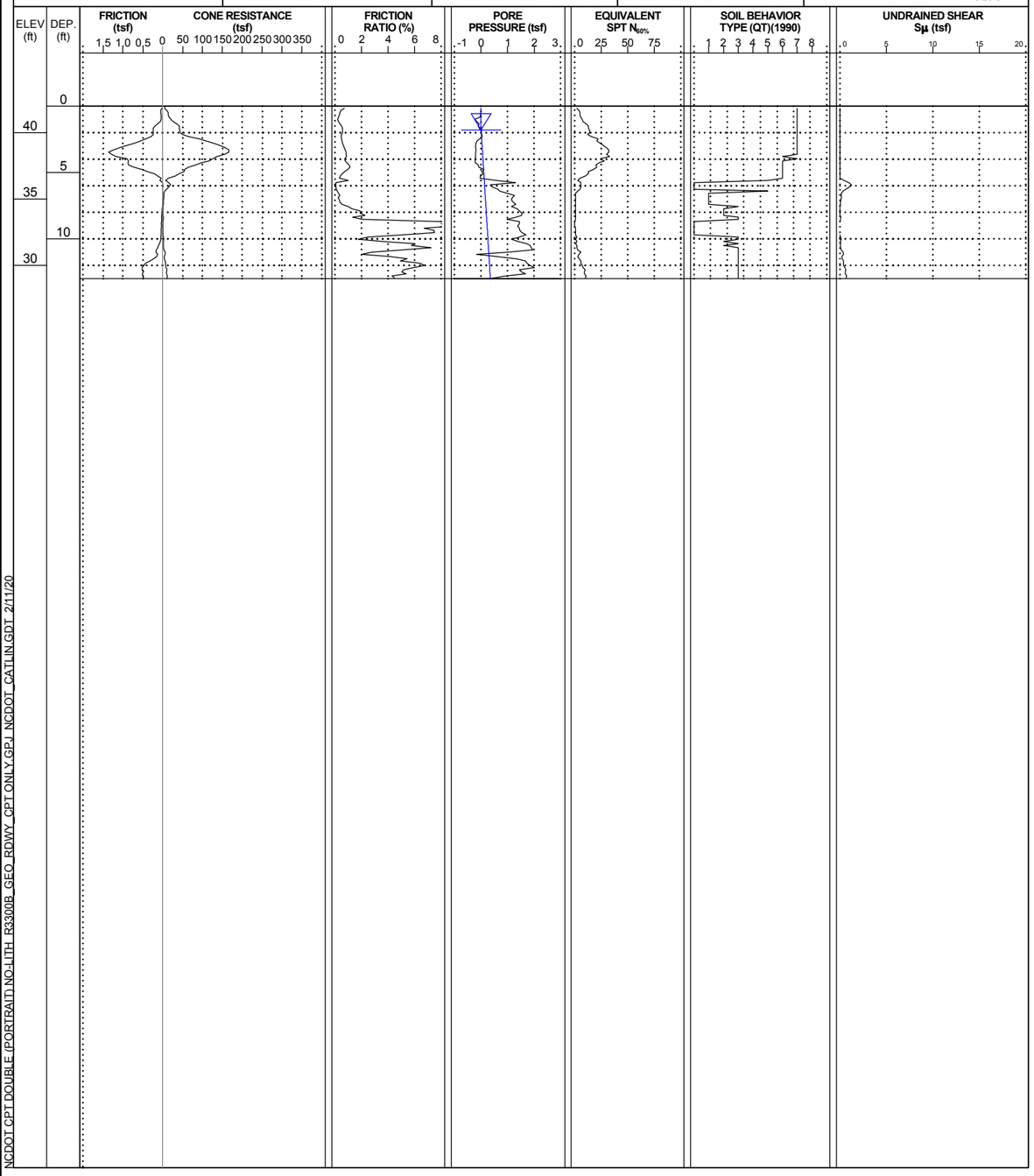
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

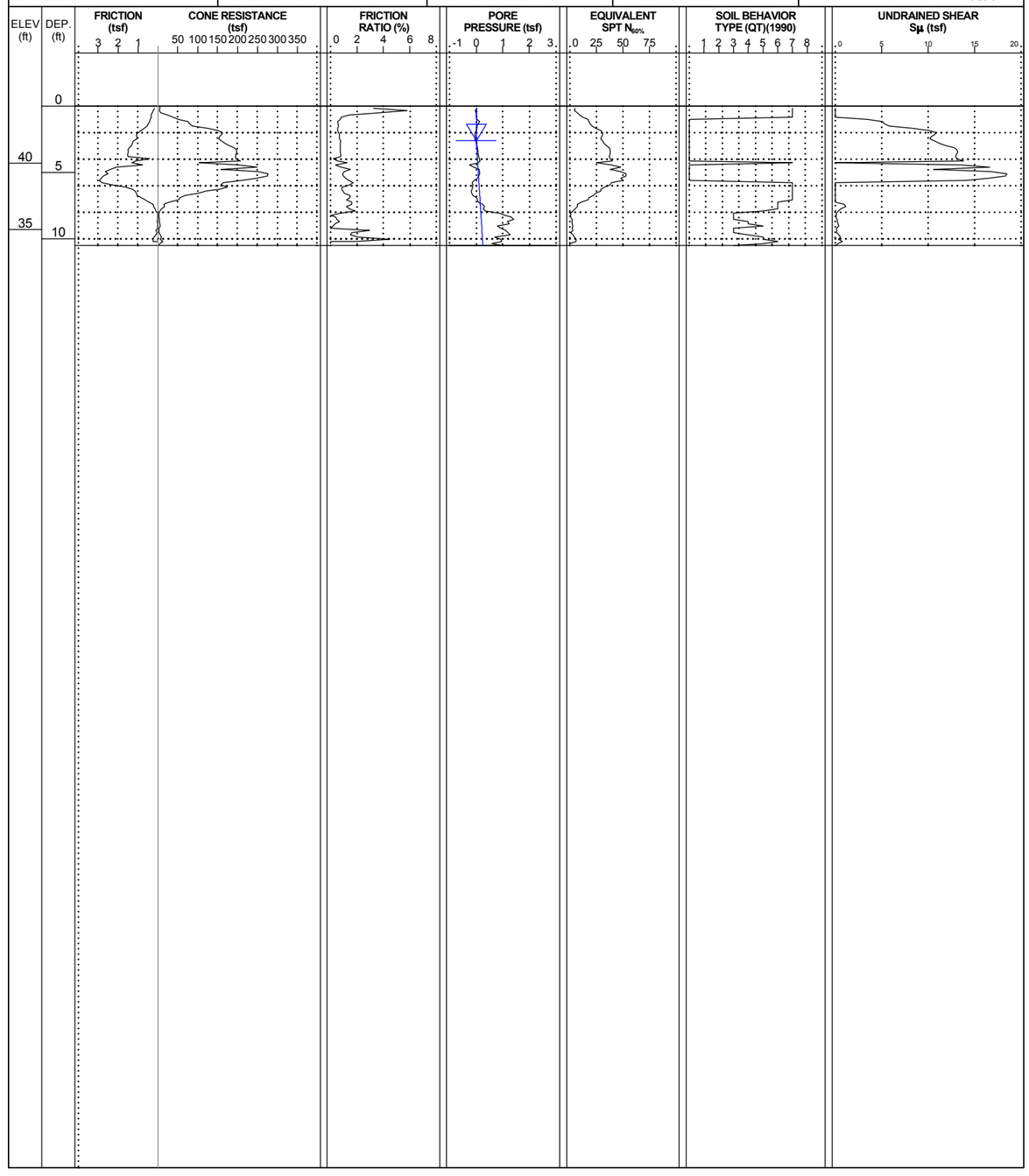
CATLIN Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405
Corporate Licensure No. for Engineering Services C-0586
217060

PROJECT REFERENCE NO.	SHEET
R-3300B	71

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30RPC_2100	**STATION:** 21+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPC-	**EST. 0 HR.** 1.8
COLLAR ELEV.: 42.0 ft	**TOTAL DEPTH:** 13.0 ft	**NORTHING:** 230,896	**EASTING:** 2,378,187	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/13/18	**COMP. DATE:** 08/13/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30RPD_0900	**STATION:** 9+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPD-	**EST. 0 HR.** 2.6
COLLAR ELEV.: 44.3 ft	**TOTAL DEPTH:** 10.5 ft	**NORTHING:** 232,668	**EASTING:** 2,379,133	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/21/18	**COMP. DATE:** 08/21/18	**SURF. WATER DEPTH:** N/A

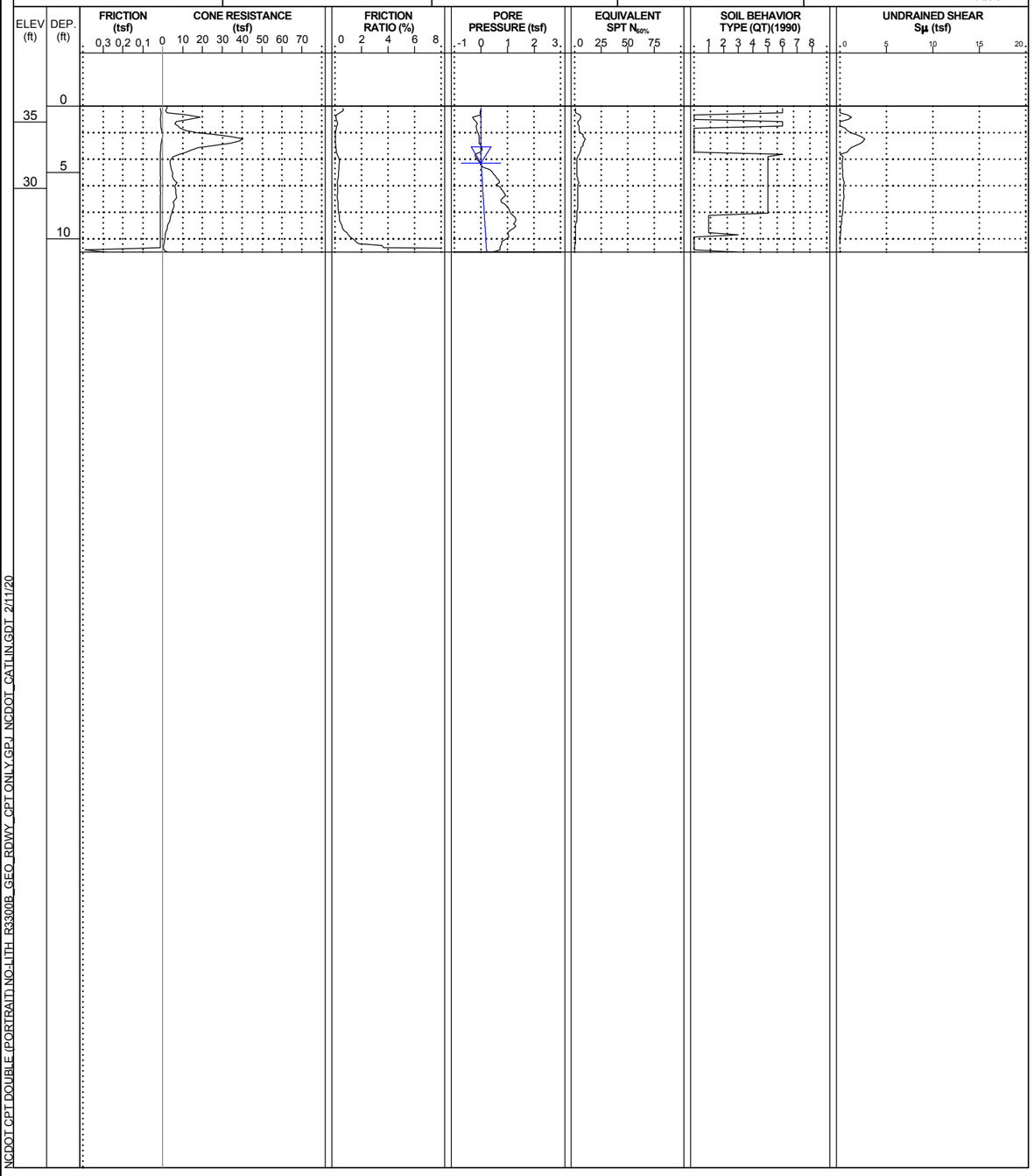


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

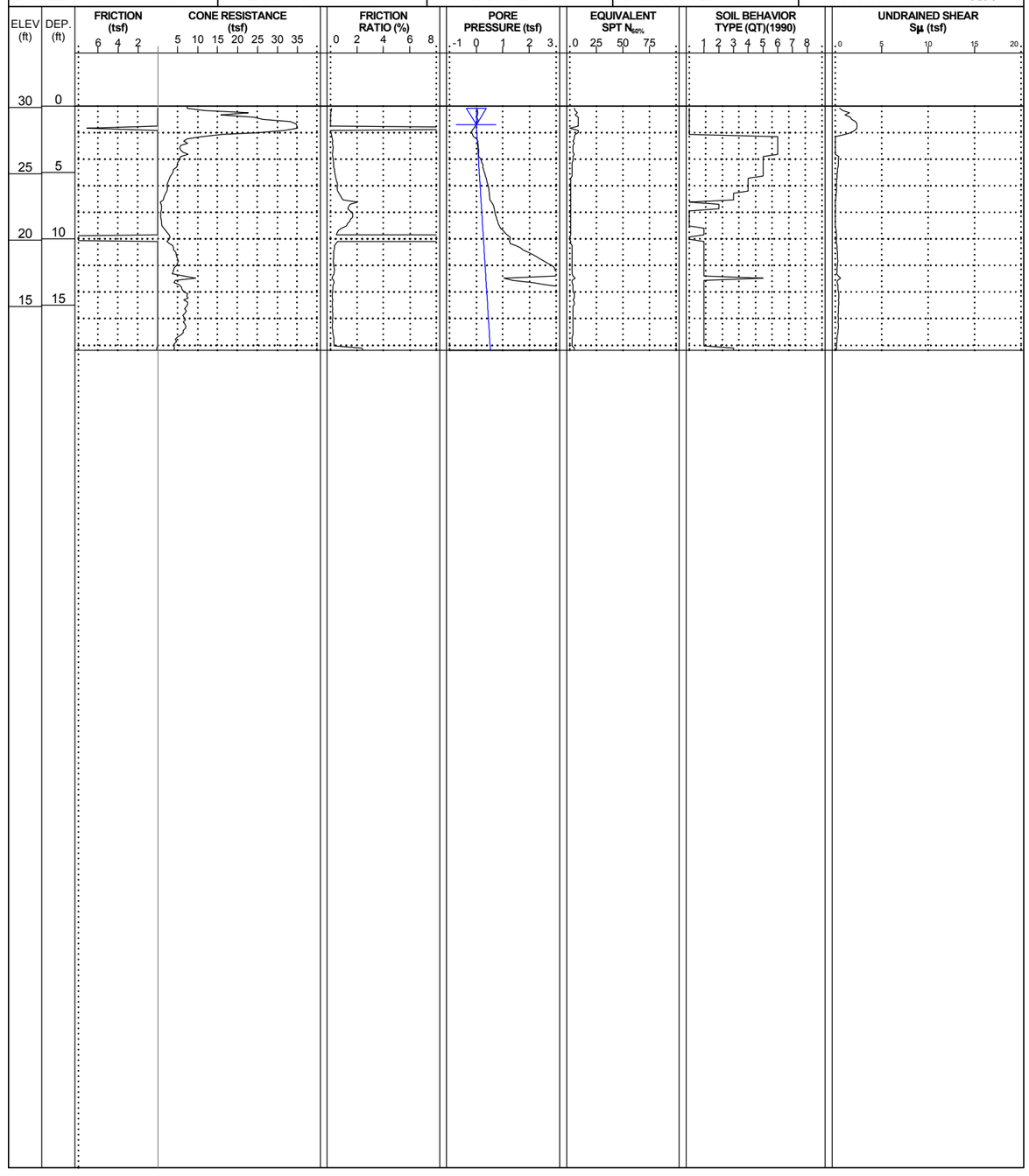
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: Y30RPD_1300_CL	**STATION:** 13+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPD-	**EST. 0 HR.**	4.3
COLLAR ELEV.: 36.2 ft	**TOTAL DEPTH:** 11.0 ft	**NORTHING:** 232,390	**EASTING:** 2,378,847	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123	
DRILLER: Eddie Swain	**OPERATOR:** CATLIN	**START DATE:** 08/23/18	**COMP. DATE:** 08/23/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: Y30RPD_1500_CL	**STATION:** 15+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPD-	**EST. 0 HR.**	1.4
COLLAR ELEV.: 30.1 ft	**TOTAL DEPTH:** 18.4 ft	**NORTHING:** 232,224	**EASTING:** 2,378,736	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123	
DRILLER: Eddie Swain	**OPERATOR:** CATLIN	**START DATE:** 08/23/18	**COMP. DATE:** 08/23/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

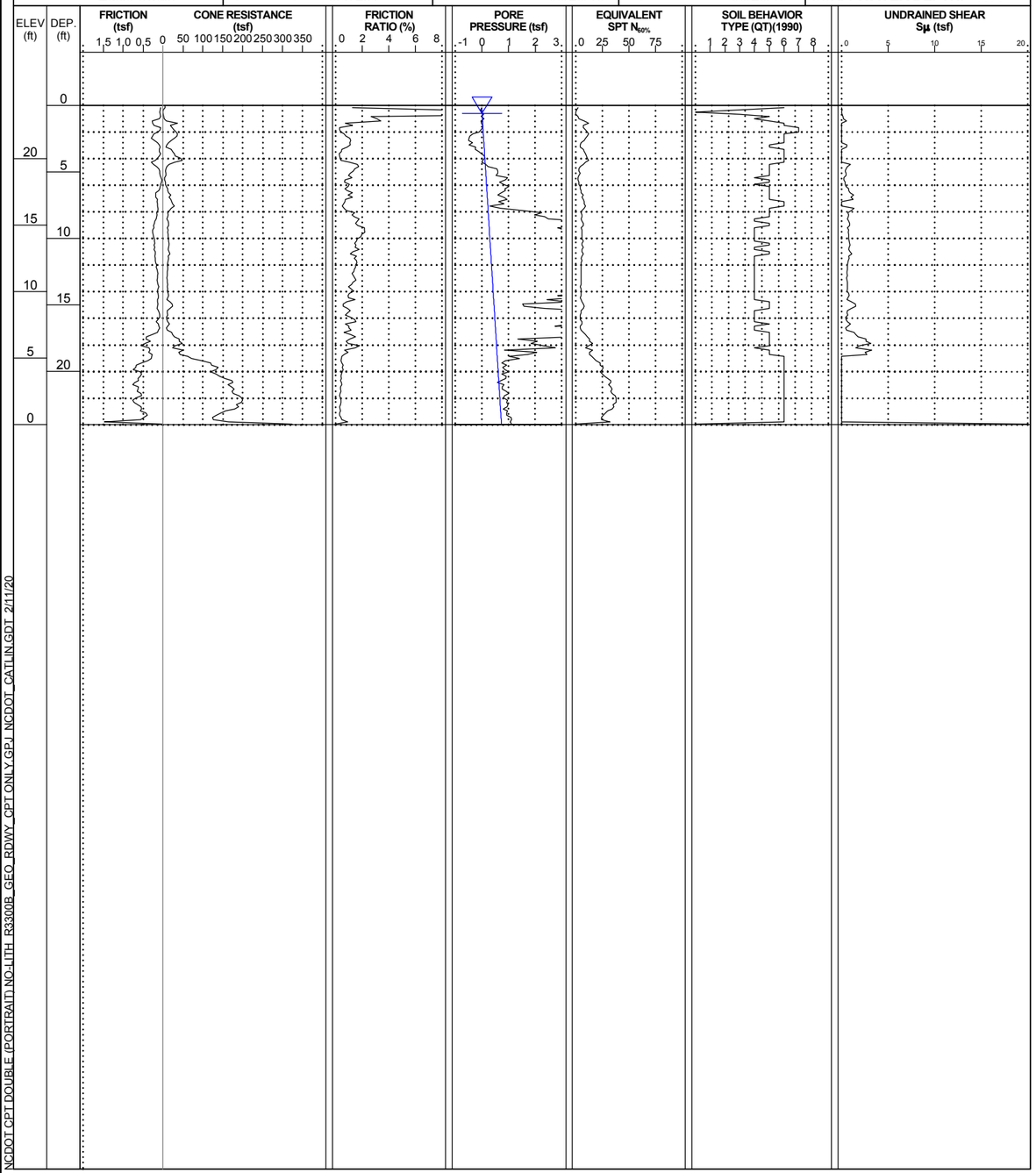
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

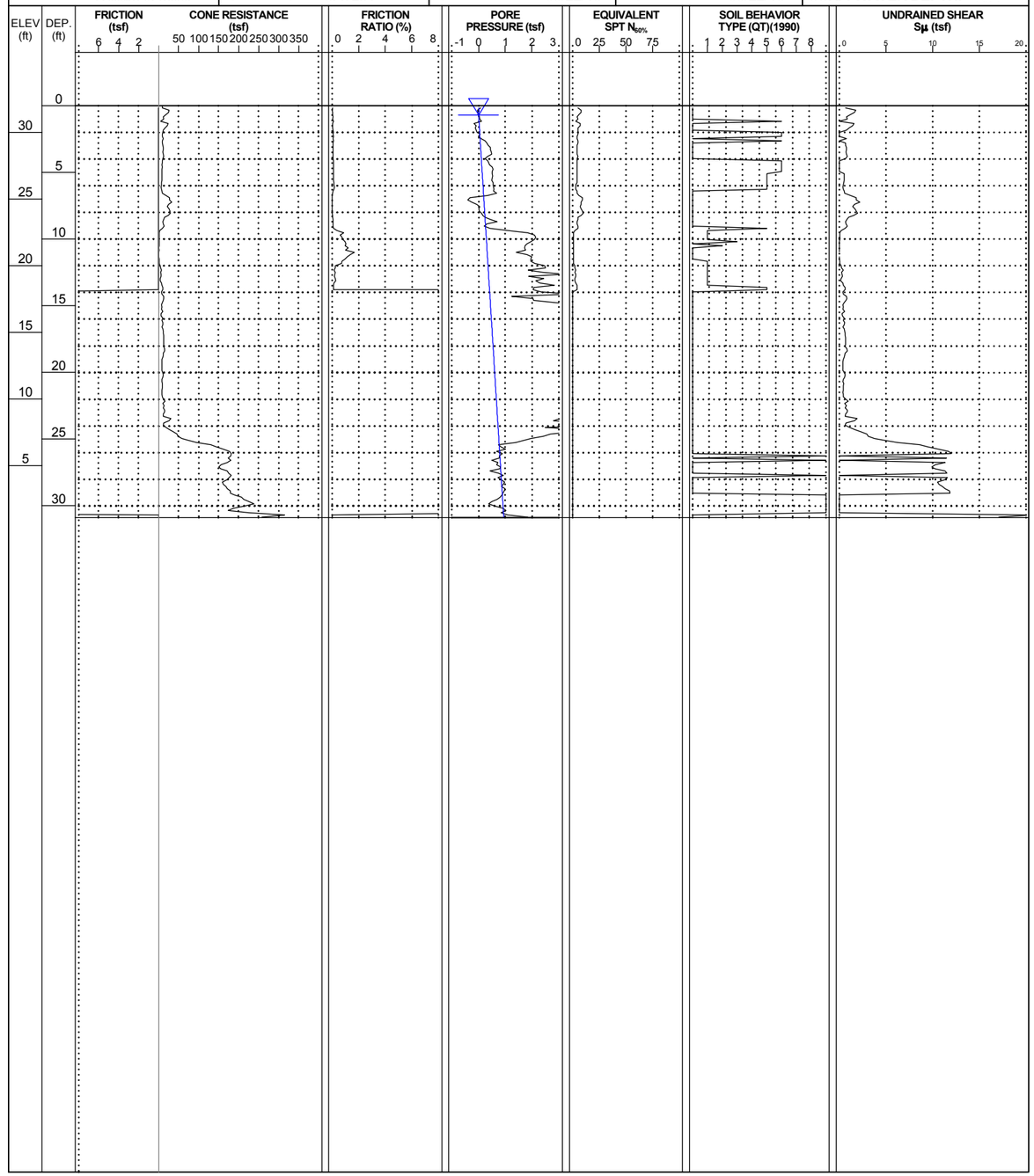
CATLIN Engineers and Scientists, 220 Old Dairy Road, Wilmington, NC 28405, Corporate Licensure No. for Engineering Services C-0586 — 217060

PROJECT REFERENCE NO.	SHEET
R-3300B	73

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** C. FUTRAL	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30RPD_1950_20LT	**STATION:** 19+50	**OFFSET:** 20 ft LT	**ALIGNMENT:** -Y30RPD-	**EST. 0 HR.** 0.6
COLLAR ELEV.: 24.0 ft	**TOTAL DEPTH:** 24.0 ft	**NORTHING:** 231,802	**EASTING:** 2,378,585	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: Eddie Swain	**OPERATOR:** CATLIN	**START DATE:** 08/23/18	**COMP. DATE:** 08/23/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y30RPD_2100_CL	**STATION:** 21+00	**OFFSET:** CL	**ALIGNMENT:** -Y30RPD-	**EST. 0 HR.** 0.7
COLLAR ELEV.: 32.0 ft	**TOTAL DEPTH:** 30.9 ft	**NORTHING:** 231,667	**EASTING:** 2,378,516	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 08/22/18	**COMP. DATE:** 08/22/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO_LITH R3300B_GEO_ROWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

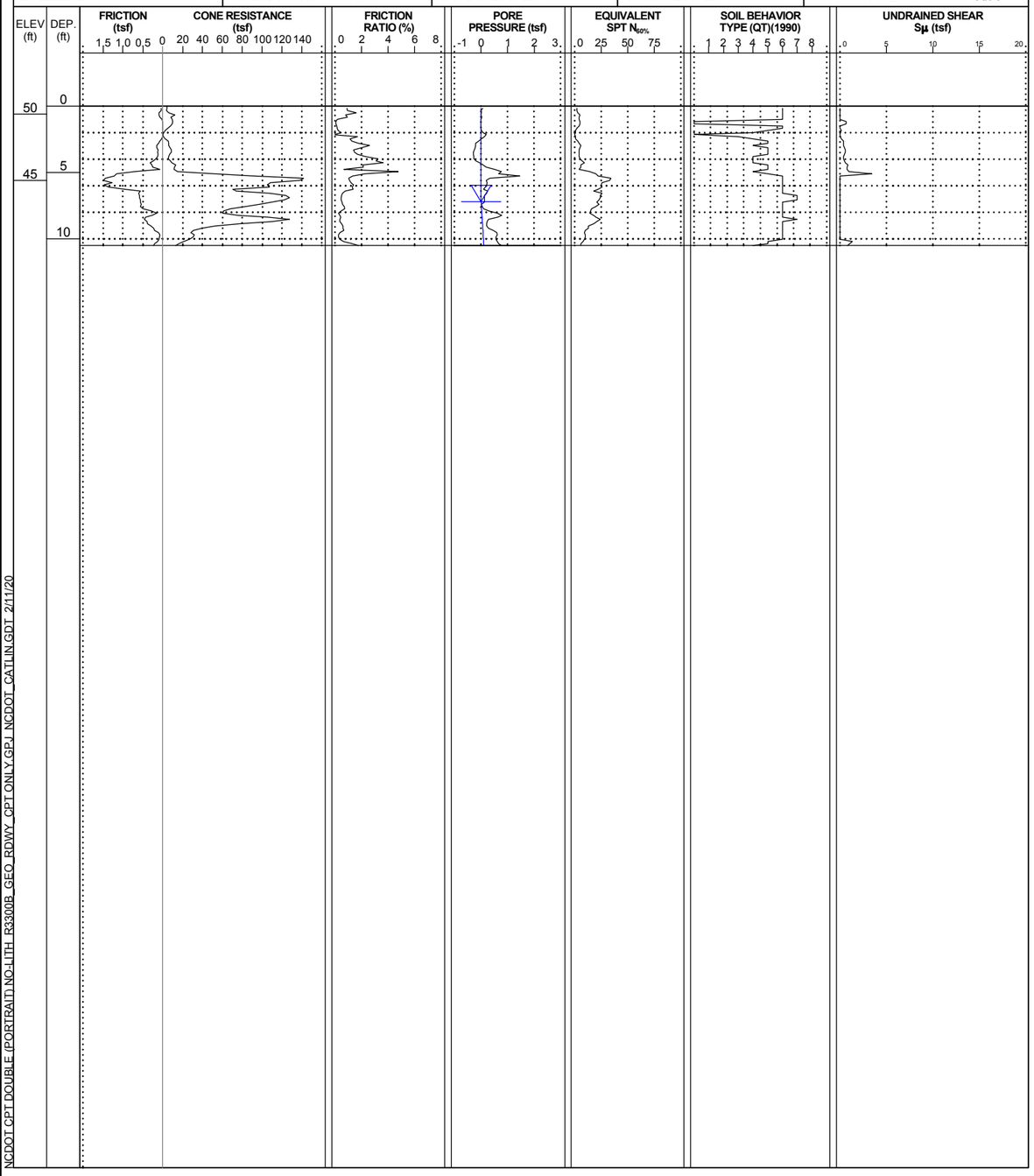
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

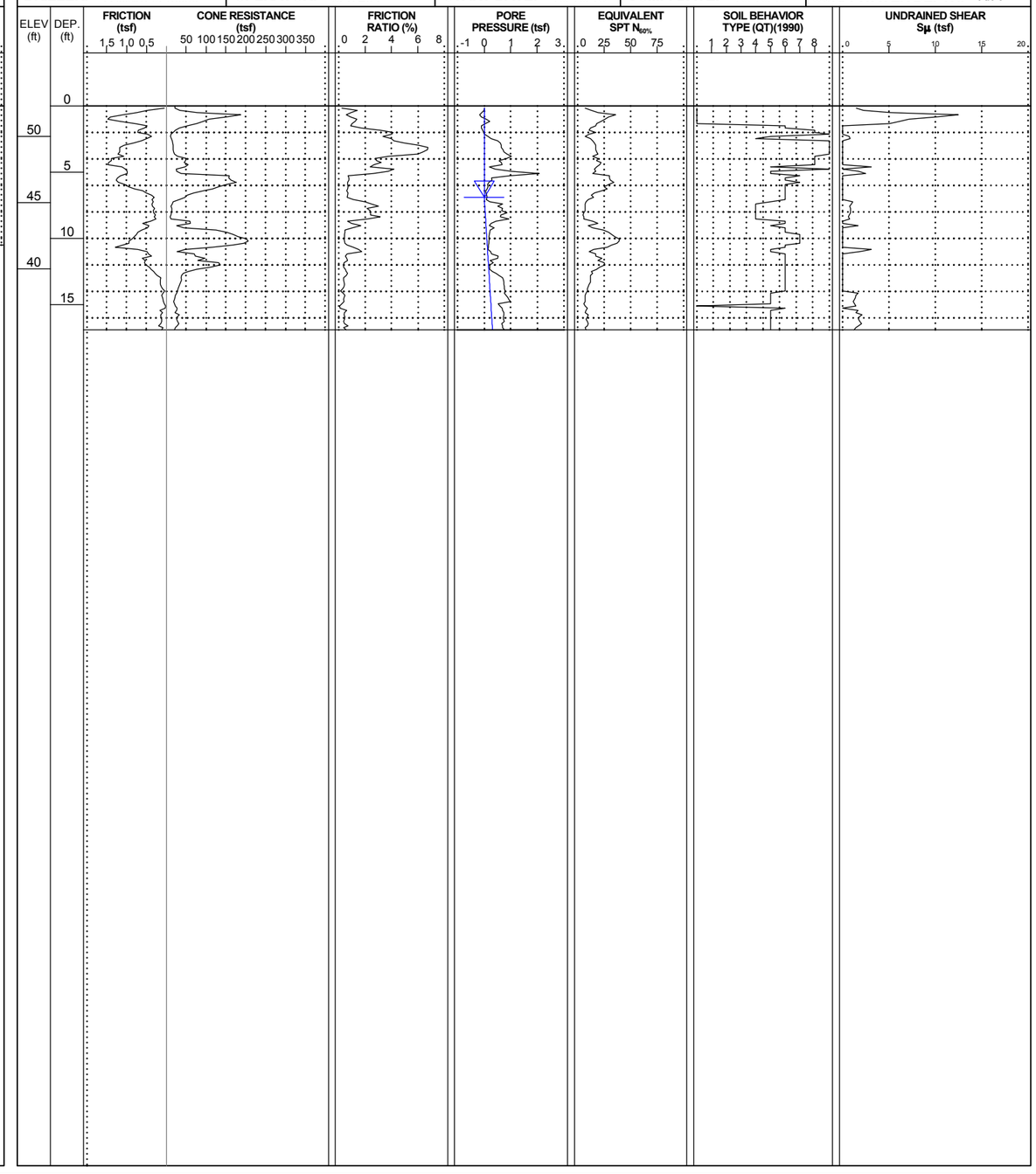
217060 | CATLIN Engineers and Scientists, 220 Old Dairy Road, Wilmington, NC 28405, Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	74

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31_2100_CPT	**STATION:** 21+50	**OFFSET:** 17 ft RT	**ALIGNMENT:** -Y31-	**EST. 0 HR.** 7.2
COLLAR ELEV.: 50.6 ft	**TOTAL DEPTH:** 10.5 ft	**NORTHING:** 236,569	**EASTING:** 2,389,208	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/10/18	**COMP. DATE:** 10/10/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31_2300	**STATION:** 23+00	**OFFSET:** 15 ft LT	**ALIGNMENT:** -Y31-	**EST. 0 HR.** 6.9
COLLAR ELEV.: 52.3 ft	**TOTAL DEPTH:** 16.9 ft	**NORTHING:** 236,418	**EASTING:** 2,389,234	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/10/18	**COMP. DATE:** 10/10/18	**SURF. WATER DEPTH:** N/A

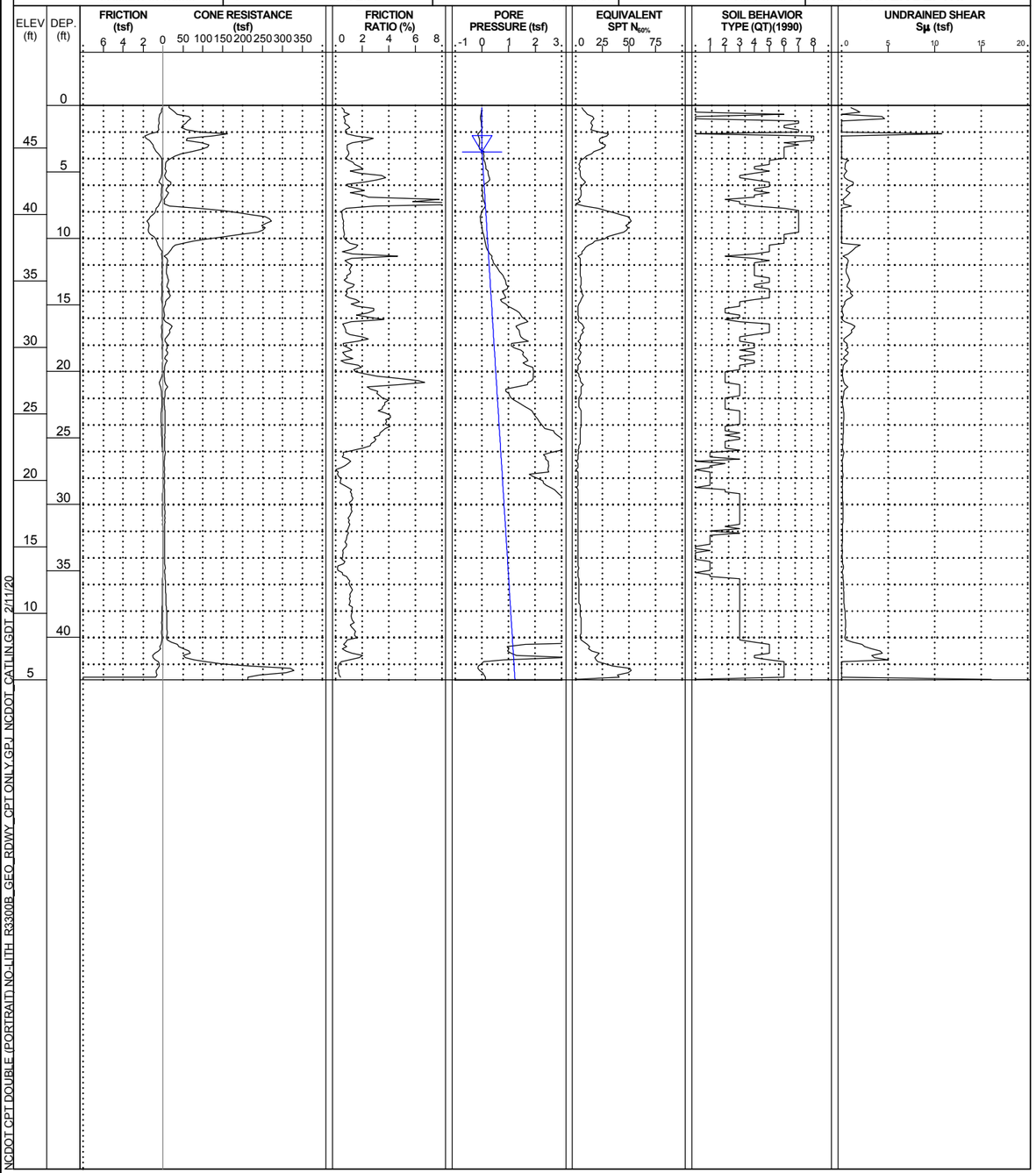


NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

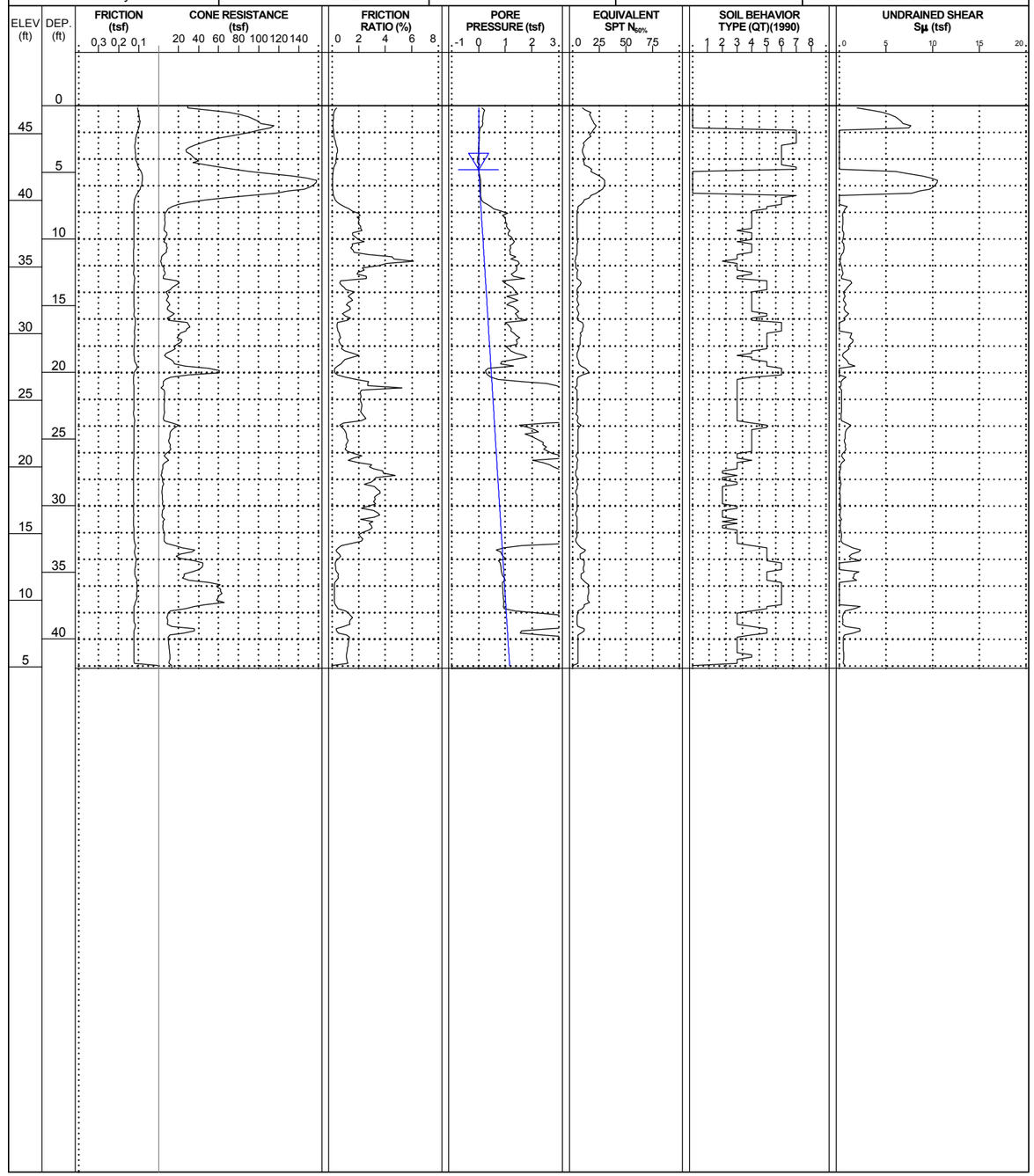
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31_2800	**STATION:** 28+00	**OFFSET:** 15 ft RT	**ALIGNMENT:** -Y31-	**EST. 0 HR.** 3.5
COLLAR ELEV.: 48.2 ft	**TOTAL DEPTH:** 43.2 ft	**NORTHING:** 235,920	**EASTING:** 2,389,182	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/10/18	**COMP. DATE:** 10/10/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31_3400_15RT	**STATION:** 34+00	**OFFSET:** 15 ft RT	**ALIGNMENT:** -Y31-	**EST. 0 HR.** 4.8
COLLAR ELEV.: 47.1 ft	**TOTAL DEPTH:** 42.2 ft	**NORTHING:** 235,326	**EASTING:** 2,389,116	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/30/18	**COMP. DATE:** 08/30/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH_R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

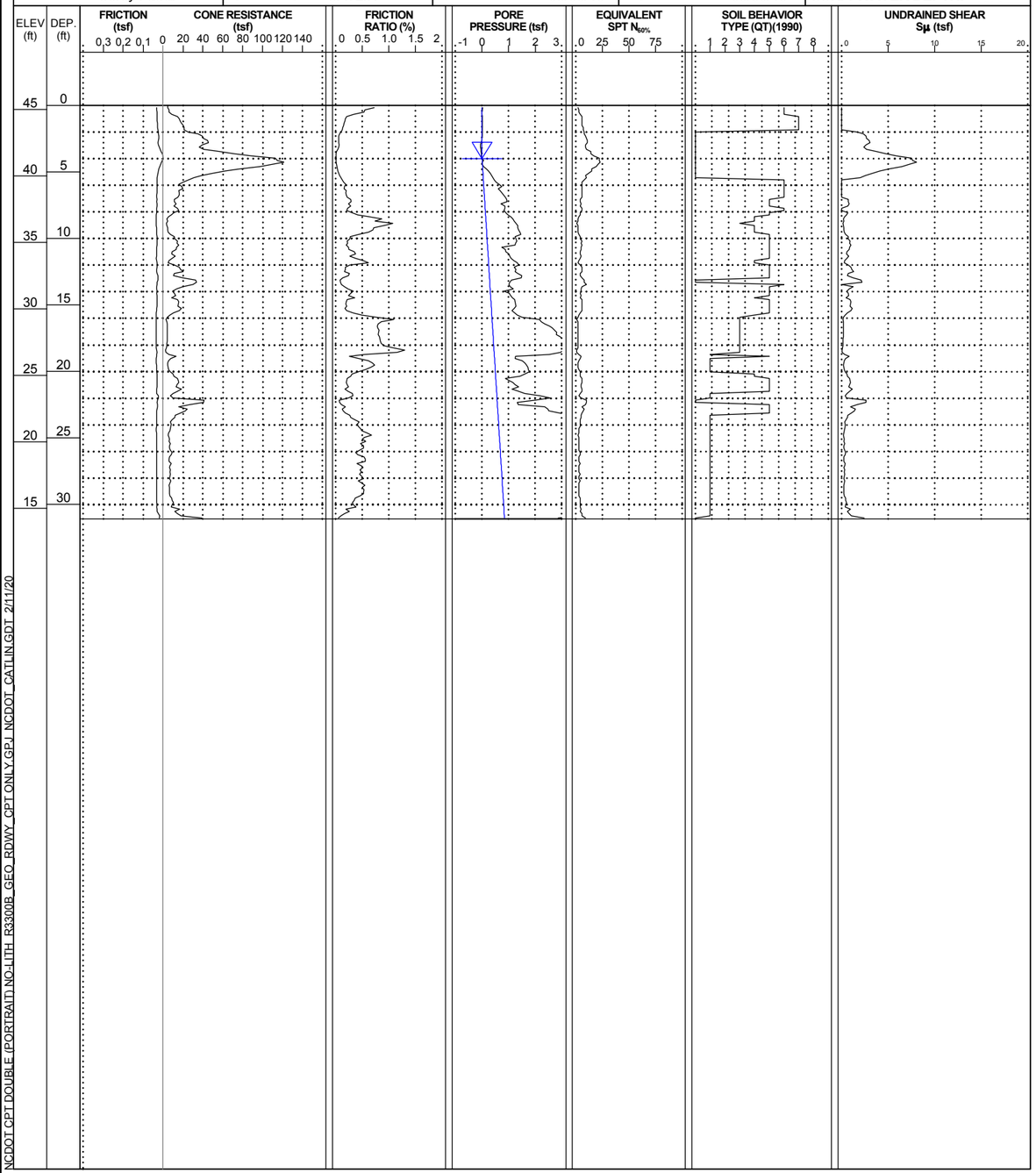
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

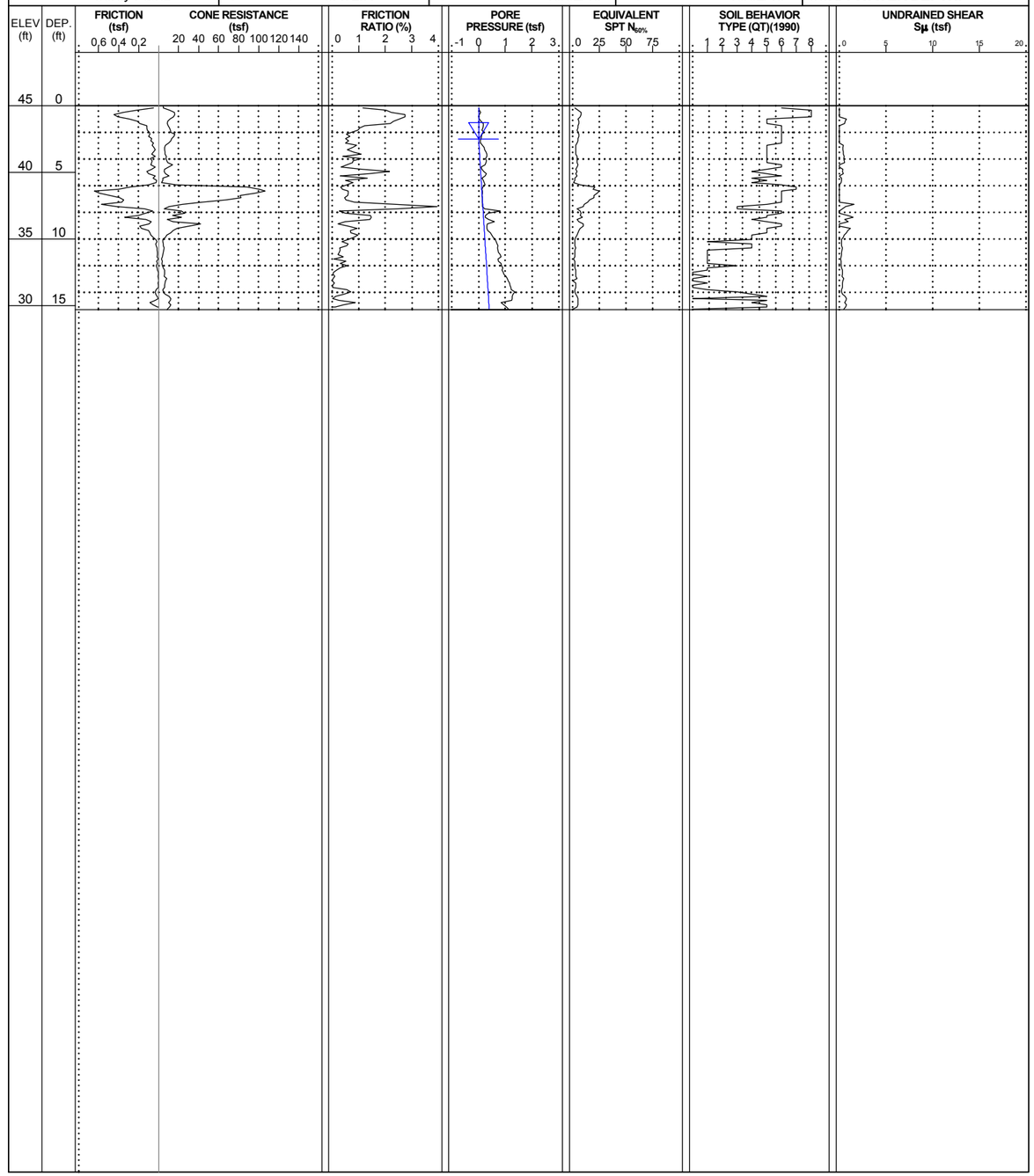
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	76

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31_3600_25RT	**STATION:** 36+00	**OFFSET:** 25 ft RT	**ALIGNMENT:** -Y31-	**EST. 0 HR.** 4.0
COLLAR ELEV.: 45.3 ft	**TOTAL DEPTH:** 31.1 ft	**NORTHING:** 235,131	**EASTING:** 2,389,071	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/30/18	**COMP. DATE:** 08/30/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31LPC_0800_CL	**STATION:** 8+00	**OFFSET:** CL	**ALIGNMENT:** -Y31LPC-	**EST. 0 HR.** 2.5
COLLAR ELEV.: 45.0 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 235,438	**EASTING:** 2,388,659	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/02/18	**COMP. DATE:** 10/02/18	**SURF. WATER DEPTH:** N/A

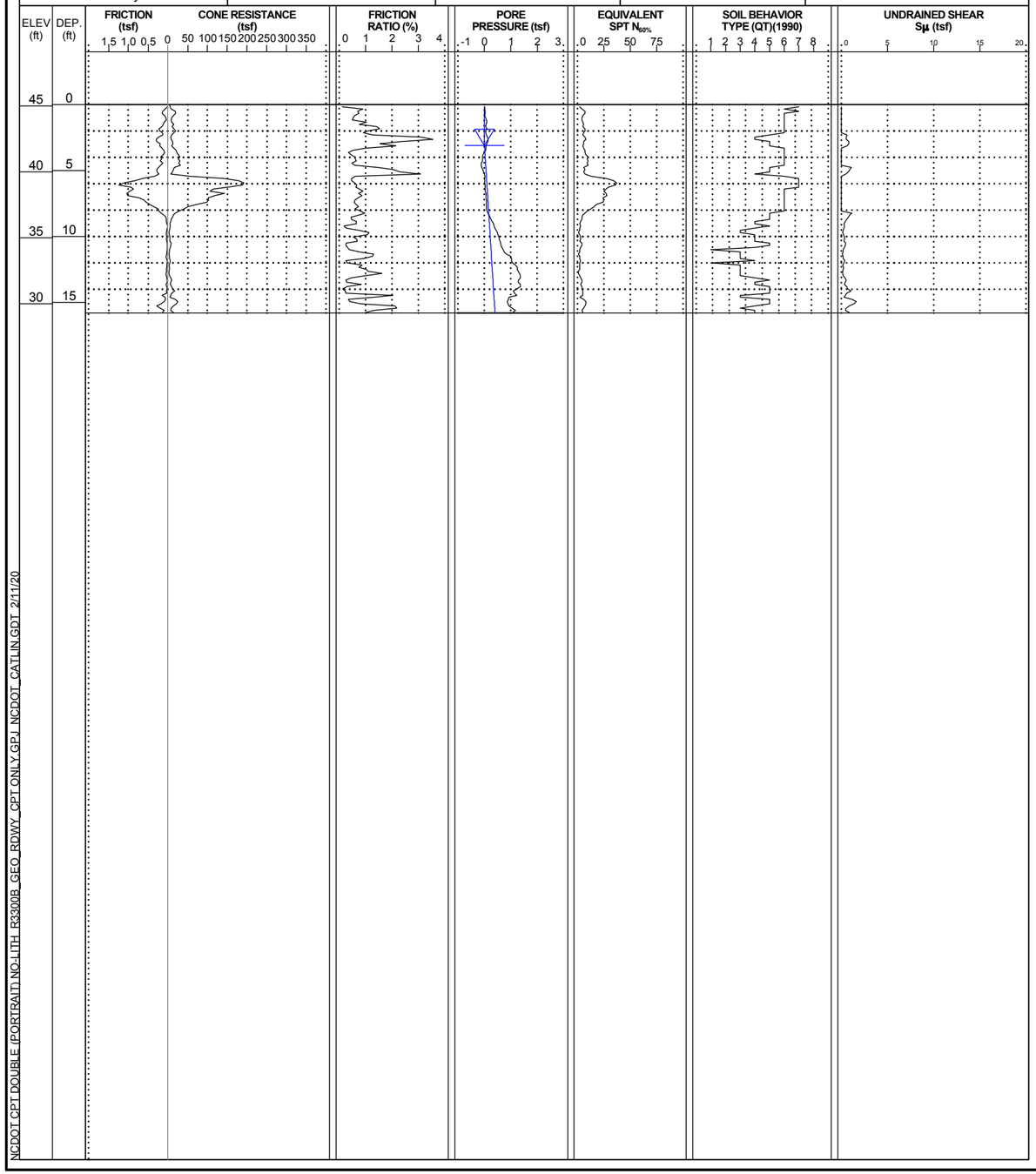


NCDOT CPT DOUBLE (PORTRAIT) NO_LITH R3300B_GEO_ROWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

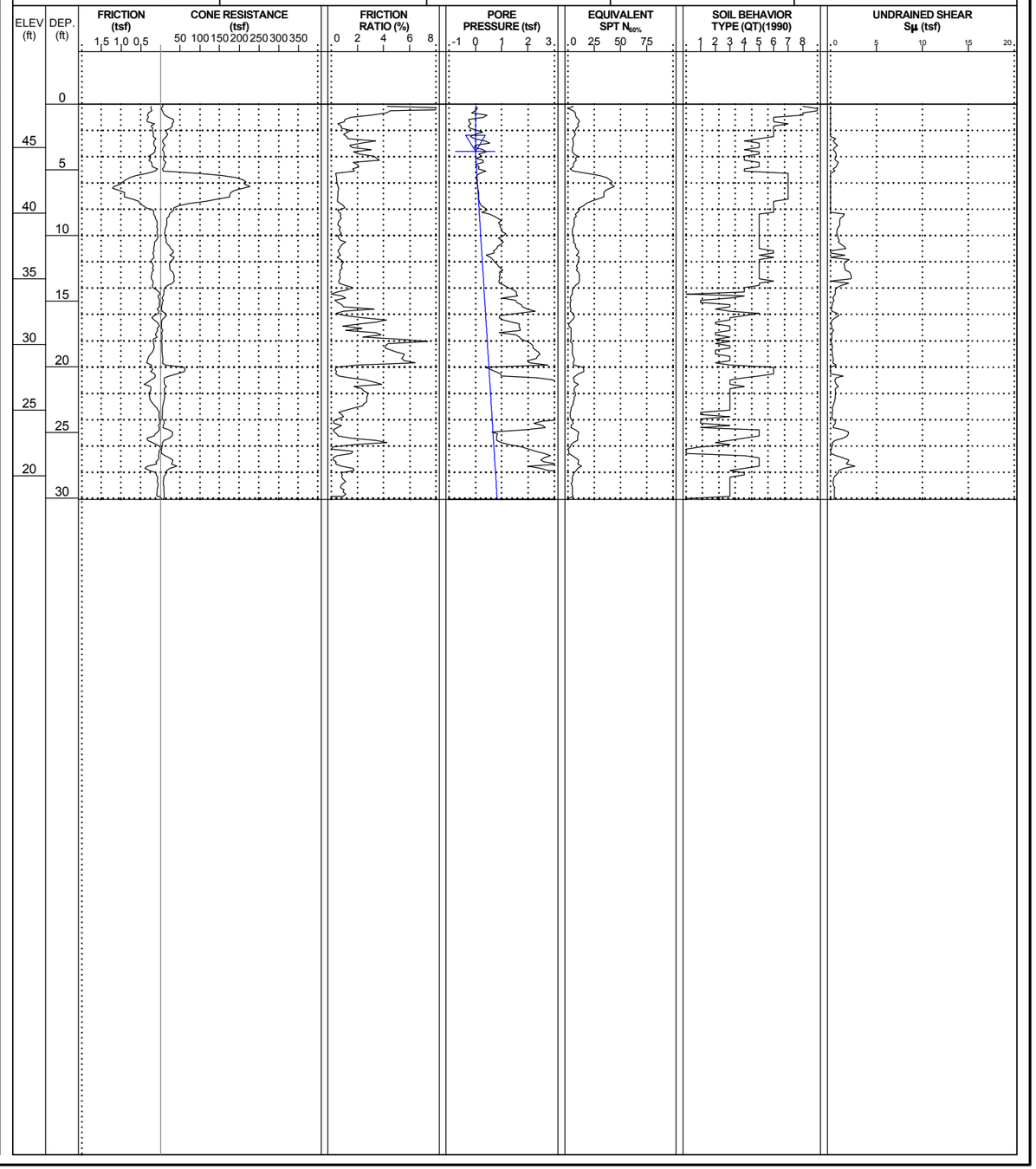
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: Y31LPC_1000_CL	**STATION:** 10+00	**OFFSET:** CL	**ALIGNMENT:** -Y31LPC-	**EST. 0 HR.**	3.1
COLLAR ELEV.: 45.1 ft	**TOTAL DEPTH:** 15.8 ft	**NORTHING:** 235,244	**EASTING:** 2,388,674	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156	
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/02/18	**COMP. DATE:** 10/02/18	**SURF. WATER DEPTH:** N/A	



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON		
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**	
BORING NO.: Y31RPA_1000_CL	**STATION:** 10+00	**OFFSET:** CL	**ALIGNMENT:** -Y31RPA-	**EST. 0 HR.**	3.6
COLLAR ELEV.: 48.3 ft	**TOTAL DEPTH:** 30.1 ft	**NORTHING:** 235,862	**EASTING:** 2,389,778	**24 HR.**	N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867	
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/09/18	**COMP. DATE:** 10/09/18	**SURF. WATER DEPTH:** N/A	



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

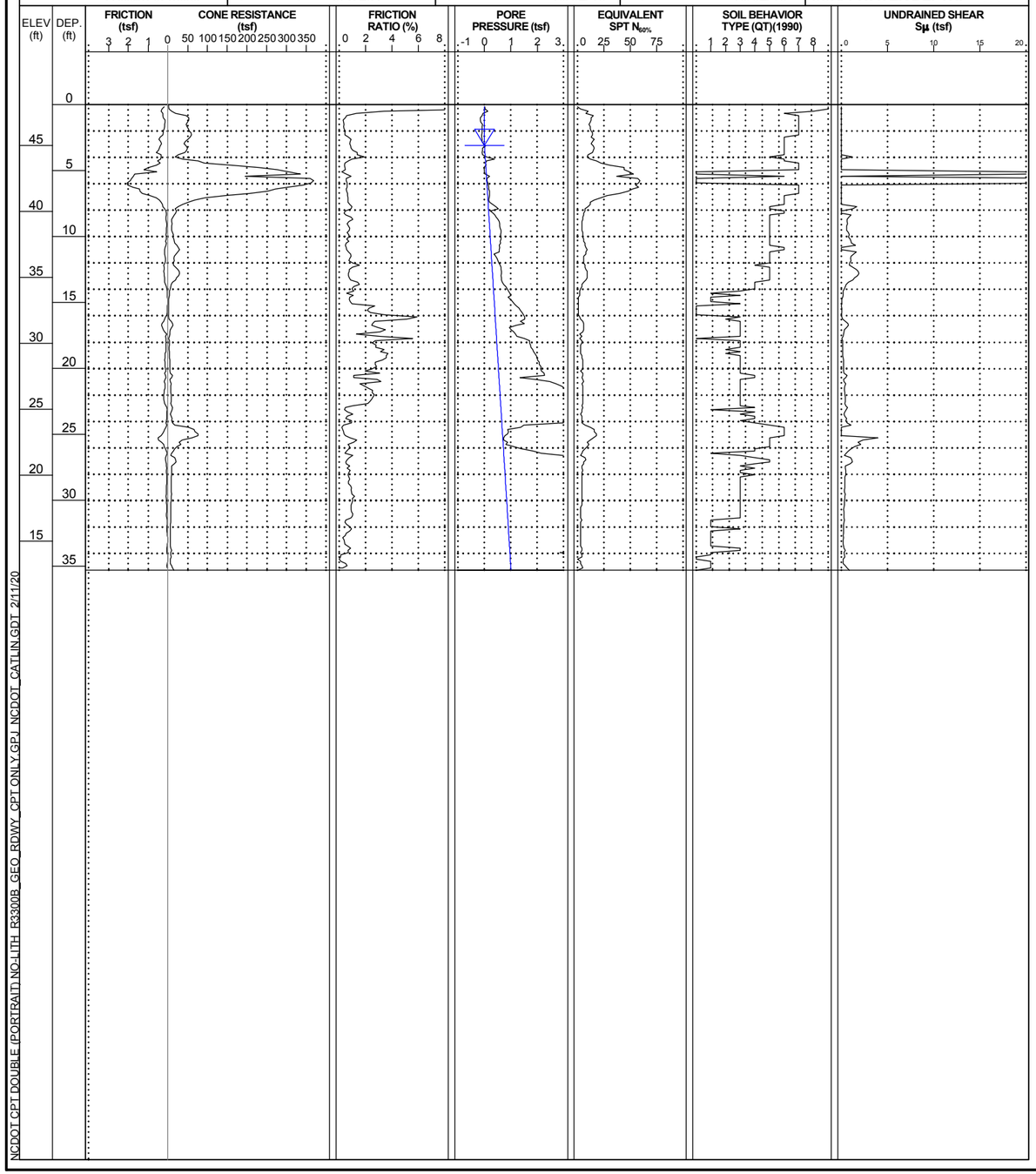
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

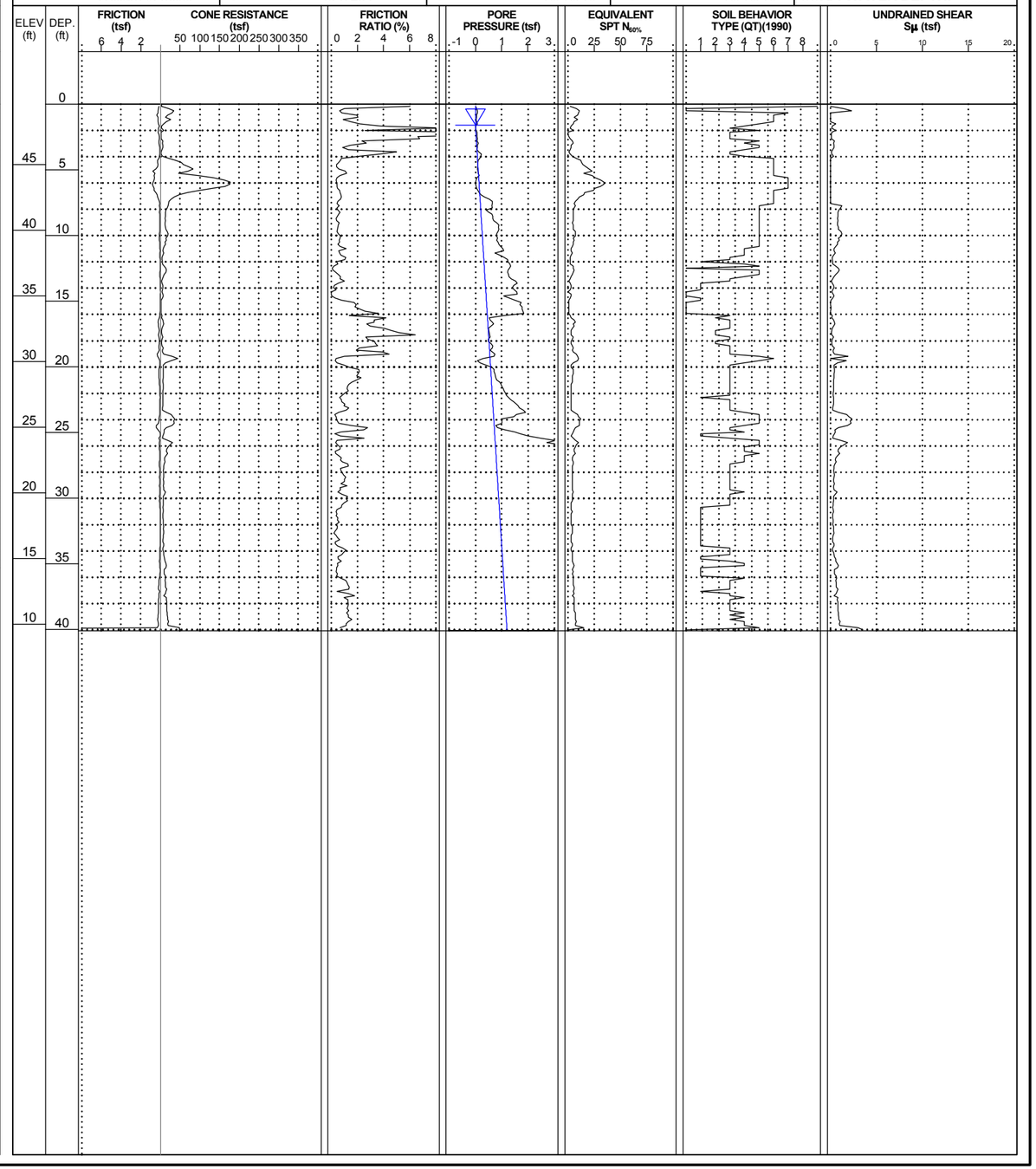
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	78

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31RPA_1100_CL	**STATION:** 11+00	**OFFSET:** CL	**ALIGNMENT:** -Y31RPA-	**EST. 0 HR.** 3.1
COLLAR ELEV.: 48.1 ft	**TOTAL DEPTH:** 35.3 ft	**NORTHING:** 235,895	**EASTING:** 2,389,684	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/02/18	**COMP. DATE:** 10/02/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31RPA_1400_CL	**STATION:** 14+00	**OFFSET:** CL	**ALIGNMENT:** -Y31RPA-	**EST. 0 HR.** 1.6
COLLAR ELEV.: 49.6 ft	**TOTAL DEPTH:** 40.1 ft	**NORTHING:** 236,020	**EASTING:** 2,389,411	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: William J. Miller	**OPERATOR:** CATLIN	**START DATE:** 10/10/18	**COMP. DATE:** 10/10/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

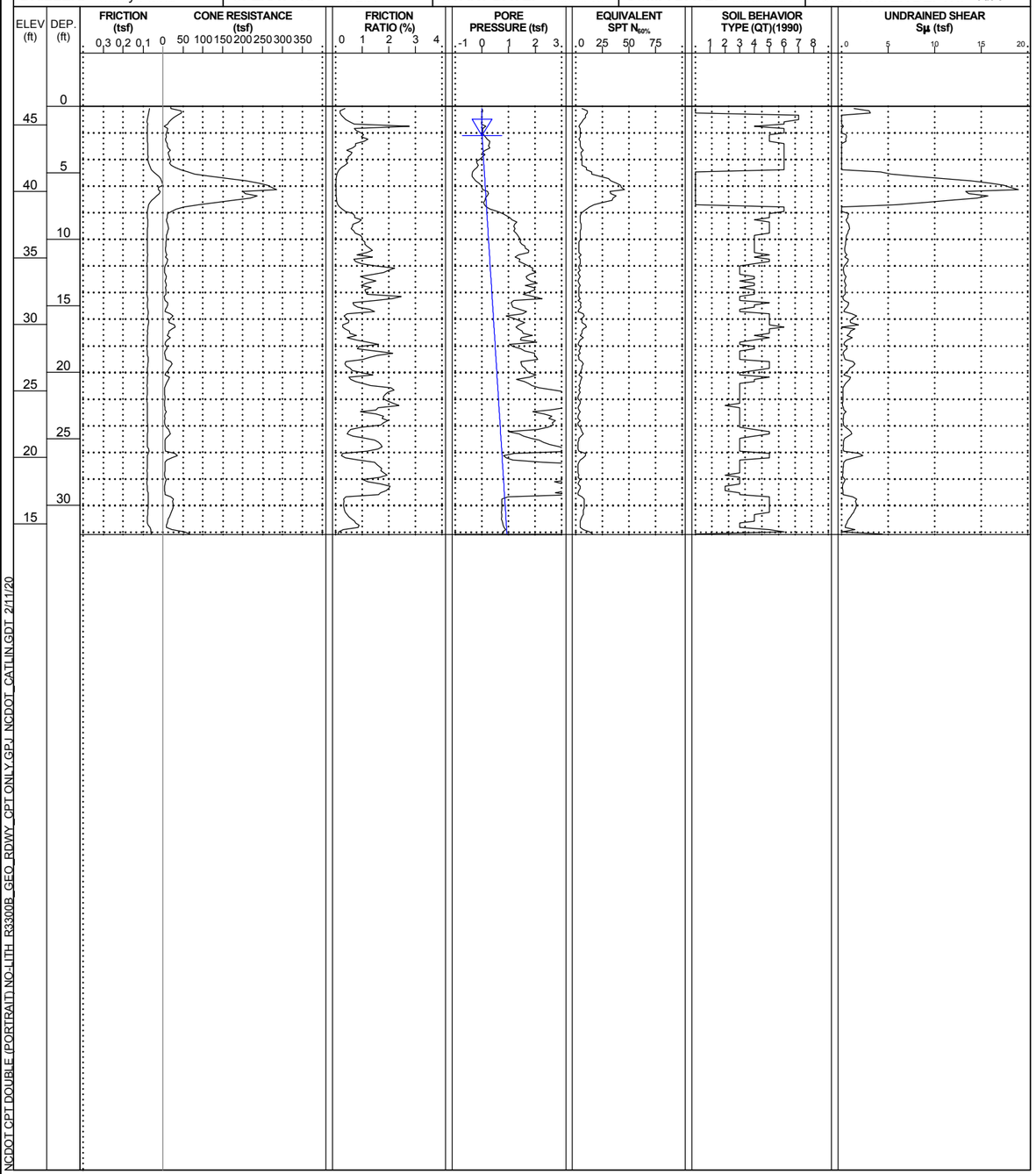
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

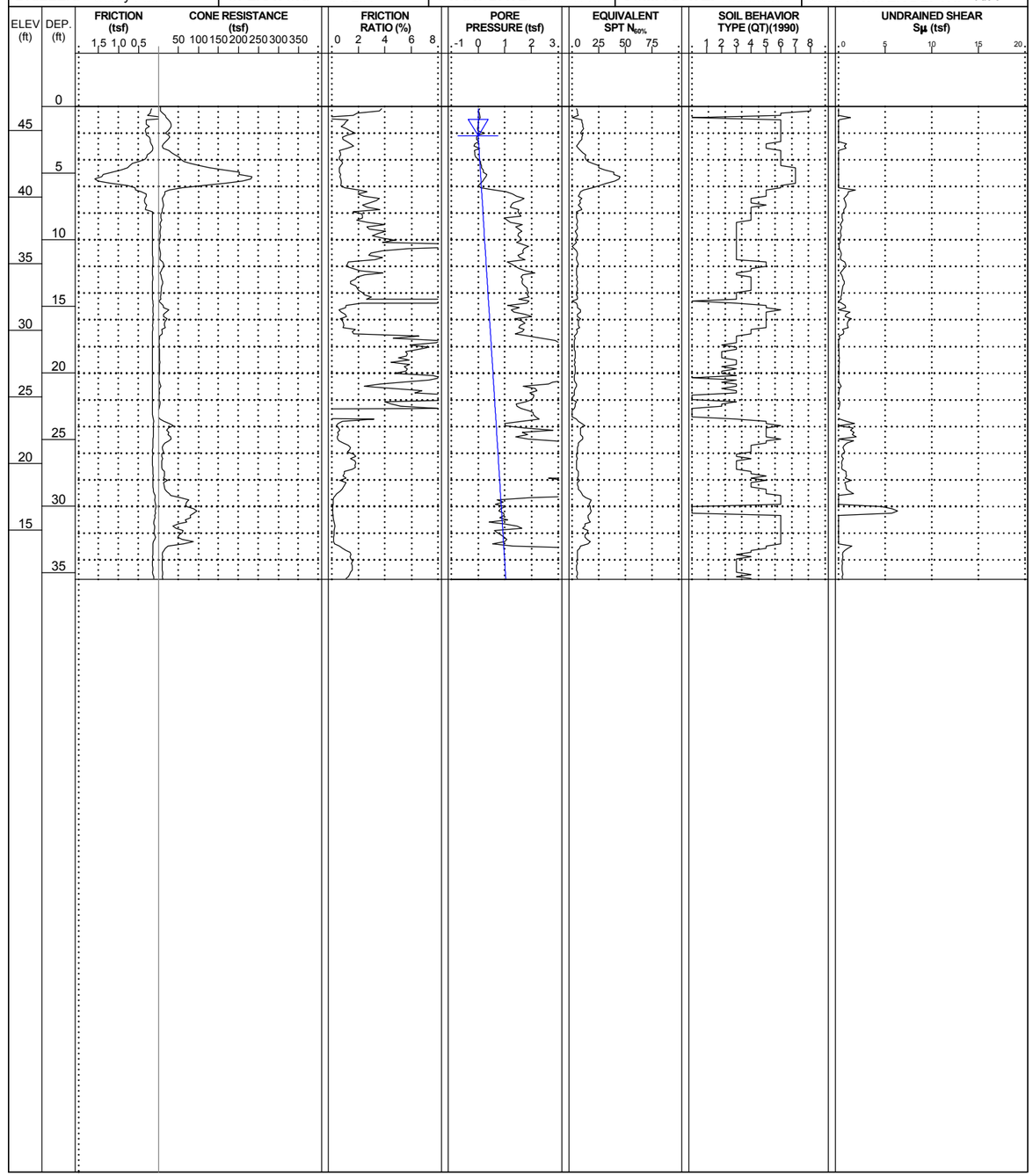
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	79

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31RPB_1350_CL	**STATION:** 13+50	**OFFSET:** CL	**ALIGNMENT:** -Y31RPB-	**EST. 0 HR.** 2.2
COLLAR ELEV.: 46.4 ft	**TOTAL DEPTH:** 32.2 ft	**NORTHING:** 235,796	**EASTING:** 2,388,668	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSA1123
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/30/18	**COMP. DATE:** 08/30/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31RPB_1500_CL	**STATION:** 15+00	**OFFSET:** CL	**ALIGNMENT:** -Y31RPB-	**EST. 0 HR.** 2.2
COLLAR ELEV.: 46.8 ft	**TOTAL DEPTH:** 35.5 ft	**NORTHING:** 235,889	**EASTING:** 2,388,785	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 08/30/18	**COMP. DATE:** 08/30/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

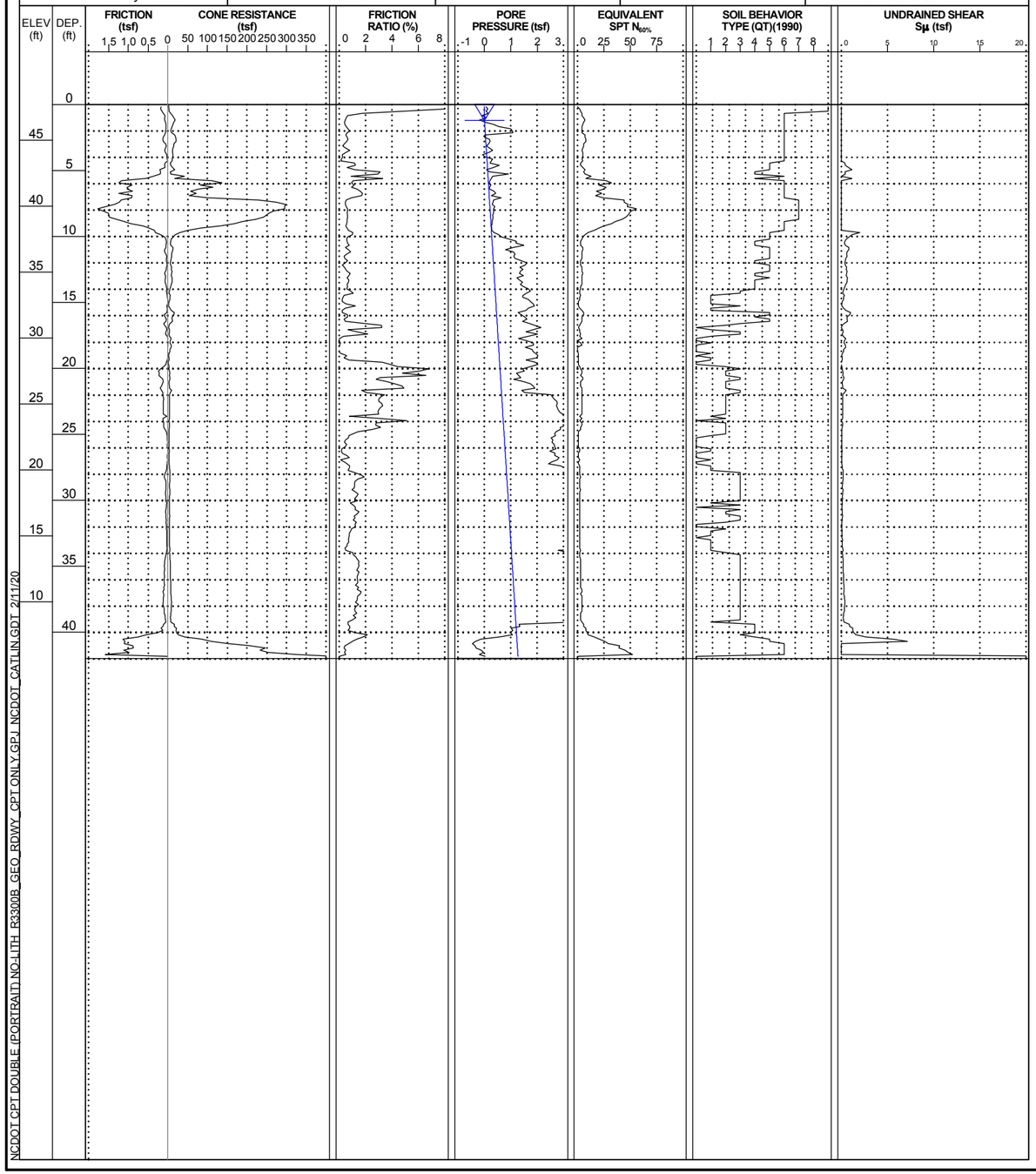
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

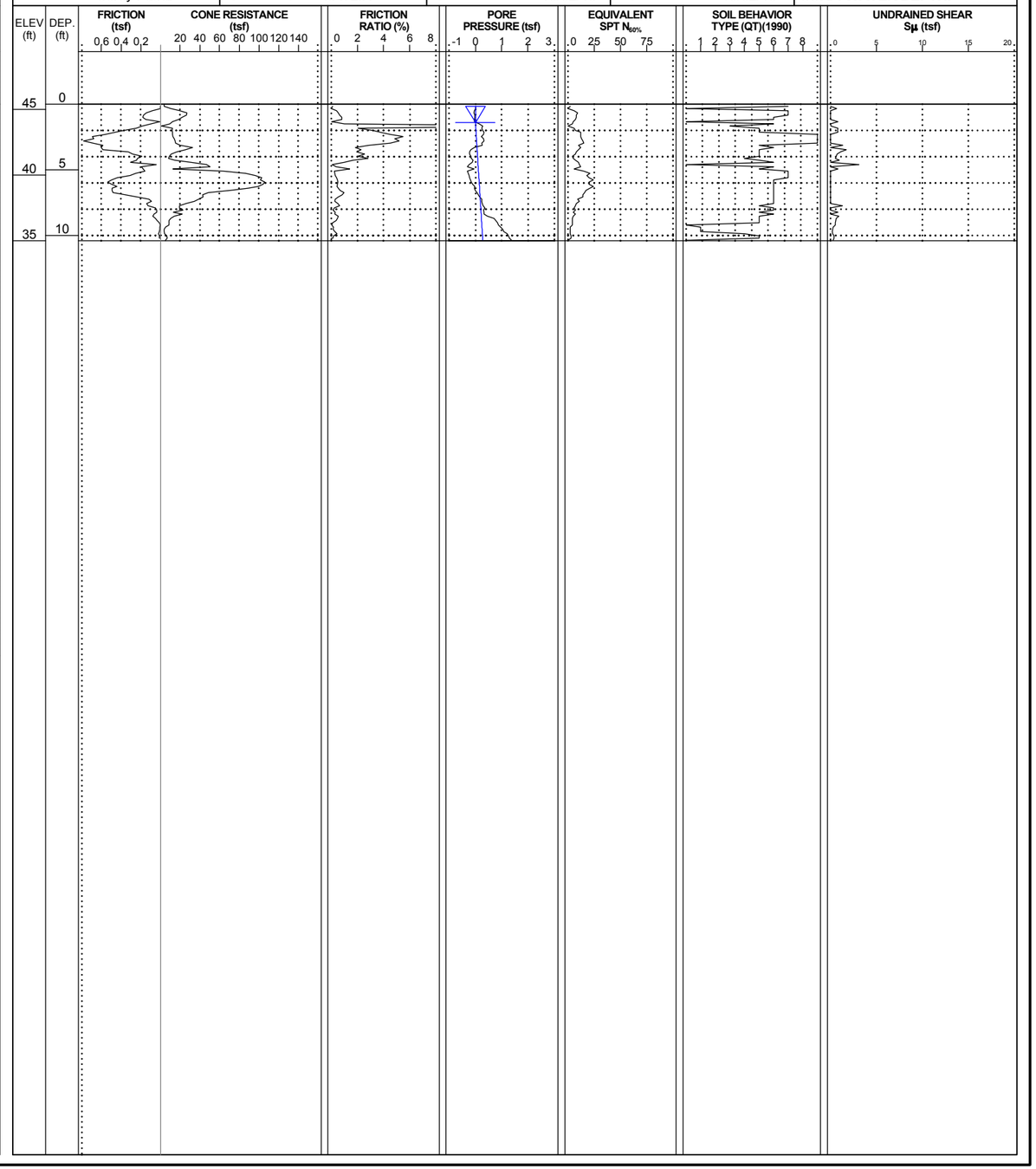
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	80

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31RPB_1900	**STATION:** 19+00	**OFFSET:** CL	**ALIGNMENT:** -Y31RPB-	**EST. 0 HR.** 1.2
COLLAR ELEV.: 47.7 ft	**TOTAL DEPTH:** 42.0 ft	**NORTHING:** 236,046	**EASTING:** 2,389,146	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/03/18	**COMP. DATE:** 10/03/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31RPC_1200_CL	**STATION:** 12+00	**OFFSET:** CL	**ALIGNMENT:** -Y31RPC-	**EST. 0 HR.** 1.4
COLLAR ELEV.: 45.4 ft	**TOTAL DEPTH:** 10.4 ft	**NORTHING:** 235,170	**EASTING:** 2,387,952	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/02/18	**COMP. DATE:** 10/02/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH_R3300B_GEO_RDWY_CPT ONLY.GPJ_NCDOT_CATLIN.GDT 2/11/20

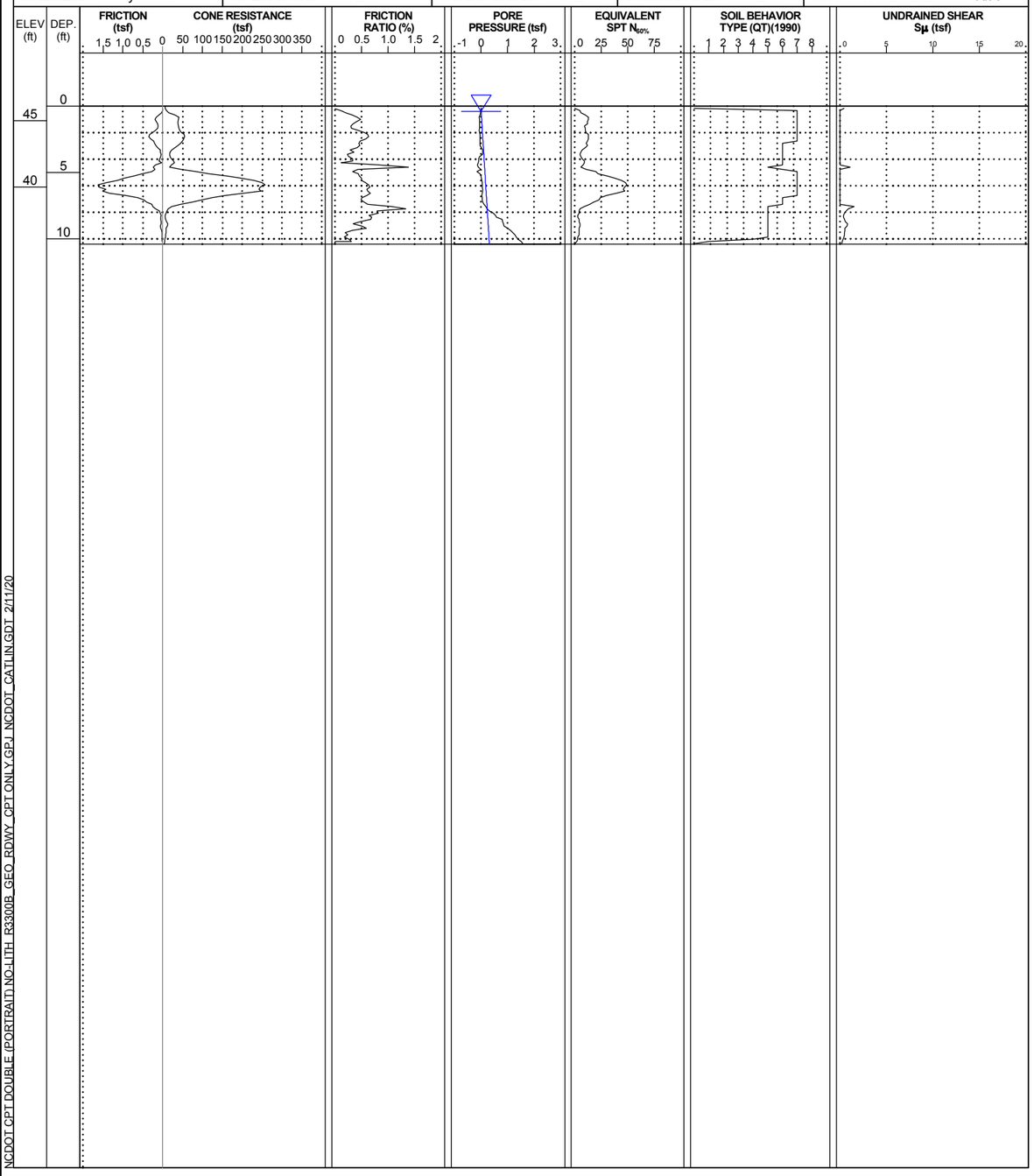
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

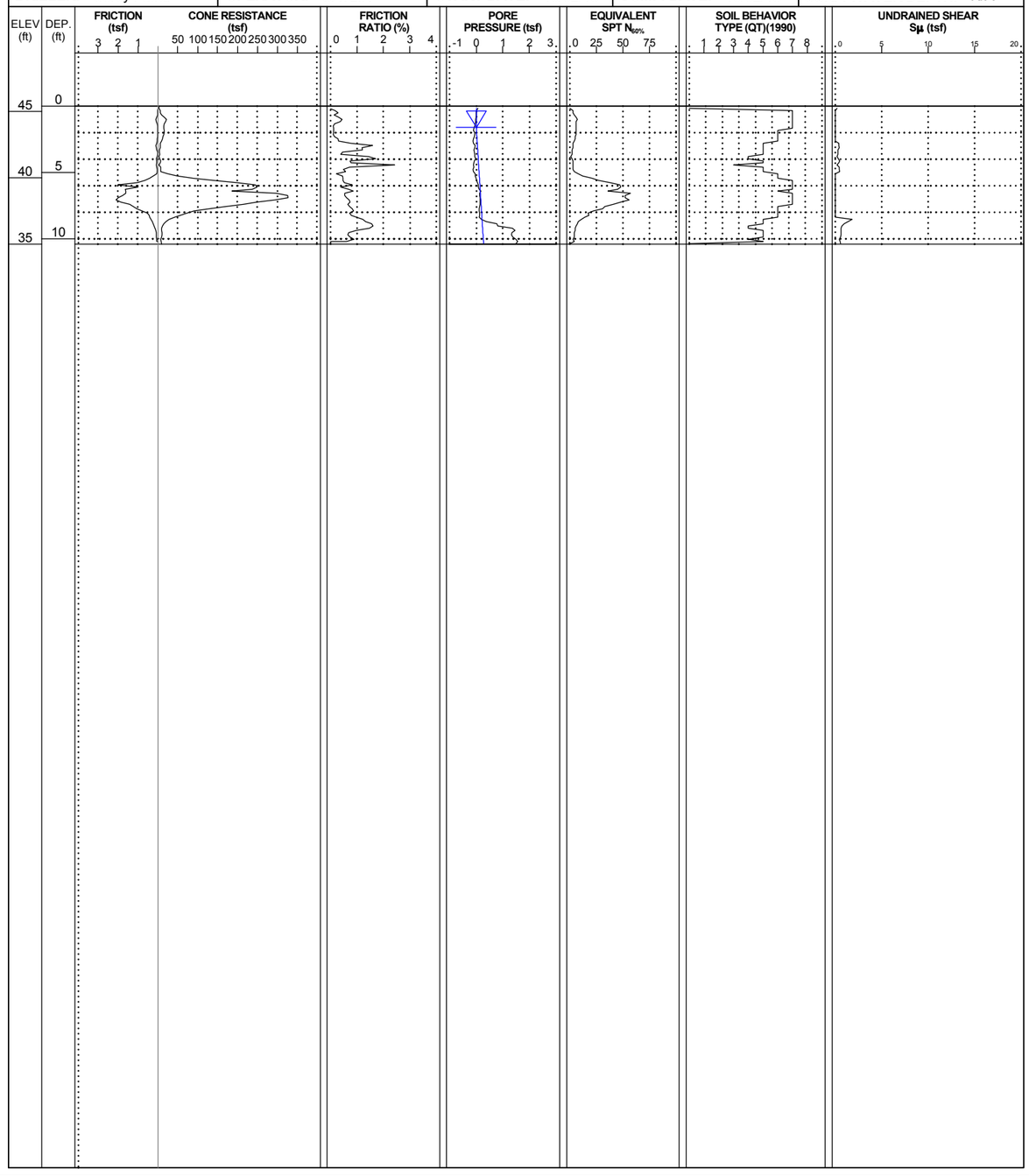
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	81

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31RPC_1400_CL	**STATION:** 14+00	**OFFSET:** CL	**ALIGNMENT:** -Y31RPC-	**EST. 0 HR.** 0.4
COLLAR ELEV.: 46.1 ft	**TOTAL DEPTH:** 10.4 ft	**NORTHING:** 235,194	**EASTING:** 2,388,151	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/02/18	**COMP. DATE:** 10/02/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31RPC_1600_CL	**STATION:** 16+00	**OFFSET:** CL	**ALIGNMENT:** -Y31RPC-	**EST. 0 HR.** 1.6
COLLAR ELEV.: 45.4 ft	**TOTAL DEPTH:** 10.4 ft	**NORTHING:** 235,190	**EASTING:** 2,388,350	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/02/18	**COMP. DATE:** 10/02/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

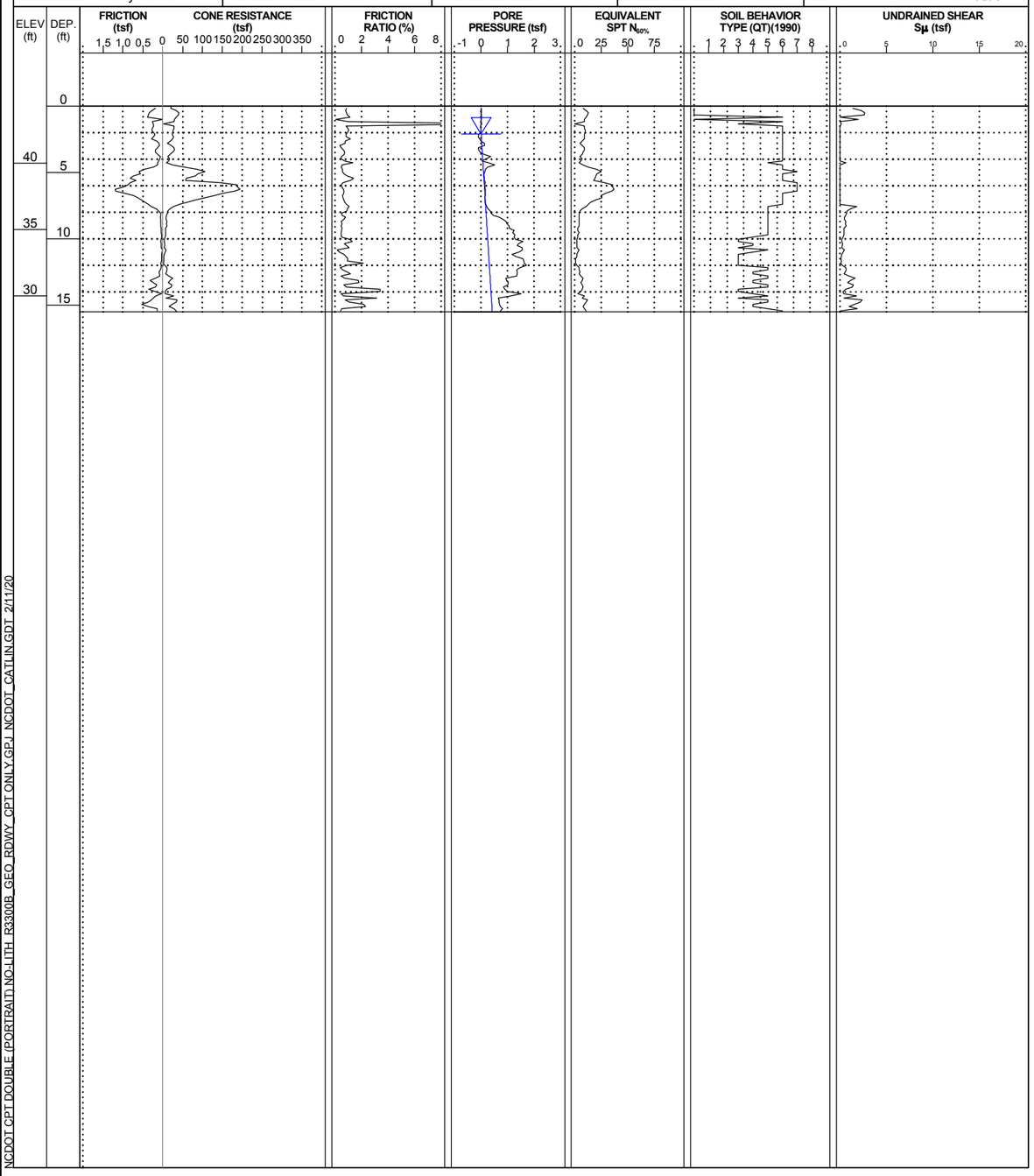
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

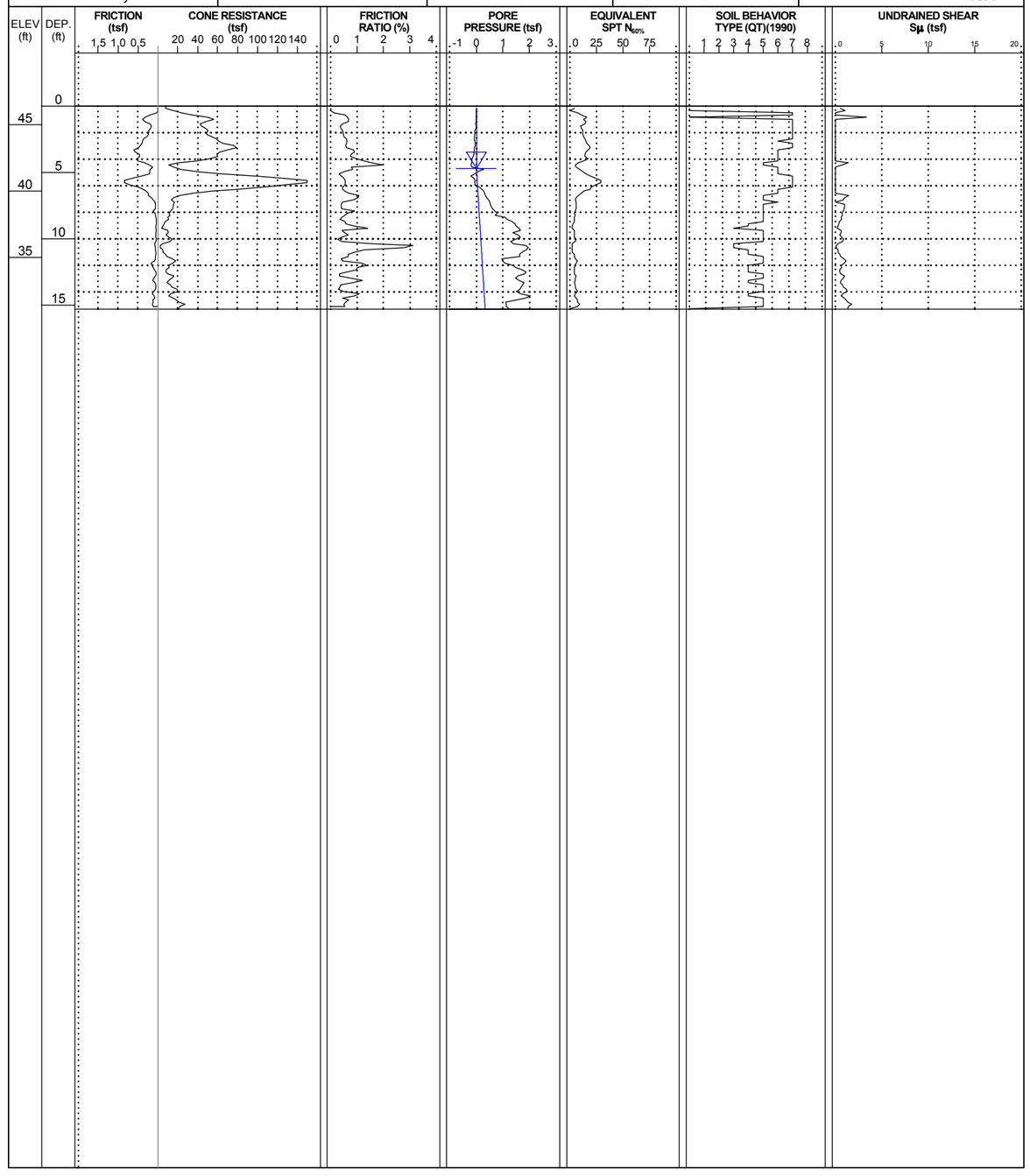
CATLIN Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405
Corporate Licensure No. for Engineering Services C-0586
217060

PROJECT REFERENCE NO.	SHEET
R-3300B	82

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31RPC_1800_CL	**STATION:** 18+00	**OFFSET:** CL	**ALIGNMENT:** -Y31RPC-	**EST. 0 HR.** 2.1
COLLAR ELEV.: 44.3 ft	**TOTAL DEPTH:** 15.5 ft	**NORTHING:** 235,159	**EASTING:** 2,388,548	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/02/18	**COMP. DATE:** 10/02/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y31RPC_2200_CL	**STATION:** 22+00	**OFFSET:** CL	**ALIGNMENT:** -Y31RPC-	**EST. 0 HR.** 4.7
COLLAR ELEV.: 46.4 ft	**TOTAL DEPTH:** 15.3 ft	**NORTHING:** 235,083	**EASTING:** 2,388,941	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/03/18	**COMP. DATE:** 10/03/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

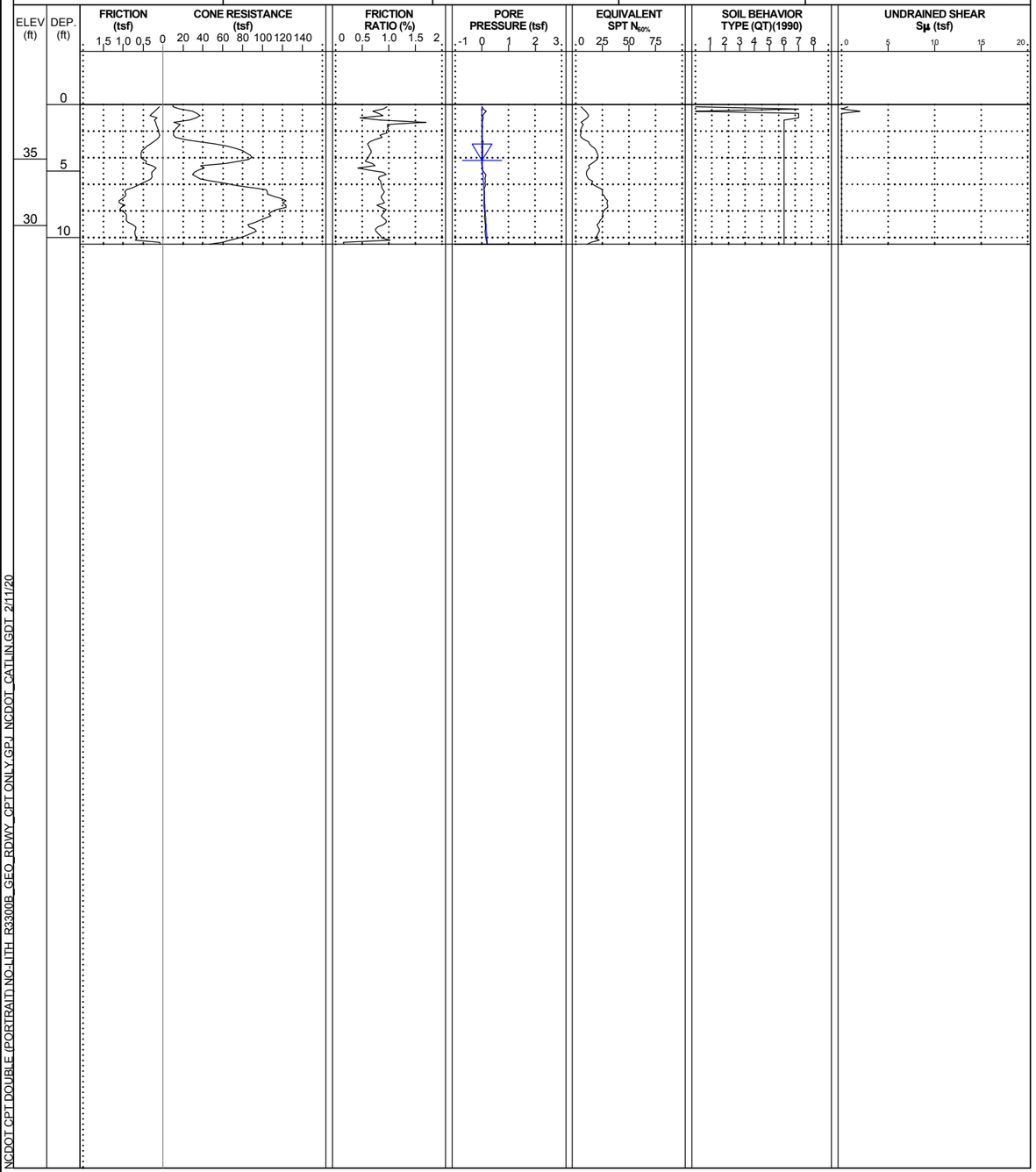
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

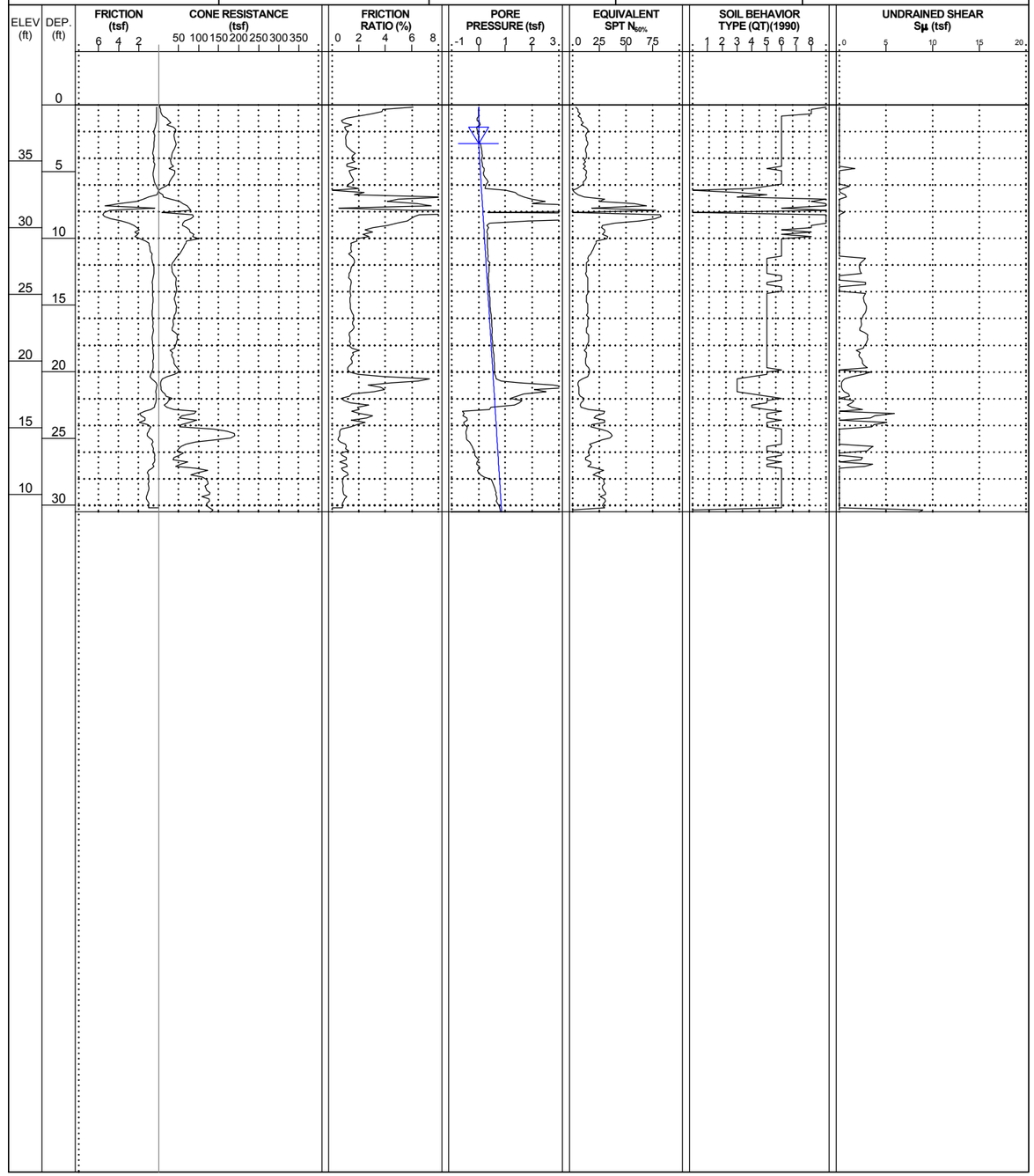
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	83

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y32_1600_15LT	**STATION:** 16+00	**OFFSET:** 15 ft LT	**ALIGNMENT:** -Y32-	**EST. 0 HR.** 4.2
COLLAR ELEV.: 39.1 ft	**TOTAL DEPTH:** 10.5 ft	**NORTHING:** 238,134	**EASTING:** 2,399,971	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: D.T. Chalmers, Jr.	**OPERATOR:** CATLIN	**START DATE:** 10/19/18	**COMP. DATE:** 10/19/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** L.PUGH	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y32_1800	**STATION:** 18+00	**OFFSET:** CL	**ALIGNMENT:** -Y32-	**EST. 0 HR.** 2.9
COLLAR ELEV.: 39.2 ft	**TOTAL DEPTH:** 30.5 ft	**NORTHING:** 238,308	**EASTING:** 2,400,067	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Eddie Swain	**OPERATOR:** CATLIN	**START DATE:** 02/10/20	**COMP. DATE:** 02/10/20	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH_R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

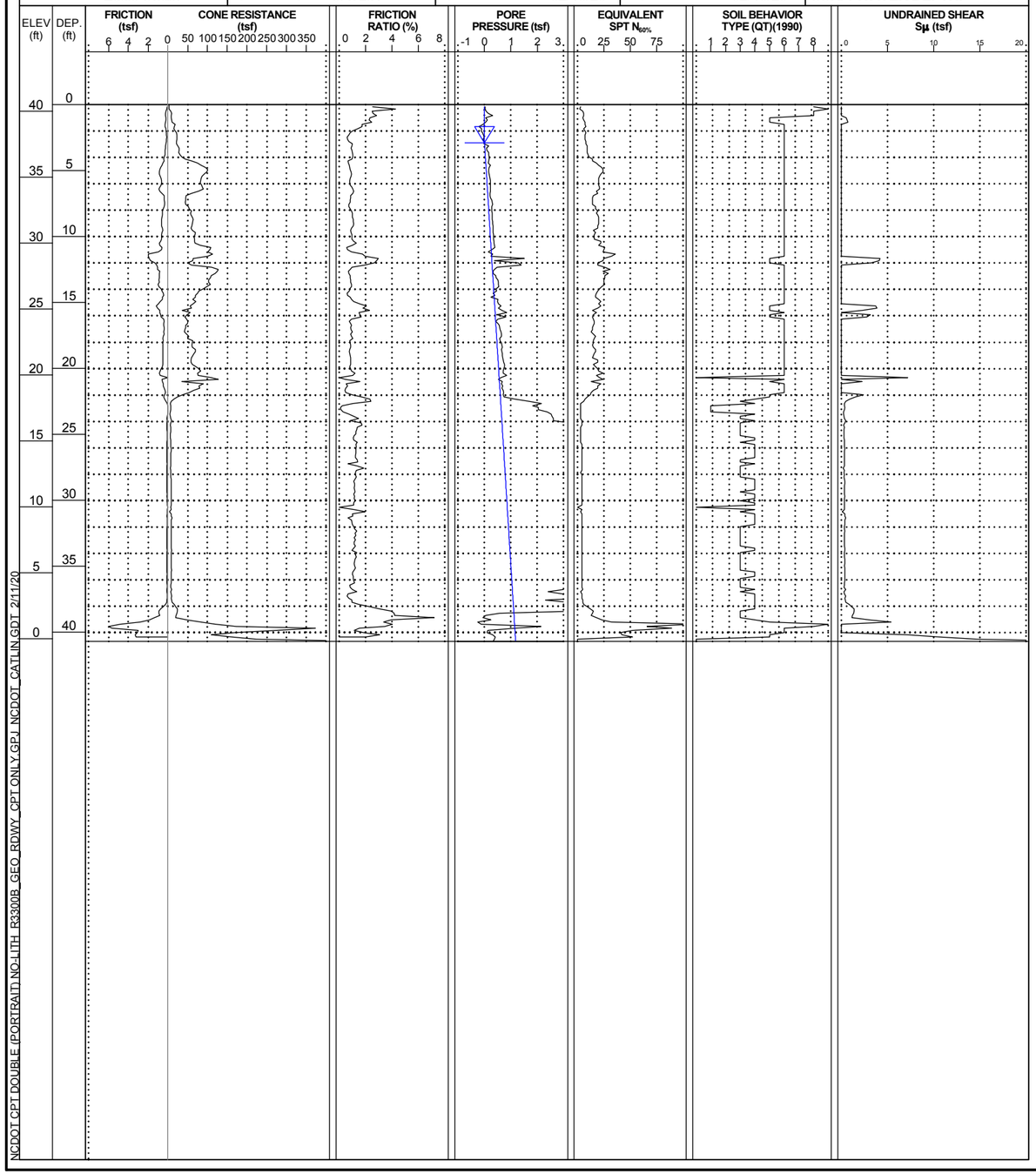
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

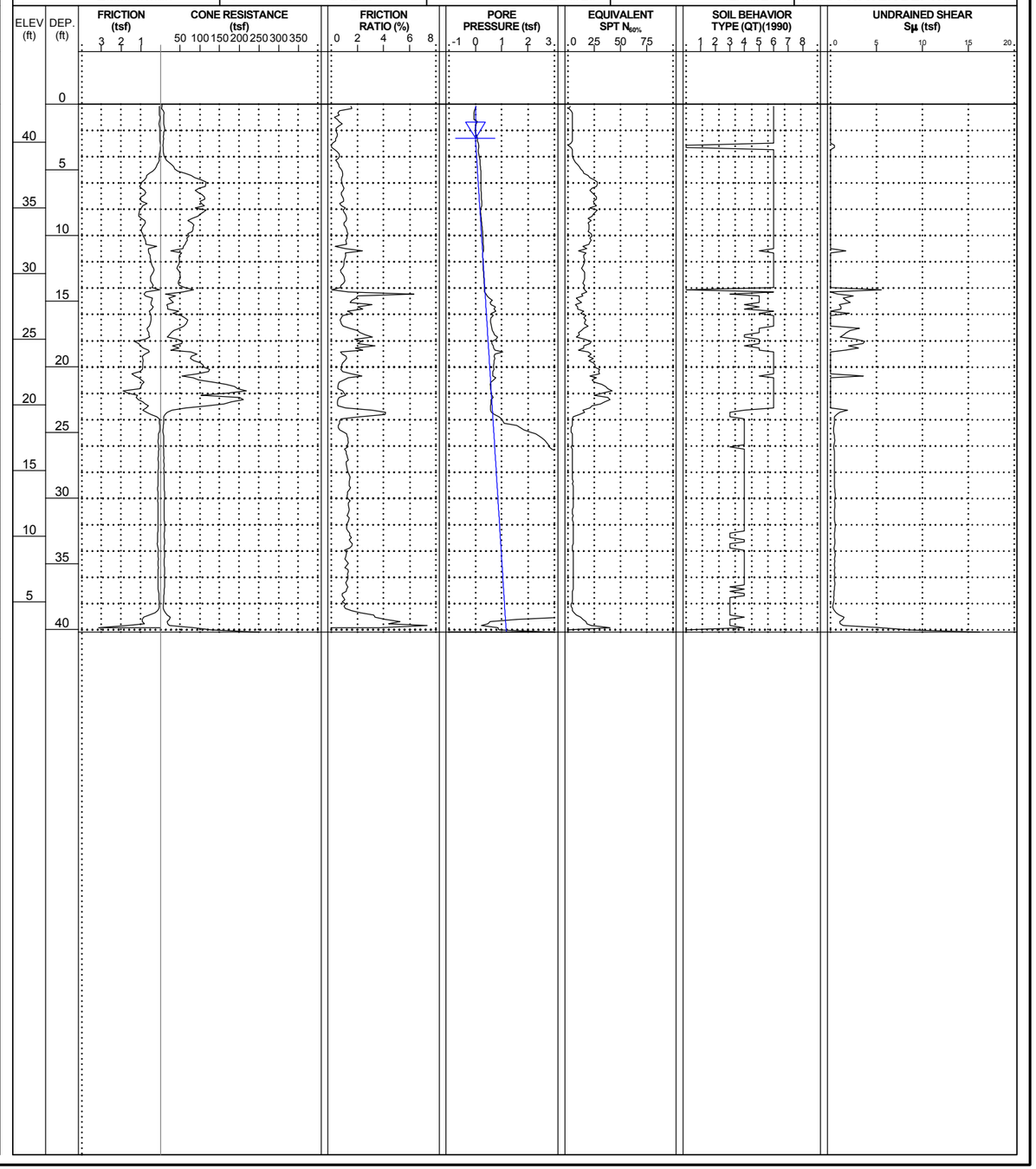
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	84

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** L.PUGH	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y32_3050	**STATION:** 30+50	**OFFSET:** CL	**ALIGNMENT:** -Y32-	**EST. 0 HR.** 2.9
COLLAR ELEV.: 40.5 ft	**TOTAL DEPTH:** 40.7 ft	**NORTHING:** 239,447	**EASTING:** 2,400,459	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Eddie Swain	**OPERATOR:** CATLIN	**START DATE:** 02/10/20	**COMP. DATE:** 02/10/20	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** L.PUGH	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y32_3300	**STATION:** 33+00	**OFFSET:** CL	**ALIGNMENT:** -Y32-	**EST. 0 HR.** 2.6
COLLAR ELEV.: 42.9 ft	**TOTAL DEPTH:** 40.2 ft	**NORTHING:** 239,573	**EASTING:** 2,400,675	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Eddie Swain	**OPERATOR:** CATLIN	**START DATE:** 02/10/20	**COMP. DATE:** 02/10/20	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH_R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

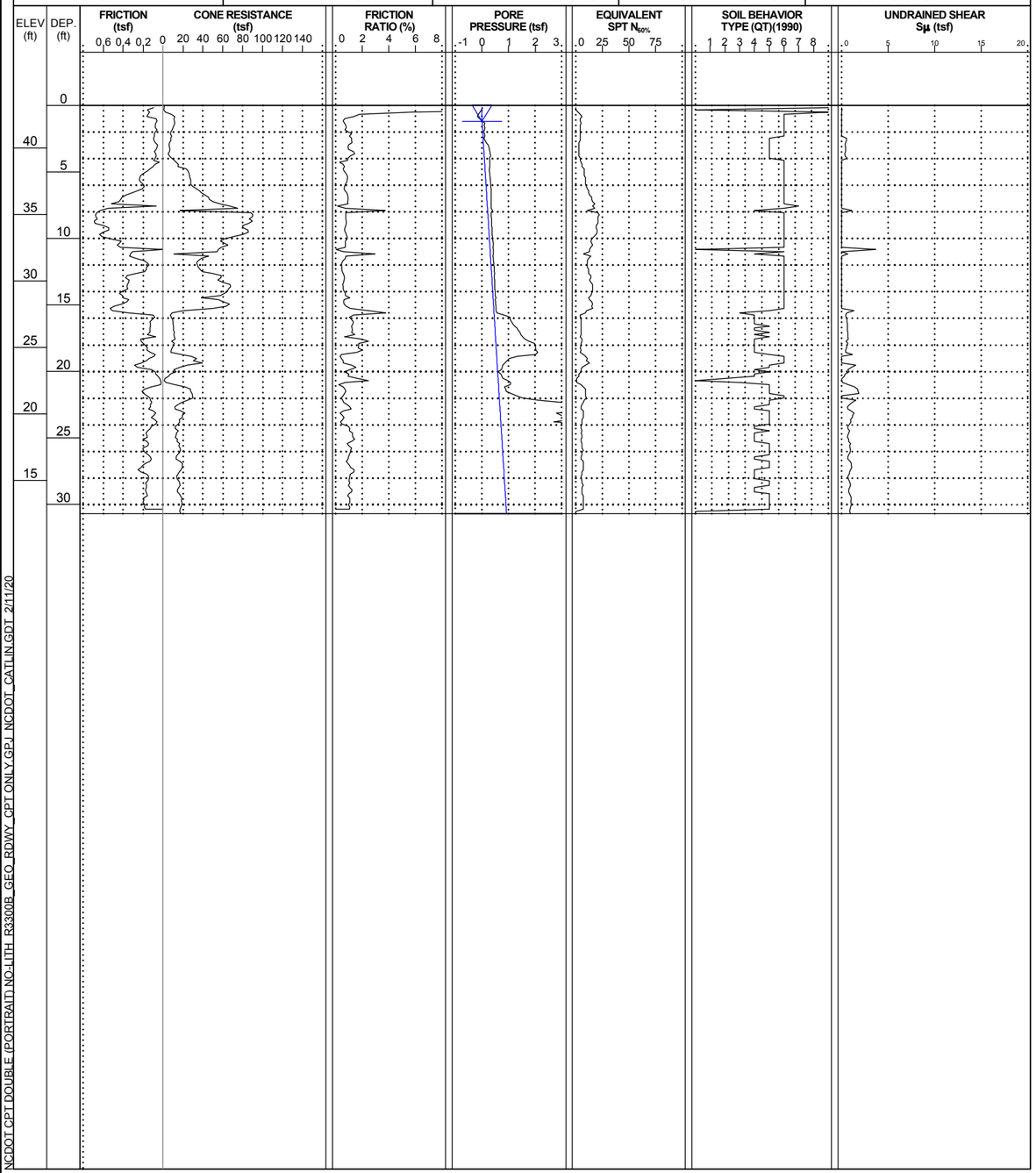
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

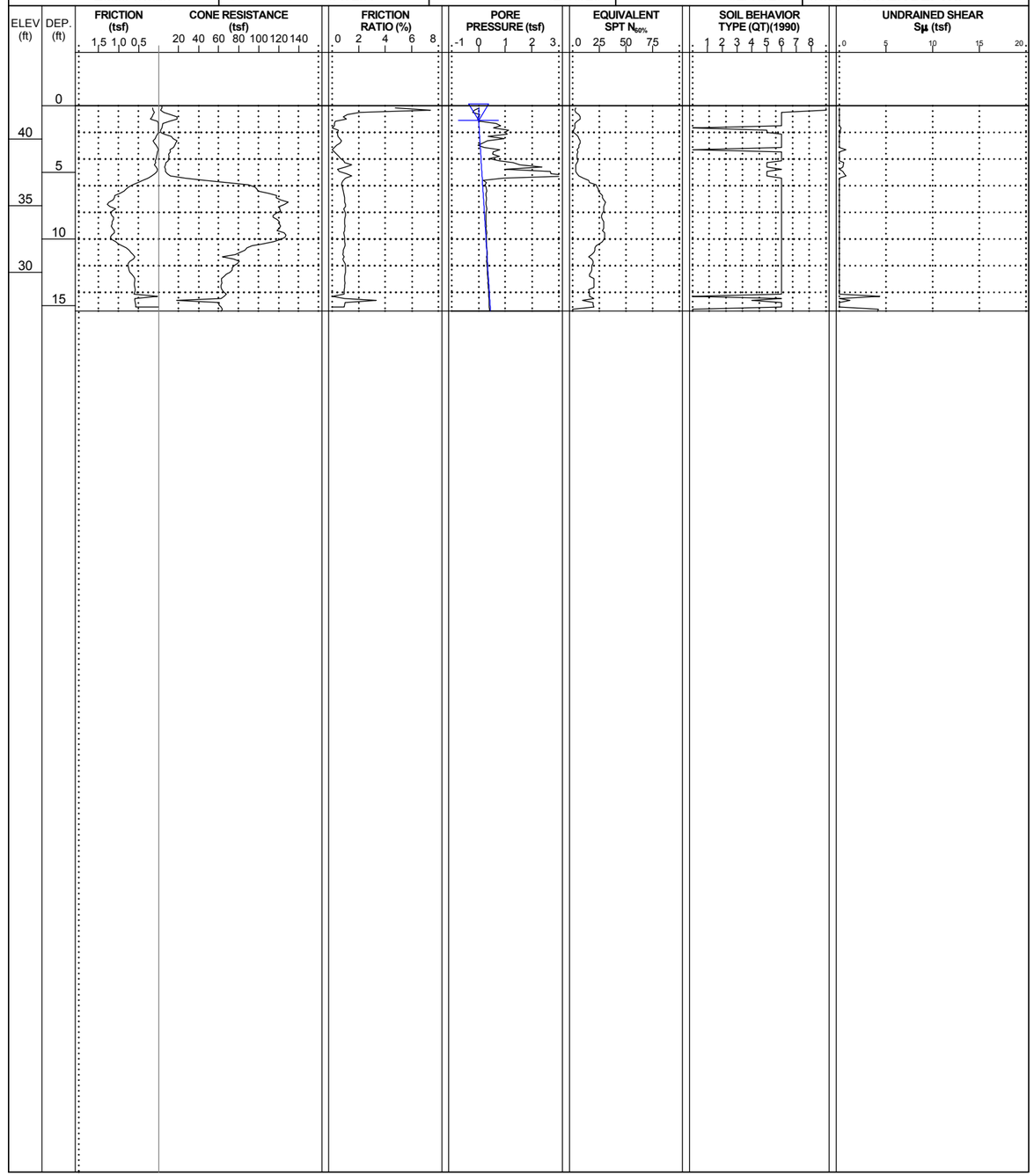
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	85

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** L.PUGH	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y32_3500	**STATION:** 35+00	**OFFSET:** CL	**ALIGNMENT:** -Y32-	**EST. 0 HR.** 1.2
COLLAR ELEV.: 43.2 ft	**TOTAL DEPTH:** 30.7 ft	**NORTHING:** 239,627	**EASTING:** 2,400,866	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Eddie Swain	**OPERATOR:** CATLIN	**START DATE:** 02/10/20	**COMP. DATE:** 02/10/20	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** L.PUGH	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y32LPA_1100	**STATION:** 11+00	**OFFSET:** CL	**ALIGNMENT:** -Y32LPA-	**EST. 0 HR.** 1.1
COLLAR ELEV.: 42.5 ft	**TOTAL DEPTH:** 15.4 ft	**NORTHING:** 239,552	**EASTING:** 2,401,028	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Eddie Swain	**OPERATOR:** CATLIN	**START DATE:** 02/10/20	**COMP. DATE:** 02/10/20	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH_R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

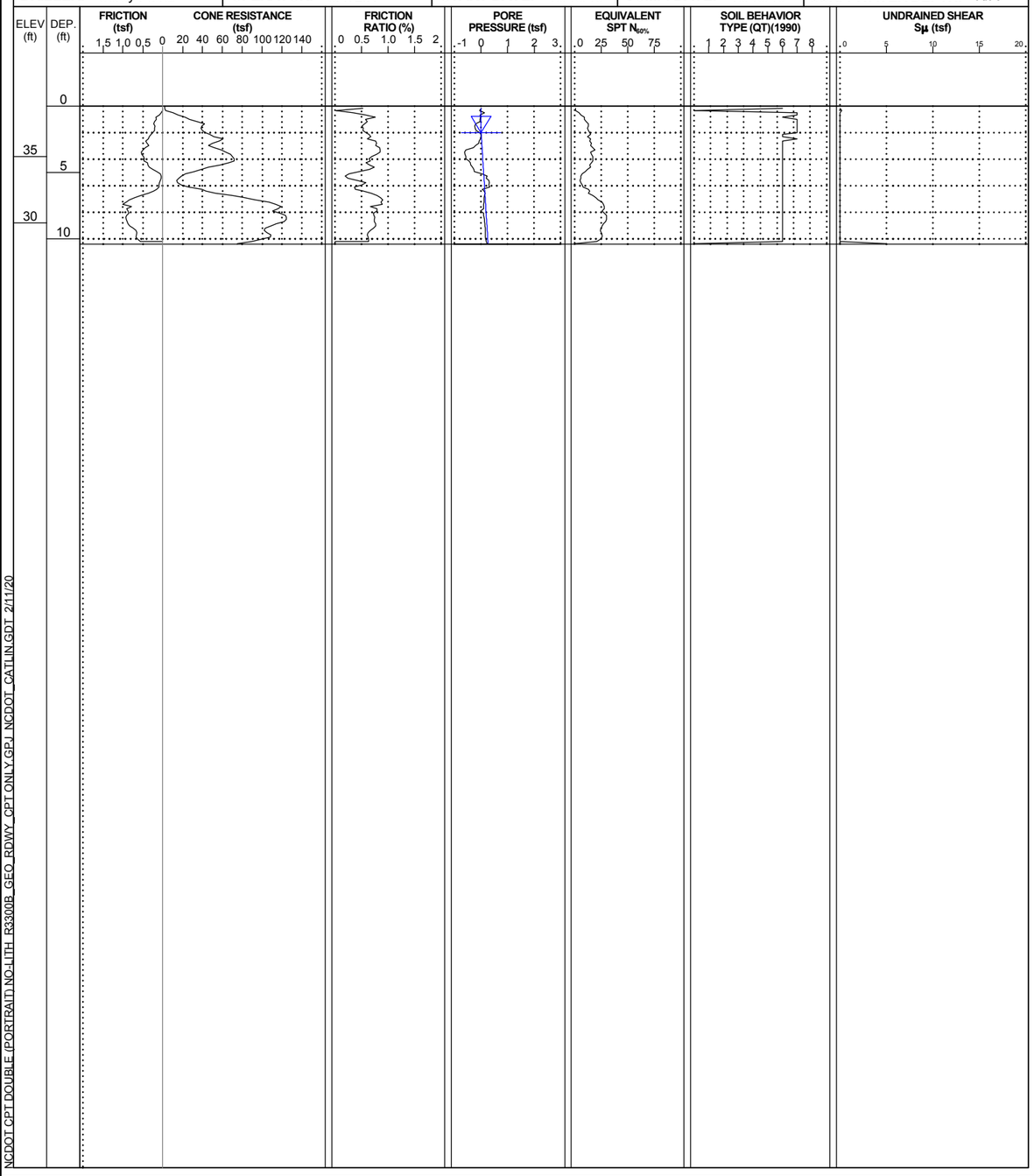
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

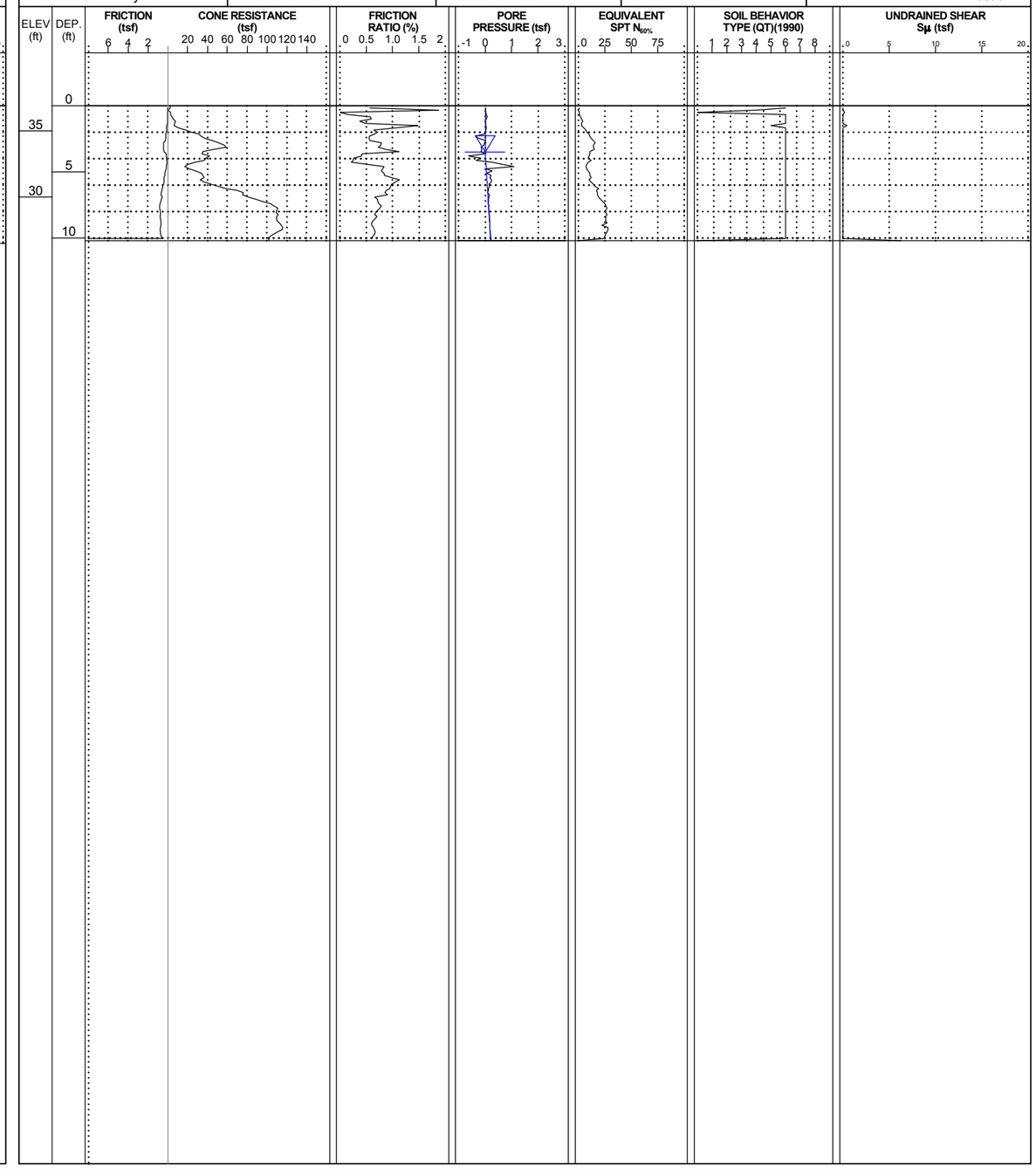
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	86

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y32RPA1_1200_20LT	**STATION:** 12+00	**OFFSET:** 20 ft LT	**ALIGNMENT:** -Y32PRA1-	**EST. 0 HR.** 2.0
COLLAR ELEV.: 38.8 ft	**TOTAL DEPTH:** 10.4 ft	**NORTHING:** 238,196	**EASTING:** 2,400,036	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/19/18	**COMP. DATE:** 10/19/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y32RPA1_1375_CL	**STATION:** 13+75	**OFFSET:** CL	**ALIGNMENT:** -Y32PRA1-	**EST. 0 HR.** 3.5
COLLAR ELEV.: 36.9 ft	**TOTAL DEPTH:** 10.2 ft	**NORTHING:** 238,352	**EASTING:** 2,400,113	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/19/18	**COMP. DATE:** 10/19/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

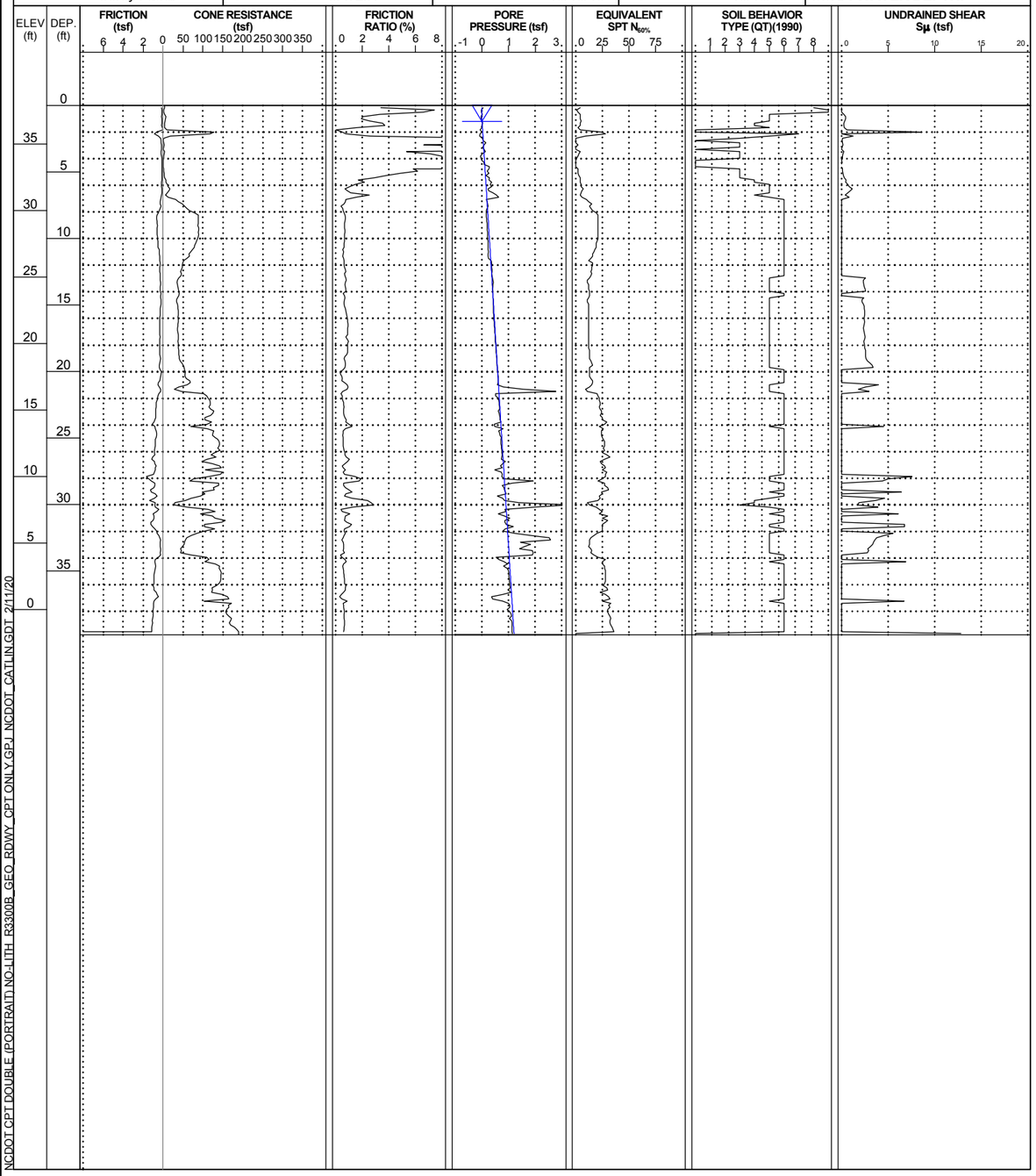
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

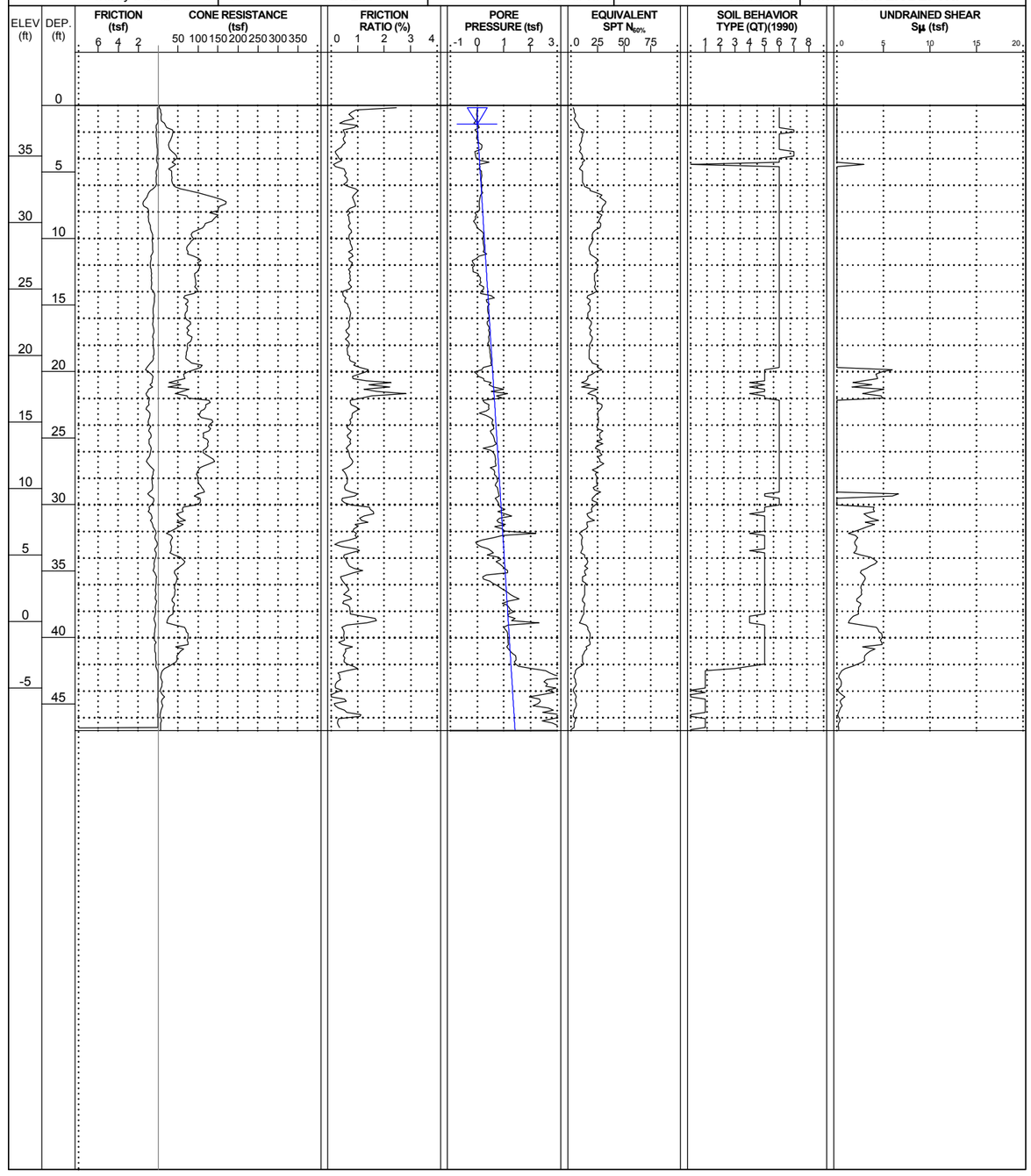
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	87

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y40_23900_13LT	**STATION:** 239+00	**OFFSET:** 13 ft LT	**ALIGNMENT:** -Y40-	**EST. 0 HR.** 1.2
COLLAR ELEV.: 37.9 ft	**TOTAL DEPTH:** 39.8 ft	**NORTHING:** 238,259	**EASTING:** 2,400,117	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/19/18	**COMP. DATE:** 10/19/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y40_24100_CL	**STATION:** 241+00	**OFFSET:** CL	**ALIGNMENT:** -Y40-	**EST. 0 HR.** 1.4
COLLAR ELEV.: 38.8 ft	**TOTAL DEPTH:** 47.0 ft	**NORTHING:** 238,432	**EASTING:** 2,400,218	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG0867
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/19/18	**COMP. DATE:** 10/19/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20

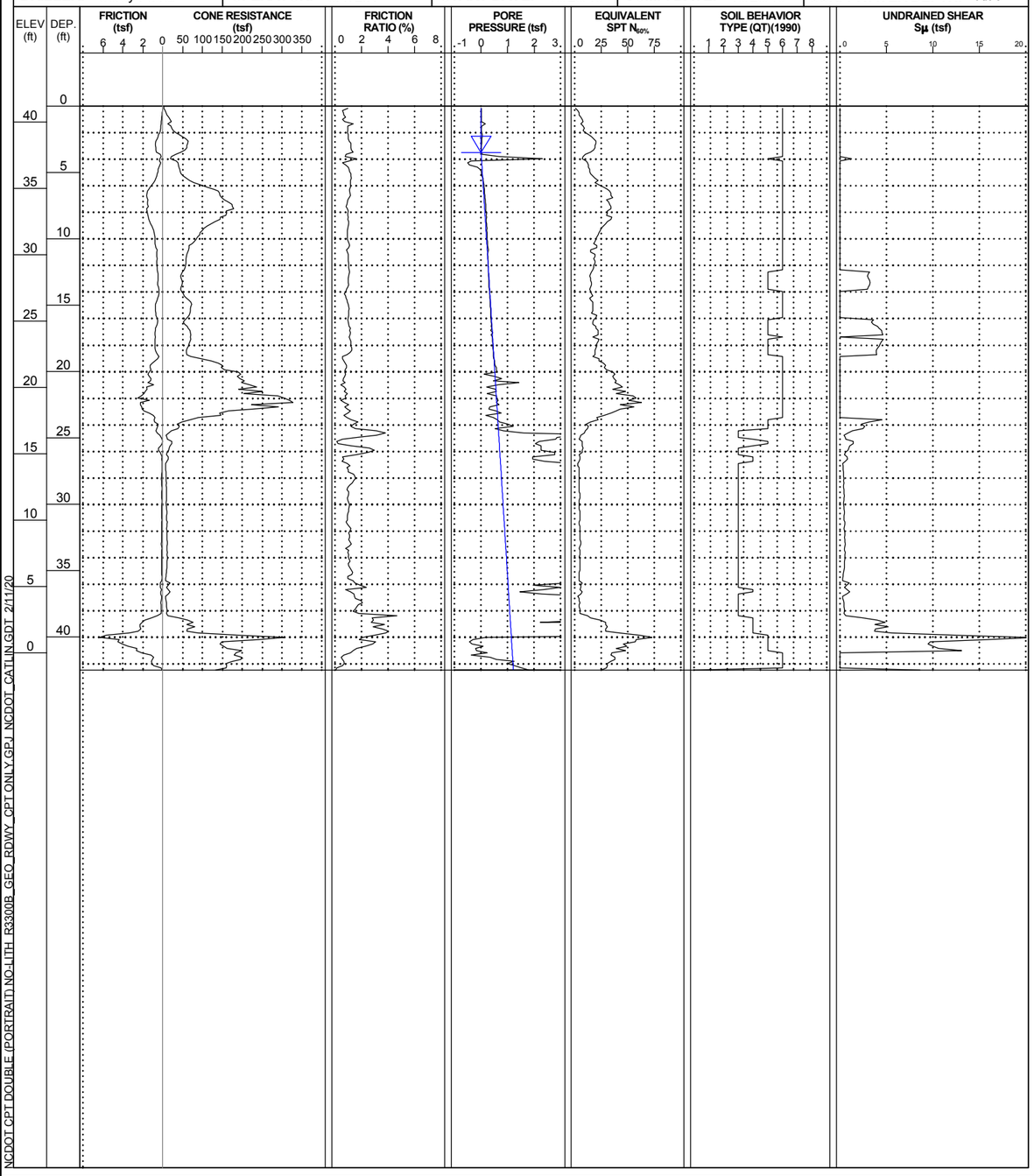
DocuSign Envelope ID: 67B14B51-A778-446A-B237-22E374FD654E

CONE PENETROMETER TEST BORING REPORT

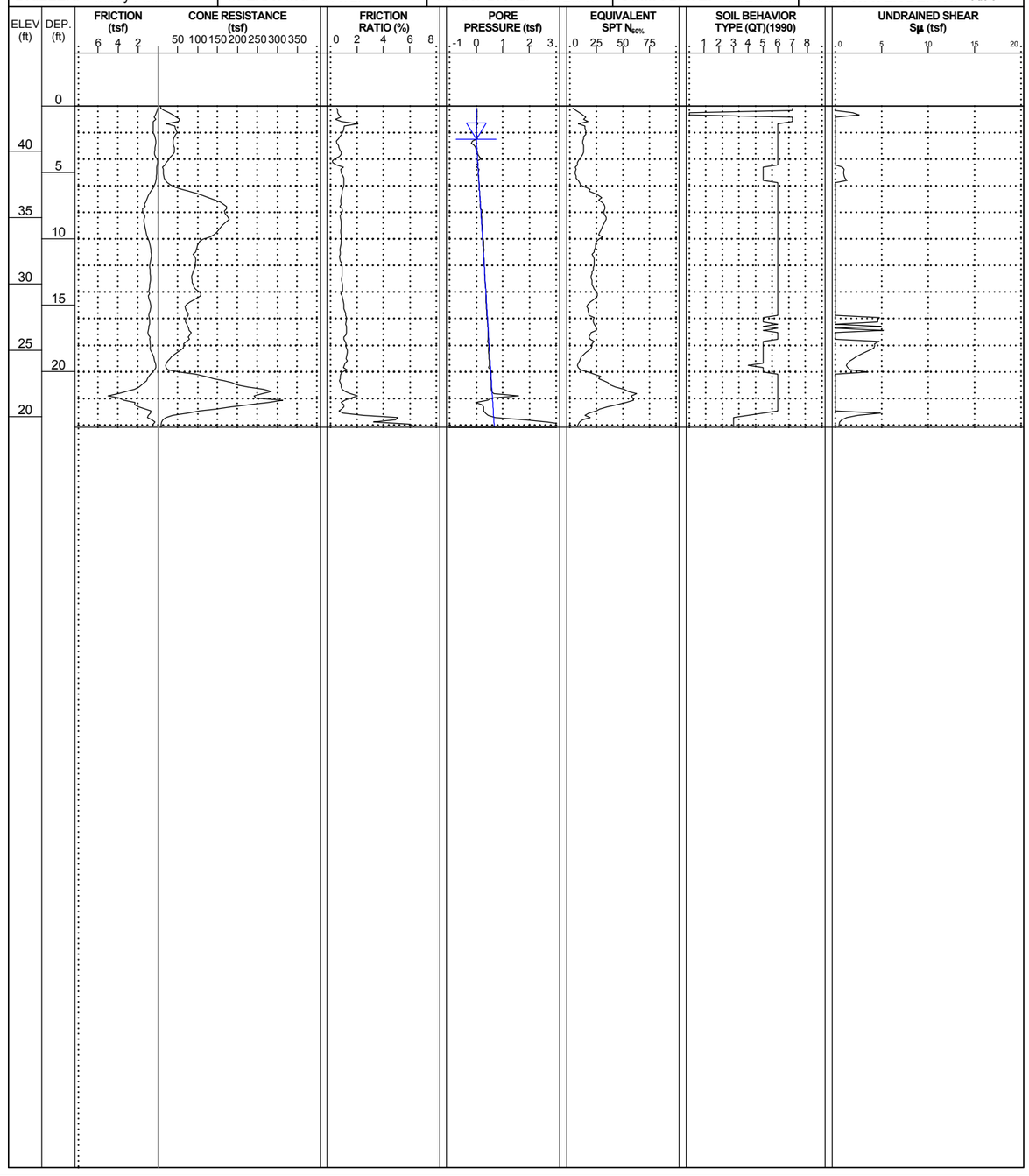
217060 CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405 Corporate Licensure No. for Engineering Services C-0586

PROJECT REFERENCE NO.	SHEET
R-3300B	88

WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y40_24300_CL	**STATION:** 243+00	**OFFSET:** CL	**ALIGNMENT:** -Y40-	**EST. 0 HR.** 3.5
COLLAR ELEV.: 41.2 ft	**TOTAL DEPTH:** 42.5 ft	**NORTHING:** 238,603	**EASTING:** 2,400,321	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/23/18	**COMP. DATE:** 10/23/18	**SURF. WATER DEPTH:** N/A



WBS: 40237.1.1	**TIP:** R-3300B	**COUNTY:** PENDER	**GEOLOGIST:** S. HUDSON	
SITE DESCRIPTION: HAMPSTEAD BYPASS FROM -L1- STA. 578+00 TO US 17 NORTH OF HAMPSTEAD				**GROUND WTR (ft)**
BORING NO.: Y40_24700_CL	**STATION:** 247+00	**OFFSET:** CL	**ALIGNMENT:** -Y40-	**EST. 0 HR.** 2.5
COLLAR ELEV.: 43.4 ft	**TOTAL DEPTH:** 24.2 ft	**NORTHING:** 238,851	**EASTING:** 2,400,630	**24 HR.** N/A
CPT RIG/MAX. DOWN PRESSURE: CATLIN CPT/DPT-01 / ~10,000 LBS.		**CONE TYPE:** TYPE II PIEZO		**CONE ID:** DSG1156
DRILLER: Corey Futral	**OPERATOR:** CATLIN	**START DATE:** 10/23/18	**COMP. DATE:** 10/23/18	**SURF. WATER DEPTH:** N/A



NCDOT CPT DOUBLE (PORTRAIT) NO-LITH_R3300B_GEO_RDWY_CPT ONLY.GPJ NCDOT_CATLIN.GDT 2/11/20