

PROJECT: 17BP.4.R.107 REFERENCE: 500277

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

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY JOHNSTON
PROJECT DESCRIPTION BRIDGE NO. 277 ON -EL-
(SR 1399) OVER POLE BRANCH

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	500277	1	9

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CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE 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 1919 TOT-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:
- THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N. C. DEPARTMENT OF TRANSPORTATION AS ACCURATE NOR IS IT CONSIDERED PART OF THE PLANS, SPECIFICATIONS OR CONTRACT FOR THE PROJECT.
 - BY HAVING REQUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

PERSONNEL

A. N. KINTNER

D. G. PINTER

R. E. CLARKE

INVESTIGATED BY J. L. LOVE

DRAWN BY A. N. KINTNER

CHECKED BY C. A. KREIDER

SUBMITTED BY J. L. LOVE

DATE MARCH 2018

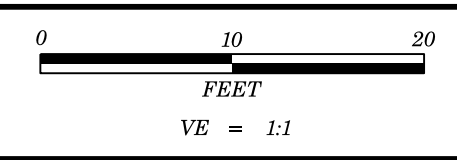


DocuSigned by:
Jaime L. Love 6/28/2018
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 SIGNATURE DATE

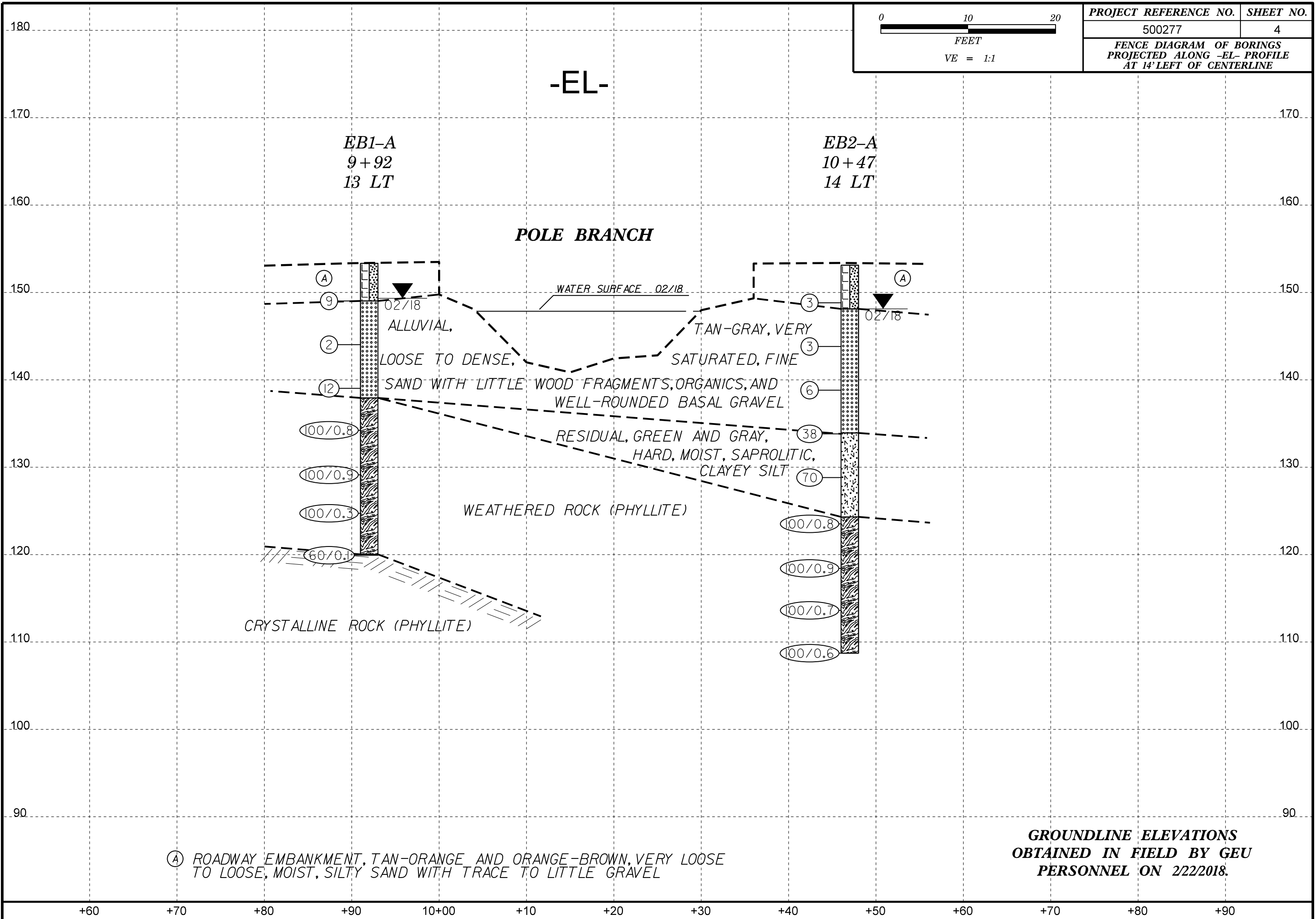
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**



NOTE: NORTHING AND EASTINGS ARE TAKEN FROM NC ONEMAP IMAGE, STATIONS ARE ASSUMED

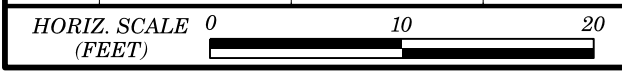
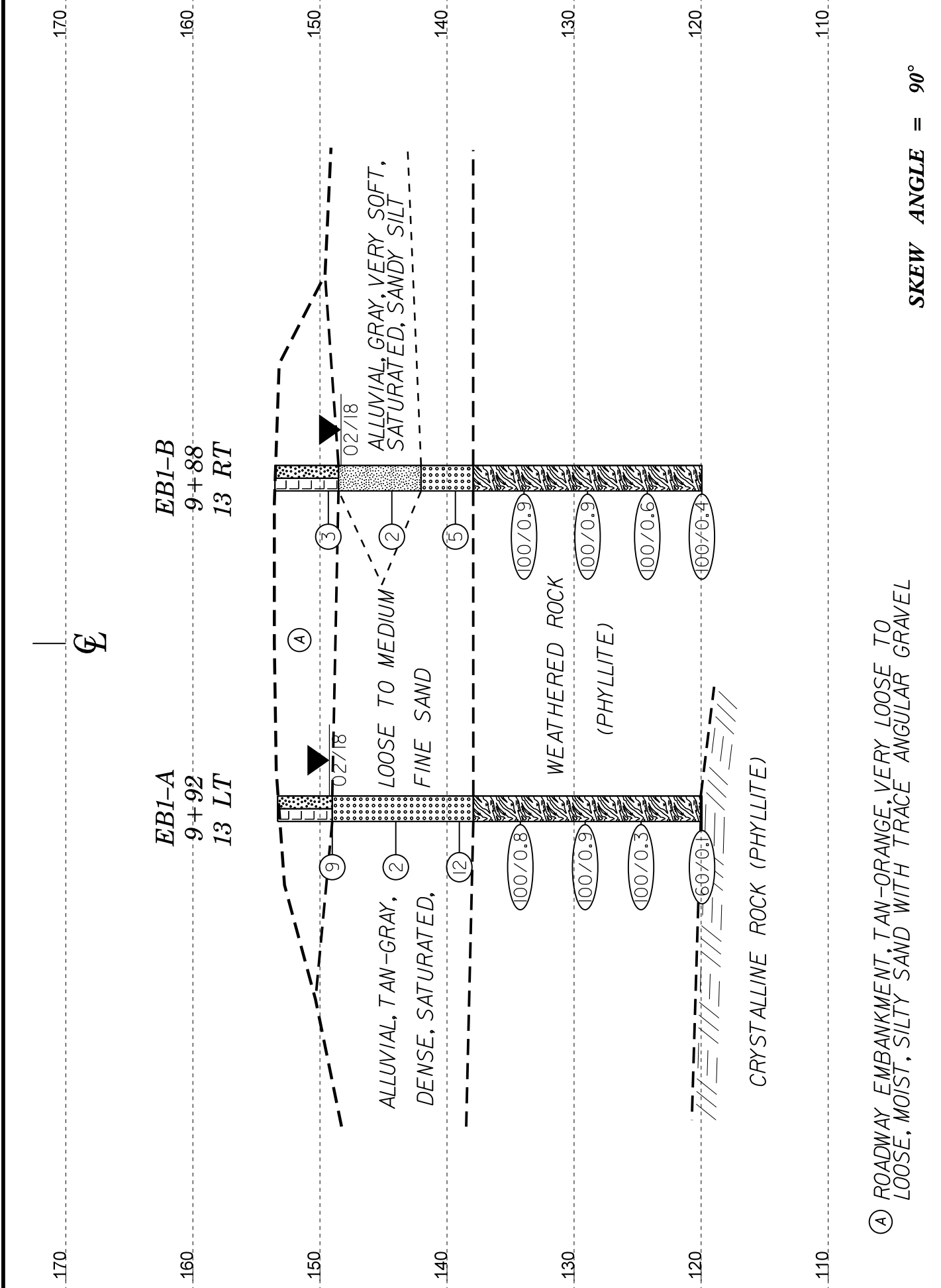


PROJECT REFERENCE NO.	SHEET NO.
500277	4
FENCE DIAGRAM OF BORINGS PROJECTED ALONG -EL- PROFILE AT 14' LEFT OF CENTERLINE	



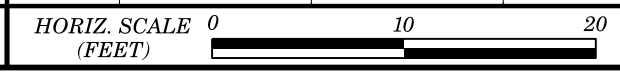
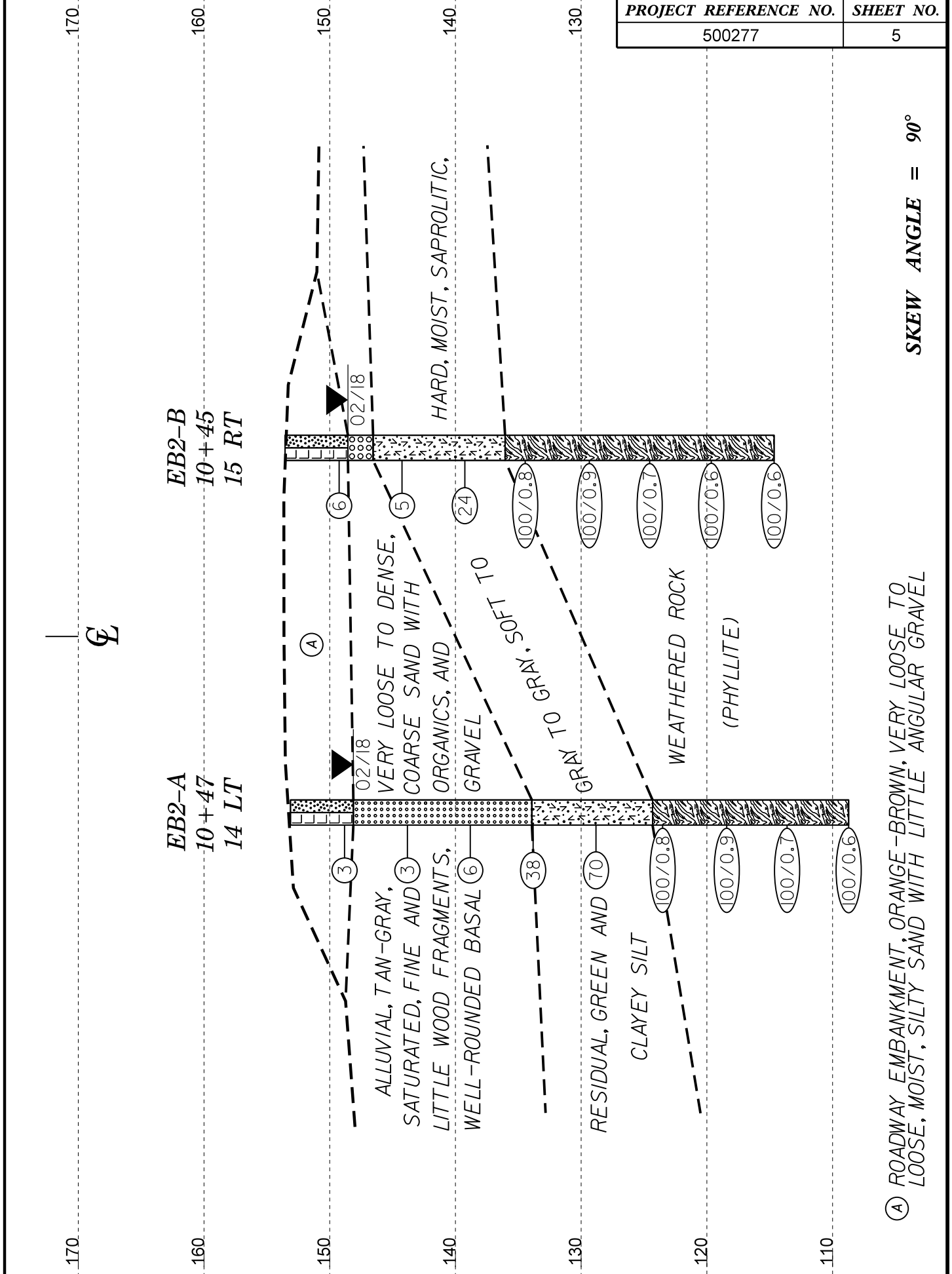
Ⓐ ROADWAY EMBANKMENT, TAN-ORANGE AND ORANGE-BROWN, VERY LOOSE TO LOOSE, MOIST, SILTY SAND WITH TRACE TO LITTLE GRAVEL

**GROUNDLINE ELEVATIONS
OBTAINED IN FIELD BY GEU
PERSONNEL ON 2/22/2018.**



VE = 1:1

CROSS SECTION THROUGH EBI



VE = 1:1

CROSS SECTION THROUGH EB2

GEOTECHNICAL BORING REPORT

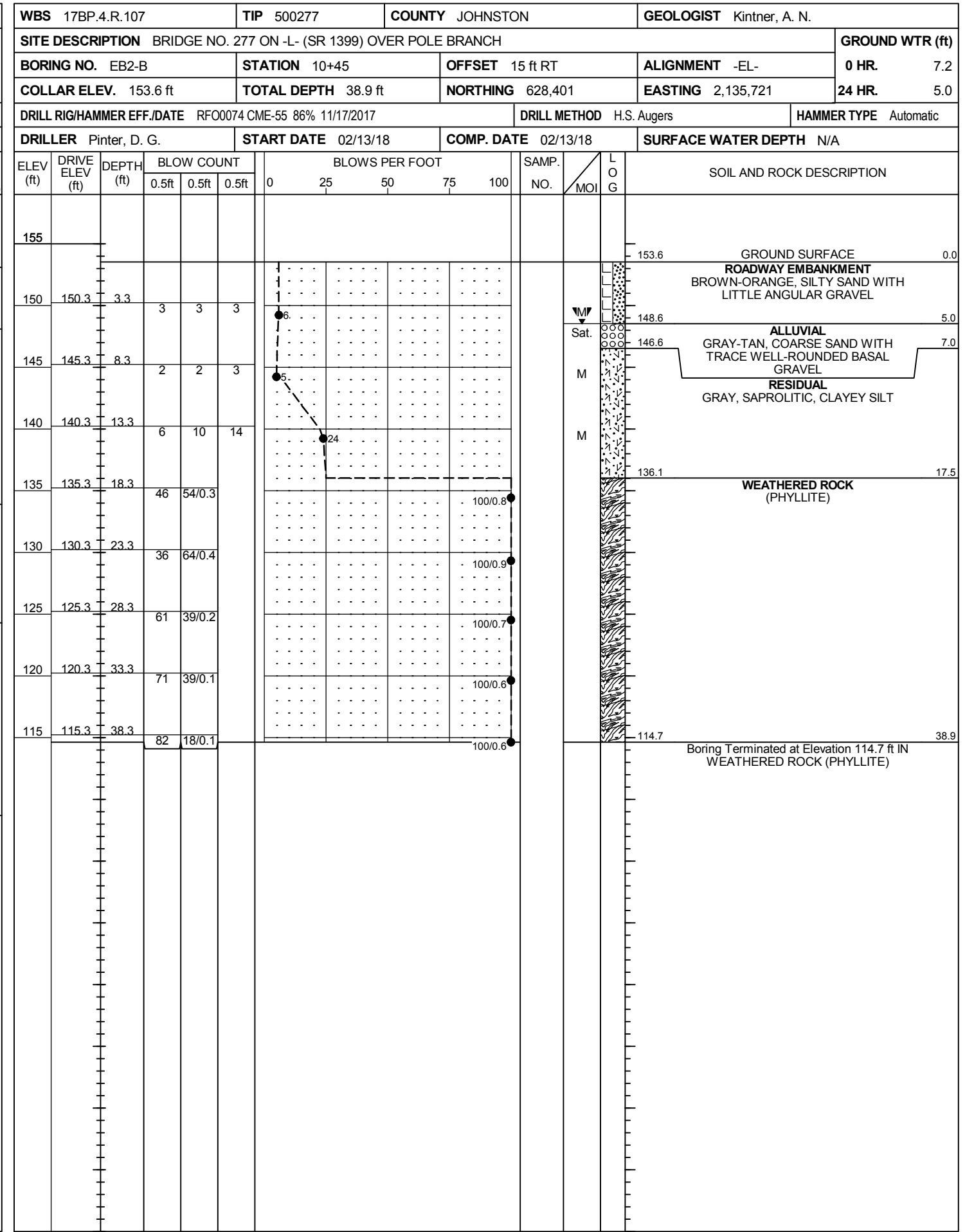
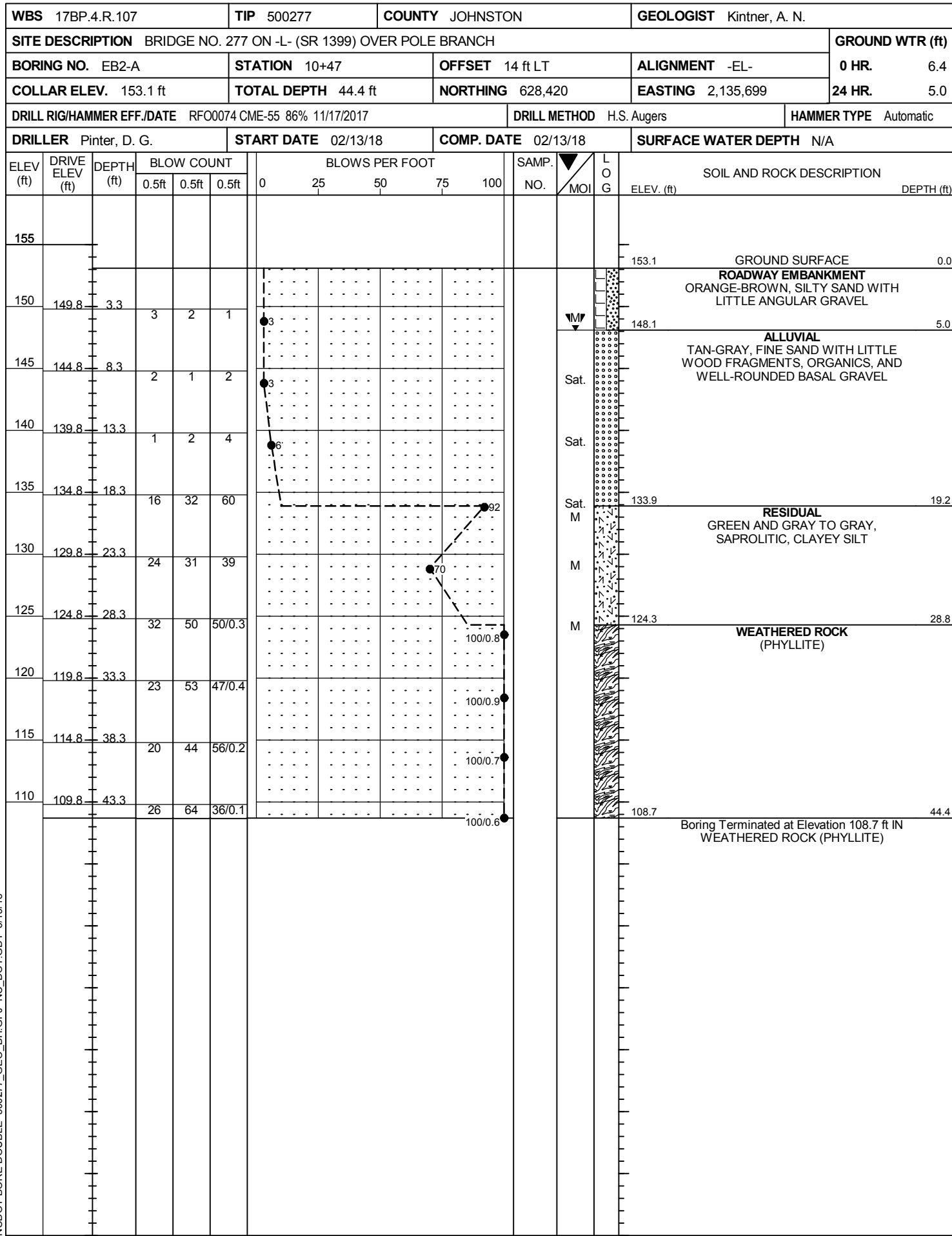
BORE LOG

WBS 17BP.4.R.107		TIP 500277		COUNTY JOHNSTON		GEOLOGIST Kintner, A. N.										
SITE DESCRIPTION BRIDGE NO. 277 ON -L- (SR 1399) OVER POLE BRANCH							GROUND WTR (ft)									
BORING NO. EB1-A		STATION 9+92		OFFSET 13 ft LT		ALIGNMENT -EL-										
COLLAR ELEV. 153.3 ft		TOTAL DEPTH 33.4 ft		NORTHING 628,376		EASTING 2,135,666										
DRILL RIG/HAMMER EFF./DATE RFO0074 CME-55 86% 11/17/2017			DRILL METHOD H.S. Augers		HAMMER TYPE Automatic											
DRILLER Pinter, D. G.		START DATE 02/13/18		COMP. DATE 02/13/18		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
155														153.3	0.0	GROUND SURFACE
														149.0	4.3	ROADWAY EMBANKMENT TAN-ORANGE, SILTY SAND WITH TRACE ANGULAR GRAVEL
150	150.0	3.3	5	6	3											
145	145.0	8.3	1	1	1											ALLUVIAL TAN-GRAY, FINE SAND WITH TRACE CLAY LENSES
140	140.0	13.3	5	6	6											
135	135.0	18.3	50	50/0.3												WEATHERED ROCK (PHYLLITE)
130	130.0	23.3	34	66/0.4												
125	125.0	28.3	100/0.3													
120	120.0	33.3	60/0.1													
														120.0	33.3	CRYSTALLINE ROCK (PHYLLITE)
														119.9	33.4	Boring Terminated WITH STANDARD PENETRATION TEST REFUSAL at Elevation 119.9 ft IN CRYSTALLINE ROCK (PHYLLITE)

WBS 17BP.4.R.107		TIP 500277		COUNTY JOHNSTON		GEOLOGIST Kintner, A. N.										
SITE DESCRIPTION BRIDGE NO. 277 ON -L- (SR 1399) OVER POLE BRANCH							GROUND WTR (ft)									
BORING NO. EB1-B		STATION 9+88		OFFSET 13 ft RT		ALIGNMENT -EL-										
COLLAR ELEV. 153.5 ft		TOTAL DEPTH 33.6 ft		NORTHING 628,357		EASTING 2,135,685										
DRILL RIG/HAMMER EFF./DATE RFO0074 CME-55 86% 11/17/2017			DRILL METHOD H.S. Augers		HAMMER TYPE Automatic											
DRILLER Pinter, D. G.		START DATE 02/14/18		COMP. DATE 02/14/18		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
155														153.5	0.0	GROUND SURFACE
														148.5	5.0	ROADWAY EMBANKMENT TAN-ORANGE, SILTY SAND WITH TRACE ANGULAR GRAVEL
150	150.3	3.2	1	2	1											
145	145.3	8.2	1	1	1											ALLUVIAL GRAY, SANDY SILT
140	140.3	13.2	1	2	3											GRAY-TAN, FINE SAND
135	135.3	18.2	33	52	48/0.4											WEATHERED ROCK (PHYLLITE)
130	130.3	23.2	15	33	67/0.4											
125	125.3	28.2	27	87	13/0.1											
120	120.3	33.2	100/0.4													
														119.9	33.6	Boring Terminated at Elevation 119.9 ft IN WEATHERED ROCK (PHYLLITE)

GEOTECHNICAL BORING REPORT

BORE LOG



NCDOT BORE DOUBLE 500277_GEO_BH.GPJ NC_DOT.GDT 3/15/18

PROJ. NO. - 17BP.4.R.107
ID NO. - 500277
COUNTY - JOHNSTON

EBI-B

SOIL TEST RESULTS															
SAMPLE NO.	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-4	13'RT	9+88	8.2-9.7	A-4(0)	22	5	18.0	41.6	20.2	20.2	99	93	46	-	-

SITE PHOTOGRAPH

Bridge No. 277 on -EL- (SR 1399) over Pole Branch



Looking North towards End Bent 2