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GEOTECHNICAL DESIGN REPORT
INTERSTATE 395/ROUTE 9 CONNECTOR HIGHWAY
MAINEDOT WIN 018915.00
BREWER TO EDDINGTON, MAINE

by
Haley & Aldrich, Inc.
Portland, Maine

for
Maine Department of Transportation
Augusta, Maine

File No. 132076-007
September 2021

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17 September 2021
File No. 132076-007

Maine Department of Transportation
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Attention: Kate Maguire, P.E.

Subject: Geotechnical Design Report
Interstate 395/Route 9 Connector Highway
MaineDOT WIN 018915.00
Brewer to Eddington, Maine

Ladies and Gentlemen:

We are pleased to submit herewith our report entitled, "Geotechnical Design Report, Interstate 395/Route 9 Connector Highway, MaineDOT WIN 018915.00, Brewer to Eddington, Maine." This Geotechnical Design Report (GDR) has been prepared in accordance with our proposal, dated 22 January 2021 and executed by your Richard J. Crawford on 5 February 2021, and the provisions of our General Consultant Agreement (GCA) with the Maine Department of Transportation (MaineDOT), No. CT20150706000000000010.

Introduction

This GDR presents the results of preliminary design phase (Phase I) and final design phase (Phase II) subsurface and laboratory testing programs and technical evaluations conducted by Haley & Aldrich, Inc. (Haley & Aldrich) on behalf of the Maine Department of Transportation (MaineDOT), and provides geotechnical design recommendations for the proposed highway and associated embankments and highway culverts in Brewer-Eddington, Maine (see Figure 1, Project Locus).

HORIZONTAL COORDINATE SYSTEM, ELEVATION DATUM, AND BASELINE STATIONING

Plan locations of test borings are reported as northing and easting coordinates relative to the Maine State Plane Coordinate System, North American Datum of 1983 (NAD 83), Maine 2000 Central Zone. As-drilled test boring locations were related to station and offset distance/direction relative to the I-395/Route 9 Connector baseline stationing by MaineDOT (Phase I) and Haley & Aldrich (Phase II). The baseline stationing for the project extends from approximately Sta. 24+00 (south; project beginning) to Sta. 343+50 (north; project end).

The project elevation datum and elevations referenced herein are in feet and reference the North American Vertical Datum of 1988 (NAVD 88).

PROJECT LOCATION AND PROPOSED HIGHWAY ALIGNMENT

The proposed highway starts at the northern terminus of I-395 in Brewer and extends approximately 6 miles north to Route 9 in Eddington. The proposed project includes the following elements:

- One bridge replacement at Wilson Street (under construction)
- Three underpass bridges at Eastern Avenue, Clewleyville Road and Levenseller Road
- One overpass bridge at Lambert Road
- One bridge over Eaton Brook
- Four bridge culverts over streams, brooks, tributaries and wetlands
- Four culverts for snowmobile trails and wildlife crossings
- Approximately 6 miles of new highway and associated embankments and ramps
- Three highway culverts at tributaries

GDRs for the bridges and bridge culverts have been provided under separate cover. This GDR addresses the new highway and the three new highway culverts. Based on profile information provided by MaineDOT, the table below summarizes the approximate limits of fill, at-grade, and cut sections along the project baseline. Please refer to Figures 1 through 3 for station location information.

Approximate Location	Cut/Fill/At-Grade	Approximate Maximum Proposed Fill Height (ft)	Approximate Maximum Proposed Cut Depth[1] (ft)
Sta. 24+00 to Sta. 45+00	At-Grade	-	-
Sta. 45+00 to Sta. 48+50	Fill	8	-
Sta. 48+50 to Sta. 50+50	Cut	-	27
Sta. 50+50 to Sta. 99+00 Including Ramps C, D, E and F	Fill	34	-
Sta. 99+00 to Sta. 116+00	Cut	-	32
Sta. 116+00 to Sta. 134+50	Fill	8	-
Sta. 134+50 to Sta. 138+00	At-Grade	-	-
Sta. 138+00 to Sta. 156+00	Fill	18	-
Sta. 156+00 to Sta. 159+00	At-Grade	-	-
Sta. 159+00 to Sta. 170+00	Fill	20	-
Sta. 170+00 to Sta. 179+00	Cut	-	41
Sta. 179+00 to Sta. 206+50	Fill	30	-
Sta. 206+50 to Sta. 246+50	Cut	-	29
Sta. 246+50 to Sta. 302+50	Fill	26	-
Sta. 302+50 to Sta. 311+50	Cut	-	20
Sta. 311+50 to Sta. 319+50	Fill	13	--
Sta. 319+50 to Sta. 326+00	Cut	-	6
Sta. 326+00 to Sta. 337+00	Fill	11	-
Sta. 337+00 to Sta. 343+50	At-Grade	-	-
Culvert at Sta. 66+74 8-ft dia., 152-ft long	Fill	22	-
Culvert at Sta. 84+50 6-ft dia., 168-ft long	Fill	11	-
Culvert at Sta. 133+86 6-ft dia., 116-ft long	Fill	7	-

[1] Cut depth measured from existing ground surface to bottom of proposed pavement section (i.e., approximately 2.5 ft below proposed grade).

Geologic Setting

Based on Maine Geological Survey's Surficial Geology of the Veazie Quadrangle, Maine (2011) and deposits observed in recent explorations, surficial deposits mapped along the proposed corridor consist of artificial fill, alluvial deposits, wetland deposits, glaciomarine deposits, and glacial till. Refer to Figure 2A for the surficial geology map.

Geologic publications indicate mapped surficial deposits along the southern half of the proposed corridor consist primarily of Presumpscot glaciomarine silt and clay deposits with the exception of alluvial sediments mapped in the areas adjacent to stream crossings and minor areas of mapped glacial till at higher elevations. In the northern half of the proposed alignment, mapped surficial deposits predominantly consist of glacial till with minor areas of low-lying wetland deposits and Presumpscot glaciomarine silt and clay deposits.

Artificial fill was encountered in recent explorations within the limits of the existing road crossings. The fill typically consists of sand with varying amounts of silt and gravel, or clayey silt to sandy silt with varying amounts of gravel.

Alluvial deposits and wetland deposits are mapped within floodplains of low-lying streams. The alluvial deposits typically consist of sand, gravel, silt and organic sediment. The wetland deposits typically consist of peat, silt, clay and sand.

Glaciomarine deposits of the Presumpscot Formation are generally mapped in topographically low-lying areas consisting primarily of silt and clay deposits with minor sand and gravel.

Glacial Till deposits primarily consist of hard silt with varying amounts of sand and gravel or well graded sand with varying amounts of silt and gravel.

According to Bedrock Geology of the Veazie Quadrangle (2011), bedrock within the proposed site corridor is mapped as siltstone and claystone slate of the Brewer Formation. Subordinate rock types consist of fine-grained calcareous quartz-rich meta-arenite and noncalcareous feldspathic metawacke. Thin beds of dark gray to gray-black metalimestone may also be present. Refer to Figure 2B for the bedrock geology map.

Subsurface Exploration Program

PREVIOUS EXPLORATIONS BY MAINEDOT

Multiple phases of explorations were conducted at the southern end of the corridor by the Maine State Highway Commission in association with the original design and construction of I-395, the Wilson Street Bridge, and the existing ramps. A series of "wash borings" were drilled in the vicinity of the proposed highway corridor between 1978 and 1984. The borings were drilled using 4-in. and/or 2.5-in. steel casing. Soil samples were generally collected at standard, 5-ft intervals by driving a split-spoon sampler with a 140-lb hammer dropped from a height of 30 in. Select borings were advanced approximately 5 ft into bedrock.

In addition, a program of six seismic and standard cone penetrometer tests (sCPT/CPTs) and two test borings was conducted in 2013 as part of a research project by the University of Maine and MaineDOT. Shear wave velocity testing was performed at four of the six CPT locations. The CPTs and borings were located at the south end of the project, immediately north of Wilson Street.

The locations of the previous explorations are shown on Figures 4 through 8 and 49 through 53. The test boing logs for the 1978 through 1984 explorations and the 2013 CPT report are provided for reference in Appendix B.

PRELIMINARY DESIGN PHASE EXPLORATIONS BY HALEY & ALDRICH

Haley & Aldrich completed a preliminary design phase (Phase I) subsurface exploration program in association with the subject project consisting of 101 test borings that were drilled at the site from July to December 2018. The purpose of the subsurface exploration program was to characterize the general conditions along the proposed roadway alignment and in the vicinity of proposed bridge substructures. Most of the Phase I borings were drilled along the highway centerline.

The test boring locations were laid out in the field by Haley & Aldrich or MaineDOT using global positioning system (GPS) survey equipment prior to the start of drilling. "As-drilled" exploration locations (coordinates) and ground surface elevations at test boring locations were determined in the field by MaineDOT using GPS survey equipment upon the completion of drilling. The "as-drilled" station/offset distance and direction relative to the proposed baseline was provided by MaineDOT. The plan location data of the explorations are summarized in Table I and the locations are shown on Figures 4 to 53.

The test borings were drilled by either New England Boring Contractors (NEBC) of Hermon, Maine using a Mobile Drill B-53 track-mounted drill rig or Northern Test Boring, Inc. (NTB) of Gorham, Maine using a Diedrich D50 track-mounted drill rig. Test borings were advanced to depths ranging from approximately 6 to 71 ft below existing ground surface (BGS) using 4-in. (HW size) inside diameter (ID) steel casing. Soil samples were generally collected continuously through the existing fill and at standard, 5-ft intervals, by driving a 1 3/8-in. ID split-spoon sampler with a 140-lb hammer dropped from a height of 30 in., as indicated on the test boring logs. The number of hammer blows required to advance the sampler through each 6-in. interval was recorded and is provided on the test boring logs. The uncorrected SPT N-value (N-uncorrected) is defined as the total number of blows required to advance the sampler through the middle 12 in. of the 24-in. sampling interval.

The drill rigs were equipped with calibrated automatic hammers. Based on the calibration information provided by NEBC and NTB, a theoretical hammer efficiency factor of 0.9057 and 0.907 was used for the Mobile and Diedrich automatic hammers, respectively. The energy-corrected SPT N-value (N60) is equal to the uncorrected SPT N-value multiplied by the hammer efficiency factor (0.9057 or 0.907) divided by 0.6 (i.e., 60 percent calculated hammer efficiency). Both the raw blow count (uncorrected N-values) and the corrected N-values are shown on the boring logs.

Bedrock was typically cored at proposed bridge locations and where encountered within the proposed roadway cut depth. Where core was obtained, test borings were advanced approximately 10 ft into bedrock using a 2.0-in. (NQ-size) ID diamond-tipped core barrel.

All soil and bedrock samples were collected and preserved in glass jars and wooden boxes, respectively. The samples that were not submitted for laboratory testing are available for review upon request, and are currently being stored at the Haley & Aldrich laboratory facility in Portland, Maine or the MaineDOT facility in Bangor, Maine.

In-situ vane shear tests were conducted within the marine clay deposit. The vane shear tests were conducted with a 55-mm by 110-mm or 65-mm by 130-mm rectangular Geonor vane attached to a 2-ft long, 12-mm diameter rod extension, attached to a string of 5/8-in. outside diameter (OD) hollow chrome-moly rods. At the in-situ vane shear test location, the vane was pushed (by hand) until the bottom of the vane was approximately 1 to 2 ft below the bottom of the borehole. The vane was then rotated at a rate of 90 degrees per minute using a calibrated torque wrench. Results of the vane shear testing are provided on the test boring logs in Appendix A.

A total of 17 observation wells were installed in completed boreholes to provide information on the static groundwater levels at the site. The observation wells consisted of 2-in. ID, machine-slotted PVC pipe and solid PVC riser pipe extending approximately to existing ground surface. The observation wells were outfitted with a flush-mounted roadway box protective cover or a steel guard pipe and steel lock/cap assembly. Observation well installation and groundwater monitoring reports are provided in Appendix C.

All drilling and sampling were performed in accordance with MaineDOT specifications.

FINAL DESIGN PHASE EXPLORATIONS BY HALEY & ALDRICH

Haley & Aldrich completed a final design phase (Phase II) subsurface exploration program in association with the subject project consisting of 149 test borings that were drilled at the site from October 2020 to April 2021. Seven of the Phase II borings were previously drilled during the Phase I subsurface exploration program. These borings were in the vicinity of the Wilson Street bridge and were drilled at the site in December 2019 and January 2020 and are included in this report. The purpose of the Phase II subsurface exploration program was to characterize the conditions along the proposed roadway alignment and in the vicinity of proposed bridge substructures, and address any gaps in data identified from the Phase I program.

The test boring locations were laid out in the field by MaineDOT using GPS survey equipment prior to the start of drilling. “As-drilled” exploration locations (coordinates) and ground surface elevations at test boring locations were determined in the field by MaineDOT using GPS survey equipment upon the completion of drilling. The “as-drilled” station/offset distance and direction relative to the proposed baseline was prepared by Haley & Aldrich. The plan location data of the Phase II explorations are summarized in Table I (highway/bridge borings) and Table IV (lighting/sign borings), and the locations are shown on Figures 4 to 53.

The test borings were drilled by either New England Boring Contractors (NEBC) of Hermon, Maine using a Mobile Drill B-53 track-mounted drill rig or a Mobile B-53 truck-mounted drill rig, or by MaineDOT of Bangor, Maine using a CME 45C trailer drill rig. Test borings were advanced to depths ranging from approximately 5 to 90 ft below existing ground surface (BGS) using 4-in. (HW size) ID steel casing. Soil samples were generally collected continuously through the existing fill and at standard, 5-ft intervals, by driving a 1 3/8-in. ID split-spoon sampler with a 140-lb hammer dropped from a height of 30 in., as indicated on the test boring logs. The number of hammer blows required to advance the sampler through each 6-in. interval was recorded and is provided on the test boring logs.

The drill rigs were equipped with calibrated automatic hammers. Based on the calibration information provided by NEBC and MaineDOT, a theoretical hammer efficiency factor of 0.852, 0.867, and 0.89 was used for the Mobile B-53 track-mounted rig, Mobile B-53 truck-mounted rig, and CME 45C automatic hammers, respectively. The energy-corrected SPT N-value (N60) is equal to the uncorrected SPT N-value multiplied by the hammer efficiency factor (0.852, 0.867, or 0.89) divided by 0.6 (i.e., 60 percent calculated hammer efficiency). Both the raw blow count (uncorrected N-values) and the corrected N-values are shown on the boring logs.

Bedrock was typically cored at proposed bridge locations and where encountered within the proposed roadway cut depth. Where core was obtained, test borings were advanced approximately 10 ft into bedrock using a 2-in. (NQ-size) ID diamond-tipped core barrel. Additional rock core was obtained in deeper cut areas near Clewleyville Road and Levenseller Road.

All soil and bedrock samples were collected and preserved in glass jars and wooden boxes, respectively. The samples that were not submitted for laboratory testing are available for review upon request, and are currently being stored at the Haley & Aldrich laboratory facility in Portland, Maine or the MaineDOT facility in Bangor, Maine.

In-situ vane shear tests were conducted within the marine clay deposit. The vane shear tests were conducted with a 55-mm by 110-mm or 65-mm by 130-mm rectangular Geonor vane attached to a 2-ft long, 12-mm diameter rod extension, attached to a string of 5/8-in. OD hollow chrome-moly rods. At the in-situ vane shear test location, the vane was pushed (by hand) until the bottom of the vane was approximately 1 to 2 ft below the bottom of the borehole. The vane was then rotated at a rate of 90 degrees per minute using a calibrated torque wrench. Results of the vane shear testing are provided on the test boring logs in Appendix A.

No additional observation wells were installed during Phase II. Water level readings in the previously installed Phase I wells were taken throughout Phase II. Observation well groundwater monitoring reports are provided in Appendix C.

All drilling and sampling were performed in accordance with MaineDOT specifications.

Cone Penetration Tests

Cone Penetration Tests (CPTs) were conducted from 26 October to 2 November 2020 by ConeTec, Inc., West Berlin, New Jersey. Twenty-two cone penetration tests (CPTs) and four seismic cone penetration tests (sCPTs) were performed in accordance with American Society for Testing Materials (ASTM) D5778. Three CPT and one sCPT offsets (designated by a “B”) were performed due to refusals prior to reaching target depths. CPTs and sCPTs provide a near continuous profile of geotechnical engineering parameters and soil stratigraphy. A total of 48 shear wave velocity tests were performed at discrete intervals during sCPTs to assist in developing shear wave velocity profiles. A total of eight pore pressure dissipation (PPD) tests were performed during the CPTs and sCPTs to estimate the groundwater level and other geotechnical engineering parameters. The cone penetration testing report, including results and additional information about testing methods, is provided in Appendix D.

Geophysical Logging

Structural bedrock geologic data was collected in select bridge and highway borings using downhole geophysical techniques (i.e., optical televiewer [OTV] and acoustic televiewer [ATV] logging) to locate and measure discontinuities within the bedrock mass. OTV and ATV logging was completed in select test borings at Clewleyville Road Bridge (i.e., BB-ECR-201, BB-ECR-202, BB-ECR-203A, BB-ECR-204A, BB-ECR-205, BB-ECR-206A), and at Levenseller Road Bridge (i.e., BB-ELER-202, BB-ELER-205, BB-ELER-206A, HB-BE-231, HB-BE-232, HB-BE-235, HB-BE-236, and HB-BE-237). The borehole geophysical logging was completed by Hager-Richter Geoscience, Inc. of Salem, New Hampshire under the supervision of Haley & Aldrich in November 2020 and March 2021. Reports summarizing the geophysical logging are provided in Appendix E.

Shear Wave Velocity Testing

Shear wave velocity testing was conducted by Hager-Richter Geoscience, Inc. of Salem, New Hampshire under the supervision of Haley & Aldrich on 30 December 2020. The shear wave velocity testing was conducted using the passive shear wave seismic (pVs) method, also called the Refraction Microtremor (ReMi™) method along five test lines in the southern end of the site. The testing provides shear wave velocity information as a function of depth, to a depth of 100 ft. This information along with the sCPT information was used to refine seismic site class information for the global embankment stability evaluations in the soft ground areas along the southern portion of the alignment. A report summarizing the shear wave velocity testing is provided in Appendix F.

Generalized Subsurface Conditions

SOIL AND BEDROCK CONDITIONS

The subsurface conditions encountered at the site during the subsurface exploration programs completed by Haley & Aldrich generally consist of the following geologic units presented in order of increasing depth below ground surface: bituminous concrete, man-placed fill soils, organic soils, marine deposits, glacial till, weathered rock, and bedrock.

Refer to Table II and Table V for a summary of the soil units and encountered thicknesses at each test boring location. Refer to Figures 54 through 101, Interpretive Subsurface Profiles, for a graphical representation of the subsurface conditions present along the proposed highway alignment. Detailed soil and bedrock descriptions are provided on the test boring logs included in Appendices A and B. Photographs of the recently sampled bedrock are provided in Appendix A.

STRUCTURAL BEDROCK GEOLOGIC CONDITIONS

The structural bedrock geologic data used in kinematic analyses, which are discussed in subsequent sections of this report, were collected during the design phase (Phase II) subsurface exploration program.

The results of the OTV and ATV logging, which includes identification and measurement of the depth, aperture (i.e., openness) and orientation (dip angle and dip direction) of planar features within the bedrock mass such as fractures (or joints), foliation or bedding planes are provided in Appendix E. Bedrock structures encountered in the boreholes are grouped into five categories, as described below.

1. Foliation/Vein: Planar geologic feature with no aperture.
2. Fracture Rank 1: Minor fracture that may not be continuous around the borehole.
3. Fracture Rank 2: Intermediate fracture that is distinct and continuous around the borehole with little to no aperture.
4. Fracture Rank 3: Intermediate fracture that is distinct and continuous around the borehole with some apparent aperture.
5. Fracture Rank 4: Major fracture that is distinct with continuous apparent aperture around the borehole.

Evaluation of the data considered Fracture Ranks 1 and 2 to be “closed” joints and Fracture Ranks 3 and 4 to be “open” joints. Additional bedrock joint details in the vicinity of Clewleyville and Levenseller Roads are summarized below.

- Clewleyville Road Area - A total of 338 joints were logged within the bedrock encountered in the test borings noted above, which represents an average of approximately 3 joints per vertical linear foot of bedrock (jpf). Of those joints, 36 percent were considered “open”, and 64 percent were considered “closed”. In general, the joint frequency (i.e., number of joints per vertical linear foot) and aperture (openness) of the joints decreases with increasing depth below the top of bedrock surface, with the exception of boring location BB-ECR-201. The rock quality designation (RQD) also tends to increase with increasing depth below the top of bedrock surface, with the exception of boring locations BB-ECR-201 and BB-ECR-202. Similarly, the RQD tends to increase with increasing depth below the top of bedrock surface.
- Levenseller Road Area - A total of 319 joints were logged within the bedrock encountered in the test borings noted above, which represents an average of approximately 2.9 jpf. Of those joints, 25 percent were considered “open”, and 75 percent were considered “closed”. In general, the joint frequency (i.e., number of joints per vertical linear foot) and aperture (openness) of the joints decreases with increasing depth below the top of bedrock surface with the exception of test boring HB-BE-237. Similarly, the RQD also tends to increase with increasing depth below the top of bedrock surface.

GROUNDWATER CONDITIONS

As discussed previously, observation wells were installed in select completed boreholes along the highway corridor during Phase I. The observation wells were installed to provide information on the static groundwater levels at the site, especially in cut areas along the alignment.

Elevated water levels (i.e., those that were measured above existing ground surface) were encountered during drilling of several test borings near Eaton Brook (BB-BEB-101, BB-BEB-103, BB-BEB-104, and BB-BEB-201 through BB-BEB-205) and in several other isolated areas (BB-BFB1-201, HB-BE-202, HB-BE-203, HB-BE-223A, HB-BE-242, and HB-BE-242A). Elevated water levels measured during drilling of these test borings were all above the existing ground surface. These elevated water levels were typically observed at the end of drilling while pulling casing or immediately after pulling casing, and consisted of water seeping out the top of the borehole.

In general, water levels may fluctuate with season, precipitation, local soil/bedrock conditions, and excavation means and methods. Therefore, water levels may vary from those provided on the boring logs included in Appendix A and shown on the groundwater monitoring reports included in Appendix C.

Laboratory Test Results

Phase I and Phase II geotechnical laboratory testing programs were conducted by Haley & Aldrich on representative soil and rock samples collected during the preliminary and final design phase subsurface exploration programs to aid in soil classification and determination of physical and engineering properties of soil and rock. All laboratory testing was performed in accordance with applicable ASTM testing procedures by GeoTesting Express, Inc. (GTX) of Acton, Massachusetts. Laboratory test results are provided in Appendix G and are provided on the test boring logs in Appendix A. A summary of laboratory test results is provided below.

Laboratory Test	ASTM Test Designation	Number of Completed Tests
Moisture Content	ASTM D 2216	84
Grain Size	ASTM D 422	94
Atterberg Limits	ASTM D 4318	76
Consolidated Undrained Triaxial Shear	ASTM D 4767	47
Consolidated Undrained Direct Simple Shear	ASTM D 6528	10
One Dimensional Consolidation	ASTM D 2435 Method B	46
Consolidated Drained Direct Shear	ASTM D3080	3
Compressive Strength and Elastic Moduli of Rock	ASTM D 7012	32
Sliding Friction Test of Rock	ASTM D 5607	3

Grain size evaluations were focused in areas of cuts in granular soils to evaluate reuse potential of excavated soils. Atterberg limits, triaxial shear, direct simple shear, and one-dimensional consolidation tests were generally conducted on marine clay samples to provide engineering properties for global stability and settlement evaluations. Rock strength testing was generally performed at proposed bridge locations where foundations are anticipated to bear on bedrock.

Geotechnical Evaluations and Design Recommendations

Geotechnical design recommendations for the subject project, as discussed and provided herein, were developed in accordance with the following documents:

- AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications, Ninth Edition, 2020, referred to herein as AASHTO LRFD,
- MaineDOT Bridge Design Guide (BDG), August 2003, with Interim Revisions through June 2018, referred to herein as Bridge Design Guide.

A summary of the general geotechnical conditions along the highway alignment is provided on Figures 102A through 102C. Engineering calculations that support the design recommendations outlined in this section are provided for reference in Appendix H.

DESIGN SOIL PROPERTIES

Geotechnical design considerations for the new highway embankments were mainly driven by the engineering properties of the marine silt and clay deposits overlying glacial till and rock. For staged embankment construction and global stability evaluations, undrained shear strength (S_u) profiles and strength gain (ΔS_u) after construction staging were established for the marine clay deposit. Internal friction angle (drained) values were estimated for the marine silt. In most cases, the marine clay constitutes much of the soil found above glacial till and rock.

Field vane (FV), laboratory direct simple shear (DSS), and isotropically-consolidated undrained triaxial compression (CIUC) tests were performed to directly measure marine clay S_u. CPT testing was also conducted, however, the CPT S_u values derived using default ConeTec values for correlation parameters (N_{kt}=12.5 and N_{du}=6.0) did not match the direct S_u measurements well. Shear strength values derived from CPT versus in-situ vane shear strength testing is discussed in more detail below.

The soil present along a global stability failure surface undergoes different modes of failure depending on the location of the soil along the surface. The three main failure modes are triaxial compression at the top of the failure surface, direct simple shear at the bottom of the failure surface, and triaxial extension at the toe of the failure surface. Anisotropic shear strength can be defined in a limit equilibrium software program. If there is not enough information to continuously define the shear strength versus failure orientation, an “average” design shear strength based on the average of the triaxial compression and extension or the direct simple shear strength can be used (Mayne, 1985). Due to the absence of triaxial extension shear strength data, it is not possible to define the design shear strength based on triaxial testing. On the other hand, field vane undrained shear strengths appear to match well with the direct simple shear strengths. For this reason and because of their abundance, the field vane data were used to define undrained shear strength profiles for the marine clay. Plots of design undrained shear strength are included in Appendix H.

At many sections along the highway alignment, full height embankments cannot be constructed to full height and staged construction is necessary to meet post-construction embankment settlement requirements and achieve acceptable global stability factors of safety. Under temporary staging, partial fill heights are placed, and settlements are allowed to occur, and the underlying soils gain strength as excess pore pressures dissipate. Strength gain is a function of the added overburden stress from fill placement and the degree to which excess pore pressures have dissipated. For the marine clay, the undrained shear strength gain (ΔS_u) was estimated to be the increase in overburden stress from fill placement multiplied by 0.21 and again by 0.90. The 0.21 factor was based on field vane shear strength data and preconsolidation pressure data from oedometer tests. The 0.90 factor assumed that 90 percent average degree of consolidation will be achieved during each stage (i.e., 90 percent of the excess pore pressure has dissipated). Detailed calculations regarding undrained shear strength gain in the marine clay are included in Appendix H.

Where present, the marine silt was assumed to be drained with shear strength defined by the internal friction angle. Depending on the SPT N value and density of the marine silt, zero cohesion and a friction angle ranging from 28 to 30 degrees was used in global stability evaluations.

For our geotechnical evaluations, we considered a range in the total unit weight of normal weight embankment fill (common borrow) between 120 pcf and 125 pcf, as the actual, in-place unit weight of the placed/compacted soils will vary somewhat during construction. For embankment global stability evaluations, a total unit weight of 125 pcf was used as it resulted in slightly lower factors of safety (i.e., slightly more conservative) compared to using 120 pcf. For settlement evaluations, a total unit weight of 120 pcf was used as it resulted in slightly higher post-construction embankment settlement (i.e., slightly more conservative) compared to using 125 pcf. Using a unit weight of 120 pcf also resulted in slightly greater lightweight fill heights as compared to using 125 pcf. To adequately account for the inherent variability in the actual in-place unit weight of the embankment fill, the special embankment construction recommendations summarized herein are based on the unit weight assumptions stated above.

Post-construction settlement caused by compression of soils under the proposed embankments was considered in design. For this project, post-construction settlement is mainly composed of (time-dependent) primary consolidation and secondary compression of the marine clay. Where present, the marine silt will likely undergo immediate settlement during construction and is therefore of less concern as this settlement will occur prior to final embankment buildout. Laboratory incremental consolidation (oedometer) tests were performed on marine clay specimens cut from tube samples. Compressibility parameters, rate of consolidation, and stress history (i.e., preconsolidation pressure) were then calculated from the oedometer test data. Strain-based field compressibility parameters, CR and RR, were calculated from strain versus log applied stress curves using the method outlined by Holtz and Kovacs (1981). Strain-based coefficients of secondary compression (C_α) were evaluated from strain versus time plots. Preconsolidation pressure was calculated from the test data using strain-energy method (Becker et al., 1987). Coefficients of consolidation were taken from reported values in GeoTesting Express laboratory result summaries which were based on the square root of time method

(Taylor). Plots of CR, RR, and stress history are included in Appendix H and are also described in a later section on settlement evaluations. Post-construction embankment settlement criteria are discussed in a later section.

At some sections along the alignment, over-excavation and use of lightweight fill were found to be necessary to meet post-construction settlement criteria. Based on preliminary pricing exercises and discussions with MaineDOT during design development, foamed glass aggregate (FGA) lightweight fill was selected for use on this project. FGA properties used in the technical evaluations assumed a total unit weight of 15 pounds per cubic ft (pcf) and an internal friction angle of 45 degrees. Determination of over-excavation depths and lightweight fill thickness are summarized in the calculations in Appendix H.

Prefabricated vertical drains (PVDs) will be required for staged construction to accelerate pore pressure dissipation, strength gain, and settlement. PVDs rely on horizontal drainage paths rather than vertical. CPT pore pressure dissipation testing indicated horizontal coefficients of consolidation (c_h) that were about ten times the vertical (c_v). Based on the marine clay sample descriptions and our experience on other projects where Presumpscot formation clays were present, the more likely ratio between horizontal and vertical coefficients of consolidation is around 2. PVD spacing calculations are based on the method developed by Yeung (1997), using a c_h/c_v ratio of 2.

Please note that location specific design shear strength and maximum past pressure/stress history profiles were developed for each of the four areas with raises-in-grade over compressible, cohesive soils identified below (i.e., Areas 1 through 4). These location specific design profiles were used to complete final design stability and settlement evaluations in each of these special embankment construction areas.

CPT CORRELATION FACTORS

CPT estimates of undrained shear strength use correlations between S_u and net tip resistance, q_t, or the measured excess pore pressure, d_u. The correlation factors are N_{kt} and N_{du} for net q_t and net d_u, respectively. ConeTec provided S_u estimates based on N_{kt}=12.5 and N_{du}=6.0. These "default" values resulted in S_u values that did not match well with the site-specific in-situ FV, CIUC, and DSS Su data. Typical values for N_{kt} in soft intact clays range from 10 to 20 (ConeTec Application Guide).

Site-specific N_{kt} and N_{du} values were developed for this project using field and laboratory S_u test results. For each CPT location, the nearest boring with FV, CIUC, or DSS S_u testing was identified. For each S_u test in the nearby boring, the depth of the S_u test was matched with the net q_t and net d_u values from the nearest CPT sounding. Data pairs of S_u and net qt or net du were then plotted and the slope of the best fit line represents the site-specific N_{kt} or N_{du}. The N_{kt} and N_{du} values were calculated specifically for the vane shear S_u (S_uFV) values because of the significant number of S_uFV data and because S_uFV was used to define marine clay strength in global stability evaluations. The calculated S_uFV N_{kt} ranged from 18.6 to 23.1 depending on whether the profile consisted of silt or clay, silt only, or clay only. The calculated S_uFV N_{du} ranged from 12.5 to 15.4. An S_uFV N_{kt} value of 21.3 and S_uFV N_{du} equal to 13.6 were selected based on the average of the values for silt or clay, silt only, or clay only. The CPT S_u profiles based on these N_{kt} and N_{du} values were plotted in Appendix H. There was not enough DSS data and corresponding/nearby CPT data to calculate meaningful N_{kt} and N_{du} values from DSS data.

SEISMIC DESIGN AND LIQUEFACTION

Seismic design evaluations for this project include liquefaction of cohesionless soils and pseudo-static seismic (pseudo-static) global stability evaluations. The seismic demand for these evaluations was determined using mapped spectral accelerations for the project location and the site soil conditions (i.e., seismic site class).

Seismic site class was determined using site-specific shear wave velocities (Vs), where Vs data was available. As previously mentioned, field measurements of Vs were taken using both the passive shear wave seismic method (pVs)and seismic CPT (sCPT) soundings. The pVs testing was performed by Hager-Richter Geoscience, Inc. in December 2020. The sCPT testing was performed by ConeTec in November 2020. Seismic CPT data from the Wilson Street, Brewer project (2013, by MaineDOT) were also made available.

The pVs testing was conducted in the southern end of the project (in Area 1). Soundings were done along five lines resulting in five Vs profiles. Based on the stratigraphy observed in nearby borings, it is our opinion that the pVs measurements extended into bedrock. On the other hand, the sCPT soundings only penetrated the upper soils before refusing at/near the top of glacial deposits below the marine deposits. Because of this the sCPT data does not provide Vs data in the denser glacial deposits and bedrock. Combining the pVs and sCPT data and comparing them to the encountered stratigraphy in nearby borings, the range of Vs for each of the major strata located along the alignment is as follows:

- Marine Clay or Marine Silt – 212 to 691 ft per second (ft/s)
- Glacial Till – 682 to 1,125 ft/s
- Bedrock – 2,201 to 3,504 ft/s

The Vs100 from the pVs test data only ranged from 1,038 ft/s to 1,775 ft/s, corresponding to site class D to C. Applying the bedrock Vs from the pVs to the bottom of sCPT soundings that reached refusal before 100 ft, the calculated Vs100 ranged from 696 ft/s to 1,574 ft/s, corresponding to site class D to C. Based on this, subsequent seismic-related evaluations are based on site class D parameters (i.e., worst of the two conditions observed).

The mapped spectral accelerations in AASHTO LRFD for the design earthquake event with 7 percent probability of exceedance in 75 years (approximately 1000-year return period) are as follows:

- PGA = 0.067 g (g = acceleration due to gravity)
- Ss = 0.144 g
- S1 = 0.044 g

For site class D conditions, the design accelerations and parameters are:

- As = 0.107 g
- SDS = 0.231 g
- SD1 = 0.105 g
- Seismic Zone A

The potential for liquefaction of the marine silt was investigated for samples with SPT N values less than 7 blows/foot. Assuming sand-like behavior for the marine silt, level ground with no added overburden from highway embankments, seismic demand based on site class D conditions, and a minimum required factor of safety against liquefaction of 1.1, the minimum required uncorrected SPT N value (using the method by Youd et al., 2001) ranges from 3.5 to 4.5 for the top 40 ft of soil. In all the borings, 23 marine silt samples from depths of up to 26 ft in 18 borings were observed to have SPT N values ranging from 3 to 7 blows/ft. Only four of those samples (from four different borings) had SPT N less than or equal to 4 blows/ft. Given the high fines content and the presence of clay in three of these four samples, and the fact that the samples are sporadically located, spread over a large area, it is our opinion that liquefaction potential and significant seismic settlement are low/unlikely during/after the design event.

For pseudo-static stability evaluations, seismic loading was defined as 50 percent of As for site class D conditions (i.e., 50 percent of 0.107 g = 0.0535 g).

GLOBAL EMBANKMENT STABILITY

Embankment construction using normal weight earthfill can cause excessive vertical and lateral strains, potentially resulting in shear failure of the foundation soil and subsequent failure of the embankments. A series of computer-assisted, two-dimensional global stability evaluations were performed using the computer program Slide2 9.0 by Rocscience to evaluate the likelihood of global stability failures along the highway embankments.

Static and pseudo-static stability evaluations were conducted in each of the raise-in-grade sections described below, at locations where, based on our review of proposed grading plans, significant raises in grade are being proposed and/or low strength soil conditions were present below the base of the embankment.

As previously discussed, soil properties were developed based on in-situ testing, laboratory testing, and CPT testing. In addition, a 250 psf live load surcharge was assumed to act over the embankment width in each model (permanent condition only).

The following physical and strength properties were used to complete the preliminary global stability evaluations:

Material	Unit Weight (pcf)	Friction Angle (degrees)	Undrained Shear Strength (psf)
Roadway Section	135	32	0
New Embankment Fill	125	32	0
Foamed Glass Aggregate	15	45	0
Marine Deposit (silt and sand)	115	28 to 30	0
Marine Deposit (clay)	115	0	350 to 700
Glacial Till	130	36	0

Note: Soil properties vary by location and were based on borings at the specific locations evaluated. Refer to Appendix H for the values used at each section. Undrained shear strength of the marine clay deposit was based on field vanes, CPTs, and laboratory strength testing, with results grouped/interpreted by area. Refer to Appendix H for design profiles of undrained shear strength vs elevation.

The factor of safety for pseudo-static load cases was calculated using a horizontal acceleration coefficient, k_h, equal to one half of the acceleration coefficient, A_s. A value of $A_s/2$ was selected in accordance with AASHTO LRFD guidance in Section 11.6.5.2.2; the reduction from As is due to soil slope flexibility and the fact that the peak ground acceleration during an earthquake lasts only for a very short period of time. Seismic site class calculations are included in Appendix H.

The minimum required factor of safety (permanent condition) is 1.3 for embankments under static conditions which do not support structures, and is 1.5 for embankments under static conditions which do support structures (MaineDOT BDG). The minimum required factor of safety for embankments subjected to pseudo-static loading is 1.1 in accordance with FHWA GEC No. 3 (FHWA-NHI-11-032).

Global stability results are discussed below and summarized in Table VI.

ELASTIC AND CONSOLIDATION SETTLEMENT

Settlement due to the placement of earthfill for the highway embankments was evaluated using a settlement spreadsheet prepared by Haley & Aldrich for Areas 1 through 4, and using the computer software program Settle3D 4.0 by Rocscience in the remaining fill areas. The cross sections that we analyzed for final design were judged to be the critical sections within each raise-in-grade area based on proposed embankment heights and the thickness of compressible, cohesive soils.

The soil properties vary by location and were based on borings located closest to each cross section evaluated. The elastic compressibility properties for granular materials were based on SPT N-values and are shown in Appendix H. The marine deposit consolidation parameters and assumptions that were used in the final design settlement analyses are provided in the table below.

Property	**Sta. 50+50 to Sta. 83+00 (Area 1)**	**Sta. 137+00 to Sta. 143+50 (Area 2)**	**Sta. 159+00 to Sta. 170+00 (Area 3)**	**Sta. 179+00 to Sta. 186+00 (Area 4)**
Preconsolidation Pressure in Upper Clay (P_c)[1]	6000 psf (El. 80) to 2000 psf (El. 65)	3000 psf (El. 70) to 900 psf (El. 60)	9000 psf (El. 110) to 2500 psf (El. 100)	5000 psf (El. 95) to 1000 psf (El. 84)
Preconsolidation Pressure in Lower Clay (P_c)[1]	Normally consolidated below El. 65	Normally consolidated below El. 60	2500 psf below El. 100	Normally consolidated below El. 84
Virgin Compression Ratio (CR)	0.17	0.18	0.19	0.18
Recompression Ratio (RR)	0.02	0.02	0.02	0.02
Coefficient of Consolidation (c_v)	2.11×10^{-6} ft²/sec	9.49×10^{-7} ft²/sec	6.94×10^{-7} ft²/sec	1.79×10^{-6} ft²/sec
Secondary Compression Index ($c_{\alpha\varepsilon}$)	0.004	0.004	0.004	0.004

[1] Refer to Appendix H for plots of preconsolidation pressure vs elevation for each location.

The project criteria for post-construction total settlement for highway, bridge, and culvert structures as provided by MaineDOT are as follows:

- Highway Embankment and Highway Culvert
  - 4 in. from 0 to 20 years
  - 4 in. from 20 years to 75 years
- Within 200 ft of Bridges
  - 2 in. from 0 to 5 years
  - 2 in. from 5 to 20 years
  - 2 in. from 20 to 75 years
- Box Culvert
  - 2 inches in 100 years

In areas with fill over compressible, cohesive soils PVDs and staged construction were included in settlement evaluations if needed to achieve the post-construction settlement criteria.

At some sections, PVDs and staged construction were found not to be necessary to meet settlement performance and global stability requirements. Single-drainage conditions were assumed at these sections in settlement rate evaluations.

Settlement evaluation results are discussed below and summarized in Table VI.

RESULTS OF EVALUATIONS FOR FILL AREAS OVER COMPRESSIBLE, COHESIVE SOILS

Raises-in-grade over compressible, cohesive soils are anticipated in the following four areas that were initially identified during Phase I:

Area	Approximate Location Based on Phase I Evaluations	Maximum Proposed Fill Height (ft)	Range in Compressible, Cohesive Soil Thickness
1	Sta. 50+50 to Sta. 83+00 Including Ramps D, E and F	34	11 to 42 ft
2	Sta. 137+00 to Sta. 143+50	18	7 to 23 ft
3	Sta. 159+00 to Sta. 170+00	20	3 to 16 ft
4	Sta. 179+00 to Sta. 186+00	30	10 to 30 ft

Final design embankment global stability and settlement evaluations in these four areas were completed using the following stepped approach.

1. Critical cross sections in each area (significant raises in grade and/or the presence of low strength soil conditions) and cross sections at potential transition points were identified.
2. At each selected cross section, global stability for the temporary case was evaluated to determine whether the embankment could be constructed to the proposed finished grade in a single stage. If the factor of safety for the critical failure surface (critical factor of safety) was found to be less than 1.15, then evaluations were performed to determine the maximum fill height that could be safely placed during the first stage of fill placement such that the critical factor of safety was maintained at 1.15 or greater.

3. Settlement evaluations were then performed to determine post-construction settlement of both single stage and two stage embankments with normal weight fill only. If the post-construction settlement criteria (described above) was not met, then the minimum thickness of lightweight fill was determined such that the settlement criteria was met. Please note based on discussions with MaineDOT that it is not desirable to have two preload/surcharge durations due to the proposed construction schedule. Because of this, we did not evaluate the feasibility a second stage of normal weight embankment fill and a second preload/surcharge duration.
4. Global stability for the permanent case was then evaluated, accounting for the final embankment geometry, lightweight fill thickness determined in Step 3 above, presence of the pavement section, 250 psf traffic live load surcharge, and increase in clay strength due to pore pressure dissipation during the first stage of fill. If the factor of safety was less than 1.3 or 1.5 (static, without or with a structure, respectively) or 1.0 (seismic), then the minimum thickness of lightweight fill was increased in order to achieve an acceptable factor of safety.

Based on the results of the stability and settlement evaluations, it is our opinion that construction of the proposed embankments in Areas 1, 2 and 4 using normal weight earthfill is not technically feasible. However, it is our opinion, based on the results of the final design technical evaluations, that the embankment in Area 3 can be constructed conventionally using normal weight earthfill, without ground improvement, lightweight fill or pile/column support. Refer to Table VI for a summary of the results of final design evaluations and Appendix H for supporting calculations. The following table summarizes the limits of special embankment construction based on the Phase II evaluations. Note that the limits identified during Phase I were adjusted as a result of the Phase II evaluations.

Area	Approximate Location Based on Phase II Evaluations	Maximum Proposed Fill Height (ft)	Range in Compressible, Cohesive Soil Thickness
1	Sta. 51+00 to Sta. 82+00 Including Ramps D, E and F	34	11 to 42 ft
2	Sta. 138+00 to Sta. 143+50	18	7 to 23 ft
4	Sta. 179+25 to Sta. 186+00	30	10 to 30 ft

In Areas 1, 2 and 4, we recommend the following:

- Ground improvement consisting of PVDs and staged preload/surcharge.
- PVDs should be spaced 5 ft on-center arranged in a triangular pattern.
- Height of first stage of fill in single stage embankment area varies based on subsurface conditions, proposed embankment heights, and post construction settlement criteria. The height of the first stage fill relative to the finished roadway grade is shown on Figures 103 through 114.
- Inclusion of lightweight fill (foamed glass aggregate, FGA) in select portions of embankments, as required to meet settlement and global stability criteria.
- Supporting the Felts Brook box culvert on a driven pile foundation system. Detailed recommendations for this culvert are provided in the GDR titled “Geotechnical Design Report, Bridge Culverts, Interstate 395/Route 9 Connector, MaineDOT WIN 018915.00, Brewer and Eddington, Maine” (Culvert GDR).

- Full height FGA at the Felts Brook Tributary box culvert and RCP highway culvert at Sta. 66+74. Some over-excavation below existing grade is required. Detailed recommendations for the Felts Brook Tributary box culvert are provided in the Culvert GDR. Detailed recommendations for the highway culvert at Sta. 66+74 are provided below.
- Constructing the Snowmobile 10C box culvert after the initial stage preload/surcharge hold period. Lightweight fill will be required as stage two fill so that post-construction settlement criteria of the culvert are met. Detailed recommendations for this culvert are included in the Culvert GDR.
- Small diameter culverts that are located within the special embankment areas should be installed after the preload/surcharge hold period. Temporary drainage will be required at these locations during construction prior to installation of permanent culverts.
- Refer to Figures 103 through 114 for a special embankment construction details and limits.

RESULTS OF EVALUATIONS FOR FILL AREAS OVER STIFF, COHESIVE SOILS AND GRANULAR SOILS

Raises-in-grade over stiff, cohesive soils and granular soils are anticipated in the following eight areas and are shown in light blue and yellow shading on Figures 102A through 102C:

Approximate Location	Maximum Proposed Fill Height (ft)
Sta. 45+00 to Sta. 48+50	8
Sta. 82+00 to Sta. 99+00	10
Sta. 116+00 to Sta. 134+50	8
Sta. 143+50 to Sta. 156+00	9
Sta. 187+00 to Sta. 206+50	27
Sta. 246+50 to Sta. 302+50	26
Sta. 311+50 to Sta. 319+50	13
Sta. 326+00 to Sta. 337+00	11

Global stability evaluations were conducted using the parameters described above. The calculated global stability factors of safety values for these eight areas are summarized below and the supporting calculations are included in Appendix H.

Approximate Location	Cross Section Location	Fill Height (ft)	Factor of Safety (per Spencer Method)	
			Static	Pseudo-Static Seismic
Sta. 45+00 to Sta. 48+50	48+25	8	2.63	2.20
Sta. 82+00 to Sta. 99+00	84+50	10	2.60	1.94
Sta. 116+00 to Sta. 134+50	130+50	6	2.50	2.10
Sta. 143+00 to Sta. 156+00	145+00	8	1.89	1.52
Sta. 187+00 to Sta. 206+50	201+00	27	1.43	1.31

Approximate Location	Cross Section Location	Fill Height (ft)	Factor of Safety (per Spencer Method)	
			Static	Pseudo-Static Seismic
Sta. 246+50 to Sta. 302+50	262+75	21	1.41	1.29
	275+00	25	1.42	1.19
	275+75	21	1.35	1.20
	280+75	19	1.38	1.23
	289+00	19	1.31	1.17
	299+75	16	2.03	1.79
Sta. 311+50 to Sta. 319+50	313+25	13	1.92	1.53
	314+50	12	1.39	1.15
Sta. 326+00 to Sta. 337+00	330+00	11	2.19	1.85
	330+50	11	1.97	1.74

As can be seen in the table above, the calculated factors of safety for these sections were acceptable for both static (FS>1.3) and pseudo-static (FS>1.0) evaluations.

The results of the settlement analyses for these eight areas are summarized below and the supporting calculations are included in Appendix H.

Approximate Location	Cross Section Location	Fill Height (ft)	Elastic Settlement (in.)	Primary Consolidation Settlement (in.)	Secondary Consolidation Settlement (in.)	Total Settlement[1] (in.)
Sta. 45+00 to Sta. 48+50	48+25	8	0.8	0.0	0.0	0.8
Sta. 82+00 to Sta. 99+00	84+50	10	0.6	1.8	1.3	3.7
Sta. 116+00 to Sta. 134+50	130+50	6	0.6	0.0	0.0	0.6
Sta. 143+00 to Sta. 156+00	145+00	8	0.6	0.4	0.7	1.7
Sta. 187+00 to Sta. 206+50	195+50	21	2.8	0.0	0.0	2.8
	201+00	27	1.7	0.0	0.0	1.7
Sta. 246+50 to Sta. 302+50	262+75	21	0.1	0.0	0.0	0.1
	275+00	25	3.9	0.0	0.0	3.9
	275+75	21	3.5	0.0	0.0	3.5
	280+75	19	0.4	0.0	0.0	0.4
	289+00	19	1.3	0.0	0.0	1.3
	299+75	16	1.7	0.0	0.0	1.7
Sta. 311+50 to Sta. 319+50	313+25	13	1.9	0.0	0.0	1.9
	314+50	12	1.8	0.0	0.0	1.8
Sta. 326+00 to Sta. 337+00	330+00	11	1.5	0.0	0.0	1.5
	330+50	11	2.0	0.0	0.0	2.0

[1] Total settlement includes immediate, primary consolidation, and secondary consolidation settlement.
[2] Design life of 75 years assumed for settlement calculations.

As can be seen in the table above, the post-construction settlement criteria for highway embankments (i.e., 4 in. or less in first 20 years and 4 in. or less from 20 to 75 years) has been met at each of the sections that were evaluated.

Based on the results of the preliminary stability and settlement evaluations, it is our opinion that the proposed embankments in these eight areas can be constructed conventionally using normal weight earthfill, without ground improvement, lightweight fill or pile/column support.

RESULTS OF EVALUATIONS FOR EXCAVATIONS IN GRANULAR SOILS

Excavations into granular soils (typically glacial till) are anticipated in the following eight areas to achieve the proposed roadway vertical alignment. These areas are shown in orange shading on Figures 102A through 102C:

Approximate Location	Approximate Maximum Proposed Cut Depth[1] (ft)
Sta. 48+50 to Sta. 50+50	27
Sta. 99+00 to Sta. 116+00	32
Sta. 170+00 to Sta. 179+00	41
Sta. 206+50 to Sta. 209+25	14
Sta. 217+50 to Sta. 236+50	21
Sta. 240+50 to Sta. 246+50	18
Sta. 302+50 to Sta. 311+50	19
Sta. 319+50 to Sta. 326+00	6

[1] Cut depth measured from existing ground surface to bottom of proposed pavement section (i.e., approximately 2.5 ft below proposed grade).

Global stability evaluations were conducted using the parameters described above. In addition, three direct shear tests were performed on glacial till in the cut areas. Where tests were available or where the glacial till was similar to the tested material, the friction angle and cohesion from the direct shear tests were used in the global stability evaluations. Where test data was not available, a friction angle of 36 degrees was used based on SPT N-values and our experience with glacial till in this area.

The calculated global stability factors of safety values for these eight areas are summarized below and the supporting calculations are included in Appendix H.

Approximate Location	Cross Section Location	Cut Depth (ft)	Factor of Safety (per Spencer Method)	
			Static	Pseudo-Static Seismic
Sta. 48+50 to Sta. 50+50	Sta. 49+00	27	1.39	1.26
Sta. 99+00 to 116+00	Sta. 112+00	32	2.28	2.05
Sta. 170+00 to 179+00	Sta. 176+50	41	2.74	2.45
Sta. 206+50 to Sta. 209+25	Sta. 209+00	14	1.28	1.15
Sta. 217+50 to Sta. 236+50	Sta. 217+50	16	1.54	1.39
	Sta. 235+00	16[1]	1.97	1.71
Sta. 240+50 to Sta. 246+50	Sta. 240+50	18	1.51	1.35
Sta. 302+50 to 311+50	Sta. 304+00	19	1.73	1.57
Sta. 319+50 to Sta. 326+00	None analyzed[2]	<10	-	-

[1]Sta. 235+00 has a smaller cut depth than the maximum for this station range, but was analyzed as worst-case due to soil conditions in the vicinity of Sta. 235+00.
[2]Cut depth from Sta. 319+50 to Sta. 326+00 is less than 10 ft. Subsurface conditions consist primarily of glacial till; therefore, no evaluations were performed.

As can be seen in the table above, the calculated factors of safety for these sections were acceptable for both static (FS>1.3) and pseudo-static (FS>1.0) evaluations.

Soil Slopes

Finished soil slopes should be constructed no steeper than 2H:1V to the extent practicable. Geotechnical analyses will be required to evaluate slope stability and surficial (sloughing) stability of any slopes steeper than 2H:1V. Slope stability evaluations were conducted at Sta. 112+00 and Sta. 209+00 for the two areas where slopes are currently steeper than 2H:1V, and results are reported above. Any slope steeper than 2H:1V would require riprap per MaineDOT standard details or geosynthetic slope reinforcing.

Pavement Drainage

Underdrains to collect water within the roadway section and ditches to collect runoff from the slopes should be included in the cut areas listed in the table above

RESULTS OF EVALUATIONS FOR EXCAVATIONS IN ROCK

Rock excavation is anticipated in the following two areas and are shown in red shading on Figures 102A through 102C:

Approximate Location	Approximate Maximum Proposed Cut Depth[1] (ft)	Approximate Maximum Anticipated Bedrock Removal Depth[1] (ft)
Sta. 209+25 to Sta. 217+50 (Clewleyville Road Area)	29	21
Sta. 236+50 to Sta. 240+50 (Levenseller Road Area)	25	13

[1] Cut depth measured from existing ground surface to bottom of proposed pavement section (i.e., approximately 2.5 ft below proposed grade).

A summary of bedrock data from rock cores collected within the rock removal areas is provided in Table III.

Kinematic Analyses

As summarized in previous sections of this report, structural bedrock geologic data was collected in select bridge (BB) and highway (HB) test borings during the design phase (Phase II) subsurface exploration program. The bedrock geologic data was used, in part, to conduct kinematic analyses to evaluate the potential for planar sliding, wedge sliding and toppling failures to occur.

The measured foliation and joint pole vectors and great circle representing the orientation of the proposed Connector cut slopes were plotted on stereonets to assess the potential for planar and wedge sliding and toppling failures to occur. A stereonet is a geological engineering tool that presents three-dimensional data in a two-dimensional format. On a stereonet, a discontinuity (i.e., joint) plane can be plotted as a 'great circle' or as a line (plots as a single point) called a pole, which is measured 90 degrees from the plane and represents each plane. Therefore, if a joint plane dips to the northeast, the pole to that plane will appear as a point in the southwest quadrant of the stereonet. Poles that are close to the outer edges of the stereonet represent steeply dipping planes and poles at the center of the stereonet represent planes that are horizontal. The geophysical data collected from the above referenced test borings were plotted in polar format to simplify the data output. The results of the kinematic analyses completed in the vicinity of Clewleyville and Levenseller Roads are summarized below.

Clewleyville Road Area (Sta. 209+25 to Sta. 217+50)							
Location	Joint Set Data		Proposed Cut Slope Data			Kinematic Analysis	Percentage of Bedrock Joint Sets Within Failure Window
	Dip Direction (deg.)	Dip Angle (deg.)	Strike (deg.)	Dip Direction (deg.)	Dip Angle (deg.)		
Left of Connector Centerline	31° to 349°	21° to 71°	214	124	76	Toppling	10.2%
						Planar Sliding	20.6%
						Wedge Sliding	21.9%
Right of Connector Centerline			34	304	76	Toppling	23.7%
						Planar Sliding	13.5%
						Wedge Sliding	35.2%

Levenseller Road Area (Sta. 236+50 to 240+50)							
Location	Joint Set Data		Proposed Cut Slope Data			Kinematic Analysis	Percentage of Bedrock Joint Sets Within Failure Window
	Dip Direction (deg.)	Dip Angle (deg.)	Strike (deg.)	Dip Direction (deg.)	Dip Angle (deg.)		
Left of Connector Centerline	18° to 333°	31° to 78°	231	141	76	Toppling	7.3%
						Planar Sliding	42.8%
						Wedge Sliding	17.7%
Right of Connector Centerline			51	321	76	Toppling	41.3%
						Planar Sliding	12.0%
						Wedge Sliding	23.5%

The results of the kinematic analyses summarized above indicate the following:

- Clewleyville Road Area – planar and wedge sliding, and toppling are the dominant failure mechanisms that have a high likelihood of occurring within the exposed bedrock mass left and right of centerline. Other types of failures (e.g., toppling left of centerline and planar sliding right of centerline) are also possible but not as likely to occur as those noted above.
- Levenseller Road Area - planar sliding and toppling are the dominant failure mechanisms that have a high likelihood of occurring within the exposed bedrock mass left and right of centerline. Other types of failures are also possible but not as likely to occur as those noted above.

Because of the potential for planar and wedge sliding and toppling failures to occur, as noted above, rockfall evaluations were completed to determine the minimum ditch width geometry needed to retain

90 percent (minimum) of falling rocks. Rockfall evaluations and results are discussed in the following section of this report and provided in Appendix H.

Rockfall Analyses

Because the cut height in rock ranges from approximately 13 to 21 ft in the vicinity of Levenseller and Clewleyville Roads, as presented above, it will be necessary to provide a rockfall catchment area (area) at and along the toe of the cut slopes. This area is intended to retain rock blocks that may become detached from the rock face and would otherwise enter the roadway, creating a safety hazard.

The subsurface conditions encountered in the Phase I and Phase II test borings and preliminary cross section drawings were reviewed, and sections selected for rockfall analyses, left and right of centerline, at stations that were judged to represent that maximum anticipated bedrock cut height. The following stations were selected for rockfall analyses in the vicinity of Clewleyville and Levenseller Roads:

- Clewleyville Road Area – Sta. 212+00 (right and left of centerline)
- Levenseller Road Area – Sta. 236+50 (right of centerline) and Sta. 238+00 (left of centerline)

Rockfall analyses were completed at each of the stations noted above using the Rocfall software program developed by Rocscience. At each section, the catchment area and cut slope geometry shown on the preliminary cross section drawings were evaluated. The preliminary cross section drawings generally show a 14-ft wide vegetated back slope that is inclined at -4H:1V, which extends from the ditch line (bottom of cut slope) back to the edge of pavement. The preliminary cross section drawings also show excavations in rock that are inclined at 4V:1H from the bottom of slope up to the top of the bedrock surface. A 6-ft wide horizontal bench is present at the top of rock surface before the inclination of the cut slope (in overburden soil; glacial till) transitions to 2H:1V up to the proposed finish grade. Rock block sizes of 4 ft x 3 ft x 1 ft and 11 ft x 1 ft x 1 ft were selected for analysis in the vicinity of Clewleyville and Levenseller Roads, respectively, which were the maximum anticipated rock block sizes based on evaluation of the borehole geophysical logging data.

The results of the rockfall analysis indicate that the catchment area shown on the preliminary cross section drawings will retain approximately 95 to 100 percent of rock blocks that may become detached from the rock face. Because the actual retainment percentage (95 to 100 percent) exceeds the minimum target (90 percent), it is our opinion that the proposed cut slope geometry does not require modification. However, it is possible that localized geologic features with adverse orientations may be encountered during construction that may require modification of the catchment area geometry or stabilization. Because of this potential, we recommend that stability assessments be made during construction if the actual conditions encountered vary from those used in the rockfall analyses.

Bedrock Removal

Based on the elevation of the top of bedrock surface found in the borings, we anticipate that up to approximately 21 ft of bedrock will need to be removed in order to reach the proposed pavement subgrade level for the connector roadway in these two areas.

It is our opinion that practical methods of bedrock excavation include either: 1) controlled blasting, or 2) hoe ramming. Based on our review of the bedrock descriptions and samples and our experience with similar bedrock types, it is our opinion that the upper few feet of bedrock could be excavated along some portions of the proposed roadway using conventional earth moving equipment, such as a large excavator outfitted with a hoe-ram. In general, we anticipate that controlled blasting will be more practical to remove rock at locations where excavations into rock are generally greater than 2 to 5 ft.

Based on the proposed cut slope angles currently shown on the plans, we do not anticipate that perimeter control methods such as pre-splitting (line drilling) will be needed to minimize over-break and to reduce the potential for impacting or damaging adjacent existing utilities or structures along general highway rock cut areas. However, we recommend perimeter control methods within 30 ft of the bridge structures at Clewleyville (Sta. 214+85 to Sta. 216+30 left of centerline, Sta. 213+43 to Sta. 215+13 right of centerline) and Levenseller Roads (Sta. 236+42 to Sta. 237+87 left of centerline, Sta. 236+78 to Sta. 238+21 right of centerline), and also where rock is encountered in the stormwater basin (Sta. 205+00 to 209+00).

Pavement Drainage

We recommend shatter blasting be performed where rock is exposed at roadway subgrade in the excavation for the roadway section. Based on available information, we anticipate shatter blasting will be required in the connector roadway between Sta. 209+25 and Sta. 217+50, and Sta. 236+50 and Sta. 240+50. It is possible that the blasting contractor could design the production blast rounds so that rock is sufficiently fractured to the minimum depths needed to install the underdrains and full pavement section. If that is the case, shatter blasting may not be needed or may be minimized. Determination of shatter blasting limits should be made during construction based on actual limits of intact rock encountered after production blasting is complete.

In addition, we recommend Type C underdrains be installed beneath the outside edges of the pavement in rock cut areas. The underdrains should be installed in the shattered rock, with an invert level approximately 3 ft below the bottom of the pavement section, near the bottom of the shattered rock.

Ditches to collect runoff from the slopes should also be included in these areas.

STORMWATER PONDS WITH UNDERDRAIN SOIL FILTERS

Stormwater ponds with underdrain soil filters are proposed between approximately Sta. 205+00 and Sta. 209+00. The four test borings in the vicinity of the ponds encountered glacial till overlying bedrock. The bedrock was encountered at depths ranging from 9.1 to 10.3 ft BGS. Based on the relatively consistent depth of bedrock below ground surface, we recommend assuming rock is present at approximately 10 ft BGS. Note that this assumes the bedrock surface approximately follows the existing ground surface, but actual conditions are not known.

The stormwater ponds with underdrain soil filters are proposed to be lined with an impermeable membrane. Based on discussions with MaineDOT, due to anticipated water levels and because this is a lined system, pressure relief under the liner should be incorporated into the design.

HIGHWAY CULVERTS

Anticipated Subgrade Conditions

Based on the subsurface conditions encountered in the test borings and the design culvert invert elevations provided by MaineDOT, the invert elevation and type of soil anticipated to be present at design subgrade level for each culvert is summarized below and shown graphically on Figures 57, 60 and 67.

Culvert	Approximate Invert Elevation (ft)	Anticipated Soil Unit at Subgrade Level[1]
Highway Culvert at Sta. 66+74	El. 77.5	marine deposit (clayey silt, silty clay)
Highway Culvert at Sta. 84+50	El. 86.3 to El. 88.0	marine deposit (clayey silt, silty clay)
Highway Culvert at Sta. 133+86	El. 91.3 to El. 91.5	marine deposit (clayey silt, silty clay)

[1] Refer to the test boring logs (BB-BFB1-204, BB-BFB2-101, BB-BFB2-201, BB-BFB2-202, BB-BEBT1-101, BB-BEBT1-201, and BB-BEBT1-202) in Appendix A for a more detailed description of the soil units that are anticipated to be present at subgrade level.

Bedding Detail: 2-ft thick layer of Underdrain Backfill Material, Type C (MaineDOT Pay Item 203.55 Culvert Bedding Stone) that is fully encapsulated in Stabilization/Reinforcement Geotextile (MaineDOT Standard Specification 722.01) with a layer of geogrid at the center. The bedding material should be placed in lifts of 6 to 8 in. loose measure and compacted to at least 95 percent of the AASHTO T-180 maximum dry density.

Please note that the actual subgrade conditions may vary from those summarized above and shown on Figures 57, 60 and 67 and may not become apparent until construction begins.

We also recommend that all topsoil, organic matter, and other unsuitable material (if present) be over-excavated (removed) from within the zone of influence (ZOI) of highway culverts prior to subgrade preparation and placement of the bedding material described above.

The ZOI is defined as the area below proposed culverts and below imaginary lines that extend 1 ft laterally beyond the edge of the culvert and down on a one horizontal to one vertical (1H:1V) slope to the top of an acceptable bearing layer. Based on the conditions encountered in the test borings, we don't anticipate any appreciable over-excavation will be required within the ZOI of the highway culverts.

Bearing Resistance

Bearing resistance calculations were completed in accordance with AASHTO LRFD Section 10.6.3.1.2 for each culvert based on the culvert dimensions, the subgrade conditions summarized above, and the subsurface conditions present at depth. Recommended bearing resistances for the culverts are as follows:

Culvert	Limit State	Resistance Factor φ_b	AASHTO LRFD Reference	Factored Bearing Resistance (ksf)
Highway Culvert at Sta. 66+74	Service	1.0	Article 10.5.5.1	1.0
	Strength	0.45	Table 10.5.5.2.2-1	2.3
Highway Culvert at Sta. 84+50	Service	1.0	Article 10.5.5.1	1.0
	Strength	0.45	Table 10.5.5.2.2-1	1.6
Highway Culvert at Sta. 133+86	Service	1.0	Article 10.5.5.1	1.0
	Strength	0.45	Table 10.5.5.2.2-1	1.8

Bearing resistance calculations are provided in Appendix H.

Settlement

Settlement of the culvert at Sta. 133+86 was evaluated using the software program Settle 3D developed by Rocscience, Inc. Settlement at Sta. 66+74 and Sta. 84+50 was calculated using a settlement spreadsheet prepared by Haley & Aldrich and used for Areas 1 through 4. Plans provided by MaineDOT on 4 June 2021 were used to estimate embankment fill loads. Standard weight earthfill was modeled as embankment fill at the Sta. 84+50 and Sta. 133+86 culverts. Only FGA lightweight fill was modeled at the Sta. 66+74 culvert as FGA was needed to satisfy post-construction settlement criteria, as described above. The approach used in our settlement analyses is described below and the calculations and supporting documentation are attached.

- Consolidation analysis was used to evaluate settlement of cohesive soils.
- Elastic theory was used to evaluate settlement of granular soils.
- Project-wide consolidation data was summarized and reviewed to determine consolidation properties of cohesive soils. Refer to Appendix H for additional details.

A summary of our settlement evaluations for the highway culverts are summarized in the table below.

Culvert	Maximum Fill Height (ft)	Estimated Settlement at Center of Embankment/Middle of Culvert (in.)	Estimated Settlement at Edge of Embankment/Ends of Culvert (in.)
Highway Culvert at Sta. 66+74 (full height FGA, 3 ft over-excavation)	22	4.0	0.0
Highway Culvert at Sta. 84+50	11	3.4	0.4
Highway Culvert at Sta 133+86	7	1.5	1.0

The project criteria for post-construction total settlement for highway culvert structures as provided by MaineDOT are as follows:

- 4 in. from 0 to 20 years
- 4 in. from 20 years to 75 years

As shown in the table above, the anticipated magnitudes of settlement along the length of each culvert will vary depending on the relative location of the culvert to the centerline of the embankment fill. That is, the maximum anticipated settlement will occur near the middle of the culvert below the embankment centerline, with lesser settlement amounts occurring at the ends of the culvert near the toe of the embankments. Compressible marine clay soils are present at all three culverts, and we anticipate that differential settlement between the center and ends of the culvert will range between 0.5 and 4.0 in. We have previously reviewed the anticipated magnitude of differential settlement with MaineDOT and it is our understanding that it is acceptable.

Settlement calculations are provided in Appendix H.

Highway culverts, including small diameter culverts, located in Areas 1, 2 and 4 should be constructed as follows:

Station	Type	Requirements	Temporary Drainage Comments
715+75	18-in. RCP	Install after preload/surcharge hold period	Temporary drainage required
906+00	24-in. RCP	Install after preload/surcharge hold period	Temporary drainage required
58+50	24-in. RCP	Install after preload/surcharge hold period	Temporary drainage required
66+74	96-in. RCP	Full-height lightweight fill, construct concurrent with embankment fill	Bypass needed during construction
138+15	18-in. RCP	No limitation on timing	Temporary drainage required, if install after hold period
180+100	36-in. RCP	Install after preload/surcharge hold period	Temporary drainage required
182+00	36-in. RCP	Install after preload/surcharge hold period	Temporary drainage required

Note:
[1] Other culverts outside special embankment areas can be installed at the Contractor's discretion (conventional construction).

Construction Considerations

GEOTECHNICAL INSTRUMENTATION

Performance of the preload/surcharge program in Areas 1, 2 and 4 should be monitored by geotechnical instrumentation. Instrumentation is needed to evaluate the performance of the preload/surcharging during the hold period, and to ultimately determine when the intent of the preload/surcharge program has been met and the hold period is complete (and when the next stage of embankment construction can begin in two stage embankment areas). Note that the staged design relies in part on an increase in clay strength; therefore, it is critical that the embankment performance be monitored.

In addition, instrumentation installed at/near the toe of the new embankments will be used monitor lateral movement of the foundation soils (that can occur if global stability factors of safety become low). If excessive lateral movements are measured during or after embankment fill placement, it may be necessary to halt embankment construction or even remove some amount of previously placed fill.

Based on the subsurface conditions present and the proposed embankment heights, we recommend that the following types of instrumentation be installed in Areas 1, 2 and 4 prior to the start of embankment fill placement:

- Settlement platforms should be installed prior to PV drain installation, generally along the centerline of the new embankments. The platforms should be surveyed before, during and after fill placement so that settlement vs. time information can be collected and evaluated.
- Vibrating wire piezometers should be installed and initialized after PV drain installation and prior to the start of preload/surcharge fill placement. The piezometers establish baseline pore water pressure and help assess pore pressure dissipation and time-rate of consolidation during and after embankment fill placement.
- Inclinometers should be installed at/near the toe of the new embankments prior to the start of preload/surcharge fill placement. The inclinometers should be read during and after fill placement to monitor lateral deformation vs depth.

Instrumentation locations, details, and special provisions will be provided in the contract documents.

Consideration will be given to performing additional borings, CPTs, and laboratory testing to confirm that the required clay strength gain has been achieved, prior to placing the next stage of fill.

EXCAVATED SOIL REUSE

The table below summarizes our opinion on the feasibility of reuse of excavated granular soils as embankment fill in raise-in-grade areas based on the results of gradation testing performed during the Phase I and Phase II exploration programs.

Approximate Location	Approximate Maximum Proposed Cut Depth[1] (ft)	Anticipated Excavated Soils	Comments on Reuse
Sta. 48+50 to Sta. 50+50	27	existing embankment fill	Granular portions of the existing embankment are likely suitable for reuse. There are five out of fourteen samples with less than 20% fines; however much of the embankment consists of silty material (22% to 88% fines) that will be difficult to place and compact.
Sta. 99+00 to Sta. 116+00	32	glacial till	High fines content (22% to 65%, with one lower value of 17%); may be difficult to place and compact
Sta. 170+00 to Sta. 179+00	41	glacial till	High fines content (55% to 72%); may be difficult to place and compact
Sta. 206+50 to Sta. 246+50	21	glacial till, limited fill, marine deposit	The glacial till has a high fines content (typically 44% to 72%, but two lower values of 12% and 27%); may be difficult to place and compact. One test on the marine deposit had fines content of 17%.
Sta. 302+50 to Sta. 311+50	19	glacial till	High fines content (52% to 69%); may be difficult to place and compact
Sta. 319+50 to Sta. 326+00	6	marine deposit (silt and sand)	High fines content (38% to 66%); may be difficult to place and compact

[1] Cut depth measured from existing ground surface to bottom of proposed pavement section (i.e., approx. 2.5 ft below proposed grade).

Common Borrow

Common Borrow has the following requirements but does not have specific gradation requirements: "Common borrow shall consist of earth, suitable for embankment construction. It shall be free from frozen material, perishable rubbish, peat, and other unsuitable material…"

Existing embankment fill, marine deposits (silt and sand), and glacial till will generally meet these requirements. However, due to high percentage of fines, the existing fill, marine deposit, and glacial till materials may be difficult to place and may require spreading/drying prior to placement. We anticipate that they will be sensitive to moisture content needed to achieve required compaction.

A summary of the borings in these cut areas and the measured fines content are summarized in the calculations provided in Appendix H.

Dredge Spoils

Material excavated from beneath any water surface is considered Dredge Material (Dredge Spoils). Dredge spoils will be generated during construction of culverts at existing streams and tributaries. Dredge spoils may be placed within the storage area of proposed embankments; however, we do not recommend placing dredge spoils within any part of embankments in Areas 1, 2 and 4.

Limitations

This report is prepared for the exclusive use of MaineDOT for the subject project. There are no intended beneficiaries other than MaineDOT. Haley & Aldrich shall owe no duty whatsoever to any other person or entity on account of the Agreement or the report. Use of this report by any person or entity other than MaineDOT for any purpose whatsoever is expressly forbidden unless such other person or entity obtains written authorization from MaineDOT and Haley & Aldrich. Use of this report by such other person or entity without the written authorization of MaineDOT and Haley & Aldrich shall be at such other person's or entities sole risk and shall be without legal exposure or liability to Haley & Aldrich.

Use of this report by any person or entity, including by MaineDOT, for a purpose other than for to the subject project is expressly prohibited unless such person or entity obtains written authorization from Haley & Aldrich indicating that the report is adequate for such other use. Use of this report by any other person or entity for such other purpose without written authorization by Haley & Aldrich shall be at such person's or entities sole risk and shall be without legal exposure or liability to Haley & Aldrich.

The information provided herein is based, in part, upon the data obtained from the referenced subsurface explorations. The nature and extent of variations between explorations may not become evident until construction. If variations then appear, it may be necessary to reevaluate the recommendations of this report.

It is our understanding that this report may be included as a reference document in the documents that will be provided to the prospective Contractors for bidding. Please note that the recommendations included herein are superseded by the information contained in the documents and that the information contained in the documents takes precedence over the information provided in this report.

Closure

We appreciate the opportunity to continue to provide MaineDOT services on this project. Please do not hesitate to contact us if you have any questions or comments.

Sincerely yours,
HALEY & ALDRICH, INC.

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Enclosures:

- Table I – Exploration Location Data
- Table II – Exploration Subsurface Data
- Table III – Exploration Bedrock Data in Rock Excavation Areas, Sta. 209+00 to 217+00 and Sta. 236+25 to 240+00
- Table IV – Exploration Location Data for Lighting/Signs
- Table V – Exploration Subsurface Data for Lighting/Signs
- Table VI – Results of Area 1, 2 and 4 Settlement and Global Stability Evaluations
- Figure 1 – Project Locus
- Figure 2A – Surficial Geology
- Figure 2B – Bedrock Geology
- Figure 3A through 3C – Key Plan
- Figure 4 through 53 – Subsurface Exploration Location Plan
- Figure 54 through 101 – Interpretive Subsurface Profile
- Figure 102A through 102C – Preliminary Geotechnical Considerations
- Figures 103 through 114 – Special Embankment Construction Plans
- Appendix A – Test Boring Logs and Rock Core Photographs
- Appendix B – Test Boring Logs and CPT Reports by Others
- Appendix C – Observation Well Installation and Groundwater Monitoring Reports
- Appendix D – CPT Report
- Appendix E – Borehole Geophysical Logging Reports
- Appendix F – Shear Wave Velocity Measurement Report
- Appendix G – Laboratory Test Results
- Appendix H – Geotechnical Design Calculations

References

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TABLES

TABLE I
Exploration Location Data
Interstate 395 / Route 9 Connector Highway
MaineDOT WIN No. 018915.00
Brewer-Eddington, Maine

Haley & Aldrich, Inc. File No.: 132076-004

Test Boring No.[1]	Ground Surface Elevation (ft)[3,4]	Station[5]	Offset Distance (ft) & Direction[5]	Coordinates[2]	
				Northing	Easting
BB-BEA-101	139.5	107+93.1	38.9 LT	467,986	1,748,947
BB-BEA-102	139.3	107+81.2	38.4 RT	467,935	1,749,007
BB-BEA-201	136.5	107+43.4	67.1 LT	467,958	1,748,897
BB-BEA-202	137.1	108+28.1	70.1 LT	468,032	1,748,939
BB-BEA-203	135.7	107+47.9	57.4 RT	467,897	1,749,006
BB-BEA-204	138.7	108+23.8	63.5 RT	467,959	1,749,051
BB-BEB-101	74.3	140+42.9	0.6 RT	470,494	1,751,005
BB-BEB-102	75.3	140+38.9	101.9 LT	470,562	1,750,928
BB-BEB-103	74.1	140+38.1	97.9 RT	470,424	1,751,072
BB-BEB-104	75.9	141+44.8	15.7 LT	470,579	1,751,064
BB-BEB-201	74.8	140+09.4	29.9 LT	470,491	1,750,960
BB-BEB-202	74.5	140+27.6	19.5 RT	470,470	1,751,008
BB-BEB-203	76.0	141+52.6	52.1 LT	470,610	1,751,043
BB-BEB-204	76.7	141+47.7	25.6 RT	470,553	1,751,096
BB-BEB-204A	76.6	141+47.7	23.3 RT	470,555	1,751,094
BB-BEB-205	77.4	141+57.2	46.6 RT	470,545	1,751,117
BB-BEBT1-101	95.3	133+74.1	0.4 RT	470,011	1,750,543
BB-BEBT1-201	99.7	133+27.2	48.9 LT	470,011	1,750,475
BB-BEBT1-202	98.6	133+94.4	48.4 RT	469,991	1,750,593
BB-BFA1-101	97.7	92+18.0	9.5 LT	466,586	1,748,222
BB-BFB-101	79.4	54+61.2	2.8 LT	463,901	1,745,761
BB-BFB-201	80.9	903+99.8[9]	47.8 RT	464,013	1,745,755
BB-BFB-202	80.5	702+28.8[7]	28.0 RT	463,851	1,745,812
BB-BFB1-101	80.8	67+60.1	6.4 LT	464,590	1,746,861
BB-BFB1-201	80.7	63+88.2	63.2 LT	464,436	1,746,520
BB-BFB1-202	80.8	64+27.6	63.1 RT	464,349	1,746,620
BB-BFB1-203	80.6	64+16.2	0.6 LT	464,397	1,746,577
BB-BFB1-204	81.0	66+81.1	3.1 RT	464,537	1,746,802
BB-BFB2-101	89.1	84+68.5	17.9 LT	465,903	1,747,914
BB-BFB2-201	87.4	83+87.2	38.6 LT	465,839	1,747,862
BB-BFB2-202	89.4	85+19.1	35.2 RT	465,928	1,747,983
BB-BFB3-101	102.9	95+63.1	2.6 LT	466,898	1,748,370
BB-BST1-101	86.3	77+48.3	16.1 LT	465,286	1,747,552
BB-BST1-102	86.7	77+40.7	96.9 LT	465,329	1,747,483
BB-BST1-103	87.4	77+53.7	96.7 RT	465,223	1,747,646
BB-BST1-201	86.0	76+98.8	0.4 RT	465,237	1,747,536
BB-BWS-101	119.9	511+33.6[6]	48.1 RT	463,778	1,744,851
BB-BWS-102	112.2	513+81.8[6]	48.7 RT	463,647	1,745,067
BB-BWS-103	107.1	515+26.0[6]	54.9 RT	463,571	1,745,190
BB-BWS-104	100.9	516+58.8[6]	62.9 RT	463,500	1,745,302
BB-BWS-105	106.9	518+14.0[6]	52.4 RT	463,437	1,745,447
BB-BWS-201	118.3	512+34.0[6]	81.0 RT	463,694	1,744,920
BB-BWS-202	143.8	513+64.0[6]	45.0 LT	463,737	1,745,097
BB-BWS-203	111.2	515+19.0[6]	14.0 LT	463,610	1,745,203
BB-BWS-204	136.3	516+07.0[6]	39.0 LT	463,614	1,745,306
BB-BWS-205	135.7	516+30.0[6]	76.0 LT	463,635	1,745,344
BB-BWS-206	134.6	516+96.0[6]	37.0 LT	463,570	1,745,383
BB-BWS-301	100.5	525+62.1[6]	84.9 LT	463,233	1,746,181
BB-ECR-101	201.8	215+25.6	39.4 LT	476,457	1,755,418
BB-ECR-102	203.2	214+73.7	36.6 RT	476,372	1,755,453

Test Boring No.[1]	Ground Surface Elevation (ft)[3,4]	Station[5]	Offset Distance (ft) & Direction[5]	Coordinates[2]	
				Northing	Easting
BB-ECR-201	200.5	214+99.6	76.0 LT	476,455	1,755,373
BB-ECR-202	201.7	215+36.5	50.7 LT	476,473	1,755,415
BB-ECR-203	198.7	216+00	45.6 LT	476,523	1,755,454
BB-ECR-203A	199.1	215+95.6	51.9 LT	476,523	1,755,447
BB-ECR-204	202.5	214+04.2	52.4 RT	476,306	1,755,429
BB-ECR-204A	202.1	214+01.9	44.9 RT	476,308	1,755,421
BB-ECR-205	203.4	214+44.1	48.0 RT	476,341	1,755,447
BB-ECR-206	200.7	214+98.8	78.8 RT	476,370	1,755,502
BB-ECR-206A	201.0	214+87.4	70.9 RT	476,365	1,755,489
BB-EEBT2-101	179.7	272+98.7	8.6 LT	480,618	1,759,397
BB-EEBT2-102	181.3	273+34.1	97.9 LT	480,702	1,759,351
BB-EEBT2-103	179.8	273+23.1	101.1 RT	480,567	1,759,498
BB-EEBT2-201	179.4	274+26.3	71.0 LT	480,756	1,759,430
BB-EEBT2-202	179.2	273+57.6	3.8 LT	480,656	1,759,444
BB-ELAR-101	119.8	197+79.6	19.0 LT	474,903	1,754,617
BB-ELAR-102	123.6	198+49.4	22.3 RT	474,948	1,754,684
BB-ELAR-201	116.0	197+07.7	47.5 LT	474,850	1,754,560
BB-ELAR-201A	119.8	197+82.7	14.5 LT	474,904	1,754,622
BB-ELAR-202	122.5	197+62.9	42.3 RT	474,861	1,754,665
BB-ELAR-203	119.0	198+77.3	35.2 LT	474,998	1,754,644
BB-ELAR-203A	121.5	198+69.1	1.0 LT	474,975	1,754,673
BB-ELAR-204	123.6	199+34.0	37.0 RT	475,018	1,754,734
BB-ELER-101	225.0	237+34.7	45.2 LT	478,114	1,756,887
BB-ELER-102	225.8	237+33.0	39.7 RT	478,047	1,756,940
BB-ELER-201	222.7	236+83.9	40.2 LT	478,077	1,756,851
BB-ELER-202	225.1	237+14.7	42.2 LT	478,098	1,756,873
BB-ELER-203	225.6	237+57.3	55.2 LT	478,136	1,756,898
BB-ELER-204	223.2	237+05.2	55.7 RT	478,017	1,756,929
BB-ELER-205	225.9	237+34.6	43.7 RT	478,045	1,756,944
BB-ELER-206	225.1	237+80.6	41.5 RT	478,076	1,756,977
BB-ELER-206A	224.5	237+80.3	53.2 RT	478,067	1,756,985
BB-EST2-101	197.5	284+04.3	1.3 LT	481,316	1,760,243
BB-EWC-101	191.2	289+53.7	7.4 LT	481,488	1,760,765
BB-EWC-203	189.5	288+99.4	2.8 RT	481,468	1,760,713
BB-EWC1-101	181.1	272+35.9	3.4 RT	480,562	1,759,367
BB-EWC1-201	182.9	272+36.2	60.7 LT	480,603	1,759,317
BB-EWC1-202	181.1	272+35.2	58.8 LT	480,526	1,759,409
BB-EWC2-101	181.5	275+86.7	12.7 LT	480,842	1,759,580
BB-EWC2-201	181.4	275+86.6	74.6 LT	480,883	1,759,534
BB-EWC2-202	180.8	275+88.9	72.1 RT	480,786	1,759,644
HB-BE-101	82.0	52+97.4	1.8 LT	463,815	1,745,621
HB-BE-102	81.4	704+26.7[7]	7.8 RT	463,955	1,745,980
HB-BE-103	81.2	57+12.8	308.3 LT	464,293	1,745,816
HB-BE-104	80.3	58+06.9	531.1 LT	464,532	1,745,780
HB-BE-105	88.1	804+71.4[8]	6.2 LT	463,486	1,746,414
HB-BE-106	82.3	709+60.5[7]	199.7 RT	463,685	1,746,220
HB-BE-107	88.5	708+66.7[7]	4.3 RT	463,836	1,746,370
HB-BE-107A	88.5	708+66.7[7]	4.3 RT	463,836	1,746,370
HB-BE-108	81.8	58+96.1	0.3 LT	464,126	1,746,133
HB-BE-109	84.4	62+43.7	1.1 LT	464,308	1,746,429
HB-BE-111	91.4	71+94.1	2.2 LT	464,864	1,747,196
HB-BE-112	85.4	80+95.9	5.2 RT	465,563	1,747,763
HB-BE-113	93.3	87+96.5	4.7 LT	466,198	1,748,058
HB-BE-114	112.1	99+00.2	18.1 LT	467,206	1,748,509
HB-BE-115	126.2	102+02.1	2.5 RT	467,458	1,748,677
HB-BE-116	133.2	105+00.7	0.1 RT	467,715	1,748,829
HB-BE-117	149.0	111+04.2	0.7 LT	468,232	1,749,141
HB-BE-118	148.8	111+05.6	64.2 LT	468,266	1,749,088
HB-BE-119	148.2	110+98.9	49.9 RT	468,201	1,749,181
HB-BE-120	132.8	113+99.3	2.8 RT	468,479	1,749,303

Test Boring No.[1]	Ground Surface Elevation (ft)[3,4]	Station[5]	Offset Distance (ft) & Direction[5]	Coordinates[2]	
				Northing	Easting
HB-BE-121	113.7	121+96.7	8.7 RT	469,122	1,749,773
HB-BE-122	103.7	128+90.3	3.9 RT	469,656	1,750,215
HB-BE-123	82.3	144+06.5	2.6 LT	470,760	1,751,254
HB-BE-124	86.8	146+99.2	1.9 RT	470,968	1,751,459
HB-BE-125	96.6	151+06.0	0.1 RT	471,264	1,751,739
HB-BE-126	105.8	154+99.5	0.3 RT	471,548	1,752,011
HB-BE-127	113.6	160+03.6	1.4 RT	471,912	1,752,359
HB-BE-128	116.5	164+01.9	4.9 LT	472,205	1,752,630
HB-BE-129	110.5	167+97.2	3.3 RT	472,485	1,752,909
HB-BE-130	142.3	171+02.7	6.1 RT	472,704	1,753,121
HB-BE-131	164.3	174+95.8	2.8 LT	472,995	1,753,386
HB-BE-132	172.7	176+94.3	16.3 RT	473,129	1,753,534
HB-BE-133	161.1	177+00.5	54.2 LT	473,184	1,753,488
HB-BE-134	175.3	176+84.7	68.3 RT	473,088	1,753,567
HB-BE-135	93.0	181+05.1	3.1 RT	473,455	1,753,786
HB-BE-136	94.9	181+02.9	105.2 LT	473,519	1,753,699
HB-BE-137	92.9	180+94.6	100.6 RT	473,387	1,753,856
HB-BE-138	95.3	184+97.5	2.2 RT	473,773	1,754,016
HB-BE-139	105.9	188+97.6	0.1 RT	474,111	1,754,229
HB-BE-140	104.5	188+99.1	101.9 LT	474,165	1,754,142
HB-BE-141	107.5	189+04.8	99.3 RT	474,067	1,754,318
HB-BE-142	115.6	192+96.7	0.4 RT	474,460	1,754,423
HB-BE-143	141.6	204+00.1	15.1 RT	475,448	1,754,915
HB-BE-144	172.5	207+91.3	1.8 LT	475,805	1,755,075
HB-BE-145	200.6	211+95.9	7.4 RT	476,153	1,755,282
HB-BE-146	197.6	211+81.7	52.1 LT	476,171	1,755,223
HB-BE-147	202.3	212+13.7	46.6 RT	476,148	1,755,324
HB-BE-148	192.8	219+00.5	1.9 LT	476,744	1,755,664
HB-BE-149	188.5	222+47.9	1.6 RT	477,018	1,755,878
HB-BE-150	197.7	229+89.9	0.4 LT	477,573	1,756,369
HB-BE-151	215.6	235+01.2	5.6 RT	477,922	1,756,743
HB-BE-152	233.5	240+95.9	11.3 LT	478,318	1,757,187
HB-BE-153	236.6	244+91.7	2.1 RT	478,560	1,757,500
HB-BE-154	233.0	248+93.5	2.2 RT	478,816	1,757,810
HB-BE-155	220.2	253+08.3	11.3 LT	479,105	1,758,107
HB-BE-156	216.8	256+97.3	4.5 LT	479,382	1,758,380
HB-BE-157	201.0	260+90.1	3.8 LT	479,682	1,758,633
HB-BE-158	193.1	264+90.7	12.2 RT	479,981	1,758,900
HB-BE-159	187.6	268+98.2	6.9 RT	480,299	1,759,155
HB-BE-160	189.7	279+92.0	0.1 RT	481,103	1,759,890
HB-BE-161	195.4	293+04.2	1.7 LT	481,515	1,761,114
HB-BE-163	195.8	301+11.9	2.3 RT	481,381	1,761,907
HB-BE-164	242.4	305+07.7	0.8 RT	481,282	1,762,291
HB-BE-165	245.0	309+01.8	1.9 RT	481,182	1,762,672
HB-BE-166	216.4	312+94.8	7.7 RT	481,077	1,763,051
HB-BE-167	216.9	317+23.1	11.4 LT	480,987	1,763,470
HB-BE-168	220.2	323+79.8	8.2 RT	480,802	1,764,100
HB-BE-169	186.4	332+00.8	5.5 RT	480,597	1,764,895
HB-BE-201	97.5	52+00.4	1.5 LT	463,764	1,745,539
HB-BE-202	81.2	906+69.3[9]	81.5 LT	463,890	1,745,481
HB-BE-203	80.6	906+69.1[9]	66.2 RT	464,027	1,745,537
HB-BE-204	81.5	57+44.5	5.3 LT	464,051	1,746,001
HB-BE-205	83.1	60+46.1	5.1 LT	464,208	1,746,259
HB-BE-206	82.3	705+96.6[7]	7.4 RT	463,968	1,746,144
HB-BE-207	85.4	810+94.8[8]	1.6 LT	464,080	1,746,349
HB-BE-208	90.1	806+73.4[8]	5.0 RT	463,680	1,746,458
HB-BE-209	83.1	713+54.5[7]	121.3 RT	463,478	1,746,234
HB-BE-210	84.7	713+51.4[7]	19.8 LT	463,376	1,746,332
HB-BE-211	85.8	803+38.1[8]	89.7 RT	463,315	1,746,411

Test Boring No.[1]	Ground Surface Elevation (ft)[3,4]	Station[5]	Offset Distance (ft) & Direction[5]	Coordinates[2]	
				Northing	Easting
HB-BE-212	81.6	65+49.2	2.4 LT	464,469	1,746,689
HB-BE-213	81.1	67+53.8	74.3 LT	464,641	1,746,816
HB-BE-214	82.3	67+63.7	71.8 RT	464,529	1,746,910
HB-BE-215	84.3	69+48.1	0.7 RT	464,699	1,747,014
HB-BE-216	95.0	73+50.3	0.3 LT	464,973	1,747,308
HB-BE-217	135.1	106+96.5	2.9 LT	467,884	1,748,928
HB-BE-218	138.7	109+01.6	4.9 LT	468,061	1,749,032
HB-BE-219	116.4	117+96.7	2.8 LT	468,809	1,749,523
HB-BE-220	108.3	125+94.8	0.8 LT	469,437	1,750,017
HB-BE-221	77.7	139+34.3	2.8 RT	470,414	1,750,932
HB-BE-222	76.5	141+92.6	5.5 LT	470,607	1,751,104
HB-BE-223	109.1	166+00.4	0.8 LT	472,345	1,752,771
HB-BE-223A	109.2	166+87.5	30.2 LT	472,429	1,752,809
HB-BE-224	110.7	168+24.6	82.5 LT	472,564	1,752,865
HB-BE-224A	114.1	168+82.3	11.7 RT	472,541	1,752,973
HB-BE-225	94.6	182+09.1	15.3 LT	473,549	1,753,834
HB-BE-226	97.3	184+83.8	72.3 LT	473,804	1,753,947
HB-BE-227	95.8	184+89.7	63.7 RT	473,728	1,754,067
HB-BE-228	171.6	207+03.9	55.4 RT	475,701	1,755,085
HB-BE-229	170.7	208+44.6	64.3 LT	475,882	1,755,045
HB-BE-230	190.1	210+08.2	0.3 LT	475,994	1,755,181
HB-BE-231	202.3	214+00	0.0	476,330	1,755,383
HB-BE-232	196.8	217+00.3	0.8 RT	476,580	1,755,549
HB-BE-234	208.2	232+46.4	4.1 LT	477,750	1,756,555
HB-BE-235	219.3	235+96.8	2.6 LT	477,991	1,756,809
HB-BE-236	228.5	238+13.6	4.4 LT	478,133	1,756,973
HB-BE-237	228.9	239+30.1	27.6 LT	478,225	1,757,049
HB-BE-238	194.7	296+97.4	1.4 RT	481,480	1,761,505
HB-BE-239	82.6	907+45.1[9]	2.2 LT	464,000	1,745,444
HB-BE-240	80.8	905+43.4[9]	2.0 LT	463,939	1,745,634
HB-BE-241	82.1	716+66.4[7]	159.7 RT	463,462	1,746,055
HB-BE-242	83.5	802+9.6[8]	37.4 LT	463,302	1,746,231
HB-BE-242A	83.4	802+9.1[8]	37.5 LT	463,302	1,746,231
HB-BE-243	85.8	802+03.8[8]	78.2 RT	463,222	1,746,314
HB-BE-244	117.6	194+75.9	6.8 LT	474,624	1,754,496

Notes:

[1] Test boring locations are shown on Figures 4 through 53, Subsurface Exploration Location Plans.

[2] As-drilled coordinates of test borings were determined by MaineDOT using GPS survey equipment, are measured in feet and reference NAD83, Maine 2000 Central Zone coordinate system.

[3] Ground surface elevations at test boring locations were determined in the field by MaineDOT using GPS survey equipment.

[4] Elevations are measured in feet and reference the North American Vertical Datum of 1988 (NAVD 88).

[5] Station and offset information determined by MaineDOT and provided to Haley & Aldrich (Phase I). Station and offset information was measured by Haley & Aldrich (Phase II). Unless otherwise noted, station and offset reference connector road baseline.

[6] Station and offset reference Wilson Street baseline.

[7] Station and offset reference Ramp E baseline.

[8] Station and offset reference Ramp F baseline.

[9] Station and offset reference Ramp D baseline.

	Individual	Date
Prepared By:	KAR	1/29/2019
Checked By:	EMS	6/11/2020
Reviewed By:	WAC	6/11/2020
Updated By:	SSM	2/16/2021
Checked By:	EMS	2/16/2021
Reviewed By:	EAF	7/6/2021

TABLE II
Exploration Subsurface Data
Interstate 395 / Route 9 Connector Highway
MaineDOT WIN No. 018915.00
Brewer-Eddington, Maine

Haley & Aldrich, Inc. File No.: 132076-007

Test Boring No.[1]	Ground Surface Elevation (ft)[2,3]	Total Exploration Depth (ft)	El. Bottom of Exploration[2,3]	Bituminous Concrete[4]			Topsoil[4]			Fill[4]						Marine Deposit[4]						Glacial Till[4]						Weathered Bedrock[4]			Bedrock[4]	
										Cohesive			Granular			Cohesive			Granular			Cohesive			Granular							
				Depth to Top	El. of Top[2,3]	Thickness	Depth to Top	El. of Top[2,3]	Thickness	Depth to Top	El. of Top[2,3]	Thickness	Depth to Top	El. of Top[2,3]	Thickness	Depth to Top	El. of Top[2,3]	Thickness[6]	Depth to Top	El. of Top[2,3]	Thickness[5]	Depth to Top	El. of Top[2,3]	Thickness[5,6]	Depth to Top	El. of Top[2,3]	Thickness[5,6]	Depth to Top	El. of Top[2,3]	Thickness[5,6]	Depth to Top	El. of Top[2,3]
				(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
BB-BEA-101	139.5	35.0	104.5	0.0	139.5	0.4	NE	NE	NE	3.0	136.5	2.0	0.4	139.1	2.6	NE	NE	NE	NE	NE	NE	15.0	124.5	5.0	5.0 / 20.0	134.5 / 119.5	14.5	NE	NE	NE	24.5	115.0
BB-BEA-102	139.3	32.0	107.3	0.0	139.3	0.5	NE	NE	NE	2.5	136.8	2.5	0.5 / 5.0	138.8 / 134.3	3.5	NE	NE	NE	NE	NE	NE	6.5	132.8	13.5	20.0	119.3	1.1	NE	NE	NE	21.1	118.2
BB-BEA-201	136.5	35.0	101.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	136.5	2.0	NE	NE	NE	NE	NE	NE	15.0	121.5	10.0	2.0	134.5	13.0	25.0	111.5	6.0	31.0	105.5
BB-BEA-202	137.1	29.7	107.4	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	137.1	4.2	NE	NE	NE	6.0 / 15.0	131.1 / 122.1	9.0	4.2 / 10.0 / 20.0	132.9 / 127.1 / 117.1	7.0	NE	NE	NE	20.2	116.9
BB-BEA-203	135.7	30.0	105.7	NE	NE	NE	0.0	135.7	2.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	10.0	125.7	7.5	2.0	133.7	8.0	NE	NE	NE	17.5	118.2
BB-BEA-204	138.7	31.1	107.6	NE	NE	NE	0.0	138.7	0.2	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.2 / 10.0	138.5 / 128.7	12.8	3.0 / 20.0	135.7 / 118.7	8.8	NE	NE	NE	21.8	116.9
BB-BEB-101	74.3	52.0	22.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	74.3	17.9	NE	NE	NE	17.9	56.4	7.1	25.0	49.3	12.0	NE	NE	NE	37.0	37.3
BB-BEB-102	75.3	27.0	48.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	75.3	14.8	NE	NE	NE	14.8	60.5	>12.2	NE	NE	NE	--	--	--	--	--
BB-BEB-103	74.1	50.3	23.8	NE	NE	NE	0.0	74.1	0.1	NE	NE	NE	NE	NE	NE	0.1	74.0	23.0	23.1	51.0	3.9	36.1	38.0	6.4	27.0 / 42.5	47.1 / 31.6	>16.9	--	--	--	--	--
BB-BEB-104	75.9	70.6	5.3	NE	NE	NE	0.0	75.9	0.6	NE	NE	NE	NE	NE	NE	0.6	75.3	18.8	NE	NE	NE	19.4	56.5	19.1	38.5	37.4	21.5	--	--	--	60.0	15.9
BB-BEB-201	74.8	86.1	-11.3	NE	NE	NE	0.0	74.8	0.2	NE	NE	NE	NE	NE	NE	0.2	74.6	9.9	NE	NE	NE	NE	NE	NE	10.1	64.7	62.9	NE	NE	NE	73.0	1.8
BB-BEB-202	74.5	68.7	5.8	NE	NE	NE	0.0	74.5	0.1	NE	NE	NE	NE	NE	NE	0.1	74.4	18.1	NE	NE	NE	20.0 / 30.0	54.5 / 44.5	9.6	18.2 / 25.0 / 34.6	56.3 / 49.5 / 39.9	22.3	50.1	24.4	4.9	55.0	19.5
BB-BEB-203	76.0	60.0	16.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	76.0	21.8	NE	NE	NE	21.8	54.2	3.2	25.0	51.0	29.2	NE	NE	NE	54.2	21.8
BB-BEB-204	76.7	20.0	56.7	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	76.7	16.9	NE	NE	NE	16.9	59.8	> 3.1	NE	NE	NE	--	--	--	--	--
BB-BEB-204A	76.6	90.1	-13.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	25.0	51.6	17.0	18.5 / 42.0	58.1 / 34.6	34.5	70.0	6.6	9.8	79.8	-3.2
BB-BEB-205	77.4	75.0	2.4	NE	NE	NE	0.0	77.4	0.5	NE	NE	NE	NE	NE	NE	0.5	76.9	14.2	NE	NE	NE	20.0	57.4	20.0	14.7 / 40.0	62.7 / 37.4	36.2	NE	NE	NE	70.9	6.5
BB-BEBT1-101	95.3	41.0	54.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	95.3	7.0	NE	NE	NE	7.0	88.3	20.5	27.5	67.8	2.6	30.1	65.2	0.9	31.0	64.3
BB-BEBT1-201	99.7	46.6	53.1	NE	NE	NE	0.0	99.7	0.2	NE	NE	NE	NE	NE	NE	0.2	99.5	7.1	NE	NE	NE	NE	NE	NE	7.3	92.4	30.7	NE	NE	NE	38.0	61.7
BB-BEBT1-202	98.6	45.0	53.6	NE	NE	NE	0.0	98.6	0.1	NE	NE	NE	NE	NE	NE	0.1	98.5	6.7	NE	NE	NE	6.8	91.8	3.2	10.0	88.6	28.7	NE	NE	NE	38.7	59.9
BB-BFA1-101	97.7	32.7	65.0	NE	NE	NE	0.0	97.7	0.5	NE	NE	NE	NE	NE	NE	0.5	97.2	13.5	NE	NE	NE	NE	NE	NE	14.0	83.7	6.8	20.8	76.9	1.7	22.5	75.2
BB-BFB-101	79.4	52.0	27.4	NE	NE	NE	0.0	79.4	0.5	NE	NE	NE	NE	NE	NE	0.5	78.9	34.0	NE	NE	NE	NE	NE	NE	34.5	44.9	5.8	NE	NE	NE	40.3	39.1
BB-BFB-201	80.9	35.6	45.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	80.9	29.0	NE	NE	NE	NE	NE	NE	29.0	51.9	1.7	NE	NE	NE	30.7	50.2
BB-BFB-202	80.5	53.5	27.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	80.5	41.8	NE	NE	NE	NE	NE	NE	41.8	38.7	6.2	NE	NE	NE	48.0	32.5
BB-BFB1-101	80.8	50.0	30.8	NE	NE	NE	0.0	80.8	2.0	NE	NE	NE	NE	NE	NE	2.0	78.8	14.4	NE	NE	NE	16.4	64.4	3.6	20.0	60.8	17.9	NE	NE	NE	37.9	42.9
BB-BFB1-201	80.7	34.1	46.6	NE	NE	NE	0.0	80.7	0.1	NE	NE	NE	NE	NE	NE	0.1	80.6	15.7	NE	NE	NE	15.8	64.9	4.2	20.0	60.7	2.8	NE	NE	NE	22.8	57.9
BB-BFB1-202	80.8	45.0	35.8	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	80.8	30.5	NE	NE	NE	NE	NE	NE	30.5	50.3	3.6	NE	NE	NE	34.1	46.7
BB-BFB1-203	80.6	34.8	45.8	NE	NE	NE	0.0	80.6	0.3	NE	NE	NE	NE	NE	NE	0.3	80.3	23.4	NE	NE	NE	NE	NE	NE	23.7	56.9	0.4	NE	NE	NE	24.1	56.5
BB-BFB1-204	81.0	47.4	33.6	NE	NE	NE	0.0	81.0	0.3	NE	NE	NE	NE	NE	NE	0.3	80.7	26.5	NE	NE	NE	NE	NE	NE	26.8	54.2	11.5	NE	NE	NE	38.3	42.7
BB-BFB2-101	89.1	41.5	47.6	NE	NE	NE	0.0	89.1	2.0	NE	NE	NE	NE	NE	NE	2.0	87.1	14.8	16.8	72.3	3.2	NE	NE	NE	20.0	69.1	10.8	NE	NE	NE	30.8	58.3
BB-BFB2-201	87.4	44.3	43.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	87.4	15.7	NE	NE	NE	15.7	71.7	4.3	20.0	67.4	13.8	NE	NE	NE	33.8	53.6
BB-BFB2-202	89.4	34.5	54.9	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	89.4	14.7	NE	NE	NE	NE	NE	NE	14.7	74.7	11.1	NE	NE	NE	25.8	63.6
BB-BFB3-101	102.9	38.0	64.9	NE	NE	NE	0.0	102.9	1.5	NE	NE	NE	NE	NE	NE	1.5 / 10.0	101.4 / 92.9	13.3	9.8	93.1	0.2	NE	NE	NE	15.0	87.9	12.1	NE	NE	NE	27.1	75.8
BB-BST1-101	86.3	49.4	36.9	NE	NE	NE	0.0	86.3	0.1	NE	NE	NE	NE	NE	NE	0.1	86.2	21.4	NE	NE	NE	NE	NE	NE	21.5	64.8	13.3	NE	NE	NE	34.8	51.5
BB-BST1-102	86.7	31.0	55.7	NE	NE	NE	0.0	86.7	0.4	NE	NE	NE	NE	NE	NE	0.4	86.3	18.9	NE	NE	NE	NE	NE	NE	19.3	67.4	10.7	30.0	56.7	1.0	31.0	55.7
BB-BST1-103	87.4	30.2	57.2	NE	NE	NE	0.0	87.4	0.3	NE	NE	NE	NE	NE	NE	0.3	87.1	17.5	NE	NE	NE	NE	NE	NE	17.8	69.6	10.4	NE	NE	NE	28.2	59.2
BB-BST1-201	86.0	41.5	44.5	NE	NE	NE	0.0	86.0	0.2	NE	NE	NE	NE	NE	NE	0.2	85.8	22.9	NE	NE	NE	NE	NE	NE	23.1	62.9	8.9	NE	NE	NE	32.0	54.0
BB-BWS-101	119.9	45.8	74.1	NE	NE	NE	NE	NE	NE	0.0	119.9	5.0	5.0	114.9	8.0	NE	NE	NE	NE	NE	NE	13.0	106.9	>32.8	NE	NE	NE	--	--	--	--	--
BB-BWS-102	112.2	51.3	60.9	NE	NE	NE	NE	NE	NE	0.0	112.2	8.0	8.0	104.2	2.0	NE	NE	NE	NE	NE	NE	10.0	102.2	29.8	NE	NE	NE	NE	NE	NE	39.8	72.4
BB-BWS-103	107.1	45.0	62.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	107.1	3.6	3.6	103.5	16.0	NE	NE	NE	19.6	87.5	14.6	NE	NE	NE	NE	NE	NE	34.2	72.9
BB-BWS-104	100.9	48.0	52.9	NE	NE	NE	NE	NE	NE	0.0	100.9	4.0	4.0	96.9	2.0	6.0	94.9	19.0	NE	NE	NE	25.0	75.9	11.8	NE	NE	NE	NE	NE	NE	36.8	64.1
BB-BWS-105	106.9	37.0	69.9	NE	NE	NE	NE	NE	NE	0.0 / 16.0	106.9 / 90.9	18.5	15.0	91.9	1.0	19.5	87.4	10.5	NE	NE	NE	36.0	70.9	>1.0	30.0	76.9	6.0	--	--	--	--	--
BB-BWS-201	118.3	42.0	76.3	NE	NE	NE	NE	NE	NE	0.0	118.3	10.2	NE	NE	NE	NE	NE	NE	NE	NE	NE	15.0 / 30.0	103.3 / 88.3	21.1	10.2 / 26.1 / 40.0	108.1 / 92.2 / 78.3	>10.7	--	--	--	--	--
BB-BWS-202	143.8	81.7	62.1	0.0	143.8	0.7	NE	NE	NE	NE	NE	NE	0.7	143.1	43.3	44.0	99.8	21.0	NE	NE	NE	65.0	78.8	1.6	66.6	77.2	5.9	NE	NE	NE	72.5	71.3
BB-BWS-203	111.2	60.0	51.2	NE	NE	NE	NE	NE	NE	3.5	107.7	5.6	0.0	111.2	3.5	9.1	102.1	27.5	NE	NE	NE	NE	NE	NE	36.6	74.6	6.1	42.7	68.5	1.8	44.5	66.7
BB-BWS-204	136.3	37.0	99.3	0.0	136.3	0.4	NE	NE	NE	21.0	115.3	5.7	0.4	135.9	20.6	NE	NE	NE	NE	NE	NE	26.7	109.6	3.3	30.0	106.3	>7.0	--	--	--	--	--
BB-BWS-205	135.7	56.0	79.7	0.0	135.7	0.5	NE	NE	NE	16.0 / 38.0	119.7 / 97.7	22.0	0.5 / 32.0 / 44.0	135.2 / 103.7 / 91.7	23.9	46.4	89.3	7.6	NE	NE	NE	54.0	81.7	1.5	NE	NE	NE	55.5	80.2	>0.5	--	--
BB-BWS-206	134.6	89.0	45.6	0.0	134.6	0.8	NE	NE	NE	2.0 / 34.0	132.6 / 100.6	31.7	0.8 / 28.7 / 39.0	133.8 / 105.9 / 95.6	16.7	49.2	85.4	4.8	NE	NE	NE	54.0	80.6	25.0	NE	NE	NE	NE	NE	NE	79.0	55.6
BB-BWS-301	100.5	42.1	58.4	NE	NE	NE	NE	NE	NE	0.0 / 12.0	100.5 / 88.5	13.4	11.7	88.8	0.3	13.7	86.8	22.1	NE	NE	NE	NE	NE	NE	35.8	64.7	5.0	40.8	59.7	0.3	41.1	59.4
BB-ECR-101	201.8	24.3	177.5	0.0	201.8	0.3	NE	NE	NE	NE	NE	NE	0.3	201.5	1.7	NE	NE	NE	NE	NE	NE	2.0	199.8	11.1	NE	NE	NE	NE	NE	NE	13.1	188.7
BB-ECR-102	203.2	28.4	174.8	0.0	203.2	0.3	NE	NE	NE	NE	NE	NE	0.3	202.9	2.2	NE	NE	NE	NE	NE	NE	2.5	200.7	7.5	10.0	193.2	2.6	NE	NE	NE	12.6	190.6
BB-ECR-201	200.5	42.1	158.4	NE	NE	NE	0.0	200.5	0.2	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.2	200.3	14.8	15.0	185.5	0.7	NE	NE	NE	15.7	184.8
BB-ECR-202	201.7	30.0	171.7	0.0	201.7	0.8	NE	NE	NE	NE	NE	NE	0.8	200.9	2.0	NE	NE	NE	NE	NE	NE	2.8	198.9	10.7	NE	NE	NE	NE	NE	NE	13.5	188.2
BB-ECR-203	198.7	20.0	178.7	NE	NE	NE	0.0	198.7	3.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	3.0	195.7	10.6	NE	NE	NE	NE	NE	NE	13.6	185.1
BB-ECR-203A	199.1	40.4	158.7	NE	NE	NE	0.0	199.1	0.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	5.0	194.1	8.5	0.3	198.8	4.7	NE	NE	NE	13.5	185.6
BB-ECR-204	202.5	12.0	190.5	NE	NE	NE	0.0	202.5	0.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.3	202.2	5.2	NE	NE	NE	NE	NE	NE	5.5	197.0
BB-ECR-204A	202.1	45.5	156.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	14.5	187.6
BB-ECR-205	203.4	35.0	168.4	0.0	203.4	0.5	NE	NE	NE	NE	NE	NE	0.5	202.9	2.0	NE	NE	NE	NE	NE	NE	2.5	200.9	6.5	NE	NE	NE	9.0	194.4	4.0	13.0	190.4
BB-ECR-206	200.7	16.3	184.4	NE	NE	NE	0.0	200.7	4.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	4.0	196.7	5.0	NE	NE	NE	9.0	191.7	3.0	12.0	188.7
BB-ECR-206A	201.0	50.3	150.7	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	9.4	191.6	15.1	24.5	176.5
BB-EEBT2-101	179.7	32.0	147.7	NE	NE	NE	0.0	179.7	0.2	NE	NE	NE	NE	NE	NE	2.2	177.5	8.5	0.2	179.5	2.0	10.7	169.0	9.3	20.0	159.7	1.4	NE	NE	NE	21.4	158.3
BB-EEBT2-102	181.3	17.5	163.8	NE	NE	NE	0.0	181.3	0.1	NE	NE	NE	NE	NE	NE	0.1	181.2	12.2	NE	NE	NE	12.3	169.0	4.9	NE	NE	NE	NE	NE	NE	17.2	164.1
BB-EEBT2-103	179.8	17.0	162.8	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	2.9	176.9	7.7	0.0	179.8	2.9	10.6	169.2	>6.4	NE	NE	NE	--	--	--	--	--
BB-EEBT2-201	179.4	17.0	162.4	NE	NE	NE	0.0	179.4	0.4	NE	NE	NE	NE	NE	NE	0.4	179.0	7.3	NE	NE	NE	15.0	164.4	>2.0	7.7	171.7	7.3	--	--	--	--	--
BB-EEBT2-202	179.2	20.6	158.6	NE	NE	NE	0.0	179.2	0.1	NE	NE	NE	NE	NE	NE	0.1	179.1	11.0	NE	NE	NE	11.1	168.1	9.5	NE	NE	NE	NE	NE	NE	20.6	158.6
BB-ELAR-101	119.8	15.5	104.3	NE	NE	NE	NE	NE	NE	1.6	118.2	3.4	0.0 / 5.0	119.8 / 114.8	1.8	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	5.2	114.6
BB-ELAR-102	123.6	16.5	107.1	0.0	123.6	0.5	NE	NE	NE	2.5	121.1	2.0	0.5	123.1	2.0	NE	NE	NE	NE	NE	NE	4.5	119.1	2.1	NE	NE	NE	NE	NE	NE	6.6	117.0
BB-ELAR-201	116.0	8.4	107.6	NE	NE	NE	0.0	116.0	0.2	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.2	115.8	1.8	2.0	114.0	0.9	NE	NE	NE	2.9	113.1
BB-ELAR-201A	119.8	14.7	105.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	119.8	4.4	NE	NE	NE	NE	NE	NE	4.4	115.4
BB-ELAR-202	122.5	14.5	108.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	4.0	118.5	4.2	0.0	122.5	4.0	NE	NE	NE	8.2	114.3
BB-ELAR-203	119.0	6.8	112.2	NE	NE	NE	0.0	119.0	0.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.6	118.4
BB-ELAR-203A	121.5	17.0	104.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	121.5	5.4	NE	NE	NE	NE	NE	NE	5.4	116.1
BB-ELAR-204	123.6	11.5	112.1	NE	NE	NE	0.0	123.6	0.3	NE	NE	NE	NE	NE	NE	0.3	123.3	3.2	NE	NE	NE	4.0	119.6	1.8	3.5	120.1	0.5	NE	NE	NE	5.8	117.8
BB-ELER-101	225.0	26.3	198.7	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	225.0	2.0	NE	NE	NE	NE	NE	NE	2.0	223.0	12.4	NE	NE	NE	NE	NE	NE	14.4	210.6
BB-ELER-102	225.8	30.2	195.6	0.0	225.8	0.3	NE	NE	NE	NE	NE	NE	0.3	225.5	2.0	NE	NE	NE	NE	NE	NE	4.3	221.5	8.5	2.3	223.5	2.0	NE	NE	NE	12.8	213.0
BB-ELER-201	222.7	28.5	194.2	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	222.7	15.0	15.0	207.7	5.1	NE	NE	NE	20.1	202.6
BB-ELER-202	225.1	37.0	188.1	0.0	225.1	0.3	NE	NE	NE	NE	NE	NE	0.3	224.8	2.2	NE	NE	NE	NE	NE	NE	2.5	222.6	14.0	NE	NE	NE	NE	NE	NE	16.5	208.6
BB-ELER-203	225.6	20.3	205.3	NE	NE	NE	0.0	225.6	3.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	3.0	222.6	12.2	NE	NE	NE	NE	NE	NE	15.2	210.4
BB-ELER-204	223.2	14.9	208.3	NE	NE	NE	0.0	223.2	4.8	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	4.8	218.4	3.4	NE	NE	NE	NE	NE	NE	8.2	215.0
BB-ELER-205	225.9	35.0	190.9	0.0	225.9	0.5	NE	NE	NE	NE	NE	NE	0.5	225.4	2.0	NE	NE	NE	NE	NE	NE	2.5	223.4	12.0	NE	NE	NE	NE	NE	NE	14.5	211.4
BB-ELER-206	225.1	16.0	209.1	NE	NE	NE	0.0	225.1	0.2	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.2	224.9	10.2	NE	NE	NE	NE	NE	NE	10.4	214.7
BB-ELER-206A	224.5	37.0	187.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	224.5	9.5	NE	NE	NE	NE	NE	NE	9.5	215.0
BB-EST2-101	197.5	21.2	176.3	NE	NE	NE	0.0	197.5	0.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.1	197.4	9.9	NE	NE	NE	10.0	187.5	1.5	11.5	186.0
BB-EWC-101	191.2	24.2	167.0	NE	NE	NE	0.0	191.2	0.1	NE	NE	NE	NE	NE	NE	0.1	191.1	3.7	NE	NE	NE	3.8	187.4	5.8	NE	NE	NE	NE	NE	NE	9.6	181.6
BB-EWC-203	189.5	8.2	181.3	NE	NE	NE	0.0	189.5	0.1	NE	NE	NE	NE	NE	NE	0.1	189.4	2.5	NE	NE	NE	2.6	186.9	2.4	NE	NE	NE	5.0	184.5	1.5	6.5	183.0
BB-EWC1-101	181.1	24.0	157.1	NE	NE	NE	0.0	181.1	0.1	NE	NE	NE	NE	NE	NE	0.1	181.0	8.9	NE	NE	NE	9.0	172.1	3.7	NE	NE	NE	12.7	168.4	1.3	14.0	167.1
BB-EWC1-201	182.9	13.0	169.9	NE	NE	NE	0.0	182.9	0.2	NE	NE	NE	NE	NE	NE	0.2	182.7	9.9	NE	NE	NE	NE	NE	NE	10.1	172.8	0.6	NE	NE	NE	10.7	172.2
BB-EWC1-202	181.1	15.0	166.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	181.1	9.1	NE	NE	NE	9.1	172.0	3.7	NE	NE	NE	NE	NE	NE	12.8	168.3
BB-EWC2-101	181.5	56.4	125.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	181.5	3.6	NE	NE	NE	3.6	177.9	47.2	NE	NE	NE	NE	NE	NE	50.8	130.7
BB-EWC2-201	181.4	17.0	164.4	NE	NE	NE	0.0	181.4	0.2	NE	NE	NE	NE	NE	NE	0.2	181.2	6.7	NE	NE	NE	6.9	174.5	>10.1	NE	NE	NE	--	--	--	--	--
BB-EWC2-202	180.8	12.0	168.8	NE	NE	NE	0.0	180.8	0.2	NE	NE	NE	NE	NE	NE	0.2	180.6	5.4	NE	NE	NE	10.0	170.8	>2.0	5.6	175.2	4.4	--	--	--	--	--
HB-BE-101	82.0	45.0	37.0	NE	NE	NE	0.0	82.0	1.0	NE	NE	NE	NE	NE	NE	1.0	81.0	36.0	NE	NE	NE	NE	NE	NE	37.0	45.0	5.6	NE	NE	NE	42.6	39.4
HB-BE-102	81.4	36.0	45.4	NE	NE	NE	0.0	81.4	1.0	NE	NE	NE	NE	NE	NE	1.0	80.4	29.0	NE	NE	NE	NE	NE	NE	30.0	51.4	4.2	NE	NE	NE	34.2	47.2
HB-BE-103	81.2	36.5	44.7	NE	NE	NE	0.0	81.2	0.5	NE	NE	NE	NE	NE	NE	0.5	80.7	27.5	NE	NE	NE	NE	NE	NE	28.0	53.2	7.0	35.0	46.2	1.5	36.5	44.7
HB-BE-104	80.3	35.0	45.3	NE	NE	NE	0.0	80.3	0.8	NE	NE	NE	NE	NE	NE	0.8	79.5	32.0	NE	NE	NE	NE	NE	NE	32.8	47.5	1.9	NE	NE	NE	34.7	45.6
HB-BE-105	88.1	23.0	65.1	NE	NE	NE	0.0	88.1	1.0	NE	NE	NE	NE	NE	NE	1.0	87.1	16.0	NE	NE	NE	NE	NE	NE	17.0	71.1	3.8	NE	NE	NE	20.8	67.3
HB-BE-106	82.3	24.8	57.5	NE	NE	NE	0.0	82.3	0.5	NE	NE	NE	NE	NE	NE	0.5	81.8	13.0	NE	NE	NE	NE	NE	NE	13.5	68.8	9.3	NE	NE	NE	22.8	59.5
HB-BE-107	88.5	20.8	67.7	NE	NE	NE	0.0	88.5	1.5	NE	NE	NE	NE	NE	NE	1.5	87.0	11.0	NE	NE	NE	NE	NE	NE	12.5	76.0	>8.3	--	--	--	--	--
HB-BE-107A	88.5	12.0	76.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	88.5	>12.0	NE	NE	NE	--	--	--	--	--	--	--	--	--	--	--
HB-BE-108	81.8	23.5	58.3	NE	NE	NE	0.0	81.8	0.5	NE	NE	NE	NE	NE	NE	0.5	81.3	16.7	NE	NE	NE	NE	NE	NE	17.2	64.6	6.3	NE	NE	NE	23.5	58.3
HB-BE-109	84.4	36.3	48.1	NE	NE	NE	0.0	84.4	1.3	NE	NE	NE	NE	NE	NE	1.3	83.1	14.2	NE	NE	NE	NE	NE	NE	15.5	68.9	8.2	NE	NE	NE	23.7	60.7
HB-BE-111	91.4	20.0	71.4	NE	NE	NE	0.0	91.4	0.2	NE	NE	NE	NE	NE	NE	0.2	91.2	12.0	NE	NE	NE	NE	NE	NE	12.2	79.2	>7.8	--	--	--	--	--
HB-BE-112	85.4	29.8	55.6	NE	NE	NE	0.0	85.4	0.3	NE	NE	NE	NE	NE	NE	0.3	85.1	23.2	NE	NE	NE	NE	NE	NE	23.5	61.9	4.3	NE	NE	NE	27.8	57.6
HB-BE-113	93.3	22.0	71.3	NE	NE	NE	0.0	93.3	1.0	NE	NE	NE	NE	NE	NE	1.0	92.3	11.1	NE	NE	NE	NE	NE	NE	12.1	81.2	>9.9	--	--	--	--	--
HB-BE-114	112.1	19.3	92.8	NE	NE	NE	0.0	112.1	1.0	NE	NE	NE	NE	NE	NE	1.0	111.1	7.8	NE	NE	NE	NE	NE	NE	8.8	103.3	7.5	NE	NE	NE	16.3	95.8
HB-BE-115	126.2	22.0	104.2	NE	NE	NE	0.0	126.2	0.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.3	125.9	>21.7	--	--	--	--	--
HB-BE-116	133.2	28.0	105.2	NE	NE	NE	0.0	133.2	0.4	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	3.5 / 22.0	129.7 / 111.2	8.5	0.4 / 10.0 / 24.0	132.8 / 123.2 / 109.2	>19.1	--	--	--	--	--
HB-BE-117	149.0	40.9	108.1	NE	NE	NE	0.0	149.0	0.2	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.2	148.8	39.8	40.0	109.0	>0.9	--	--	--	--	--
HB-BE-118	148.8	27.0	121.8	NE	NE	NE	0.0	148.8	0.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.5 / 25.0	148.3 / 123.8	>16.5	15.0	133.8	10.0	--	--	--	--	--
HB-BE-119	148.2	26.7	121.5	NE	NE	NE	0.0	148.2	0.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.3 / 25.0	148.0 / 123.2	>21.4	20.0	128.2	5.0	--	--	--	--	--
HB-BE-120	132.8	30.2	102.6	NE	NE	NE	0.0	132.8	0.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.5	132.3	14.5	15.0	117.8	>15.2	--	--	--	--	--
HB-BE-121	113.7	22.0	91.7	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	113.7	6.1	NE	NE	NE	15.0	98.7	>7.0	6.1	107.6	8.9	--	--	--	--	--
HB-BE-122	103.7	27.0	76.7	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	103.7	8.8	NE	NE	NE	20.0	83.7	>7.0	8.8	94.9	11.2	--	--	--	--	--
HB-BE-123	82.3	21.5	60.8	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	82.3	10.7	NE	NE	NE	20.0	62.3	>1.5	10.7	71.6	9.3	--	--	--	--	--
HB-BE-124	86.8	22.0	64.8	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0 / 9.0	86.8 / 77.8	13.1	8.5	78.3	0.5	20.0	66.8	>2.0	13.6	73.2	6.4	--	--	--	--	--
HB-BE-125	96.6	20.0	76.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	96.6	10.8	NE	NE	NE	15.0	81.6	1.5	10.8	85.8	4.2	16.5	80.1	>3.5	--	--
HB-BE-126	105.8	15.0	90.8	NE	NE	NE	0.0	105.8	0.2	NE	NE	NE	NE	NE	NE	0.2	105.6	5.3	NE	NE	NE	5.5	100.3	0.9	6.4	99.4	6.5	--	--	--	12.9	92.9
HB-BE-127	113.6	17.0	96.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	113.6	10.0	NE	NE	NE	10.0	103.6	>7.0	NE	NE	NE	--	--	--	--	--

Test Boring No.[1]	Ground Surface Elevation (ft)[2,3]	Total Exploration Depth (ft)	El. Bottom of Exploration[2,3]	Bituminous Concrete[4]			Topsoil[4]			Fill[4]						Marine Deposit[4]						Glacial Till[4]						Weathered Bedrock[4]			Bedrock[4]	
										Cohesive			Granular			Cohesive			Granular			Cohesive			Granular							
				Depth to Top	El. of Top[2,3]	Thickness	Depth to Top	El. of Top[2,3]	Thickness	Depth to Top	El. of Top[2,3]	Thickness	Depth to Top	El. of Top[2,3]	Thickness	Depth to Top	El. of Top[2,3]	Thickness[6]	Depth to Top	El. of Top[2,3]	Thickness[5]	Depth to Top	El. of Top[2,3]	Thickness[5,6]	Depth to Top	El. of Top[2,3]	Thickness[5,6]	Depth to Top	El. of Top[2,3]	Thickness[5,6]	Depth to Top	El. of Top[2,3]
				(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
HB-BE-128	116.5	17.0	99.5	NE	NE	NE	0.0	116.5	0.2	NE	NE	NE	NE	NE	NE	0.2	116.3	2.8	NE	NE	NE	10.0	106.5	>7.0	3.0	113.5	7.0	--	--	--	--	--
HB-BE-129	110.5	13.0	97.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	110.5	10.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	10.3	100.2	2.2	12.5	98.0
HB-BE-130	142.3	17.0	125.3	NE	NE	NE	0.0	142.3	1.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1.0	141.3	>16.0	NE	NE	NE	--	--	--	--	--
HB-BE-131	164.3	38.0	126.3	NE	NE	NE	0.0	164.3	1.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1.5	162.8	>36.5	NE	NE	NE	--	--	--	--	--
HB-BE-132	172.7	50.5	122.2	NE	NE	NE	0.0	172.7	0.2	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	10.0 / 30.0 / 48.5	162.7 / 142.7 / 124.2	>12.0	0.2 / 15.0 / 35.0	172.5 / 157.7 / 137.7	38.3	--	--	--	--	--
HB-BE-133	161.1	32.0	129.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	161.1	2.0	NE	NE	NE	NE	NE	NE	5.0	156.1	>27.0	2.0	159.1	3.0	--	--	--	--	--
HB-BE-134	175.3	32.0	143.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	175.3	>32.0	NE	NE	NE	--	--	--	--	--
HB-BE-135	93.0	35.0	58.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	93.0	28.3	28.3	64.7	1.7	NE	NE	NE	30.0	63.0	4.0	34.0	59.0	1.0	35.0	58.0
HB-BE-136	94.9	27.0	67.9	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	94.9	19.1	NE	NE	NE	NE	NE	NE	19.1	75.8	6.6	25.7	69.2	1.3	27.0	67.9
HB-BE-137	92.9	35.2	57.7	NE	NE	NE	0.0	92.9	0.8	NE	NE	NE	NE	NE	NE	0.8	92.1	29.2	NE	NE	NE	30.0	62.9	1.3	31.3	61.6	3.2	NE	NE	NE	34.5	58.4
HB-BE-138	95.3	17.0	78.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	95.3	12.0	NE	NE	NE	12.0	83.3	>5.0	NE	NE	NE	--	--	--	--	--
HB-BE-139	105.9	15.0	90.9	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	105.9	9.1	NE	NE	NE	NE	NE	NE	9.1	96.8	4.9	14.0	91.9	1.0	15.0	90.9
HB-BE-140	104.5	14.0	90.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	104.5	8.0	NE	NE	NE	NE	NE	NE	8.0	96.5	4.5	12.5	92.0	1.5	14.0	90.5
HB-BE-141	107.5	9.0	98.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	107.5	3.4	NE	NE	NE	NE	NE	NE	3.4	104.1	5.2	8.6	98.9	0.4	9.0	98.5
HB-BE-142	115.6	9.2	106.4	NE	NE	NE	0.0	115.6	0.3	NE	NE	NE	NE	NE	NE	0.3	115.3	4.7	NE	NE	NE	NE	NE	NE	5.0	110.6	2.0	7.0	108.6	1.0	8.0	107.6
HB-BE-143	141.6	10.1	131.5	NE	NE	NE	0.0	141.6	0.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.5	141.1	8.8	NE	NE	NE	NE	NE	NE	9.3	132.3
HB-BE-144	172.5	14.1	158.4	NE	NE	NE	0.0	172.5	1.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1.5	171.0	6.5	8.0	164.5	0.1	8.1	164.4	1.0	9.1	163.4
HB-BE-145	200.6	31.0	169.6	NE	NE	NE	0.0	200.6	1.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1.0	199.6	4.0	5.0	195.6	3.9	8.9	191.7	2.1	11.0	189.6
HB-BE-146	197.6	22.0	175.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	197.6	10.9	NE	NE	NE	10.9	186.7	2.1	13.0	184.6
HB-BE-147	202.3	18.0	184.3	NE	NE	NE	0.0	202.3	2.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	2.5	199.8	6.0	NE	NE	NE	8.5	193.8	1.5	10.0	192.3
HB-BE-148	192.8	22.8	170.0	NE	NE	NE	0.0	192.8	1.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1.5	191.3	15.3	NE	NE	NE	NE	NE	NE	16.8	176.0
HB-BE-149	188.5	14.9	173.6	NE	NE	NE	0.0	188.5	0.8	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.8	187.7	2.9	NE	NE	NE	3.7	184.8	6.3	10.0	178.5
HB-BE-150	197.7	17.0	180.7	NE	NE	NE	0.0	197.7	0.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.3	197.4	>16.7	--	--	--	--	--
HB-BE-151	215.6	25.0	190.6	NE	NE	NE	0.0	215.6	0.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.5	215.1	16.5	17.0	198.6	5.8	NE	NE	NE	22.8	192.8
HB-BE-152	233.5	24.6	208.9	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	233.5	2.5	NE	NE	NE	NE	NE	NE	2.5	231.0	7.5	10.0	223.5	8.7	18.7	214.8	1.4	20.1	213.4
HB-BE-153	236.6	17.0	219.6	NE	NE	NE	0.0	236.6	0.1	NE	NE	NE	NE	NE	NE	4.0	232.6	3.2	0.1	236.5	3.9	7.2	229.4	>9.8	NE	NE	NE	--	--	--	--	--
HB-BE-154	233.0	13.2	219.8	NE	NE	NE	0.0	233.0	0.1	NE	NE	NE	NE	NE	NE	0.1	232.9	6.9	NE	NE	NE	7.0	226.0	2.7	NE	NE	NE	NE	NE	NE	9.7	223.3
HB-BE-155	220.2	15.5	204.7	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	220.2	14.1	NE	NE	NE	NE	NE	NE	14.1	206.1
HB-BE-156	216.8	15.2	201.6	NE	NE	NE	0.0	216.8	0.2	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.2	216.6	13.7	NE	NE	NE	13.9	202.9	>1.3	--	--
HB-BE-157	201.0	15.3	185.7	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	201.0	2.9	NE	NE	NE	2.9	198.1	11.9	14.8	186.2
HB-BE-158	193.1	5.6	187.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	193.1	4.9	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	4.9	188.2
HB-BE-159	187.6	10.5	177.1	NE	NE	NE	0.0	187.6	0.1	NE	NE	NE	NE	NE	NE	0.1	187.5	4.5	NE	NE	NE	4.6	183.0	5.3	NE	NE	NE	NE	NE	NE	9.9	177.7
HB-BE-160	189.7	11.0	178.7	NE	NE	NE	0.0	189.7	0.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.1	189.6	4.9	5.0	184.7	4.4	NE	NE	NE	9.4	180.3
HB-BE-161	195.4	15.1	180.3	NE	NE	NE	0.0	195.4	0.2	NE	NE	NE	NE	NE	NE	0.2	195.2	6.0	NE	NE	NE	6.2	189.2	4.4	10.6	184.8	4.4	15.0	180.4	>0.1	--	--
HB-BE-163	195.8	15.0	180.8	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	195.8	10.0	NE	NE	NE	NE	NE	NE	10.0	185.8	4.3	NE	NE	NE	14.3	181.5
HB-BE-164	242.4	29.0	213.4	NE	NE	NE	0.0	242.4	0.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.3	242.1	14.7	15.0	227.4	>14.0	--	--	--	--	--
HB-BE-165	245.0	24.0	221.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0 / 14.0	245.0 / 231.0	16.8	8.8 / 22.0	236.2 / 223.0	>7.2	--	--	--	--	--
HB-BE-166	216.4	22.0	194.4	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	5.0	211.4	5.0	0.0	216.4	5.0	NE	NE	NE	10.0	206.4	>12.0	--	--	--	--	--
HB-BE-167	216.9	17.0	199.9	NE	NE	NE	0.0	216.9	0.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	15.0	201.9	>2.0	0.5	216.4	14.5	--	--	--	--	--
HB-BE-168	220.2	16.5	203.7	NE	NE	NE	0.0	220.2	0.3	NE	NE	NE	NE	NE	NE	2.1	218.1	3.9	0.3 / 6.0	219.9 / 214.2	4.8	NE	NE	NE	9.0	211.2	>7.5	--	--	--	--	--
HB-BE-169	186.4	18.8	167.6	NE	NE	NE	0.0	186.4	3.6	NE	NE	NE	NE	NE	NE	3.6	182.8	2.2	NE	NE	NE	NE	NE	NE	5.8	180.6	11.0	NE	NE	NE	16.8	169.6
HB-BE-201	97.5	63.3	34.2	NE	NE	NE	NE	NE	NE	5.0	92.5	10.0	0.0 / 15.0	97.5 / 82.5	10.0	20.0	77.5	37.6	NE	NE	NE	NE	NE	NE	57.6	39.9	4.9	62.5	35.0	0.8	63.3	34.2
HB-BE-202	81.2	37.0	44.2	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	81.2	31.4	NE	NE	NE	NE	NE	NE	31.4	49.8	1.7	NE	NE	NE	33.1	48.1
HB-BE-203	80.6	29.0	51.6	NE	NE	NE	0.0	80.6	0.5	NE	NE	NE	NE	NE	NE	0.5	80.1	22.3	NE	NE	NE	NE	NE	NE	22.8	57.8	> 6.2	--	--	--	--	--
HB-BE-204	81.5	27.0	54.5	NE	NE	NE	0.0	81.5	0.1	NE	NE	NE	NE	NE	NE	0.1	81.4	21.5	NE	NE	NE	NE	NE	NE	21.6	59.9	> 5.4	--	--	--	--	--
HB-BE-205	83.1	22.0	61.1	NE	NE	NE	0.0	83.1	0.2	NE	NE	NE	NE	NE	NE	0.2	82.9	18.2	NE	NE	NE	NE	NE	NE	18.4	64.7	2.4	NE	NE	NE	20.8	62.3
HB-BE-206	82.3	22.0	60.3	NE	NE	NE	0.0	82.3	0.4	NE	NE	NE	NE	NE	NE	0.4	81.9	16.2	NE	NE	NE	NE	NE	NE	16.6	65.7	3.1	NE	NE	NE	19.7	62.6
HB-BE-207	85.4	22.0	63.4	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	85.4	13.9	NE	NE	NE	NE	NE	NE	13.9	71.5	> 8.1	--	--	--	--	--
HB-BE-208	90.1	20.8	69.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	90.1	13.8	NE	NE	NE	NE	NE	NE	13.8	76.3	7.0	NE	NE	NE	20.8	69.3
HB-BE-209	83.1	23.0	60.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	83.1	16.2	NE	NE	NE	16.2	66.9	3.8	20.0	63.1	0.6	NE	NE	NE	20.6	62.5
HB-BE-210	84.7	25.0	59.7	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	84.7	20.1	NE	NE	NE	NE	NE	NE	20.1	64.6	2.4	NE	NE	NE	22.5	62.2
HB-BE-211	85.8	22.0	63.8	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	85.8	13.9	NE	NE	NE	NE	NE	NE	13.9	71.9	> 8.1	--	--	--	--	--
HB-BE-212	81.6	32.0	49.6	NE	NE	NE	0.0	81.6	0.2	NE	NE	NE	NE	NE	NE	0.2	81.4	23.6	NE	NE	NE	NE	NE	NE	23.8	57.8	> 8.2	--	--	--	--	--
HB-BE-213	81.1	27.9	53.2	NE	NE	NE	0.0	81.1	0.4	NE	NE	NE	NE	NE	NE	0.4	80.7	21.3	NE	NE	NE	NE	NE	NE	21.7	59.4	> 6.2	--	--	--	--	--
HB-BE-214	82.3	19.0	63.3	NE	NE	NE	0.0	82.3	0.1	NE	NE	NE	NE	NE	NE	0.1	82.2	11.2	NE	NE	NE	11.3	71.0	5.7	17.0	65.3	> 2.0	--	--	--	--	--
HB-BE-215	84.3	22.0	62.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	84.3	16.2	NE	NE	NE	NE	NE	NE	16.2	68.1	> 5.8	--	--	--	--	--
HB-BE-216	95.0	17.0	78.0	NE	NE	NE	0.0	95.0	0.3	NE	NE	NE	NE	NE	NE	0.3	94.7	10.3	NE	NE	NE	NE	NE	NE	10.6	84.4	> 6.4	--	--	--	--	--
HB-BE-217	135.1	33.5	101.6	NE	NE	NE	0.0	135.1	2.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	25.0	110.1	1.5	2.0	133.1	23.0	NE	NE	NE	26.5	108.6
HB-BE-218	138.7	30.2	108.5	NE	NE	NE	0.0	138.7	0.4	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	5.0	133.7	17.1	0.4	138.3	4.6	NE	NE	NE	22.1	116.6
HB-BE-219	116.4	12.0	104.4	NE	NE	NE	0.0	116.4	0.2	NE	NE	NE	NE	NE	NE	0.2	116.2	4.4	NE	NE	NE	4.6	111.8	5.4	10.0	106.4	> 2.0	--	--	--	--	--
HB-BE-220	108.3	17.0	91.3	NE	NE	NE	0.0	108.3	0.2	NE	NE	NE	NE	NE	NE	0.2	108.1	9.3	NE	NE	NE	NE	NE	NE	9.5	98.8	> 7.5	--	--	--	--	--
HB-BE-221	77.7	17.0	60.7	NE	NE	NE	0.0	77.7	0.1	NE	NE	NE	NE	NE	NE	0.1	77.6	6.8	NE	NE	NE	NE	NE	NE	6.9	70.8	> 10.1	--	--	--	--	--
HB-BE-222	76.5	30.5	46.0	NE	NE	NE	0.0	76.5	0.2	NE	NE	NE	NE	NE	NE	0.2	76.3	19.5	NE	NE	NE	NE	NE	NE	19.7	56.8	> 10.8	--	--	--	--	--
HB-BE-223	109.1	20.0	89.1	NE	NE	NE	0.0	109.1	0.1	NE	NE	NE	NE	NE	NE	0.1	109.0	15.6	NE	NE	NE	15.7	93.4	1.7	NE	NE	NE	NE	NE	NE	17.4	91.7
HB-BE-223A	109.2	20.0	89.2	NE	NE	NE	0.0	109.2	0.1	NE	NE	NE	NE	NE	NE	0.1	109.1	11.5	NE	NE	NE	NE	NE	NE	11.6	97.6	5.8	NE	NE	NE	17.4	91.8
HB-BE-224	110.7	20.0	90.7	NE	NE	NE	0.0	110.7	0.2	NE	NE	NE	NE	NE	NE	0.2	110.5	12.5	NE	NE	NE	NE	NE	NE	12.7	98.0	5.0	NE	NE	NE	17.7	93.0
HB-BE-224A	114.1	15.0	99.1	NE	NE	NE	0.0	114.1	0.7	NE	NE	NE	NE	NE	NE	0.7	113.4	8.0	NE	NE	NE	NE	NE	NE	8.7	105.4	5.0	NE	NE	NE	13.7	100.4
HB-BE-225	94.6	17.0	77.6	NE	NE	NE	0.0	94.6	0.2	NE	NE	NE	NE	NE	NE	0.2	94.4	10.4	NE	NE	NE	NE	NE	NE	10.6	84.0	> 6.4	--	--	--	--	--
HB-BE-226	97.3	22.0	75.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	97.3	11.1	NE	NE	NE	11.1	86.2	> 10.9	NE	NE	NE	--	--	--	--	--
HB-BE-227	95.8	17.0	78.8	NE	NE	NE	0.0	95.8	0.2	NE	NE	NE	NE	NE	NE	0.2	95.6	9.3	NE	NE	NE	NE	NE	NE	9.5	86.3	> 7.5	--	--	--	--	--
HB-BE-228	171.6	21.0	150.6	NE	NE	NE	0.0	171.6	0.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.3	171.3	10.0	NE	NE	NE	NE	NE	NE	10.3	161.3
HB-BE-229	170.7	17.0	153.7	NE	NE	NE	0.0	170.7	0.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.1	170.6	9.2	NE	NE	NE	NE	NE	NE	9.3	161.4
HB-BE-230	190.1	29.0	161.1	NE	NE	NE	0.0	190.1	0.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.1	190.0	14.5	NE	NE	NE	14.6	175.5	2.9	17.5	172.6
HB-BE-231	202.3	38.3	164.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	202.3	8.0	NE	NE	NE	NE	NE	NE	8.0	194.3
HB-BE-232	196.8	36.0	160.8	NE	NE	NE	0.0	196.8	1.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1.5	195.3	13.7	NE	NE	NE	NE	NE	NE	15.2	181.6
HB-BE-234	208.2	24.2	184.0	NE	NE	NE	0.0	208.2	0.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.1	208.1	14.9	15.0	193.2	8.9	NE	NE	NE	23.9	184.3
HB-BE-235	219.3	29.0	190.3	NE	NE	NE	0.0	219.3	0.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.5	218.8	12.3	NE	NE	NE	NE	NE	NE	12.8	206.5
HB-BE-236	228.5	34.0	194.5	NE	NE	NE	0.0	228.5	0.3	NE	NE	NE	0.3	228.2	2.2	NE	NE	NE	NE	NE	NE	2.5	226.0	7.5	10.0	218.5	3.5	NE	NE	NE	13.5	215.0
HB-BE-237	228.9	29.0	199.9	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	228.9	8.0	NE	NE	NE	NE	NE	NE	8.0	220.9
HB-BE-238	194.7	12.0	182.7	NE	NE	NE	0.0	194.7	0.2	NE	NE	NE	NE	NE	NE	0.2	194.5	3.2	NE	NE	NE	3.4	191.3	6.6	10.0	184.7	>2.0	--	--	--	--	--
HB-BE-239	82.6	30.0	52.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	82.6	25.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	25.3	57.3
HB-BE-240	80.8	33.0	47.8	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	80.8	28.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	28.5	52.3
HB-BE-241	82.1	21.6	60.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	82.1	13.9	NE	NE	NE	13.9	68.2	1.1	15.0	67.1	6.6	NE	NE	NE	21.6	60.5
HB-BE-242	83.5	21.7	61.8	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	83.5	13.9	NE	NE	NE	NE	NE	NE	13.9	69.6	7.8	NE	NE	NE	21.7	61.8
HB-BE-242A	83.4	14.3	69.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	83.4	>14.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HB-BE-243	85.8	30.0	55.8	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	85.8	25.0	NE	NE	NE	NE	NE	NE	25.0	60.8	2.5	NE	NE	NE	27.5	58.3
HB-BE-244	117.6	10.3	107.3	NE	NE	NE	0.0	117.6	0.2	NE	NE	NE	NE	NE	NE	0.2	117.4	3.8	NE	NE	NE	4.0	113.6	4.3	NE	NE	NE	NE	NE	NE	8.3	109.3

Notes:

1 Test boring locations are shown on Figures 4 through 53, Subsurface Exploration Location Plans.

2 Ground surface elevations at test boring locations were determined in the field by MaineDOT using GPS survey equipment.

3 Elevations are measured in feet and reference the North American Vertical Datum of 1988 (NAVD 88).

4 "NE" indicates stratum was not encountered in test boring.

5 "--" indicates test boring was not drilled deep enough to determine presence of stratum.

6 "> 32.8" indicates test boring was not drilled deep enough to determine entire stratum thickness. Actual total stratum thickness greater than value shown.

	Individual	Date
Prepared By:	KAR	1/29/2019
Checked By:	EMS	6/11/2020
Reviewed By:	WAC	6/11/2020
Updated By:	SSM	2/16/2021
Checked By:	LEF	2/16/2021
Reviewed By:	EAF	7/6/2021
Updated By:	TPJ	9/10/2021

TABLE III
Exploration Bedrock Data in Rock Excavation Areas, Sta. 209+00 to 217+00 and Sta. 236+25 to 240+00
Interstate 395 / Route 9 Connector Highway
MaineDOT WIN No. 018915.00
Brewer-Eddington, Maine

Haley & Aldrich, Inc. File No.: 132076-004

Test Boring No.[1]	Core Size (in.)	Existing Ground Surface Elevation (ft)[2,3]	Run						TCR[4]		RQD[5]			Physical Rock Parameters		Lithologic, Rock Mass and Discontinuity Description
			No.	Midpoint Depth Below Bedrock Surface (ft)	Depth Below Ground Surface (ft) Start	End	Midpoint	Length (ft)	Length (ft)	%	Length (ft)	%	Designation	Weathering[6]	Estimated Field Strength[6]	
BB-ECR-101	NQ (1.875")	201.8	R1	2.15	14	16.5	15.25	2.5	2.5	100	0.0	0	Very Poor	Moderate to Highly	Moderate	Grey, aphanitic, PHYLLITE, moderately hard, moderate to highly weathered, discontinuities dipping at low to vertical angles (5 to 90 degrees from horizontal axis), spacing close (1 to 3 ft), discontinuity aperatures are tight, discontinuity surfaces have slight silt infilling and pyrite on joint surfaces.
			R2	5.1	16.5	19.9	18.2	3.4	2.5	73	0.0	0	Very Poor	Moderate to Highly	Moderate	
			R3	8.1	19.9	22.5	21.2	2.6	2.6	100	0.3	13	Very Poor	Moderate to Highly	Moderate	
			R4	10.3	22.5	24.3	23.4	1.8	1.2	64	0.3	18	Very Poor	Moderate to Highly	Moderate	
BB-ECR-102	NQ (1.875")	203.2	R1	2.8	14	16.8	15.4	2.8	2.5	88	0.6	21	Very Poor	Slight to Moderate	Medium Hard	Grey, aphanitic, SILTSTONE, moderately hard, slightly to highly weathered, discontinuities dipping at low to vertical angles (5 to 90 degrees from horizontal axis), spacing very close to close (<2 in. to 3 ft), discontinuity aperatures are tight to open, discontinuity surfaces have slight silt infilling and pyrite on joint surfaces.
			R2	4.8	16.8	18	17.4	1.2	1.2	100	0.0	0	Very Poor	Highly	Hard	
			R3	5.8	18	18.8	18.4	0.8	0.8	100	0.0	0	Very Poor	Slight to Moderate	Moderate	
			R4	6.85	18.8	20.1	19.45	1.3	1.1	88	0.0	0	Very Poor	Slight to Moderate	Moderate	
			R5	8.2	20.1	21.5	20.8	1.4	1.4	100	0.5	35	Poor	Slight to Moderate	Moderate	
			R6	11.4	21.5	26.5	24	5	4.4	88	1.9	38	Poor	Fresh to Slight	Hard to Moderate	Grey, aphanitic, SLATE, moderately hard to hard, fresh to moderately weathered, discontinuities dipping at moderate to steep angles (35 to 90 degrees from horizontal axis), spacing close to moderately close (2 in. to 3 ft), discontinuity aperatures are tight to open. Frequent calcite veins.
			R7	14.85	26.5	28.4	27.45	1.9	1.5	79	0.4	22	Very Poor	Moderate	Hard to Moderate	
BB-ECR-201	NQ (1.875")	200.5	R1	3.95	17	22.3	19.65	5.3	5.0	95	5.3	100	Excellent	Fresh to Slight	Hard to Moderate	Grey, aphanitic, SLATE and SILTSTONE, moderately hard to hard, fresh to moderately weathered, discontinuities dipping at low to steep angles (5 to 85 degrees from horizontal axis), spacing very close to moderately close (<2 in. to 3 ft), discontinuity aperatures are tight to open. Frequent calcite veins.
			R2	9.1	22.3	27.3	24.8	5	5.1	102	5.0	100	Excellent	Fresh	Hard	
			R3	14.05	27.3	32.2	29.75	4.9	4.7	95	3.7	76	Good	Fresh to Slight	Hard	
			R4	19	32.2	37.2	34.7	5	4.4	87	2.2	43	Poor	Slight to Moderate	Hard to Moderate	
			R5	22.95	37.2	40.1	38.65	2.9	2.0	69	1.5	52	Fair	Slight	Hard	
			R6	25.4	40.1	42.1	41.1	2	3.0	150	1.9	96	Excellent	Slight to Moderate	Hard	

Test Boring No.[1]	Core Size (in.)	Existing Ground Surface Elevation (ft)[2,3]	Run						TCR[4]		RQD[5]			Physical Rock Parameters		Lithologic, Rock Mass and Discontinuity Description
			No.	Midpoint Depth Below Bedrock Surface (ft)	Depth Below Ground Surface (ft) Start	End	Midpoint	Length (ft)	Length (ft)	%	Length (ft)	%	Designation	Weathering[6]	Estimated Field Strength[6]	
BB-ECR-202	NQ (1.875")	201.7	R1	4	15	20	17.5	5	3.8	75	0.0	0	Very Poor	Slight to Moderate	Hard to Moderate	Grey, aphanitic, SLATE, to grey-brown, aphanitic METASANDSTONE, moderately hard to hard, fresh to moderately weathered, discontinuities dipping at steep to vertical angles (85 to 90 degrees from horizontal axis), spacing very close to close (<2 in. to 1 ft), discontinuity aperatures are tight to open with oxidized surfaces and calcite coating. Highly fractured zones.
			R2	8.2	20	23.4	21.7	3.4	2.2	66	0.0	0	Very Poor	Slight to Moderate	Moderate	
			R3	11	23.4	25.6	24.5	2.2	2.2	98	0.8	38	Poor	Slight to Moderate	Moderate	
			R4	13.3	25.6	28	26.8	2.4	2.2	90	0.3	14	Very Poor	Slight to Moderate	Moderate	
			R5	15.5	28	30	29	2	2.0	100	0.0	0	Very Poor	Slight	Moderate	
BB-ECR-203	NQ (1.875")	198.7	R1	2.65	15	17.5	16.25	2.5	2.0	80	0.0	0	Very Poor	Slight to Moderate	Moderate	Grey, aphanitic, SLATE, moderately hard, fresh to moderately weathered, discontinuities dipping at low to vertical angles (5 to 90 degrees from horizontal axis), spacing very close to moderately close (<2 in. to 3 ft), discontinuity aperatures are tight to open. Iron stained.
			R2	5.15	17.5	20	18.75	2.5	2.5	100	1.2	47	Poor	Fresh to Slight	Moderate	
BB-ECR-203A	NQ (1.875")	199.1	R1	3.15	15.4	17.9	16.65	2.5	2.5	100	0.0	0	Very Poor	Slight to Moderate	Hard to Moderate	Grey, aphanitic, SILTSTONE, moderately hard to hard, fresh to moderately weathered, discontinuities dipping at low to vertical angles (5 to 90 degrees from horizontal axis), spacing very close to moderately close (<2 in. to 3 ft), discontinuity aperatures are tight to open, discontinuity surfaces are oxidized with few calcite veins. Highly fractured zones.
			R2	5.65	17.9	20.4	19.15	2.5	0.5	20	0.0	0	Very Poor	Slight to Moderate	Hard to Moderate	
			R3	8.45	20.4	23.5	21.95	3.1	3.2	103	1.3	41	Poor	Slight to Moderate	Hard to Moderate	
			R4	11	23.5	25.5	24.5	2	2.0	100	0.8	38	Poor	Slight to Moderate	Hard	
			R5	14.5	25.5	30.5	28	5	4.9	97	3.0	60	Fair	Slight to Moderate	Hard	
			R6	19.05	30.5	34.6	32.55	4.1	3.5	85	2.2	53	Fair	Slight to Moderate	Hard	
			R7	23.6	34.6	39.6	37.1	5	3.4	68	2.6	52	Fair	Fresh to Slight	Hard	
			R8	26.5	39.6	40.4	40	0.8	1.5	188	1.5	188	Excellent	Fresh to Slight	Hard	
BB-ECR-204	NQ (1.875")	202.5	R1	4	7	12	9.5	5	5.0	100	0.9	17	Very Poor	Slight	Hard	Grey, fine to medium grained, METASANDSTONE, hard, slightly weathered, discontinuities dipping at moderate to steep angles (35 to 85 degrees from horizontal axis), spacing very close to close (<2 in. to 1 ft), discontinuity aperatures are tight to open with silt infilling and quartz seams.

Test Boring No.[1]	Core Size (in.)	Existing Ground Surface Elevation (ft)[2,3]	Run						TCR[4]		RQD[5]			Physical Rock Parameters		Lithologic, Rock Mass and Discontinuity Description
			No.	Midpoint Depth Below Bedrock Surface (ft)	Depth Below Ground Surface (ft) Start	End	Midpoint	Length (ft)	Length (ft)	%	Length (ft)	%	Designation	Weathering[6]	Estimated Field Strength[6]	
BB-ECR-204A	NQ (1.875")	202.1	R1	3	15	20	17.5	5	1.2	23	0.9	17	Very Poor	Slight to Moderate	Hard	Grey, aphanitic, SILTSTONE, hard to very hard, slightly to moderately weathered, discontinuities dipping at steep to vertical angles (85 to 90 degrees from horizontal axis), spacing very close to wide (<2 in. to 10 ft), discontinuity aperatures are tight to open, discontinuity surfaces are oxidized with frequent calcite veins. Highly fractured zones.
			R2	6.2	20	21.4	20.7	1.4	1.1	77	0.4	30	Poor	Slight to Moderate	Hard	
			R3	8.7	21.4	25	23.2	3.6	3.5	97	3.5	97	Excellent	Fresh to Slight	Very Hard to Hard	
			R4	12.55	25	29.1	27.05	4.1	3.2	79	1.6	39	Poor	Fresh to Slight	Very Hard to Hard	
			R5	16.8	29.1	33.5	31.3	4.4	4.0	91	4.0	91	Excellent	Fresh to Slight	Very Hard to Hard	
			R6	20.25	33.5	36	34.75	2.5	2.0	80	2.0	80	Good	Fresh to Slight	Very Hard to Hard	
			R7	23.75	36	40.5	38.25	4.5	5.0	111	4.7	104	Excellent	Fresh to Slight	Very Hard to Hard	
			R8	28.5	40.5	45.5	43	5	5.0	100	4.9	98	Excellent	Fresh to Slight	Very Hard to Hard	
BB-ECR-205	NQ (1.875")	203.4	R1	3	15	17	16	2	1.5	75	0.0	0	Very Poor	Slight to Moderate	Hard	Grey, fine to medium grained, METASANDSTONE, hard, slightly to moderately weathered, discontinuities dipping at steep to vertical angles (85 to 90 degrees from horizontal axis), spacing very close to moderately close (<2 in. to 3 ft), discontinuity aperatures are tight to open with silt infilling and quartz seams.
			R2	5.5	17	20	18.5	3	1.9	64	0.0	0	Very Poor	Slight to Moderate	Hard	
			R3	7.65	20	21.3	20.65	1.3	1.2	96	0.0	0	Very Poor	Slight to Moderate	Hard	
			R4	8.7	21.3	22.1	21.7	0.8	0.8	100	0.0	0	Very Poor	Slight to Moderate	Hard	
			R5	9.6	22.1	23.1	22.6	1	1.0	100	0.0	0	Very Poor	Slight to Moderate	Hard	
			R6	11.05	23.1	25	24.05	1.9	1.3	70	1.0	52	Fair	Slight to Moderate	Hard	
			R7	14.5	25	30	27.5	5	4.3	85	3.0	60	Fair	Slight to Moderate	Hard	
			R8	19.5	30	35	32.5	5	4.7	93	1.9	37	Poor	Slight to Moderate	Hard	
BB-ECR-206	NQ (1.875")	200.7	R1	1.05	12	14.1	13.05	2.1	2.0	96	0.0	0	Very Poor	Slight to Moderate	Moderate	Grey, aphanitic, SLATE, moderately hard, slightly to moderately weathered, discontinuities dipping at moderate to vertical angles (35 to 90 degrees from horizontal axis), spacing very close to close (<2 in. to 1 ft), discontinuity aperatures are tight to open. Silt infilling. Highly fractured zones.
			R2	3.1	14.1	16.1	15.1	2	1.5	75	0.0	0	Very Poor	Slight to Moderate	Moderate	
			R3	4.2	16.1	16.3	16.2	0.2	0.0	0	0.0	0	Very Poor	NR	NR	

Test Boring No.[1]	Core Size (in.)	Existing Ground Surface Elevation (ft)[2,3]	Run No.	Run Midpoint Depth Below Bedrock Surface (ft)	Run Depth Below Ground Surface (ft) Start	End	Midpoint	Run Length (ft)	TCR[4] Length (ft)	TCR[4] %	RQD[5] Length (ft)	RQD[5] %	RQD[5] Designation	Physical Rock Parameters Weathering[6]	Estimated Field Strength[6]	Lithologic, Rock Mass and Discontinuity Description
BB-ECR-206A	NQ (1.875")	201	R1	3	25	30	27.5	5	2.5	50	1.5	29	Poor	Fresh to Moderate	Hard to Moderate	Grey, aphanitic, SLATE, moderately hard to hard, fresh to moderately weathered, discontinuities dipping at steep to vertical angles (85 to 90 degrees from horizontal axis), spacing very close to wide (<2 in. to 10 ft), discontinuity aperatures are tight to open. Occasional silt infilling frequent calcite stringers, occasional calcite veins. Highly fractured zones.
			R2	7.1	30	33.2	31.6	3.2	3.0	94	1.0	31	Poor	Fresh to Moderate	Hard to Moderate	
			R3	11.2	33.2	38.2	35.7	5	5.0	100	5.0	100	Excellent	Fresh	Hard	
			R4	16.2	38.2	43.2	40.7	5	4.2	83	3.4	67	Fair	Fresh	Hard	
			R5	20.85	43.2	47.5	45.35	4.3	1.8	41	1.5	35	Fair	Fresh	Hard	
			R6	24.4	47.5	50.3	48.9	2.8	4.3	155	3.0	107	Fair	Fresh to Slight	Hard	
BB-ELER-101	NQ (1.875")	225.0	R1	4.5	16.4	21.3	18.85	4.9	4.6	93	3.7	75	Good	Fresh	Hard	Grey, aphanitic, SILTSTONE, hard, fresh, discontinuities dipping at low to moderate angles (5 to 55 degrees from horizontal axis), spacing very close to close (<2 in. to 12 in.), discontinuity aperatures are tight. Discontinuity surfaces oxidized with occasional calcite coatings. Frequent thin calcite veins and occasional thin quartz veins.
			R2	9.4	21.3	26.3	23.8	5.0	5.0	100	4.3	85	Good	Fresh	Hard	
BB-ELER-102	NQ (1.875")	225.8	R1	3.7	14.5	18.5	16.5	4	3.3	83	0.6	15	Very Poor	Fresh to Slight	Mod. Hard to Hard	Grey, aphanitic, PHYLLITE, moderately hard to hard, fresh to moderately weathered, discontinuities dipping at moderate to steep angles (35 to 85 degrees from horizontal axis), spacing very close to close (<2 in. to 12 in.), discontinuity aperatures are tight to open. Occasional calcite veins, pitting, slightly weathered joint surfaces and fractured zones
			R2	7.6	18.5	22.2	20.4	3.7	3.1	83	0.5	14	Very Poor	Fresh to Moderate	Mod. Hard to Hard	
			R3	11.9	22.2	27.2	24.7	5	4.5	90	1.4	28	Poor	Fresh to Moderate	Mod. Hard to Hard	
			R4	15.9	27.2	30.2	28.7	3	2.6	86	1.2	39	Poor	Fresh to Moderate	Mod. Hard to Hard	
BB-ELER-201	NQ (1.875")	222.7	R1	3.7	21.3	26.3	23.8	5	3.3	65	2.4	48	Poor	Slight	Mod. Hard	Grey, aphanitic, SILTSTONE, moderately hard, slightly weathered, discontinuities dipping at moderate to steep angles (35 to 85 degrees from horizontal axis), spacing very close to close (<2 in. to 12 in.), discontinuity aperatures are tight to open. Discontinuity surfaces oxidized. Frequent calcite veins.
			R2	7.3	26.3	28.5	27.4	2.2	1.7	76	0.3	15	Very Poor	Slight	Mod. Hard	
BB-ELER-202	NQ (1.875")	225.13	R1	2.5	17	21	19	4	3.0	75	0.3	8	Very Poor	Slight to Moderate	Mod. Hard	Grey, aphanitic, SLATE, moderately hard to hard, fresh to moderately weathered, discontinuities dipping at low to steep angles (5 to 85 degrees from horizontal axis), spacing very close to close (<2 in. to 12 in.), discontinuity aperatures are open. Discontinuity surfaces oxidized. Common calcite veins, quartz veins and quartz intrusions up to 3 in. thick.
			R2	6.9	21	25.8	23.4	4.8	3.2	66	2.2	45	Poor	Fresh	Hard	
			R3	11.3	25.8	29.8	27.8	4	4.0	100	3.1	77	Good	Fresh	Hard	
			R4	15.8	29.8	34.8	32.3	5	5.0	100	3.4	67	Fair	Fresh	Hard	
			R5	19.4	34.8	37	35.9	2.2	2.1	96	1.1	49	Poor	Fresh	Hard	
BB-ELER-203	NQ (1.875")	225.64	R1	2.6	15.3	20.3	17.8	5	3.4	67	2.4	47	Poor	Fresh to Slight	Hard	Grey, aphanitic, SILTSTONE, hard, fresh to slightly weathered, discontinuities dipping at moderate angles (35 to 55 degrees from horizontal axis), spacing close (2 in. to 12 in.), discontinuity aperatures are tight. Discontinuity surfaces iron stained. Frequent calcite veins. Frequent calcite veins up to 1 in. thick. Highly fractured from 15.3 to 17.0'.
BB-ELER-204	NQ (1.875")	223.2	R1	4.2	9.9	14.9	12.4	5	4.0	80	1.9	38	Poor	Fresh to Slight	Hard	Grey, aphanitic, SILTSTONE, hard, fresh to slightly weathered, discontinuities dipping at moderate to vertical angles (35 to 90 degrees from horizontal axis), spacing very close to moderate (<2 in. to 36 in.), discontinuity aperatures are tight to open. Occasional calcite veins. Frequent calcite veins up to 1 in. thick. Highly fractured from 12.5 to 13.5'.

Test Boring No.[1]	Core Size (in.)	Existing Ground Surface Elevation (ft)[2,3]	Run						TCR[4]		RQD[5]			Physical Rock Parameters		Lithologic, Rock Mass and Discontinuity Description
			No.	Midpoint Depth Below Bedrock Surface (ft)	Depth Below Ground Surface (ft) Start	End	Midpoint	Length (ft)	Length (ft)	%	Length (ft)	%	Designation	Weathering[6]	Estimated Field Strength[6]	
BB-ELER-205	NQ (1.875")	225.92	R1	2.0	15	18	16.5	3	2.7	89	0.9	31	Poor	Fresh	Mod. Hard	Grey, aphanitic, SLATE, moderately hard to very hard, fresh, discontinuities dipping at low to steep angles (5 to 85 degrees from horizontal axis), spacing very close to close (<2 in. to 12 in.), discontinuity aperatures are tight. Discontinuity surfaces occasionally oxidized. Few to occasional calcite veins and quartz veins up to 1.5 in. thick. Extremely fractured vertical joints from 16.0 to 16.5', 29.5 to 30.0', and 31.0 to 31.7'.
			R2	4.5	18	20	19	2	1.8	92	0.7	33	Poor	Fresh	Mod. Hard to Hard	
			R3	6.8	20	22.6	21.3	2.6	2.3	87	0.3	13	Very Poor	Fresh	Mod. Hard to Hard	
			R4	9.3	22.6	25	23.8	2.4	2.3	97	0.7	31	Poor	Fresh	Mod. Hard to Hard	
			R5	13.0	25	30	27.5	5	5.0	100	2.9	57	Fair	Fresh	Hard to Very Hard	
			R6	18.0	30	35	32.5	5	5.0	100	2.3	45	Poor	Fresh	Hard to Very Hard	
BB-ELER-206	NQ (1.875")	225.05	R1	1.9	11	13.6	12.3	2.6	2.5	96	0.0	0	Very Poor	Slight to Moderate	Mod. Hard to Hard	Grey, aphanitic, SILTSTONE, moderately hard to hard, slightly to moderately weathered, discontinuities dipping at moderate angles (35 to 55 degrees from horizontal axis), spacing very close to close (<2 in. to 12 in.), discontinuity aperatures are tight to open. Few surfaces slightly iron stained few calcite coatings. Frequent thin calcite veins and occasional thin quartz veins. Highly fractured.
			R2	4.4	13.6	16	14.8	2.4	2.0	83	0.0	0	Very Poor	Slight to Moderate	Mod. Hard to Hard	
BB-ELER-206A	NQ (1.875")	224.53	R1	3.0	10	15	12.5	5	4.7	93	2.9	57	Fair	Fresh to Slight	Hard to Very Hard	Grey, aphanitic, SILTSTONE, moderately hard to very hard, fresh to moderately weathered, discontinuities horizontal or dipping at moderate to steep angles (35 to 85 degrees from horizontal axis), spacing very close to moderately close (<2 in. to 36 in.), discontinuity aperatures are tight to open. Discontinuity surfaces slightly oxidized. Occasional calcite veins, few calcite stringers, occasional calcite infilled joints. Intermittent highly fractured zones. Silt infilled joint at 16.0'. Dark grey/black slate bed 2.5 in. thick at 21.0'.
			R2	8.0	15	20	17.5	5	4.4	88	2.7	53	Fair	Fresh to Slight	Hard to Very Hard	
			R3	11.5	20	22	21	2	1.1	54	0.0	0	Very Poor	Slight	Mod. Hard to Hard	
			R4	12.9	22	22.8	22.4	0.8	0.4	52	0.0	0	Very Poor	Fresh	Mod. Hard to Hard	
			R5	14.4	22.8	25	23.9	2.2	2.2	100	0.0	0	Very Poor	Fresh	Mod. Hard to Hard	
			R6	17.5	25	29	27	4	3.2	81	1.7	42	Poor	Fresh to Slight	Mod. Hard to Hard	
			R7	21.1	29	32.2	30.6	3.2	3.0	95	2.4	76	Good	Fresh to Slight	Mod. Hard to Hard	
			R8	23.8	32.2	34.4	33.3	2.2	1.5	68	0.0	0	Very Poor	Fresh to Slight	Mod. Hard to Hard	
			R9	26.2	34.4	37	35.7	2.6	2.1	80	2.1	80	Good	Fresh	Hard	
HB-BE-145	NQ (1.875")	200.6	R1	1.4	11	13.8	12.4	2.8	2.1	76	1.0	35	Poor	Slight to Moderate	Hard	Grey, aphanitic, SILTSTONE, hard, fresh to moderately weathered, discontinuities dipping at low to steep angles (5 to 85 degrees from horizontal axis), spacing very close to close (<2 in. to 12 in.), discontinuity aperatures are tight to open. Occasional calcite veins, pitting, and silt and pyrite coatings on joint surfaces.
			R2	5.1	14	18.2	16.1	4.2	2.5	60	1.4	34	Poor	Slight to Moderate	Hard	
			R3	9.7	18.2	23.2	20.7	5	4.7	93	3.9	77	Good	Fresh to Slight	Hard	
			R4	14.7	23.2	28.2	25.7	5	4.4	88	2.4	47	Poor	Fresh to Moderate	Hard	
			R5	18.6	28.2	31	29.6	2.8	2.0	71	0.8	29	Poor	Fresh to Moderate	Hard	

Test Boring No.[1]	Core Size (in.)	Existing Ground Surface Elevation (ft)[2,3]	Run						TCR[4]		RQD[5]			Physical Rock Parameters		Lithologic, Rock Mass and Discontinuity Description
			No.	Midpoint Depth Below Bedrock Surface (ft)	Depth Below Ground Surface (ft) Start	End	Midpoint	Length (ft)	Length (ft)	%	Length (ft)	%	Designation	Weathering[6]	Estimated Field Strength[6]	
HB-BE-146	NQ (1.875")	197.6	R1	1.1	13.0	15.2	14.1	2.2	0.8	38	0.0	0	Very Poor	Slight to Moderate	Hard	Grey, aphanitic, PHYLLITE, hard, very slightly to severely weathered, discontinuities dipping at low to vertical angles (5 to 90 degrees from horizontal axis), spacing very close to close (<2 in. to 12 in.), discontinuity aperatures are tight to open. Occasional calcite stringers and pitting.
			R2	3.1	15.2	17.0	16.1	1.8	1.5	83	0.8	42	Poor	Very Slight to Moderate	Hard	
			R3	6.0	17.0	21.0	19.0	4.0	1.0	25	0.3	8	Very Poor	Slight to Moderate	Hard	
			R4	8.5	21.0	22.0	21.5	1.0	0.5	50	0.0	0	Very Poor	Moderate to Severe	Hard	
HB-BE-147	NQ (1.875")	202.3	R1	0.2	10	10.4	10.2	0.4	0.3	80	0	0	Very Poor	Moderate	Moderately Hard	Brown, aphanitic, METASILTSTONE, moderately hard, moderately to completely weathered, discontinuities dipping at moderate to near-vertical angles, highly fractured, occasional pitting.
			R2	1.3	10.4	12.2	11.3	1.8	1.4	77	0	0	Very Poor	Moderate	Moderately Hard	
			R3	2.7	12.2	13.2	12.7	1	0.8	75	0	0	Very Poor	Highly to Completely	Moderately Hard	
			R4	4.1	13.2	15	14.1	1.8	0.8	45	0	0	Very Poor	Moderate to Completely	Moderately Hard	
			R5	5.8	15	16.5	15.75	1.5	1.2	83	0	0	Very Poor	Moderate to Completely	Moderately Hard	
			R6	7.3	16.5	18	17.25	1.5	1.5	100	0	0	Very Poor	Moderate to Highly	Moderately Hard	*(R6 bottom 12 inches)* Grey, aphanitic, PHYLLITE, moderately hard, moderately to highly weathered, discontinuities dipping at near-vertical angles, highly fractured, occasional quartz veins.
HB-BE-230	NQ (1.875")	190.1	R1	4.6	20	24.1	22.05	4.1	3.3	81	0.98	24	Very Poor	Moderate to Highly	Moderately Hard	Grey, aphanitic, SILTSTONE, moderately hard, fresh to highly weathered, discontinuities dipping at low to moderate angles (5 to 35 degrees from horizontal axis), spacing close to moderately close (<2 in. to 36 in.), discontinuity aperatures are tight to open. Occasional quartz/calcite veins, pitting. Secondary vertical joints, open.
			R2	9.1	24.1	29	26.55	4.9	4.2	85	3.33	68	Fair	Fresh to Slight	Moderately Hard	
HB-BE-231	NQ (1.875")	202.3	R1	6.5	13	16	14.5	3.0	2.3	75	0.33	11	Very Poor	Slight to Severe	Soft to Hard	Grey, fine to medium-grained, METASANDSTONE, hard to soft, slighly weathered grading to severely weathered. discontinuities dipping at low to steep angles (5 to 85 degrees from horizontal axis), spacing close to moderately close (<2 in. to 36 in.), discontinuity aperatures are open to tight, highly fractured and decomposed, highly oxidized from 15.0 to 16.0 ft.
			R2	9.65	16	19.3	17.65	3.3	1.3	40	0	0	Very Poor	Slight	Soft to Hard	
			R3	13.3	19.3	23.3	21.3	4.0	3.8	94	1.92	48	Poor	Fresh	Hard	
			R4	17.3	23.3	27.3	25.3	4.0	3.2	79	1.76	44	Poor	Fresh	Hard	
			R5	21.3	27.3	31.3	29.3	4.0	3.6	90	2.68	67	Fair	Fresh	Hard	
			R6	27.8	33.3	38.3	35.8	5.0	5.0	100	4.15	83	Good	Fresh	Hard	

Test Boring No.[1]	Core Size (in.)	Existing Ground Surface Elevation (ft)[2,3]	Run						TCR[4]		RQD[5]			Physical Rock Parameters		Lithologic, Rock Mass and Discontinuity Description
			No.	Midpoint Depth Below Bedrock Surface (ft)	Depth Below Ground Surface (ft)			Length (ft)	Length (ft)	%	Length (ft)	%	Designation	Weathering[6]	Estimated Field Strength[6]	
					Start	End	Midpoint									
HB-BE-232	NQ (1.875")	196.8	R1	2.5	16	21	18.5	5.0	4.4	87	3	60	Fair	Fresh to Slight	Hard	Grey, fine to medium-grained, METASANDSTONE, hard, fresh to slightly weathered. discontinuities dipping at low to vertical angles (5 to 90 degrees from horizontal axis), spacing very close to close (<2 in. to 12 in.), discontinuity aperatures are rough, open, tight, undulating,common calcite veins (0.125 to 0.25-in. thick), frequent oxidized joint surfaces. Steep angle secondary joints perpendicular to primary joints, very close to moderately close, planar, smooth, tight. highly fractured zone from 32.0 to 33.0 ft
			R2	7.5	21	26	23.5	5.0	4.7	93	3.6	72	Fair	Fresh to Slight	Hard	
			R3	12.5	26	31	28.5	5.0	4.9	98	3.15	63	Fair	Fresh	Hard	
			R4	17.5	31	36	33.5	5.0	5.0	100	1.75	35	Poor	Fresh	Hard	
HB-BE-235	NQ (1.875")	219.3	R1	3.2	15	17	16	2.0	1.7	83	0.00	0	Very Poor	Slight	Moderately Hard	Grey, aphanitic, SITLSTONE, moderately hard, slightly weathered. discontinuities dipping at moderate to steep angles (35 to 85 degrees from horizontal axis), spacing very close to close (<2 in. to 12 in.), discontinuity aperatures are smooth to rough, tight to open, planar, Calcite/quartz intrusion (1 to 2-in. thick), calcite veins (0.125-in. thick). Highly fractured zone from approximately 25.5 to 27.0 ft
			R2	4.95	17	18.5	17.75	1.5	1.0	67	0.00	0	Very Poor	Slight	Moderately Hard	
			R3	7.35	18.5	21.8	20.15	3.3	1.7	51	0.50	15	Very Poor	Slight	Moderately Hard	
			R4	11.6	21.8	27	24.4	5.2	4.4	85	2.24	43	Poor	Slight	Moderately Hard	
			R5	15.2	27	29	28	2.0	2.0	100	0.84	42	Poor	Slight	Moderately Hard	
HB-BE-236	NQ (1.875")	228.5	R1	3.5	15	19	17	4.0	4.0	100	1.24	31	Poor	Slight	Moderately Hard	Grey, aphanitic, SITLSTONE, moderately hard, fresh to moderately weathered. discontinuities dipping at moderate to steep angles (35 to 85 degrees from horizontal axis), spacing very close to close (<2 in. to 12 in.), discontinuity aperatures are tight to open. Highly fractured zone from approximately 19.5 to 20.0 ft
			R2	8	19	24	21.5	5.0	5.0	100	2.65	53	Fair	Slight	Moderately Hard	
			R3	13	24	29	26.5	5.0	5.0	100	3.40	68	Fair	Fresh	Moderately Hard	
			R4	18	29	34	31.5	5.0	5.0	100	2.25	45	Poor	Moderate	Moderately Hard	
HB-BE-237	NQ (1.875")	228.9	R1	3.75	10	13.5	11.75	3.5	2.8	81	0.00	0	Very Poor	Slight	Moderately Hard	Grey, aphanitic, SITLSTONE, moderately hard to hard, fresh to slightly weathered. discontinuities dipping at low to vertical angles (5 to 90 degrees from horizontal axis), discontinuity aperatures are rough, open to tight, planar to undulating, close, iron staining on some joint surfaces, calcite intrusions/veins. Highly fractured zone from approximately 27.3 to 29.0 ft
			R2	7.5	13.5	17.5	15.5	4.0	2.8	71	1.32	33	Poor	Slight	Moderately Hard	
			R3	11.5	17.5	21.5	19.5	4.0	3.9	98	3.92	98	Excellent	Fresh to Slight	Mod. Hard to Hard	
			R4	15.95	21.5	26.4	23.95	4.9	3.8	78	3.58	73	Fair	Fresh to Slight	Mod. Hard to Hard	
			R5	19.7	26.4	29	27.7	2.6	0.7	26	0.00	0	Very Poor	Slight	Mod. Hard to Hard	

Notes:

[1] Test boring locations are shown on Figures 4 through 53, Subsurface Exploration Location Plan.

[2] Ground surface elevations at test boring locations were determined in the field by MaineDOT using GPS survey equipment.

[3] Elevations are measured in feet and reference the North American Vertical Datum of 1988 (NAVD 88).

[4] TCR = total core recovery. Total core recovery is the length of core recovered divided by the length of the run.

[5] RQD = rock quality designation. RQD is the total length of intact, full diameter core pieces recovered with a length greater than or equal to twice the core diameter (i.e., length of 4 inches) measured along the core axis. The percent RQD is the total length of RQD measured versus the run length. Note that vertical discontinuities are not included in determination of RQD.

[6] Weathering and Estimated Field Strength based on Tables 11.4 and 11.3 (respectively) in Willey, 2004 (based on ISRM, 1981).

	Individual	Date
Prepared By:	KAR	1/29/2019
Checked By:	EMS	6/9/2020
Reviewed By:	EAF	6/11/2020
Updated By:	SSM	4/28/2021
Checked By:	LEF	4/28/2021
Reviewed By:	EAF	7/7/2021

TABLE IV
Exploration Location Data for Lighting/Signs
Interstate 395 / Route 9 Connector Highway
MaineDOT WIN No. 018915.00
Brewer-Eddington, Maine

Haley & Aldrich, Inc. File No.: 132076-007

Test Boring No.[1]	Ground Surface Elevation (ft)[3,4]	Station[5]	Offset Distance (ft) & Direction[5]	Coordinates[2]	
				Northing	Easting
HB-BE-301	129.0	26+48.5	17.1 RT	462,484	1,743,333
HB-BE-302	130.8	600+08.7[9]	18.4 RT	462,429	1,743,349
HB-BE-303	127.0	2003+00.5[12]	49.2 LT	462,622	1,743,448
HB-BE-304	126.1	2004+25.1[12]	50.7 LT	462,670	1,743,561
HB-BE-305	124.9	2005+50.0[12]	55.2 LT	462,726	1,743,669
HB-BE-306	123.9	2006+74.9[12]	59.4 LT	462,787	1,743,774
HB-BE-307	123.4	2008+00.4[12]	65.4 LT	462,855	1,743,880
HB-BE-308	123.4	2009+24.3[12]	74.7 LT	462,925	1,743,982
HB-BE-309	129.6	602+49.4[9]	13.1 RT	462,515	1,743,576
HB-BE-310	126.5	30+07.9	18.8 RT	462,613	1,743,671
HB-BE-311	127.5	604+99.7[9]	14.6 RT	462,622	1,743,804
HB-BE-312	124.2	32+52.9	13.6 RT	462,732	1,743,887
HB-BE-313	124.4	607+55.7[9]	12.1 RT	462,753	1,744,024
HB-BE-314	122.9	35+03.3	15.7 RT	462,864	1,744,100
HB-BE-315	123.0	610+00.3[9]	7.9 RT	462,886	1,744,230
HB-BE-316	120.4	37+48.5	8.1 RT	462,999	1,744,305
HB-BE-317	120.8	612+50.5[9]	13.5 RT	463,012	1,744,446
HB-BE-318	119.0	39+44.4	0.9 RT	463,107	1,744,468
HB-BE-319	120.4	41+26.1	40.6 RT	463,168	1,744,644
HB-BE-320	117.3	2016+74.0[12]	38.7 LT	463,270	1,744,649
HB-BE-321	119.6	42+49.3	37.4 RT	463,235	1,744,747
HB-BE-322	115.9	3020+81.2[10]	19.3 RT	463,339	1,744,759
HB-BE-323	117.0	43+75.2	16.1 RT	463,319	1,744,844
HB-BE-324	116.7	3019+58.6[10]	27.5 RT	463,413	1,744,855
HB-BE-325	116.0	45+44.3	8.5 LT	463,428	1,744,976
HB-BE-326	113.6	46+77.0	30.3 RT	463,464	1,745,109
HB-BE-327	105.6	48+15.8	44.1 RT	463,525	1,745,234
HB-BE-328	96.6	52+43.7	34.1 RT	463,756	1,745,594
HB-BE-329	125.6	908+95.4[11]	11.8 LT	464,104	1,745,333
HB-BE-330	125.3	718+88.1[7]	2.5 LT	463,365	1,745,813
HB-BE-331	81.4	56+39.3	22.8 RT	463,972	1,745,926
HB-BE-332	81.5	902+45.2[11]	13.7 RT	464,050	1,745,907
HB-BE-333	81.8	705+00.3[7]	15.9 RT	463,962	1,746,051
HB-BE-334	80.9	901+31.0[11]	19.2 RT	464,105	1,746,007
HB-BE-335	80.8	900+00.0[11]	15.8 RT	464,165	1,746,122
HB-BE-336	83.1	60+23.5	41.8 LT	464,228	1,746,220
HB-BE-337	85.7	810+30.2[8]	15.7 RT	464,016	1,746,361
HB-BE-338	85.6	811+46.1[8]	18.4 RT	464,124	1,746,381
HB-BE-339	84.4	61+58.4	46.2LT	464,302	1,746,333
HB-BE-340	85.0	62+00.4	29.5 RT	464,259	1,746,408
HB-BE-341	119.6	118+94.6	92.4 LT	468,941	1,749,509
HB-BE-342	215.5	325+03.0	21.1 LT	480,799	1,764,227
HB-BE-343	202.5	6004+65.0[12]	29.3 LT	481,048	1,764,383
HB-BE-344	209.9	326+34.5	44.5 LT	480,789	1,764,360
HB-BE-345	205.9	327+49.2	38.3 LT	480,754	1,764,469
HB-BE-346	90.6	711+00.7[7]	10.6 LT	463,614	1,746,415
HB-BE-347	90.5	807+46.4[8]	11.0 RT	463,754	1,746,448

TABLE IV
Exploration Location Data for Lighting/Signs
Interstate 395 / Route 9 Connector Highway
MaineDOT WIN No. 018915.00
Brewer-Eddington, Maine

Haley & Aldrich, Inc. File No.: 132076-007

Test Boring No.[1]	Ground Surface Elevation (ft)[3,4]	Station[5]	Offset Distance (ft) & Direction[5]	Coordinates[2]	
				Northing	Easting
HB-BE-348	89.3	708+87.5[7]	11.9 RT	463,809	1,746,368
HB-BE-349	88.1	809+01.9[8]	14.7 RT	463,896	1,746,384
HB-BE-350	85.4	707+56.6[7]	16.2 RT	463,899	1,746,281
HB-BE-351	124.1	522+99.5[6]	24.5 LT	463,301	1,745,922
HB-BE-352	122.1	524+21.7[6]	22.6 LT	463,238	1,746,031
HB-BE-353	115.9	526+79.7[6]	21.6 LT	463,109	1,746,251

Notes:

[1] Test boring locations are shown on Figures 4 through 53, Subsurface Exploration Location Plans.

[2] As-drilled coordinates of test borings were determined by MaineDOT using GPS survey equipment, are measured in feet and reference NAD83, Maine 2000 Central Zone coordinate system.

[3] Ground surface elevations at test boring locations were determined in the field by MaineDOT using GPS survey equipment.

[4] Elevations are measured in feet and reference the North American Vertical Datum of 1988 (NAVD 88).

[5] Station and offset information determined by Haley & Aldrich. Unless otherwise noted, station and offset reference connector road baseline.

[6] Station and offset reference Wilson Street baseline.

[7] Station and offset reference Ramp E baseline.

[8] Station and offset reference Ramp F baseline.

[9] Station and offset reference Ramp A baseline.

[10] Station and offset reference Ramp C baseline.

[11] Station and offset reference Ramp D baseline.

[12] Station and offset reference I-395 Westbound baseline.

	Individual	Date
Prepared By:	SSM	5/23/2021
Checked By:	LEF	5/23/2021
Reviewed By:	EAF	7/6/2021

TABLE V
Exploration Subsurface Data for Lighting/Signs
Interstate 395 / Route 9 Connector Highway
MaineDOT WIN No. 018915.00
Brewer-Eddington, Maine

Haley & Aldrich, Inc. File No.: 132076-007

Test Boring No.[1]	Ground Surface Elevation (ft)[2,3]	Total Exploration Depth (ft)	El. Bottom of Exploration	Bituminous Concrete[4]			Topsoil[4]			Organic Deposit[4]			Fill[4]					
													Cohesive			Granular		
				Depth to Top	El. of Top[2,3]	Thickness	Depth to Top	El. of Top[2,3]	Thickness	Depth to Top	El. of Top[2,3]	Thickness	Depth to Top	El. of Top[2,3]	Thickness[6]	Depth to Top	El. of Top[2,3]	Thickness[6]
				(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
HB-BE-301	129.0	22.0	107.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	129.0	2.8
HB-BE-302	130.8	22.0	108.8	NE	NE	NE	0.0	130.8	0.3	NE	NE	NE	NE	NE	NE	0.3	130.5	4.5
HB-BE-303	127.0	22.0	105.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	127.0	3.2
HB-BE-304	126.1	22.0	104.1	0.0	126.1	0.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.3	125.8	3.5
HB-BE-305	124.9	22.0	102.9	0.0	124.9	0.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.1	124.8	4.4
HB-BE-306	123.9	22.0	101.9	0.0	123.9	0.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.1	123.8	4.0
HB-BE-307	123.4	22.0	101.4	0.0	123.4	0.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.1	123.3	4.4
HB-BE-308	123.4	22.0	101.4	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	123.4	4.8
HB-BE-309	129.6	22.0	107.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	129.6	5.0
HB-BE-310	126.5	22.0	104.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	126.5	3.8
HB-BE-311	127.5	22.0	105.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	127.5	5.0
HB-BE-312	124.2	22.0	102.2	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	124.2	4.0
HB-BE-313	124.4	21.7	102.7	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	124.4	3.5
HB-BE-314	122.9	22.0	100.9	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	122.9	3.3
HB-BE-315	123.0	22.0	101.0	0.0	123.0	0.4	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.4	122.6	2.9
HB-BE-316	120.4	22.0	98.4	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	120.4	0.2	0.2	120.2	2.3
HB-BE-317	120.8	22.0	98.8	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	120.8	3.3
HB-BE-318	119.0	22.0	97.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	119.0	0.4	0.4	118.6	3.1
HB-BE-319	120.4	22.0	98.4	0.0	120.4	0.4	NE	NE	NE	NE	NE	NE	4.5	115.9	1.0	0.4	120.0	4.1
HB-BE-320	117.3	22.0	95.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	117.3	0.8	0.8	116.5	3.7
HB-BE-321	119.6	22.0	97.6	0.0	119.6	0.4	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.4	119.2	4.1
HB-BE-322	115.9	22.0	93.9	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	115.9	1.5
HB-BE-323	117.0	24.0	93.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0/4.2	117.0/112.8	0.3/1.9	0.3	116.7	3.9
HB-BE-324	116.7	22.0	94.7	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	116.7	5.5
HB-BE-325	116.0	22.0	94.0	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0/10.0	116.0/106.0	0.3/3.0	0.3	115.7	9.7
HB-BE-326	113.6	22.0	91.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.3	113.3	10.5	0.0	113.6	0.3
HB-BE-327	105.6	22.0	83.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	105.6	0.8
HB-BE-328	96.6	22.0	74.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0	96.6	5.0	NE	NE	NE
HB-BE-329	125.6	22.0	103.6	0.0	125.6	0.3	NE	NE	NE	NE	NE	NE	1.6	124.0	19.9	0.3/21.5	125.3/104.1	1.3/>0.5
HB-BE-330	125.3	22.0	103.3	0.0	125.3	0.4	NE	NE	NE	NE	NE	NE	2.8	122.5	>19.2	0.4	124.9	2.4
HB-BE-331	81.4	22.0	59.4	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-332	81.5	22.0	59.5	NE	NE	NE	0.0	81.5	0.3	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-333	81.8	22.0	59.8	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-334	80.9	22.0	58.9	NE	NE	NE	0.0	80.9	0.4	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-335	80.8	21.1	59.7	NE	NE	NE	0.0	80.8	0.4	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-336	83.1	20.4	62.7	NE	NE	NE	0.0	83.1	0.3	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-337	85.7	22.0	63.7	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-338	85.6	22.0	63.6	NE	NE	NE	0.0	85.6	0.2	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-339	84.4	21.5	62.9	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-340	85.0	22.0	63.0	NE	NE	NE	0.0	85.0	0.1	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-341	119.6	22.0	97.6	NE	NE	NE	0.0	119.6	0.3	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-342	215.5	21.2	194.3	NE	NE	NE	0.0	215.5	0.3	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-343	202.5	22.5	180.0	NE	NE	NE	0.0	202.5	0.4	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-344	209.9	22.0	187.9	NE	NE	NE	0.0	209.9	0.1	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-345	205.9	22.0	183.9	NE	NE	NE	0.0	205.9	0.1	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-346	90.6	21.6	69.0	NE	NE	NE	0.0	90.6	0.2	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-347	90.5	20.4	70.1	NE	NE	NE	0.0	90.5	0.1	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-348	89.3	22.0	67.3	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-349	88.1	22.0	66.1	NE	NE	NE	0.0	88.1	0.1	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-350	85.4	20.0	65.4	NE	NE	NE	0.0	85.4	0.2	NE	NE	NE	NE	NE	NE	NE	NE	NE
HB-BE-351	124.1	21.2	102.9	0.0	124.1	0.4	NE	NE	NE	NE	NE	NE	2.3	121.8	>18.9	0.4	123.7	1.9
HB-BE-352	122.1	22.0	100.1	0.0	122.1	0.4	NE	NE	NE	NE	NE	NE	2.3	119.8	>19.7	0.4	121.7	1.9
HB-BE-353	115.9	22.0	93.9	0.0	115.9	0.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.5	115.4	>21.5

Test Boring No.[1]	Marine Deposit[4]						Glacial Till[4]						Weathered Bedrock[4]			Bedrock[4]	
	Cohesive			Granular			Cohesive			Granular							
	Depth to Top	El. of Top[2,3]	Thickness[5,6]	Depth to Top	El. of Top[2,3]	Thickness[5]	Depth to Top	El. of Top[2,3]	Thickness[5,6]	Depth to Top	El. of Top[2,3]	Thickness[5,6]	Depth to Top	El. of Top[2,3]	Thickness[5]	Depth to Top	El. of Top[2,3]
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
HB-BE-301	NE	NE	NE	NE	NE	NE	2.8	126.2	>19.2	NE	NE	NE	--	--	--	--	--
HB-BE-302	NE	NE	NE	NE	NE	NE	4.8	126.0	>17.2	NE	NE	NE	--	--	--	--	--
HB-BE-303	NE	NE	NE	NE	NE	NE	3.2	123.8	>18.8	NE	NE	NE	--	--	--	--	--
HB-BE-304	NE	NE	NE	NE	NE	NE	3.8	122.3	>18.2	NE	NE	NE	--	--	--	--	--
HB-BE-305	NE	NE	NE	NE	NE	NE	4.5	120.4	>17.5	NE	NE	NE	--	--	--	--	--
HB-BE-306	NE	NE	NE	NE	NE	NE	4.1	119.8	>17.9	NE	NE	NE	--	--	--	--	--
HB-BE-307	NE	NE	NE	NE	NE	NE	4.5	118.9	>17.5	NE	NE	NE	--	--	--	--	--
HB-BE-308	NE	NE	NE	NE	NE	NE	4.8	118.6	>17.2	NE	NE	NE	--	--	--	--	--
HB-BE-309	NE	NE	NE	NE	NE	NE	5.0	124.6	>17.0	NE	NE	NE	--	--	--	--	--
HB-BE-310	NE	NE	NE	NE	NE	NE	3.8	122.7	>18.2	NE	NE	NE	--	--	--	--	--
HB-BE-311	NE	NE	NE	NE	NE	NE	5.0	122.5	>17.0	NE	NE	NE	--	--	--	--	--
HB-BE-312	NE	NE	NE	NE	NE	NE	4.0	120.2	>18.0	NE	NE	NE	--	--	--	--	--
HB-BE-313	NE	NE	NE	NE	NE	NE	3.5	120.9	>18.2	NE	NE	NE	--	--	--	--	--
HB-BE-314	NE	NE	NE	NE	NE	NE	3.3	119.6	>18.7	NE	NE	NE	--	--	--	--	--
HB-BE-315	NE	NE	NE	NE	NE	NE	3.3	119.7	>18.7	NE	NE	NE	--	--	--	--	--
HB-BE-316	NE	NE	NE	NE	NE	NE	2.5	117.9	>19.5	NE	NE	NE	--	--	--	--	--
HB-BE-317	3.3	117.5	3.4	NE	NE	NE	6.7	114.1	>15.3	NE	NE	NE	--	--	--	--	--
HB-BE-318	3.5	115.5	6.5	NE	NE	NE	10.0	109.0	>12.0	NE	NE	NE	--	--	--	--	--
HB-BE-319	5.5	114.9	4.5	NE	NE	NE	10.0	110.4	>12.0	NE	NE	NE	--	--	--	--	--
HB-BE-320	4.5	112.8	5.5	NE	NE	NE	10.0	107.3	>12.0	NE	NE	NE	--	--	--	--	--
HB-BE-321	NE	NE	NE	4.5	115.1	3.5	8.0	111.6	>14.0	NE	NE	NE	--	--	--	--	--
HB-BE-322	1.5	114.4	8.8	NE	NE	NE	10.3	105.6	>11.7	NE	NE	NE	--	--	--	--	--
HB-BE-323	NE	NE	NE	NE	NE	NE	6.1	110.9	>17.9	NE	NE	NE	--	--	--	--	--
HB-BE-324	5.5	111.2	4.9	NE	NE	NE	10.4	106.3	>11.6	NE	NE	NE	--	--	--	--	--
HB-BE-325	NE	NE	NE	NE	NE	NE	13.0	103.0	>9.0	NE	NE	NE	--	--	--	--	--
HB-BE-326	NE	NE	NE	NE	NE	NE	10.8	102.8	>11.2	NE	NE	NE	--	--	--	--	--
HB-BE-327	0.8	104.8	5.2	NE	NE	NE	6.0	99.6	>16.0	NE	NE	NE	--	--	--	--	--
HB-BE-328	5.0 / 15.0	91.6 / 81.6	5.0 / 1.4	10.0	86.6	5.0	16.4	80.2	>5.6	NE	NE	NE	--	--	--	--	--
HB-BE-329	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HB-BE-330	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HB-BE-331	0.0	81.4	>22	NE	NE	NE	NE	NE	NE	NE	NE	NE	--	--	--	--	--
HB-BE-332	0.3	81.2	>21.7	NE	NE	--	--	--	--	--	--	NE	--	--	--	--	--
HB-BE-333	0.0	81.8	17.1	NE	NE	NE	NE	NE	NE	17.1	64.7	>4.9	--	--	--	--	--
HB-BE-334	0.4	80.5	20.7	NE	NE	NE	NE	NE	NE	21.1	59.8	>0.9	--	--	--	--	--
HB-BE-335	0.4	80.4	16.3	NE	NE	NE	NE	NE	NE	16.7	64.1	3.4	NE	NE	NE	20.1	60.7
HB-BE-336	0.3	82.8	17.8	NE	NE	NE	NE	NE	NE	18.1	65.0	>2.3	--	--	--	--	--
HB-BE-337	0.0	85.7	14.7	NE	NE	NE	NE	NE	NE	14.7	71.0	3.6	82.1	18.3	3.3	21.6	64.1
HB-BE-338	0.2	85.4	17.2	NE	NE	NE	NE	NE	NE	17.4	68.2	2.1	NE	NE	NE	19.5	66.1
HB-BE-339	0.0	84.4	17.7	NE	NE	NE	NE	NE	NE	17.7	66.7	>3.8	--	--	--	--	--
HB-BE-340	0.1	84.9	15.7	NE	NE	NE	15.8	69.2	4.2	20.0	65.0	>2.0	--	--	--	--	--
HB-BE-341	0.3	119.3	9.7	NE	NE	NE	20.0	99.6	>2.0	10.0	109.6	10.0	--	--	--	--	--
HB-BE-342	NE	NE	NE	NE	NE	NE	5.0	210.5	15.0	0.3 / 20.0	215.2 / 195.5	4.7 / >1.2	--	--	--	--	--
HB-BE-343	NE	NE	NE	NE	NE	NE	0.4 / 10.0	202.1 / 192.5	4.6 / 5.0	5.0 / 15.0	197.5 / 187.5	5.0 / 2.2	NE	NE	NE	17.2	185.3
HB-BE-344	NE	NE	NE	NE	NE	NE	0.1 / 10.0	209.8 / 199.9	4.9 / >12.0	5.0	204.9	5.0	--	--	--	--	--
HB-BE-345	NE	NE	NE	NE	NE	NE	0.1 / 10.0	205.8 / 195.9	4.9 / >12.0	5.0	200.9	5.0	--	--	--	--	--
HB-BE-346	0.2	90.4	11.0	NE	NE	NE	NE	NE	NE	11.2	79.4	>10.4	--	--	--	--	--
HB-BE-347	0.1	90.4	13.6	NE	NE	NE	NE	NE	NE	13.7	76.8	>6.7	--	--	--	--	--
HB-BE-348	0.0	89.3	13.1	NE	NE	NE	20.0	69.3	>2.0	13.1	76.2	6.9	--	--	--	--	--
HB-BE-349	0.1	88.0	11.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	11.6	76.5	0.4	12.0	76.1
HB-BE-350	0.2	85.2	12.7	NE	NE	NE	NE	NE	NE	12.9	72.5	5.8	NE	NE	NE	18.7	66.7
HB-BE-351	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HB-BE-352	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HB-BE-353	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
1 Test boring locations are shown on Figures 4 through 53, Subsurface Exploration Location Plans.
2 Ground surface elevations at test boring locations were determined in the field by MaineDOT using GPS survey equipment.
3 Elevations are measured in feet and reference the North American Vertical Datum of 1988 (NAVD 88).
4 "NE" indicates stratum was not encountered in test boring.
5 "--" indicates test boring was not drilled deep enough to determine presence of stratum.
6 "> 32.8" indicates test boring was not drilled deep enough to determine entire stratum thickness. Actual total stratum thickness greater than value shown.

	Individual	Date
Prepared By:	SSM	5/24/2021
Checked By:	LEF	5/24/2021
Reviewed By:	EAF	7/6/2021

TABLE VI
Results of Area 1, 2 and 4 Settlement and Global Stability Evaluations
Interstate 395 / Route 9 Connector Highway
MaineDOT WIN No. 018915.00
Brewer-Eddington, Maine

Haley & Aldrich, Inc. File No.: 132076-007

Area	Baseline	Station	Explorations Used	Marine Clay Thickness Range (ft)	Estimated Embankment Height at CL (ft)	Estimated Maximum Embankment Height (ft)	Max. Height Stage 1 Fill to Meet Temp Global Stability (ft)	Temporary Global Stability FS; Static[5]	Post-Construction Settlement Criteria[15]	Stage 1 Preload/ Surcharge Height (ft)	LWF Thickness Required to Meet Post-Con. Settlement Requirement (ft)	Permanent Global Stability FS; Static / Pseudo-Static[6]	LWF Thickness Required to Meet Permanent Global Stability	Over-Excavation Depth for LWF (ft)	Anticipated Magnitude of Settlement During Preload/ Surcharge Period (in.)	Anticipated Post-Construction Settlement (in.)	One Stage or Two Stage	What Controls Design
1	Mainline	52+00	HB-BE-201, HB-BE-202, HB-BE-328	17 - 31.4	8	8	Note 8	Note 8	Highway	8	Note 12	Note 8	Note 8	NA	2 - 6.2	0-20 yrs: 2.9 20-75 yrs: 0.9	One	Note 14
1	Mainline	53+00	HB-BE-101, BB-BFB-101, BB-BFB-202	34.5 - 41.8	21.4	21.4	14	1.17	Bridge Approach	14	11	1.62 / 1.28	Note 13	5.5	17.7-21.1	0-5 yrs: 2 5-20 yrs: 1.2 20-75 yrs: 1.2	Two	Temp global stability limits Stage 1 height, Stage 2 LWF needed to achieve post-con settlement req's
1	Mainline	56+50	HB-BE-204	30	15.5	15.5	Note 7	1.23	Bridge Approach	17.5	Note 12	1.47 / 1.19	Note 13	NA	15.4	0-5 yrs: 1.9 5-20 yrs: 0.9 20-75 yrs: 0.8	One	Note 14
1	Mainline	59+00	HB-BE-108, HB-BE-204, HB-BE-205	17.2 - 21.6	13.2	13.2	Note 7	1.71	Highway	11.2	Note 12	Note 15	Note 15	NA	2.7-6.2	0-20 yrs: 3.1 20-75 yrs: 0.6	One	Note 14
1	Mainline	63+00	HB-BE-109, BB-BFB1-203	15.5 - 30.5	16.7	16.7	Note 7	1.3	Highway	16.7	Note 12	1.55 / 1.26	Note 13	NA	2.5-15.1	0-20 yrs: 4.0 20-75 yrs: 0.8	One	Note 14
1	Mainline	Felts Brook Trib 64+00	BB-BFB1-201, BB-BFB1-202, BB-BFB1-203	15.8 - 30.5	19.3	19.3	Note 8	Note 8	Box Culvert	19.3	Full Height	Note 8	Note 8	5	Note 10	0-100 yrs: 2.0	Note 10	Note 10
1	Mainline	65+50	HB-BE-212	23.8	19.5	19.5	17	1.15	Highway	17	Note 12	Note 8	Note 8	NA	10	0-20 yrs: 3.9 20-75 yrs: 0.5	One	Note 14
1	Mainline	Highway Culvert 66+75	BB-BFB1-101, HB-BE-213, HB-BE-214, HB-BE-204	11.3 - 26.8	21.5	21.5	Note 8	Note 8	Highway	21.5	Full Height	Note 8	Note 8	3	Note 10	0-20 yrs: 4.0 20-75 yrs: 0.7	Note 10	Note 10
1	Mainline	68+00	BB-BFB1-101	16.4	21.9	21.9	19	1.18	Highway	19	Note 12	Note 8	Note 8	NA	4.5	0-20 yrs: 2.3 20-75 yrs: 0.4	One	Note 14
1	Mainline	71+00	HB-BE-111	12	17	17	Note 7	1.7	Highway	15	Note 12	Note 8	Note 8	NA	Note 9	Note 9	One	Note 14
1	Mainline	Snowmobile 10C 77+00	BB-BST1-201	23.1	19.2	19.2	Note 7	1.24	Box Culvert	19.2	5	1.79 / 1.52	Note 13	7	7.2	0-100 yrs: 2.0	Two	Settlement
1	Ramp D	907+00	HB-BE-202, HB-BE-203, HB-BE-239	22.8 - 31.4	33.1	33.1	19	1.17	Highway	19	15	1.56 / 1.29	Note 13	2.5	11.6-18.4	0-20 yrs: 4.0 20-75 yrs: 0.9	Two	Temp global stability limits Stage 1 height, Stage 2 LWF needed to achieve post-con settlement req's
1	Ramp D	908+50	HB-BE-202, HB-BE-203, HB-BE-239	22.8 - 31.4	11.5	11.5	Note 8	Note 8	Highway	11.5	Note 12	Note 8	Note 8	NA	4.3-5.9	0-20 yrs: 2.9 20-75 yrs: 0.9	One	Note 14
1	Ramp E	710+00	HB-BE-208	14	13.5	13.5	Note 7	2.25	Highway	13.5	Note 12	Note 8	Note 8	NA	Note 9	Note 9	One	Note 14
1	Ramp E	712+00	HB-BE-105, HB-BE-208, HB-BE-210	13.8 - 20.1	21	21	Note 7	1.42	Highway	19	Note 12	1.74 / 1.49	Note 13	NA	2.5-4.8	0-20 yrs: 2.5 20-75 yrs: 0.5	One	Note 14
1	Ramp E	713+50	HB-BE-210	20.1	31.3	31.3	20	1.16	Highway	20	3.5	1.34 / 1.16	Note 13	0	5.1	0-20 yrs: 4.0 20-75 yrs: 0.6	Two	Temp global stability limits Stage 1 height, Stage 2 LWF needed to achieve post-con settlement req's
1	Ramp F	801+00	BB-BWS-301, HB-BE-242, HB-BE-242A, HB-BE-243	13.9 - 25	15.5	15.5	Note 8	Note 8	Highway	13.5	Note 12	Note 8	Note 8	NA	1.1-4.6	0-20 yrs: 2.5 20-75 yrs: 0.7	One	Note 14
1	Ramp F	802+00	HB-BE-243	25	31	31	20	1.19	Highway	20	3.5	1.34 / 1.16	Note 13	NA	Note 9	Note 9	Two	Temp global stability limits Stage 1 height, Stage 2 LWF needed to achieve post-con settlement req's

TABLE VI
Results of Area 1, 2 and 4 Settlement and Global Stability Evaluations
Interstate 395 / Route 9 Connector Highway
MaineDOT WIN No. 018915.00
Brewer-Eddington, Maine

Haley & Aldrich, Inc. File No.: 132076-007

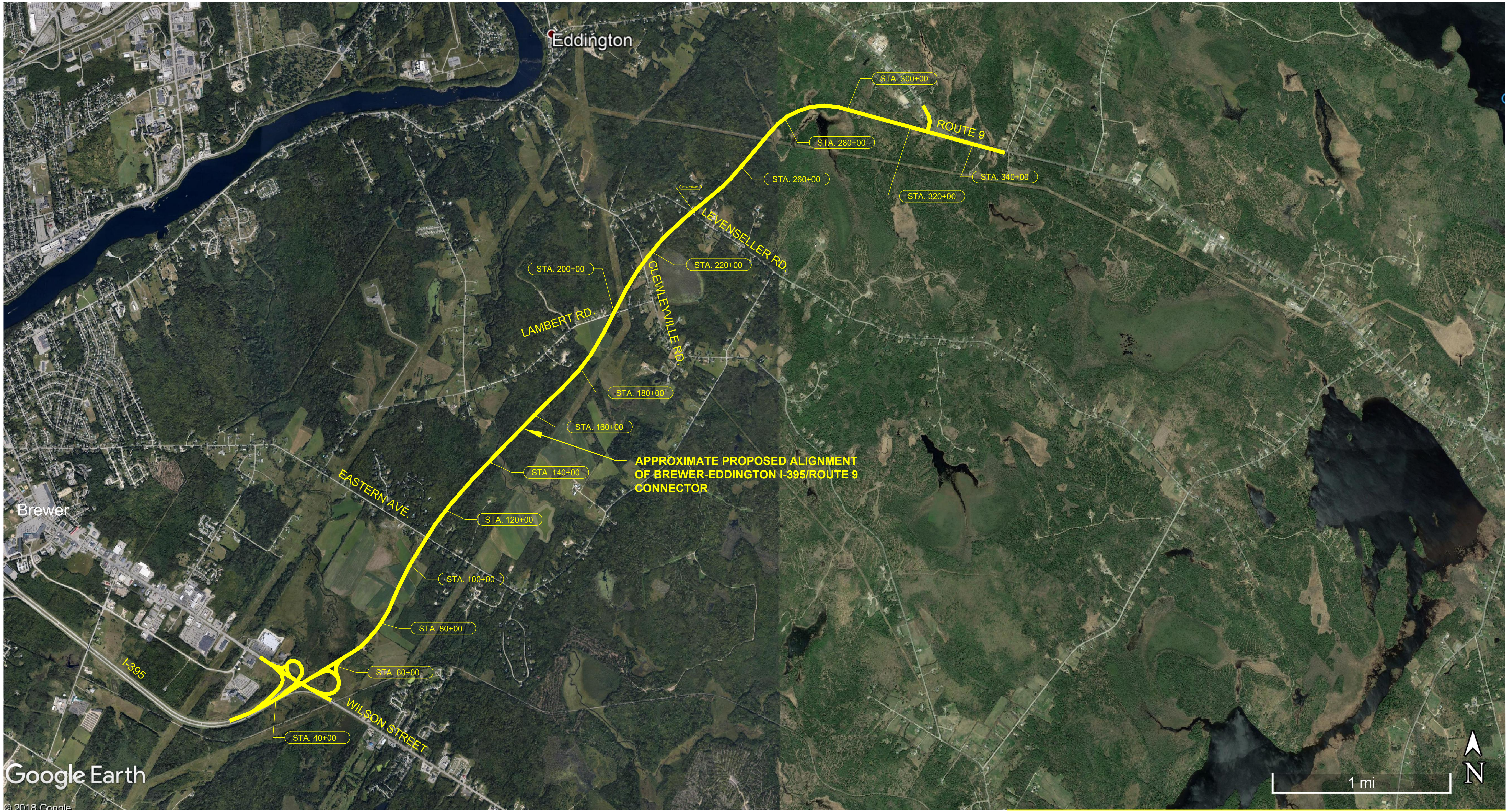
Area	Baseline	Station	Explorations Used	Marine Clay Thickness Range (ft)	Estimated Embankment Height at CL (ft)	Estimated Maximum Embankment Height (ft)	Max. Height Stage 1 Fill to Meet Temp Global Stability (ft)	Temporary Global Stability FS; Static[5]	Post-Construction Settlement Criteria[15]	Stage 1 Preload/ Surcharge Height (ft)	LWF Thickness Required to Meet Post-Con. Settlement Requirement (ft)	Permanent Global Stability FS; Static / Pseudo-Static[6]	LWF Thickness Required to Meet Permanent Global Stability	Over-Excavation Depth for LWF (ft)	Anticipated Magnitude of Settlement During Preload/ Surcharge Period (in.)	Anticipated Post-Construction Settlement (in.)	One Stage or Two Stage	What Controls Design
2	Mainline	140+00 longitudinal	BB-BEB-202	18.2	18	18	15	1.17	Bridge Approach	15	Note 12	1.54 / 1.26	5	4	9.1	0-5 yrs: 1.2 5-20 yrs: 0.5 20-75 yrs: 0.5	Two	Permanent global stability
2	Mainline	142+00 longitudinal	HB-BE-222	19.7	14	14	Note 7	1.16	Bridge Approach	14	Note 12	1.60 / 1.37	4	6	8.4	0-5 yrs: 0.2 5-20 yrs: 0.6 20-75 yrs: 0.5	Two	Permanent global stability
2	Mainline	143+00	CPT-116	16.7	10.1	10.1	Note 8	Note 8	Bridge Approach	10.1	Note 12	Note 8	Note 8	NA	5.2	0-5 yrs: 1.4 5-20 yrs: 0.5 20-75 yrs: 0.5	One	Note 14
4	Mainline	180+50	HB-BE-135	28.3	30	30	12.5	1.18	Highway	12.5	20.5	1.71 / 1.29	Note 13	4	20.3	0-20 yrs: 4.0 20-75 yrs: 0.8	Two	Temp global stability limits Stage 1 height, Stage 2 LWF needed to achieve post-con settlement req's
4	Mainline	181+50	Interpolate	19	26	26	12.5	1.27	Highway	12.5	13.5	1.50 / 1.23	Note 13	1.5	12.8	0-20 yrs: 4.0 20-75 yrs: 0.5	Two	Temp global stability limits Stage 1 height, Stage 2 LWF needed to achieve post-con settlement req's
4	Mainline	182+00	HB-BE-138	11	25.1	25.1	19	1.16	Highway	19	Note 12	1.33 / 1.16	4	0.5	5.6	0-20 yrs: 2.1 20-75 yrs: 0.3	Two	Temp global stability limits Stage 1 height, LWF needed for permanent global stability
4	Mainline	183+50	CPT-124	12	18	18	Note 7	1.23	Highway	16	Note 12	1.45 / 1.28	Note 13	NA	4.1	0-20 yrs: 1.8 20-75 yrs: 0.3	One	Note 14
4	Mainline	185+00	HB-BE-138	12	17	17	Note 7	1.51	Highway	15	Note 12	Note 8	Note 8	NA	3.9	0-20 yrs: 1.8 20-75 yrs: 0.3	One	Note 14

Notes:
[1] Refer to Appendix H for design calculations.
[2] Special embankment construction not required in Area 3 based on anticipated magnitude of post-construction settlement and discussions with MaineDOT.
[3] 5-ft Prefabricated Vertical Drain spacing and 9-month preload/surcharge hold period assumed, except at Felts Brook Tributary culvert, Highway Culvert at Sta. 66+74, and Area 3.
[4] LWF = Lightweight Fill
[5] Temporary condition factor of safety of 1.15 required.
[6] Permanent condition factor of safety of 1.3 required in the transverse direction (static), 1.5 required in the longitudinal direction (static), and 1.0 required for pseudo-static.
[7] Temporary condition factor of safety for full embankment height > 1.15.
[8] Global stability evaluations not performed at this location.
[9] Settlement evaluations not performed at this location.
[10] No preload/surcharge applied to full height LWF sections.
[11] Red numbers indicate evaluation controlled design at this location.
[12] LWF not needed to meet post-construction settlement requirements.
[13] LWF not needed to meet permanent global stability requirements.
[14] Single stage preload/surcharge program required to achieve post-construction settlement requirements without the use of LWF.

[15] Post-Construction Settlement Criteria:
Highway Embankments and Highway Culverts
0 - 20 yrs: 4 in.
20 to 75 hrs: 4 in.
Bridge Approaches (within 200 ft of bridges)
0 - 5 yrs: 2 in.
5 - 20 yrs: 2 in.
20 -75 hrs: 2 in.
Box Culverts
0 - 100 yrs: 2 in.

	Individual	Date
Prepared By:	EAF	7/7/2021
Checked By:	JL	7/8/2021
Reviewed By:	WAC	9/15/2012

FIGURES



NOTES

1. IMAGE TAKEN FROM GOOGLE EARTH IMAGES, 2018.

0 2950 5900
APPROX. SCALE IN FEET

HALEY ALDRICH

PROPOSED BREWER-EDDINGTON I-395/ROUTE9 CONNECTOR
BREWER, MAINE
MAINEDOT WIN 18915.00

PROJECT LOCUS

SCALE: AS SHOWN
SEPTEMBER 2021

FIGURE 1

Saved by: KPOSTOLOWSKI Printed: 8/31/2020 12:06 PM Sheet: FIG 1
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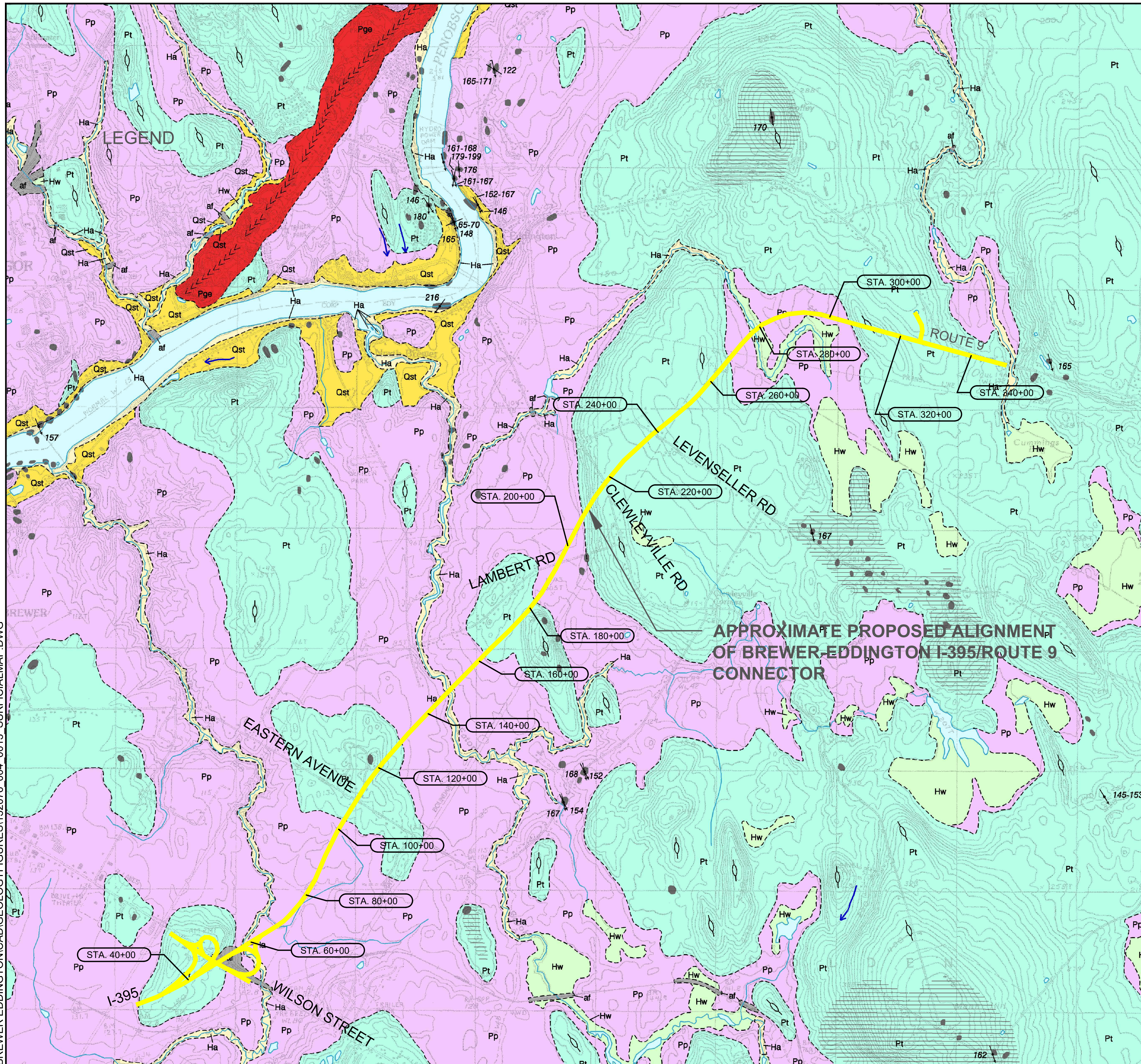

Note: The first letter of each map unit indicates the general age of the unit:
H = Holocene (postglacial deposit formed during the last 10,000 years).
Q = Quaternary (deposit of uncertain age, but usually late-glacial and/or postglacial).
P = Pleistocene (deposit formed during glacial to late-glacial time, prior to 10,000 years B.P. [years before present]).

LEGEND:

af — **Artificial fill** - Variable mixtures of surficial sediments, rock fragments, and artificial materials that were transported and dumped to build up roads, lowlands, etc.

Ha — **Stream alluvium** - Sand, gravel, silt, and organic sediment. Deposited on flood plains of modern streams. Unit may include some wetland areas (Hw). Generally corresponds to the lower terrace levels and current flood plain of the major streams in the quadrangle.

Hw — **Freshwater wetland deposits** - Peat, muck, silt, clay, and sand. Deposited in poorly drained areas. Unit may include some stream alluvium areas (Ha).

Qe — **Eolian deposits** - Fine- to medium-grained, well-sorted sand. Found as small dunes on a variety of older glacial deposits. Deposited after late-glacial sea level regressed from the area and left many fine-grained marine sediments exposed to wind erosion and transport before vegetation established itself and anchored the deposits. More thin dunes are present in the area than are delineated on the map.

Qst — **Stream terrace deposits** - Sand, gravel, silt, and occasional muck on terraces cut into glacial deposits in the Penobscot River valley. Formed in part during late-glacial time as sea level regressed. In some places there are minimal or no Qst deposits over the underlying glacial materials where the stream terrace is primarily an erosional landform, rather than a depositional landform.

Pp — **Presumpscot Formation** - Glaciomarine silt, clay, and sand deposited on the late-glacial sea floor. In places, material may be reworked as sea level regressed, by wave and current action.

Pge — **Esker deposits** - Sand and gravel deposited by glacial meltwater flowing in tunnels within or beneath the ice. Chevron symbols show inferred direction of former stream flow. Buried in places by a variable thickness of glaciomarine silt, clay, and sand (Pp). Top 3-5 feet, in places, may have been reworked by wave or stream action.

Pt — **Till** - Light- to dark-gray, nonsorted to poorly sorted mixture of clay, silt, sand, pebbles, cobbles, and boulders. A predominantly sandy to silty diamicton containing some gravel. Till may underlie most other surficial deposits in the map area.

Bedrock exposures - Not all outcrops are shown on the map. Gray dots indicate individual outcrops; ruled pattern indicates areas of abundant exposures and areas where surficial deposits are generally less than 3 m (10 ft) thick.

BASE MAP SOURCE :

1. HILDRETH, CAROL T, SURFICIAL GEOLOGY, VEAZIE QUADRANGLE, MAINE, MAINE GEOLOGICAL SURVEY, AUGUSTA, MAINE, OPEN FILE NO. 11-32, 2011.

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0 3300 6600
APPROX. SCALE IN FT

HALEY ALDRICH

I-395/ROUTE 9 CONNECTOR
BREWER-EDDINGTON, MAINE
MAINEDOT WIN 18915.00

SURFICIAL GEOLOGY

SCALE: AS SHOWN
SEPTEMBER 2021

FIGURE 2A

Z:\POR_COMMON\PROJECTS\132076 - BREWER EDDINGTON\CAD\GEOLOGY\FIGURES\132076_004_0013_SURFICIALMAP.DWG
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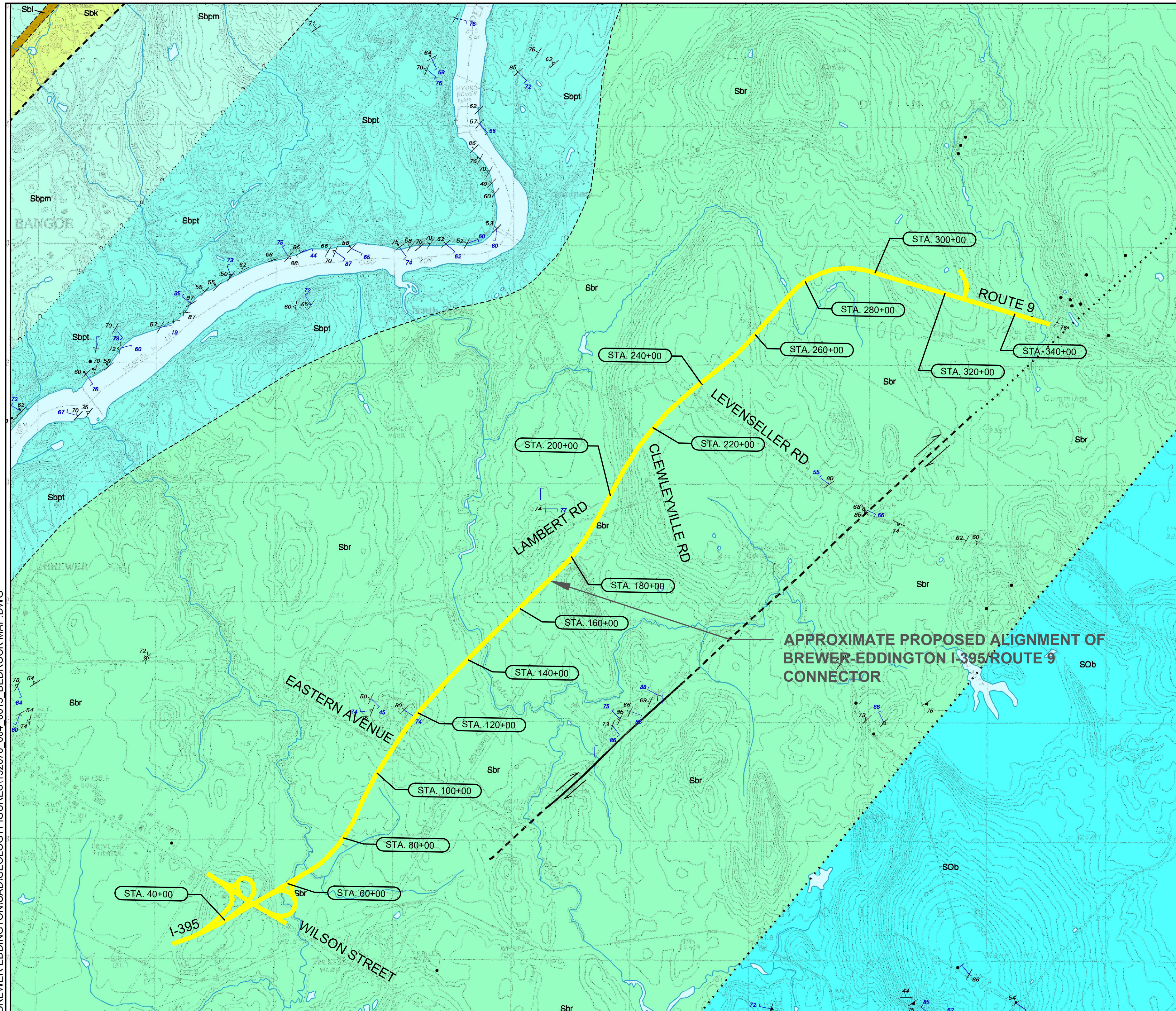

LEGEND:

Bangor Formation (new name). Dominated by thick-bedded feldspathic metawacke. Divided into three members.

Sbk — **Kenduskeag Stream Member** (new name). Medium to dark greenish gray, very fine-grained to fine-grained feldspathic metawacke and greenish gray slate. The metawackes are also micaceous. Beds of metawacke are of variable thickness, generally between 15 cm and 45 cm. Beds greater than 1 meter in thickness are uncommon. Metawacke beds are generally poorly graded to ungraded, and lack parallel and ripple lamination, rip-up clasts, and sole markings. Dark greenish gray slate and phyllite is interbedded with the metawackes. These finer grained beds typically range in thickness between 3 and 40 cm. Sedimentary structures are uncommon, but include graded beds, ripple cross-lamination and rare flute and groove casts.

Sbl — **Lover's Leap Member** (new name). Grayish black to black siltstone and claystone slate with interbeds of medium dark gray to dark gray, well-sorted, very fine-grained calcareous quartz-rich meta-arenite identical to that in the Brewer Formation. Overall this unit is similar to the Brewer Formation. Exposed mainly in the Bangor quadrangle to the west.

Sbp — **Penobscot River Member, unifferentiated** (new name). Medium gray to dark gray, medium-grained to very fine-grained feldspathic metawacke. Muscovite is locally a common accessory mineral. Siltstone and claystone slate is a minor lithology. Beds of metawacke are of variable thickness ranging from 15 cm to in excess of 2 meters. Thinner metawacke beds may exhibit singly, or in combination, parallel lamination, ripple cross-lamination, or convolute lamination. Thicker metawacke beds are commonly texturally graded. Thicker metawacke beds may exhibit load structures or parallel lamination, and may contain slate rip-up clasts. Flute and/or groove casts on the soles of metawacke beds are rare.

Sbr — **Brewer Formation** (new name). Dark gray, grayish black or black, fine-grained to very fine-grained siltstone and claystone slate. Locally the cleavage surfaces exhibit a rusty stain. Rusty-weathering, medium dark gray to dark gray, well sorted, very fine-grained calcareous quartz-rich meta-arenite and noncalcareous feldspathic metawacke are subordinate rock types. Beds commonly range in thickness from 3 to 15 cm, but beds exceeding 1 m are locally present. Sedimentary structures are common, including the parallel-laminated (T_b) and ripple-laminated (T_c) turbidite intervals. Single turbidite intervals may characterize the entire bed or the intervals may be sequentially arranged. Locally, sole markings, primarily groove casts are present on the bases of thicker sand beds. Dark gray to grayish black micritic metalimestone is locally present in beds less than 4 cm thick. Beds weather to various shades of dark brown and brownish black. No sedimentary structures have been observed in the metalimestone.

Silurian - Ordovician (?)

FREDERICTON BELT

SOb — **Bucksport Formation.** Dark grayish granoblastic metasandstone, in two varieties. One exhibits definitive laminations which consist of alternation of dark gray non-calcareous quartz - rich laminae and tan-weathering, medium to medium dark gray calcareous quartz-rich laminae. Differential weathering produces a striped appearance of alternating dark gray and tan laminae. The second variety is texturally similar, but the alternating calcareous and non-calcareous bands are not present. This variety is slightly to moderately calcareous. Locally, very fine grains of biotite are present in both varieties. Bedding, where unequivocally identified, ranges from medium (30± cm) to moderately thick (~75 cm). Laminations within beds are commonly folded. Also in this unit is rusty weathering, dark gray to black phyllite locally with well developed sufidic stains. Textural variations in the phyllite suggest the protolith ranged from a silty claystone to a fine-grained siltstone. Also, several outcrops appear to be transitional from phyllite to very fine-grained biotite-quartz schist. Cleavages are moderately irregular, suggesting a phacoidal cleavage. Slate is a minor lithology and is found as thin to medium interbeds in the metasandstone. Commonly the slate exhibits thin laminae of tan weathering, non-calcareous metasiltstone. These laminae are typically parallel, ranging in thickness from less than a millimeter to approximately 10 millimeters. Ripple forms in the siltstone are rare. Because of the alternation of tan-weathering siltstone and grayish black slate, the beds have a "pinstripe" appearance.

BASE MAP SOURCE :

1. POLLOCK, STEPHEN G, BEDROCK GEOLOGY, VEAZIEQUADRANGLE, MAINE, MAINE GEOLOGICAL SURVEY, AUGUSTA, MAINE, OPEN FILE NO. 11-58, 2011.

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APPROX. SCALE IN FT

HALEY ALDRICH

I-395/ROUTE 9 CONNECTOR
BREWER-EDDINGTON, MAINE
MAINEDOT WIN 18915.00

BEDROCK GEOLOGY

SCALE: AS SHOWN
SEPTEMBER 2021

FIGURE 2B

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KPOSTOLOWSKI Printed: 8/31/2020 12:28 PM Sheet: FIG 2B

Date:9/16/2021

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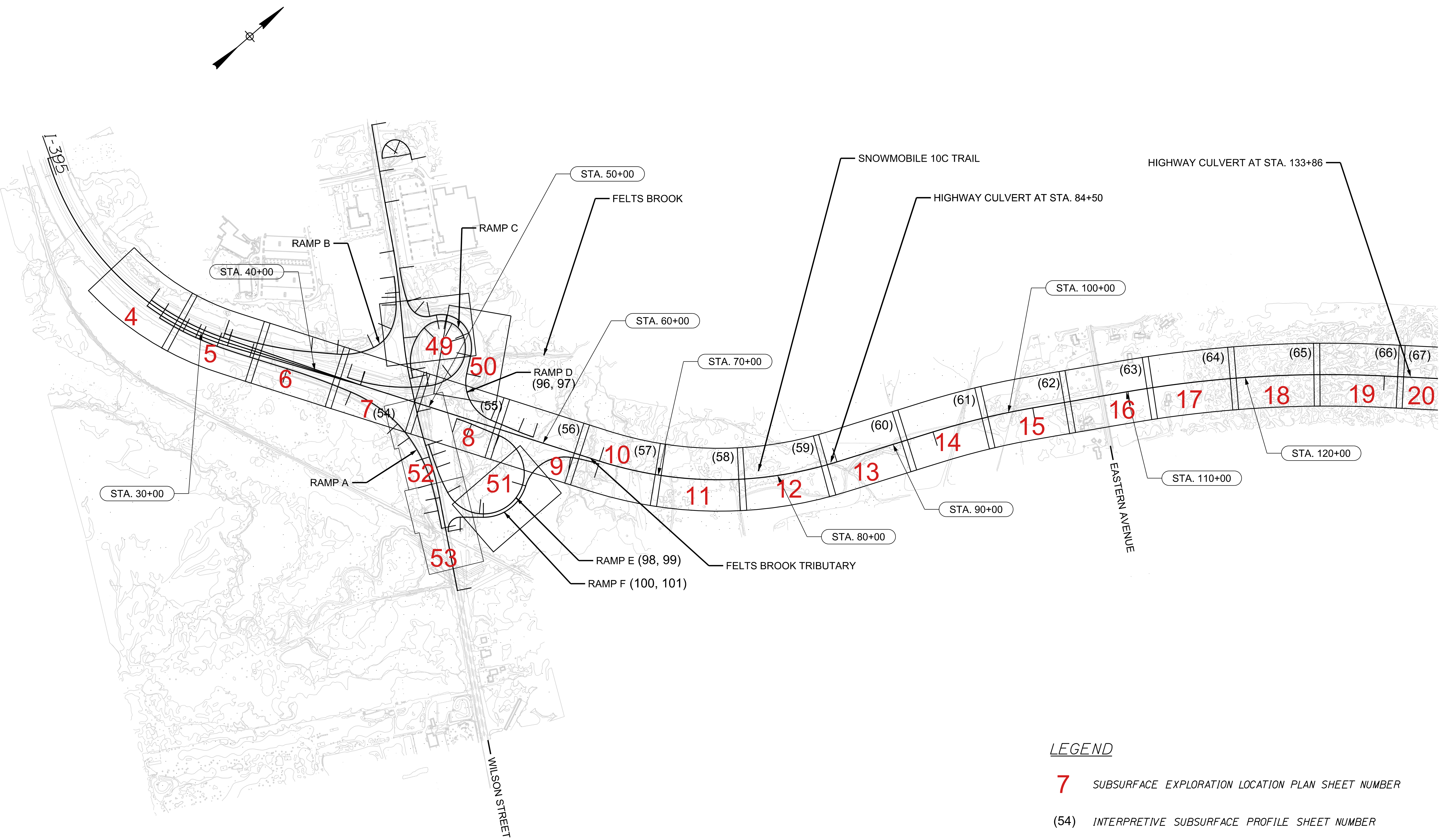

PLAN

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Scale of Feet

LEGEND

7 SUBSURFACE EXPLORATION LOCATION PLAN SHEET NUMBER

(54) INTERPRETIVE SUBSURFACE PROFILE SHEET NUMBER

RAMP	INTERPRETIVE SUBSURFACE PROFILE SHEET
D	96, 97
E	98, 99
F	100, 101

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE / K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE / W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

KEY PLAN

SHEET NUMBER

3A

OF 114

Date:9/16/2021
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Division:
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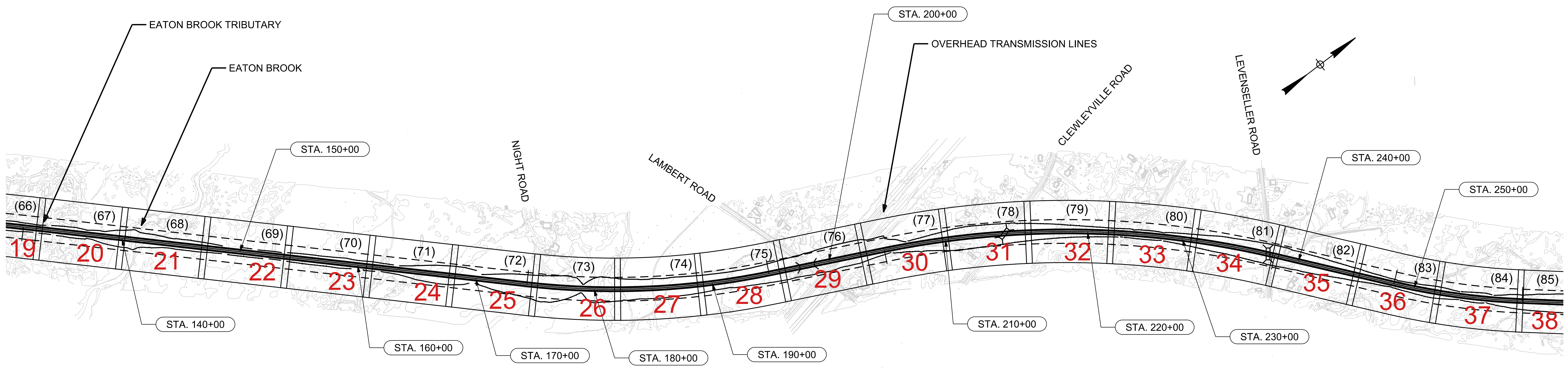

LEGEND

30 SUBSURFACE EXPLORATION LOCATION PLAN SHEET NUMBER

(77) INTERPRETIVE SUBSURFACE PROFILE SHEET NUMBER

PLAN

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Scale of Feet

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

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REVISIONS 2	-----		-----
REVISIONS 3	-----		-----
REVISIONS 4	-----		-----
FIELD CHANGES	-----		-----

SIGNATURE

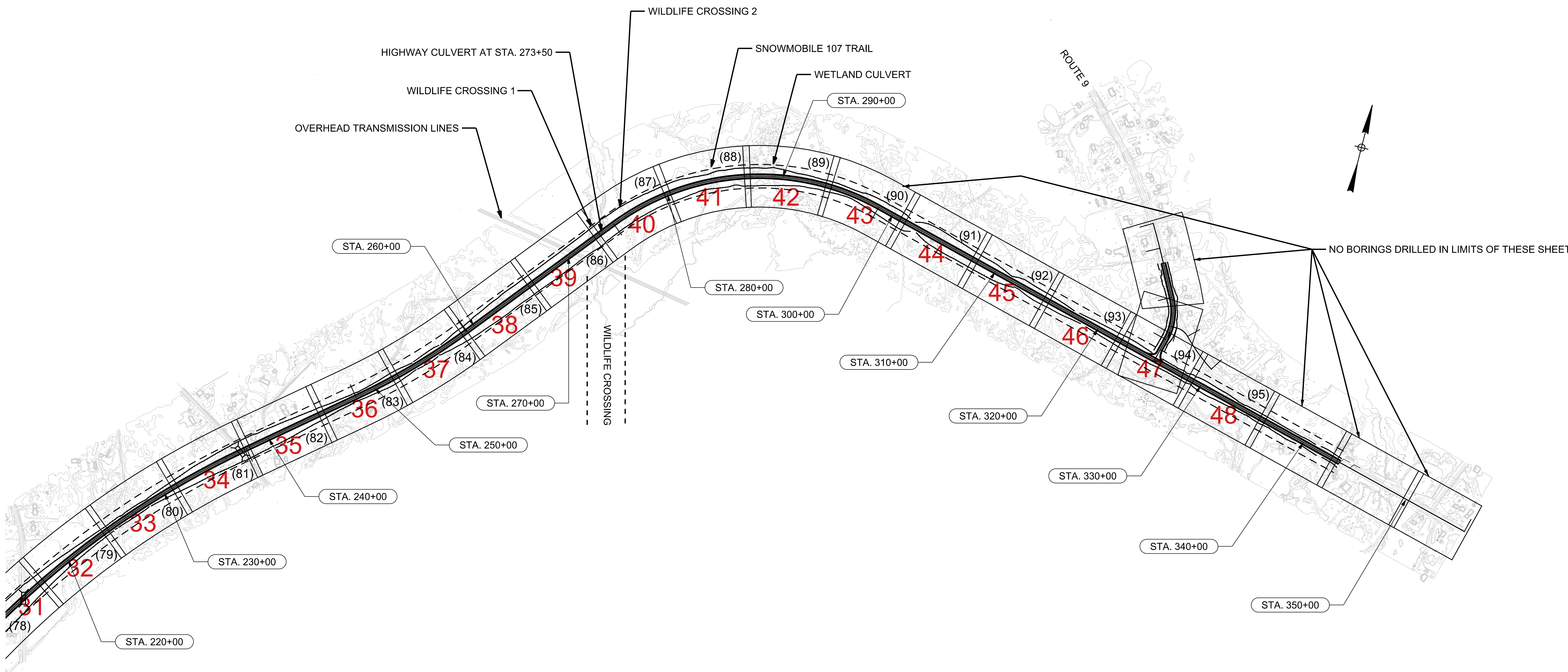
P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

KEY PLAN

SHEET NUMBER
3B
OF 114



PLAN

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Scale of Feet

LEGEND

45 SUBSURFACE EXPLORATION LOCATION PLAN SHEET NUMBER

(92) INTERPRETIVE SUBSURFACE PROFILE SHEET NUMBER

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
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CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
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DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

KEY PLAN

SHEET NUMBER

3C

OF 114

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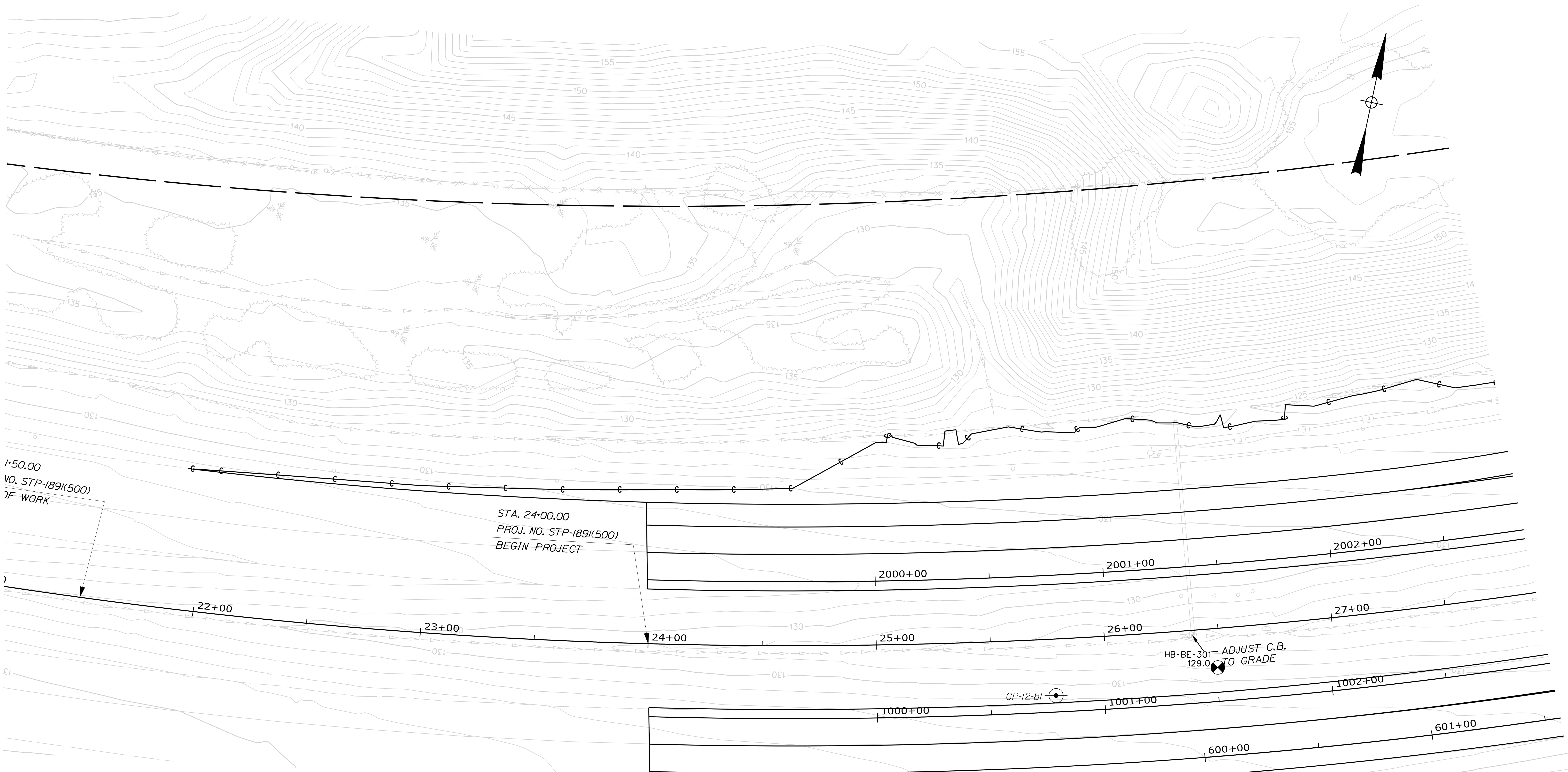


LEGEND

HB-BE-201 / HB-BE-301 82.0 — DESIGNATION, AS-DRILLED LOCATION AND GROUND SURFACE ELEVATION OF FINAL DESIGN PHASE (PHASE II) BRIDGE (BB) OR HIGHWAY (HB) TEST BORING DRILLED BY NEW ENGLAND BORING CONTRACTORS OF HERMON, MAINE FROM OCTOBER 2020 TO FEBRUARY 2021, AND MAINE DEPARTMENT OF TRANSPORTATION FROM MARCH TO APRIL 2021 UNDER THE DIRECTION OF HALEY & ALDRICH.

BB-BEA-101 82.0 — DESIGNATION, AS-DRILLED LOCATION AND GROUND SURFACE ELEVATION OF PRELIMINARY DESIGN PHASE (PHASE I) BRIDGE (BB) OR HIGHWAY (HB) TEST BORING DRILLED BY NORTHERN TEST BORINGS, INC. OF GORHAM, MAINE FROM JULY TO AUGUST 2018, AND NEW ENGLAND BORING CONTRACTORS OF HERMON, MAINE FROM OCTOBER TO DECEMBER 2018 UNDER THE DIRECTION OF HALEY & ALDRICH.

HB-BREW-101 — DESIGNATION AND LOCATION OF TEST BORING DRILLED BY MAINE TEST BORING IN MARCH 2013 UNDER THE DIRECTION OF MAINE DEPARTMENT OF TRANSPORTATION.

CPT/SCPT-02 — DESIGNATION AND AS-DRILLED LOCATION OF PIEZOCONE AND SEISMIC PIEZOCONE PENETRATION TEST COMPLETED BY CONETEC, INC. OF WEST BERLIN, NEW JERSEY UNDER THE DIRECTION OF MAINE DEPARTMENT OF TRANSPORTATION IN MARCH 2013.

CPT-101/SCPT-101 82.0 — DESIGNATION, AS-DRILLED LOCATION AND GROUND SURFACE ELEVATION OF PIEZOCONE AND SEISMIC PIEZOCONE PENETRATION TEST COMPLETED BY CONETEC, INC. OF WEST BERLIN, NEW JERSEY UNDER THE DIRECTION OF HALEY & ALDRICH IN OCTOBER AND NOVEMBER 2020.

GP-12-81 — DESIGNATION AND LOCATION OF TEST BORING PERFORMED BY MAINE DEPARTMENT OF TRANSPORTATION IN 1978, 1980, 1981 AND, 1982 OR 1984.

LINE 1 (188 — 0) — DESIGNATION AND LOCATION OF SHEAR WAVE VELOCITY TEST LINE COMPLETED BY HAGER-RICHTER GEOSCIENCE, INC. OF SALEM, NEW HAMPSHIRE, UNDER THE SUPERVISION OF HALEY & ALDRICH, ON 30 DECEMBER 2020

(GEO) — DENOTES BOREHOLE GEOPHYSICAL LOGGING (ATV/OTV) OF BEDROCK DONE IN COMPLETED BOREHOLE BY HAGER-RICHTER GEOSCIENCE, INC. OF SALEM, NEW HAMPSHIRE, UNDER THE SUPERVISION OF HALEY & ALDRICH, INC. IN NOVEMBER 2020 AND MARCH 2021

(OW) — DENOTES OBSERVATION WELL INSTALLED IN COMPLETED BOREHOLE

NOTES:

1. EXISTING AND PROPOSED SITE CONDITIONS, THE LOCATION AND ORIENTATION OF EXISTING SITE FEATURES, AND THE PROPOSED STRUCTURES ARE TAKEN FROM ELECTRONIC MICROSTATION FILES PROVIDED BY THE MAINE DEPARTMENT OF TRANSPORTATION.
2. THE PLAN LOCATIONS OF AND GROUND SURFACE ELEVATIONS AT TEST BORINGS SHOWN WERE DETERMINED UPON THE COMPLETION OF DRILLING BY THE MAINE DEPARTMENT OF TRANSPORTATION USING GPS SURVEY EQUIPMENT.
3. ELEVATIONS ARE IN FEET AND REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. TEST BORINGS WERE MONITORED IN THE FIELD BY A HALEY & ALDRICH, INC. GEOLOGIST OR GEOTECHNICAL ENGINEER.
5. REFER TO APPENDIX A FOR TEST BORING LOGS AND ROCK CORE PHOTOGRAPHS AND APPENDIX B FOR OBSERVATION WELL INSTALLATION AND GROUNDWATER MONITORING REPORTS.

PLAN

25 0 25 50
Scale of Feet

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE / K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE / W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

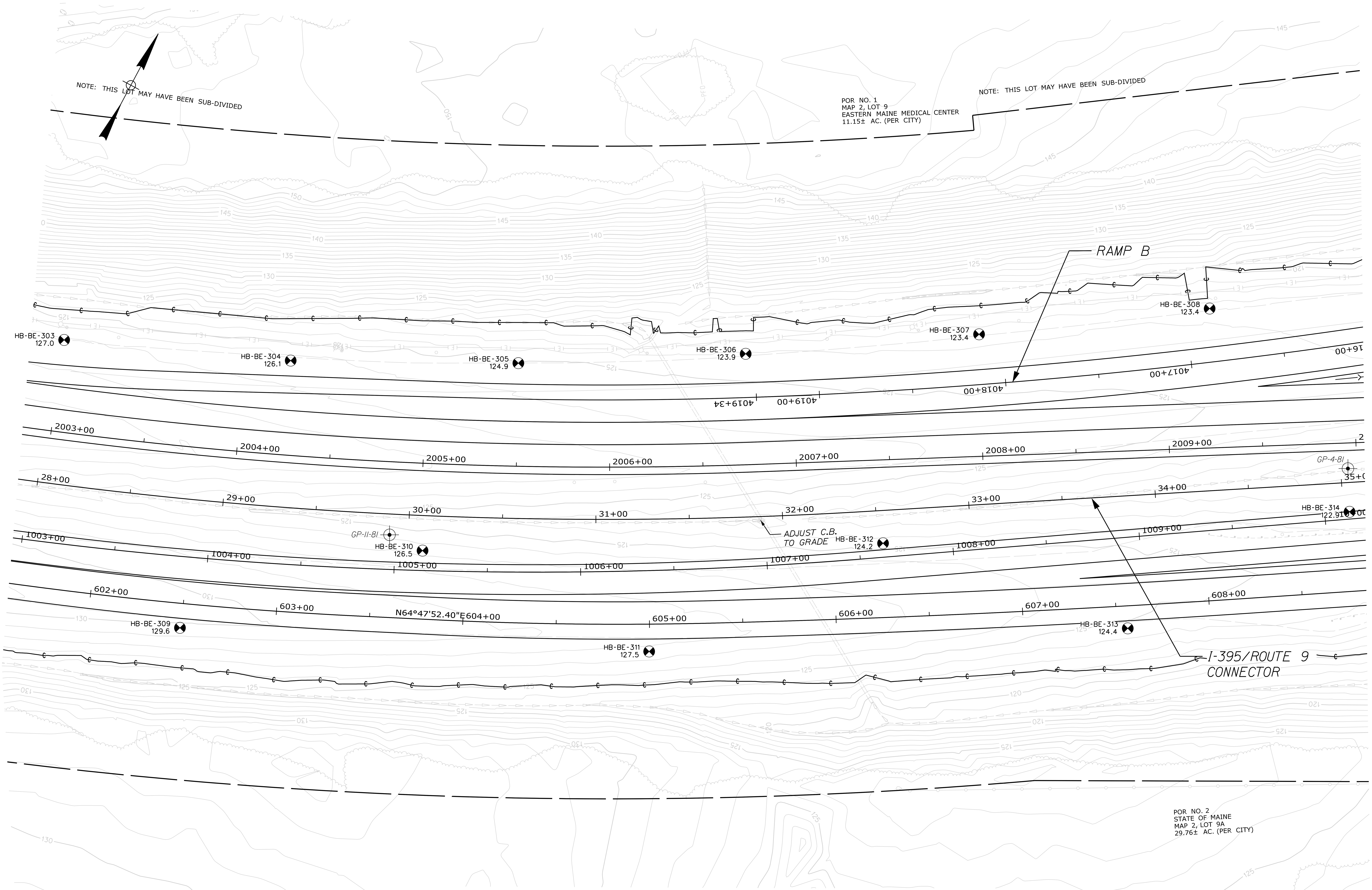
SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
SUBSURFACE EXPLORATION LOCATION PLAN

SHEET NUMBER
4
OF 114



PLAN

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Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

Date:9/16/2021

Username:

Division:

Filename: ...\CAD\I-395 Bypass\HDPlan5.DGN

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
SUBSURFACE EXPLORATION LOCATION PLAN

SHEET NUMBER

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OF 114

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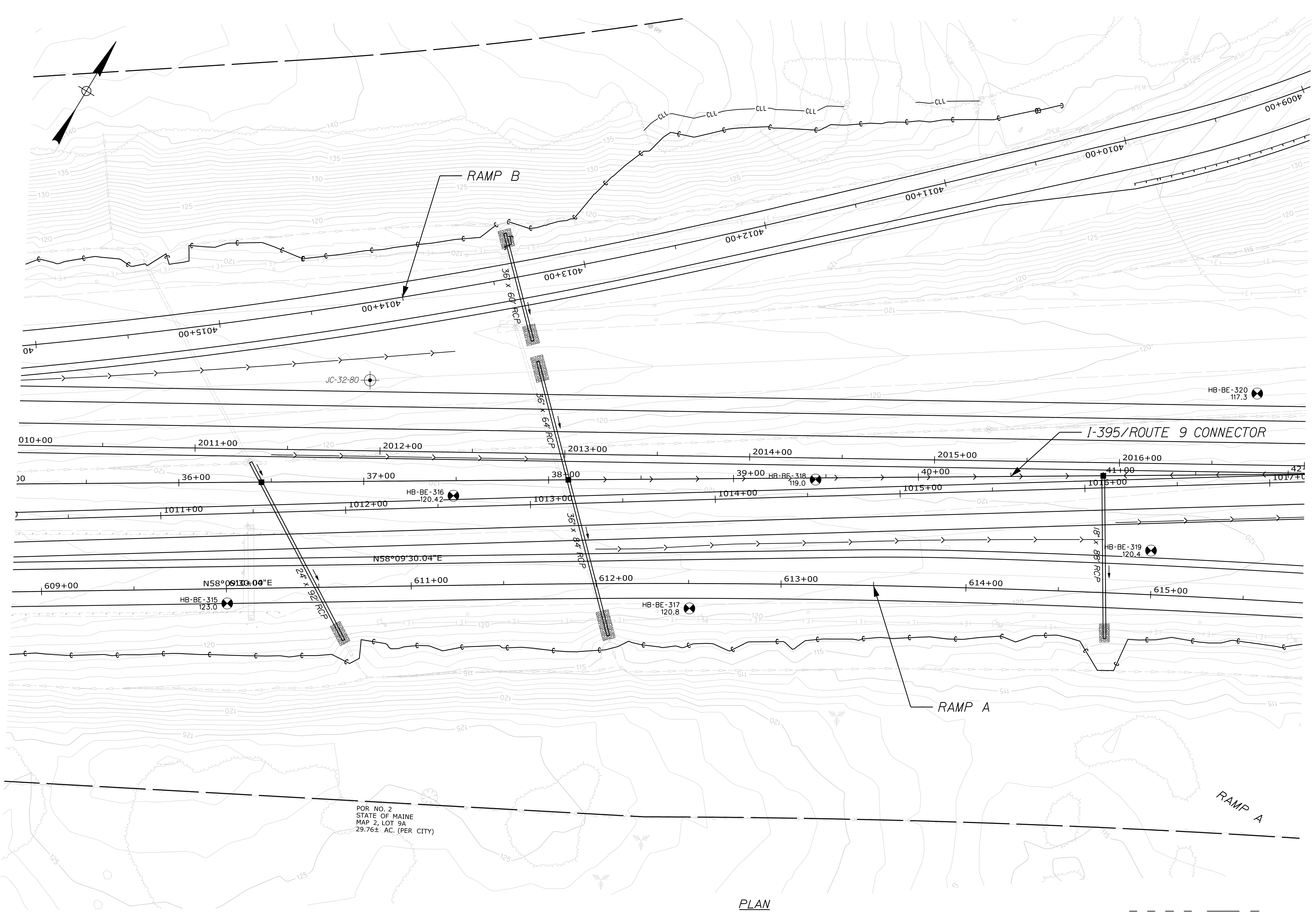

PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
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CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
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REVISIONS 3	.....	.....	.....
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FIELD CHANGES	.....	.....	.....

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

6

OF 114

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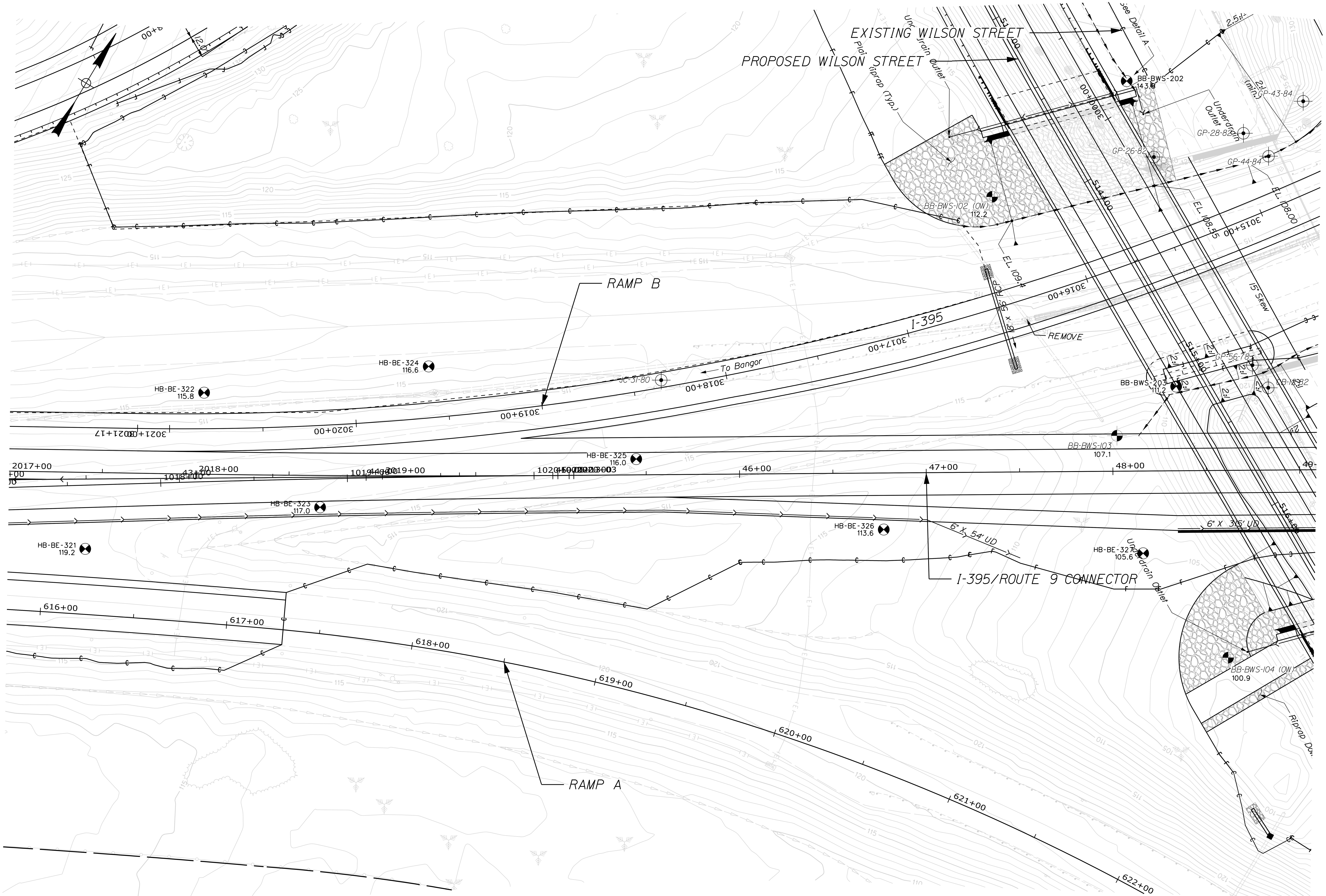


PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

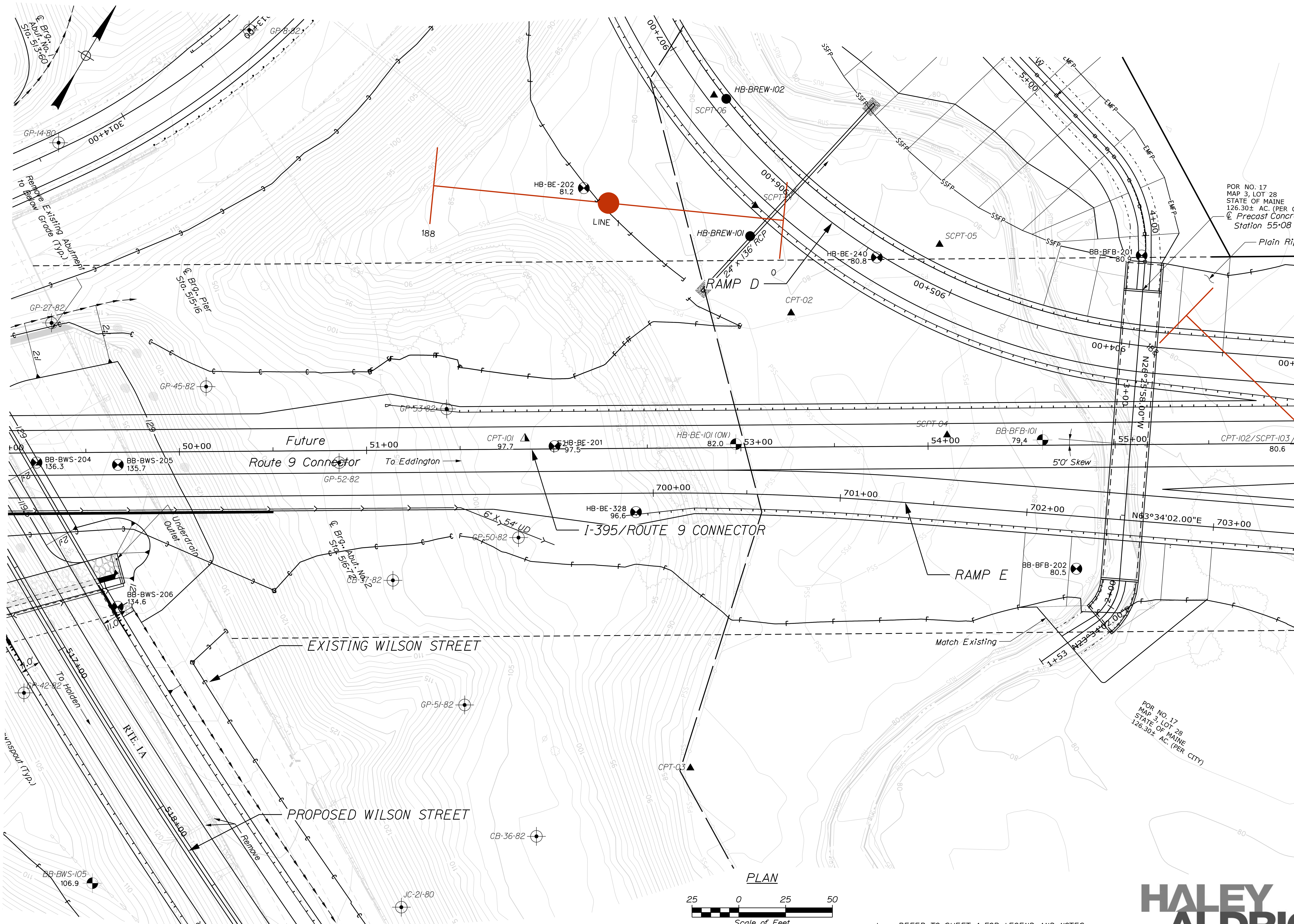
P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
7
OF 114



1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
SUBSURFACE EXPLORATION LOCATION PLAN

SHEET NUMBER

8

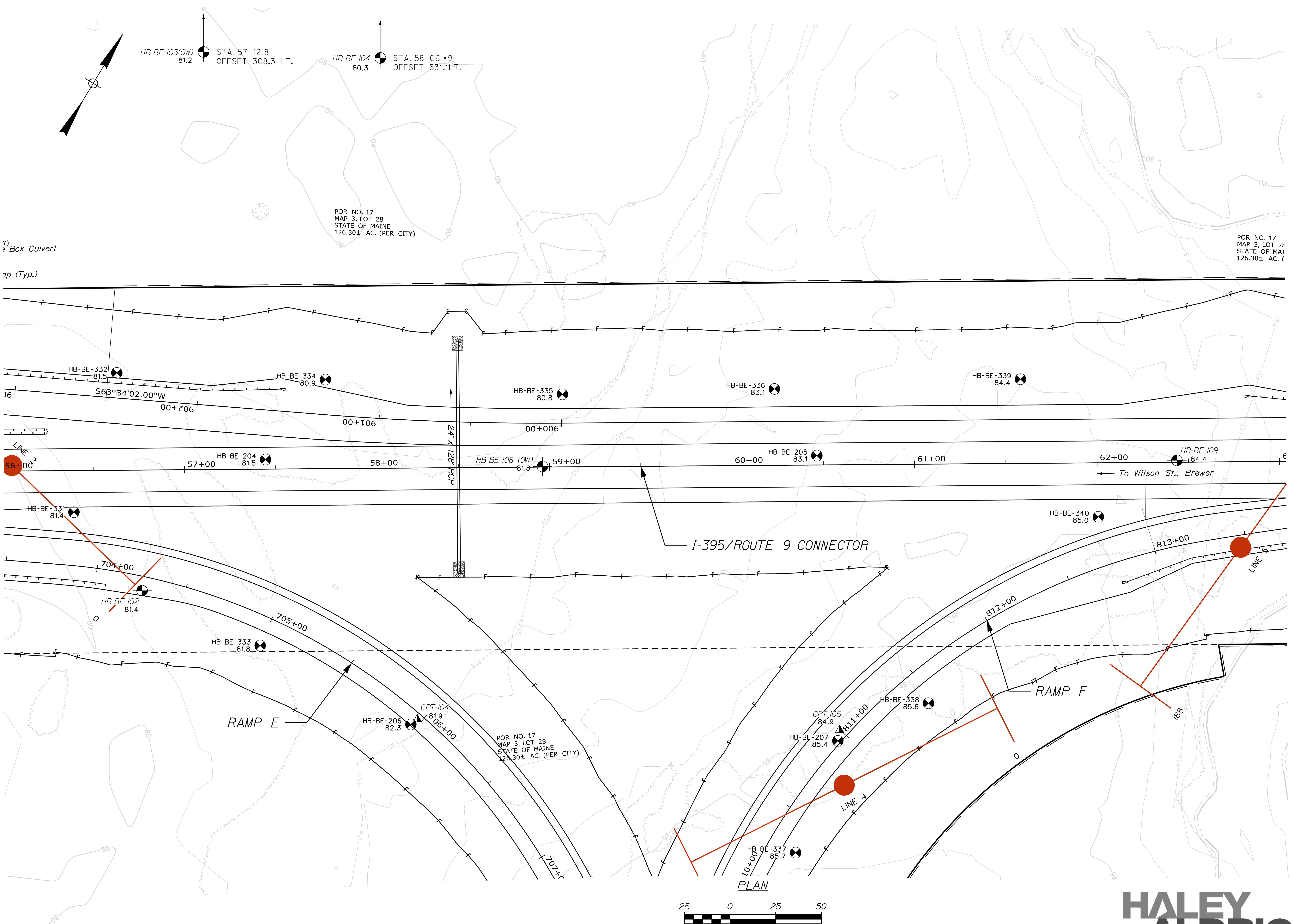
OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan8.dgn

Division:

Username:

Date:9/16/2021



1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED	E. FORCE	K. POST 6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE 8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
9
OF 114

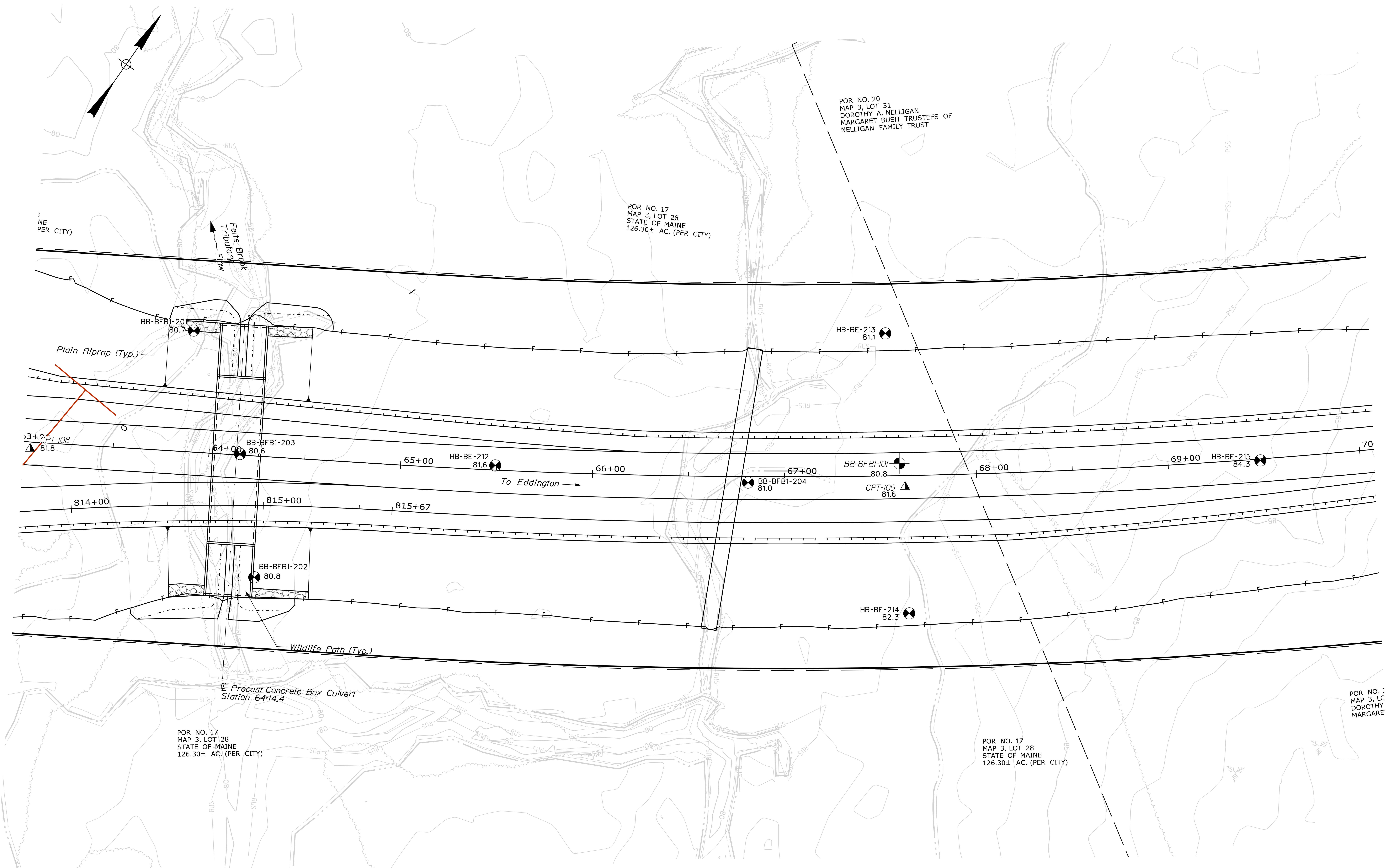
Date: 9/17/2021
Username:
Division:
Filename: ...\CAD\I-395 Bypass\HDPlan9.dgn

Date:9/16/2021

Username:

Division:

Filename: ...\CAD\I-395 Bypass\HDPlan10.dgn



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
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REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

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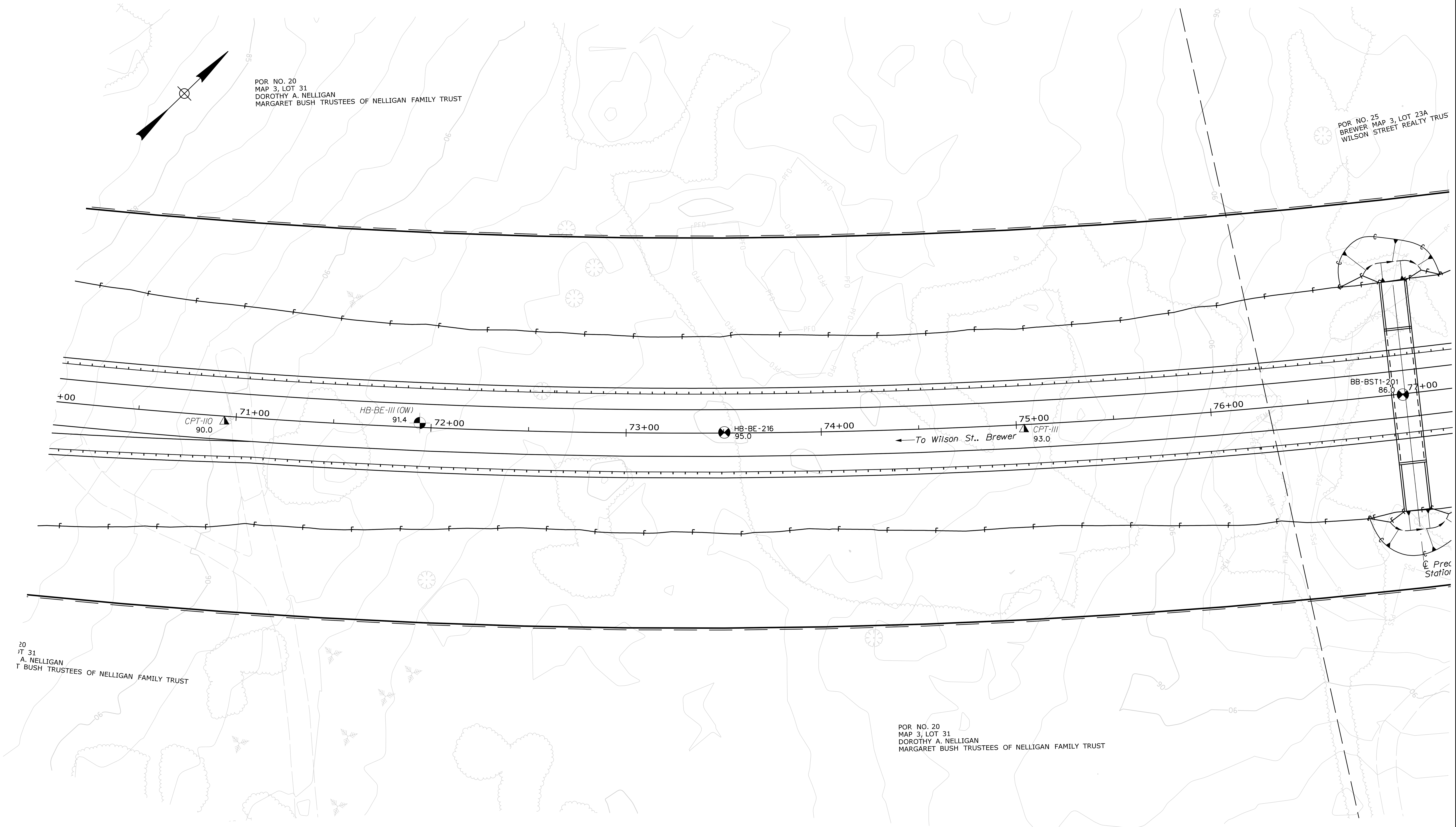
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

10

OF 114



PLAN

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Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

Date:9/16/2021

Username:

Division:

Filename: ...\CAD\I-395 Bypass\HDPlan11.dgn

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

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HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	.....	.....
DESIGN-DETAILED	E. FORCE	6-12-20
CHECKED-REVIEWED	E. FORCE	8-20-21
DESIGN2-DETAILED2	W. CHADBOURNE	.....
DESIGN3-DETAILED3	.....	.....
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REVISIONS 2	.....	.....
REVISIONS 3	.....	.....
REVISIONS 4	.....	.....
FIELD CHANGES	.....	.....

SIGNATURE

P.E. NUMBER

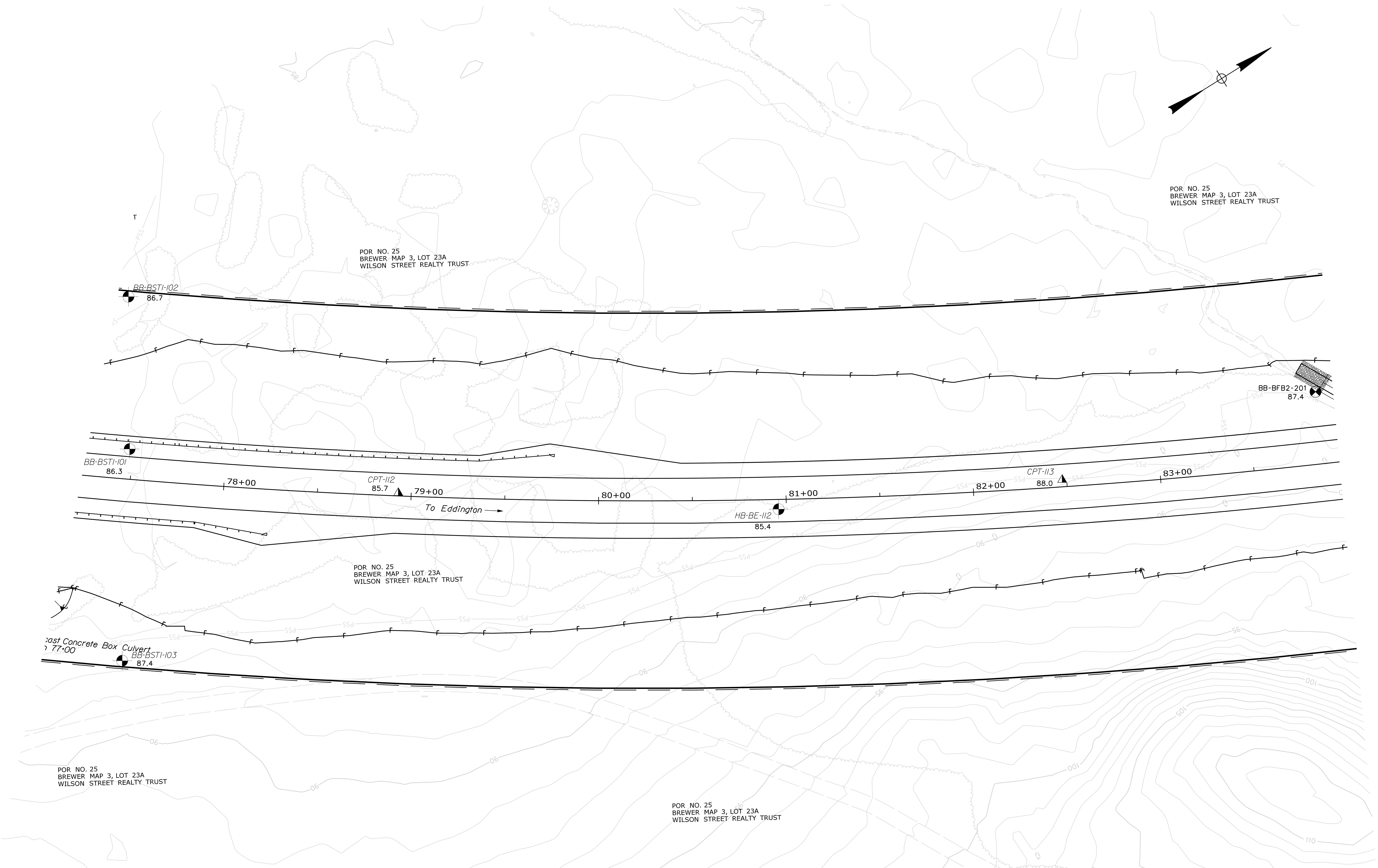
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
SUBSURFACE EXPLORATION LOCATION PLAN

SHEET NUMBER

11

OF 114



PLAN

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Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	....	
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
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DESIGN3-DETAILED3	.....		.....
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REVISIONS 3	.....		.....
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FIELD CHANGES	.....		.....

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

12

OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan12.dgn Division: Username: Date:9/16/2021

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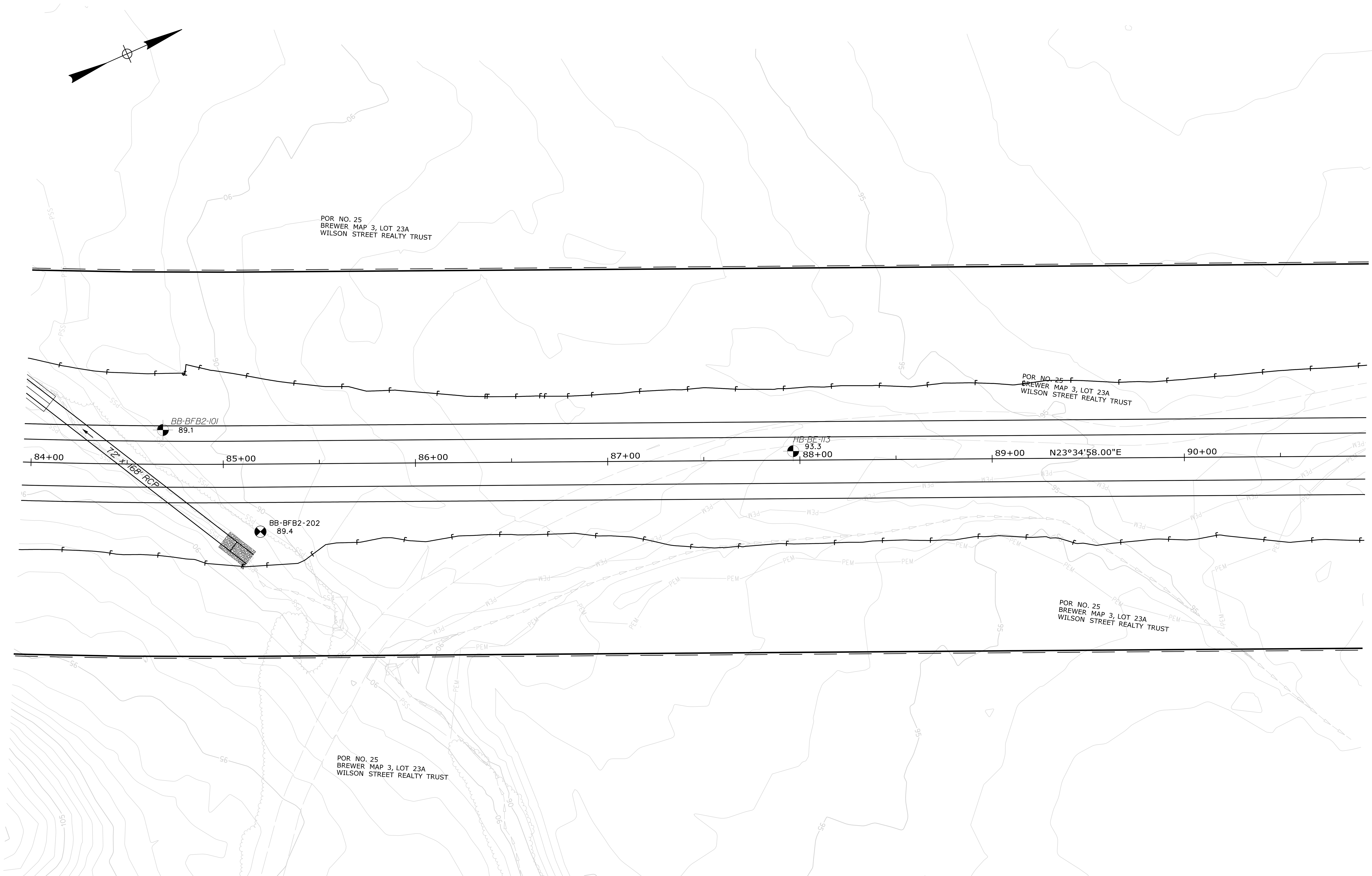

PLAN

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Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

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HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

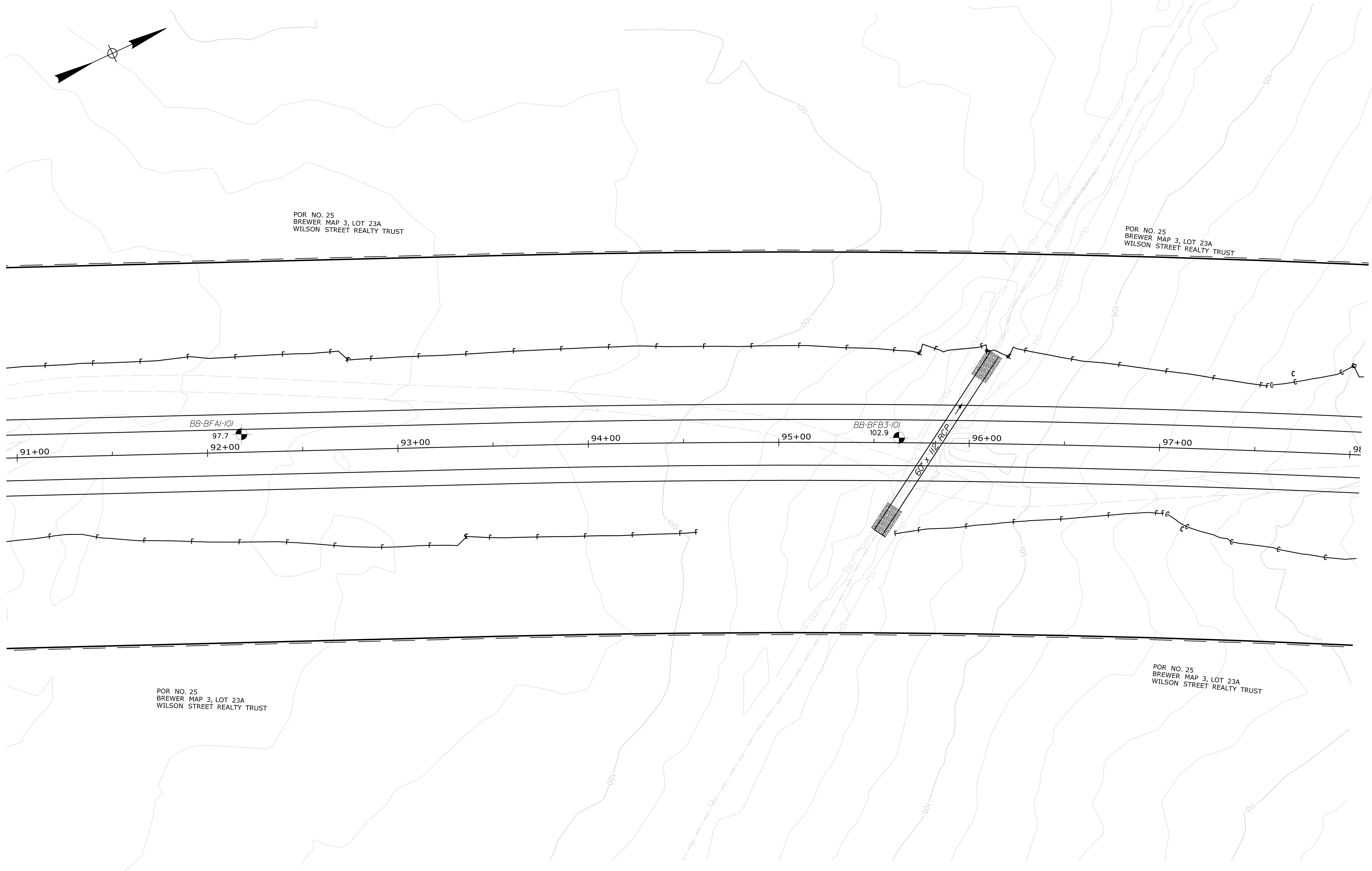
SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
SUBSURFACE EXPLORATION LOCATION PLAN

SHEET NUMBER
13
OF 114



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
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HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
SUBSURFACE EXPLORATION LOCATION PLAN

SHEET NUMBER
14
OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\HDPlan14.dgn

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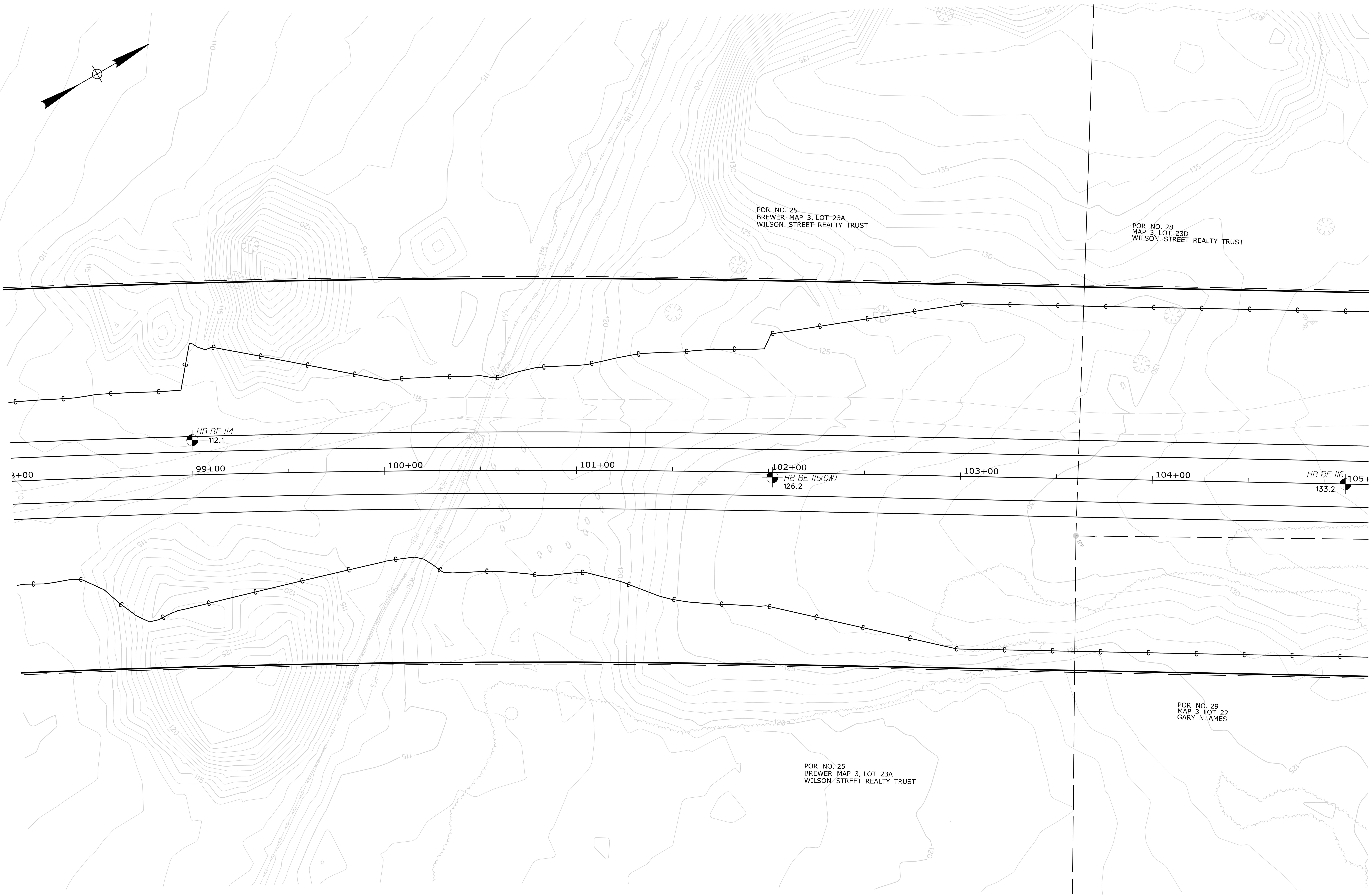

PLAN

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Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
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HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

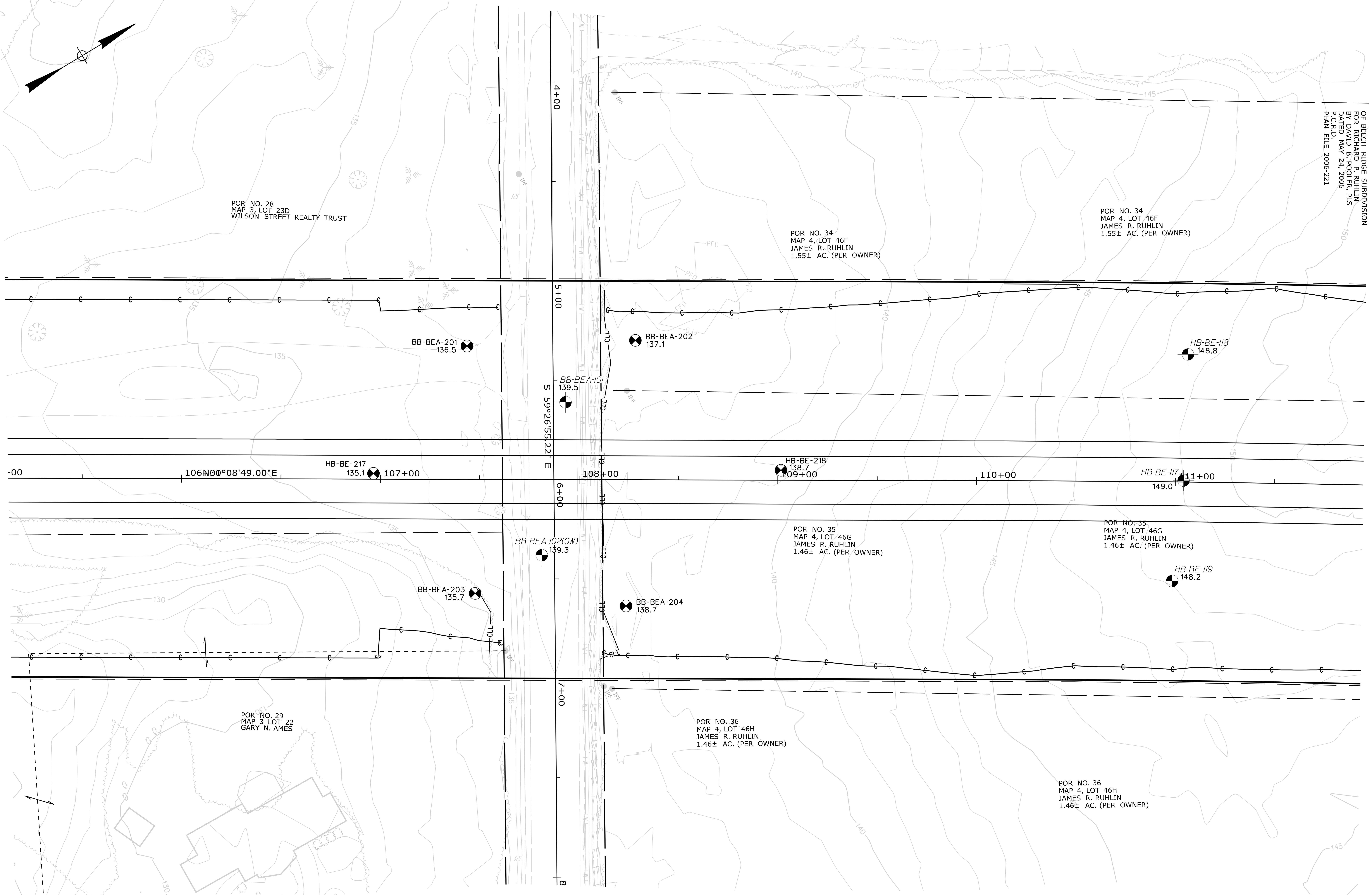
SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

15

OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\HDPlan16.dgn



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
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REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

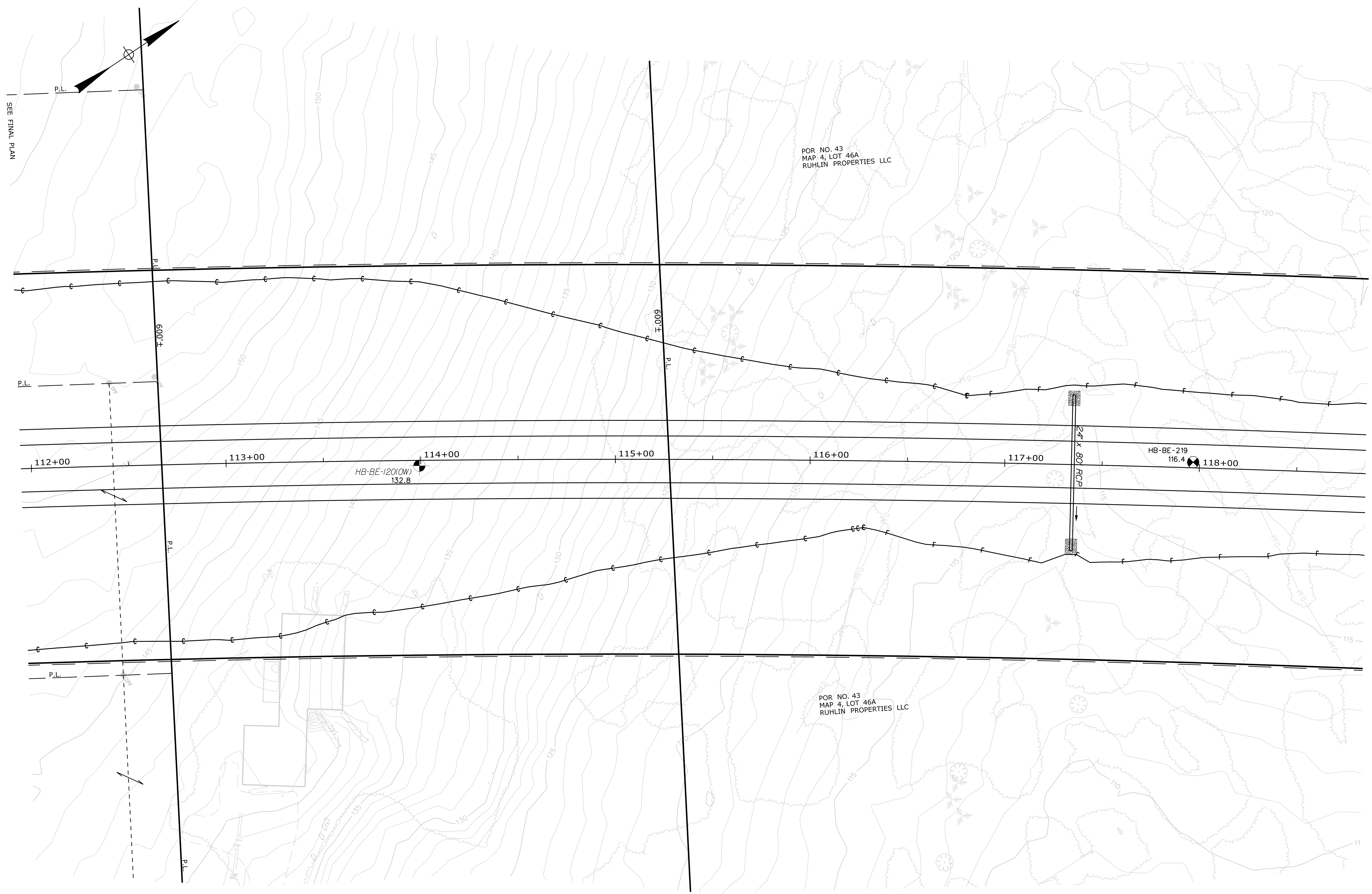
SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

16

OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan17.dgn Division: Username: Date:9/16/2021



PLAN

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Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	....	
DESIGN-DETAILED	E. FORCE	6-12-20
CHECKED-REVIEWED	E. FORCE	8-20-21
DESIGN2-DETAILED2	K. POST	
DESIGN3-DETAILED3	W. CHADBOURNE	
REVISIONS 1	.....	.....
REVISIONS 2	.....	.....
REVISIONS 3	.....	.....
REVISIONS 4	.....	.....
FIELD CHANGES	.....	.....

SIGNATURE

P.E. NUMBER

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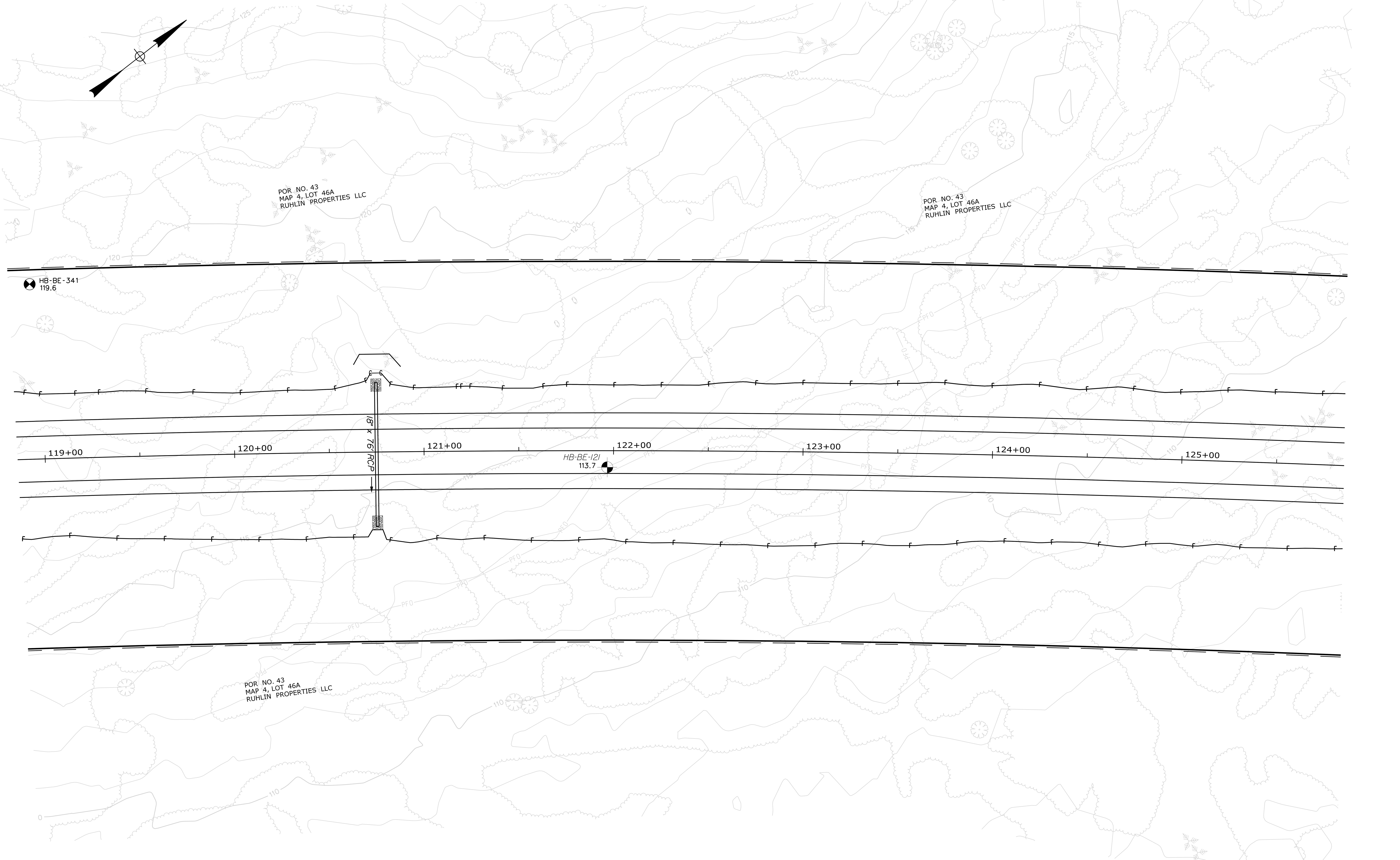
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
17
OF 114



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	....	
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

18

OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan18.dgn Division: Username: Date:9/16/2021

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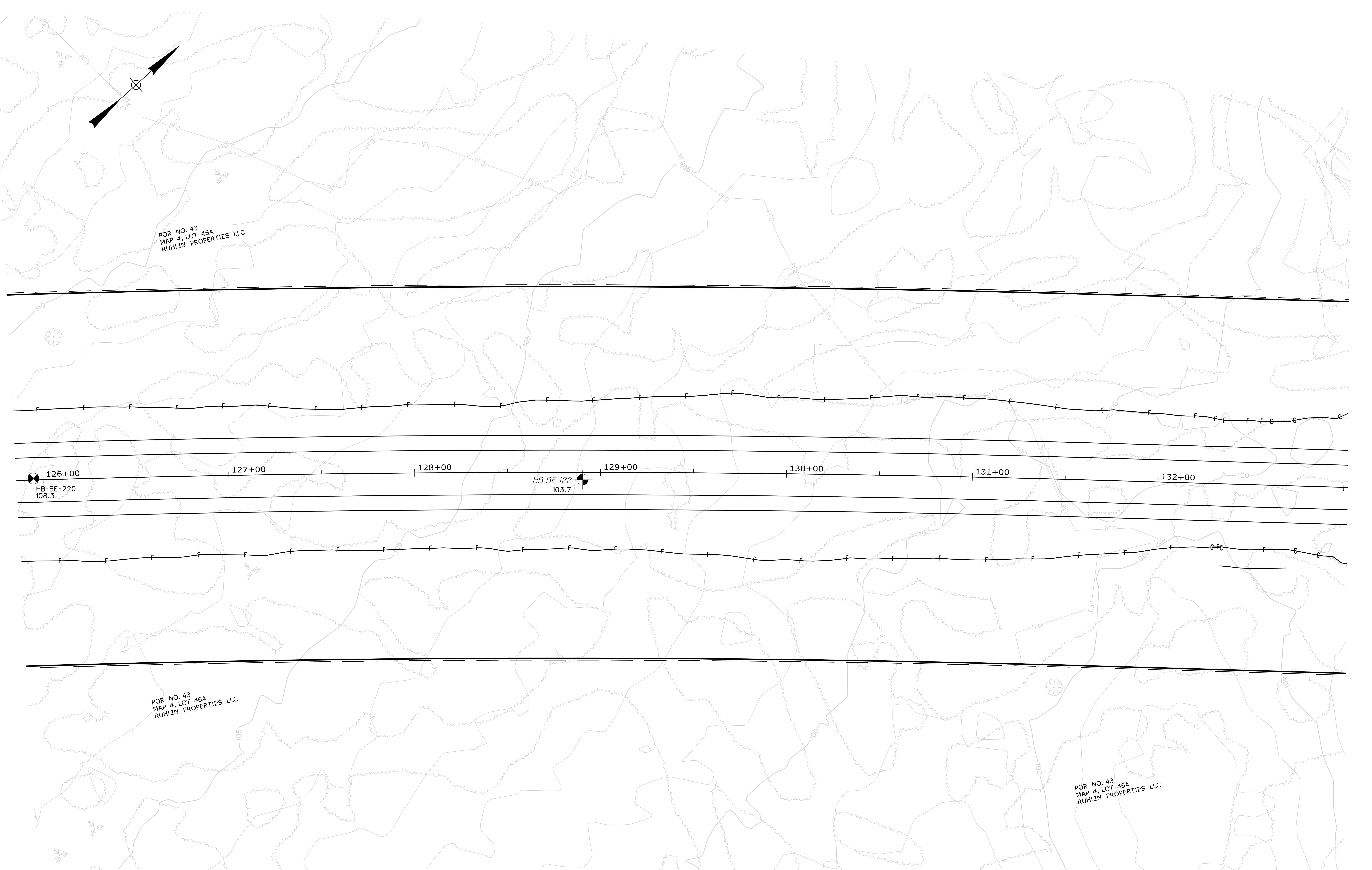


PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE / K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE / W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

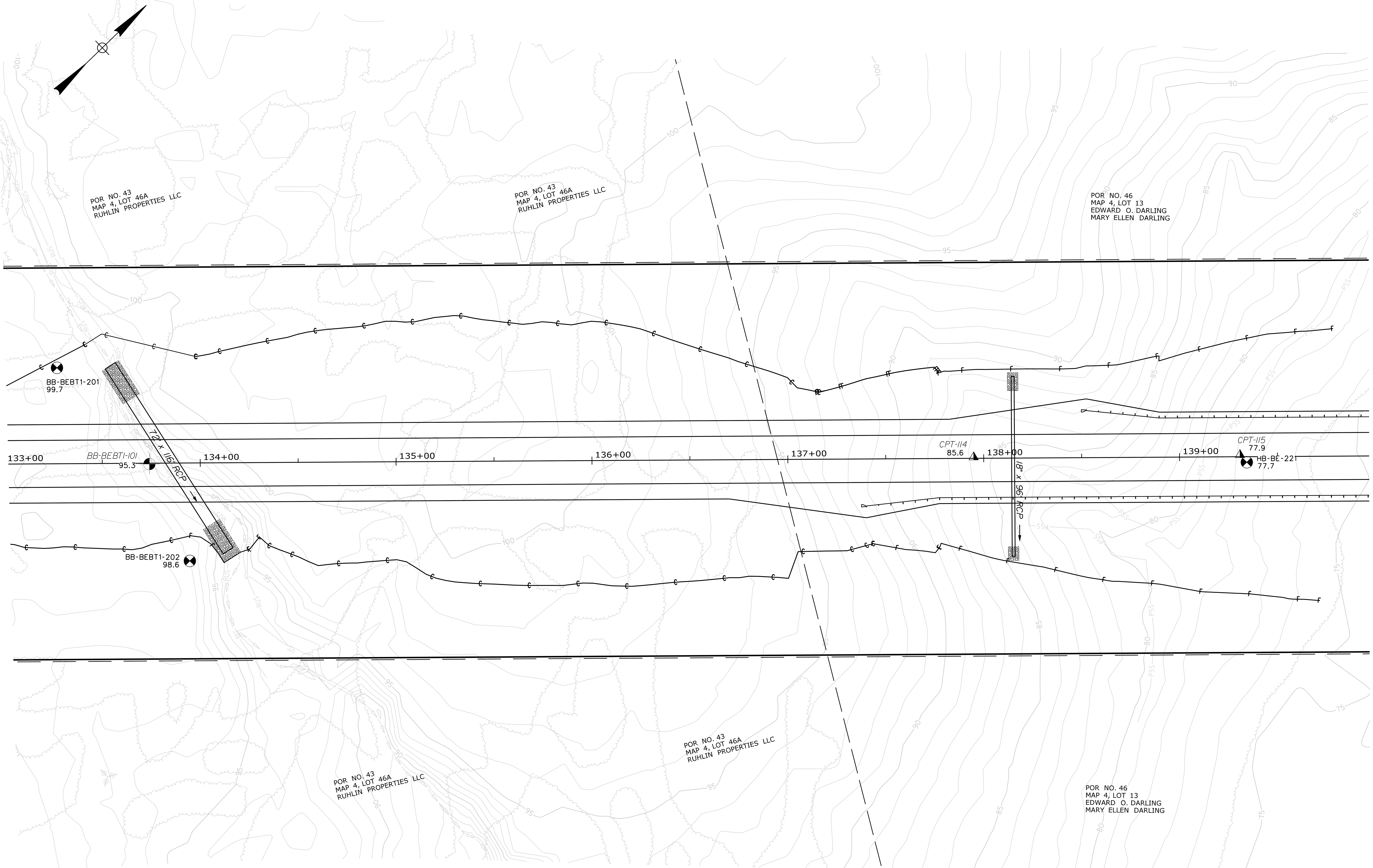
SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

19

OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan20.dgn Division: Username: Date:9/16/2021



PLAN

25 0 25 50
Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	6-12-20
CHECKED-REVIEWED	E. FORCE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
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REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

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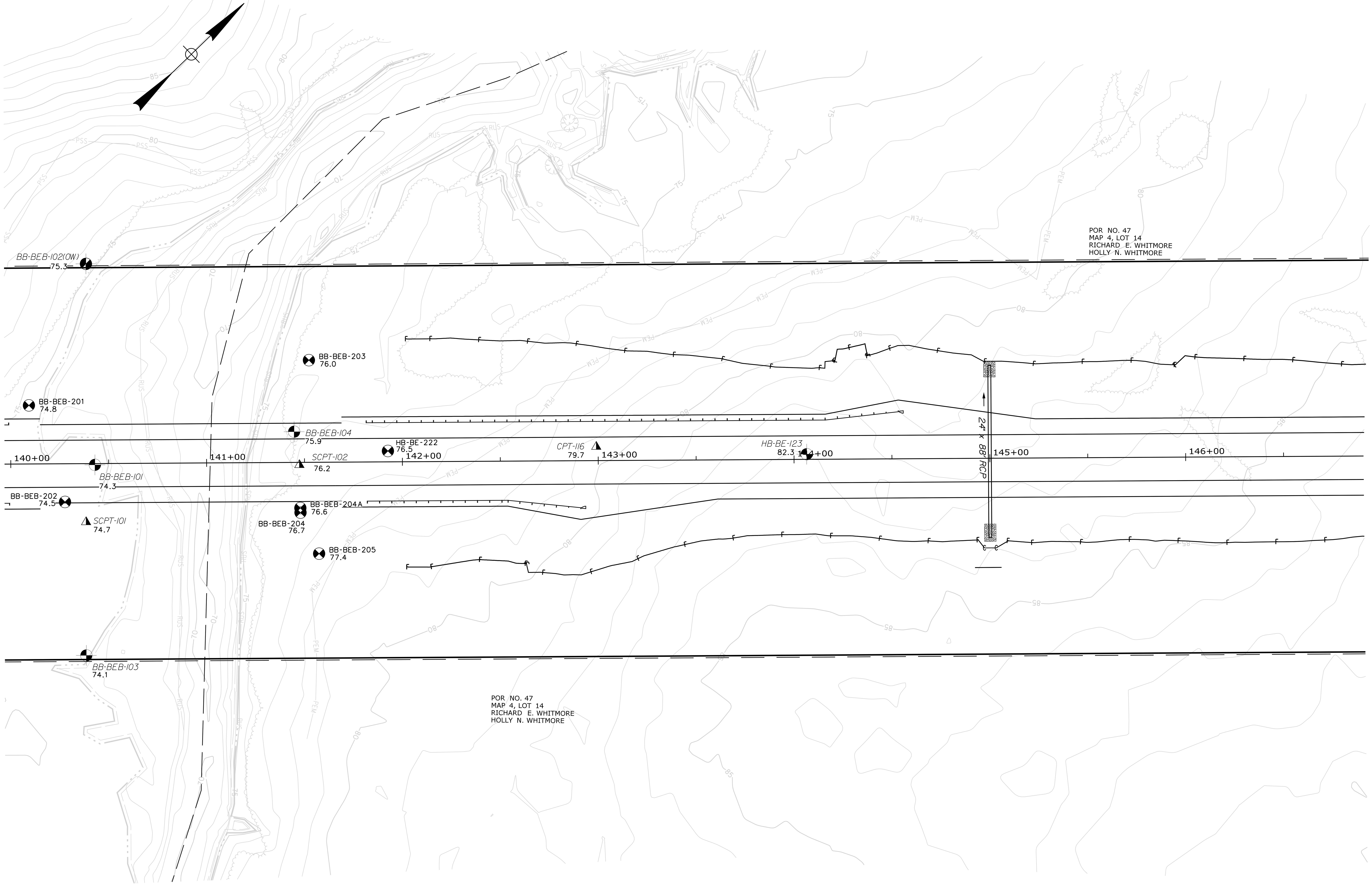
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
20
OF 114



PLAN

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Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	-----		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
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DESIGN3-DETAILED3	-----	-----	-----
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REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION LOCATION PLAN

Date:9/16/2021
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Division:
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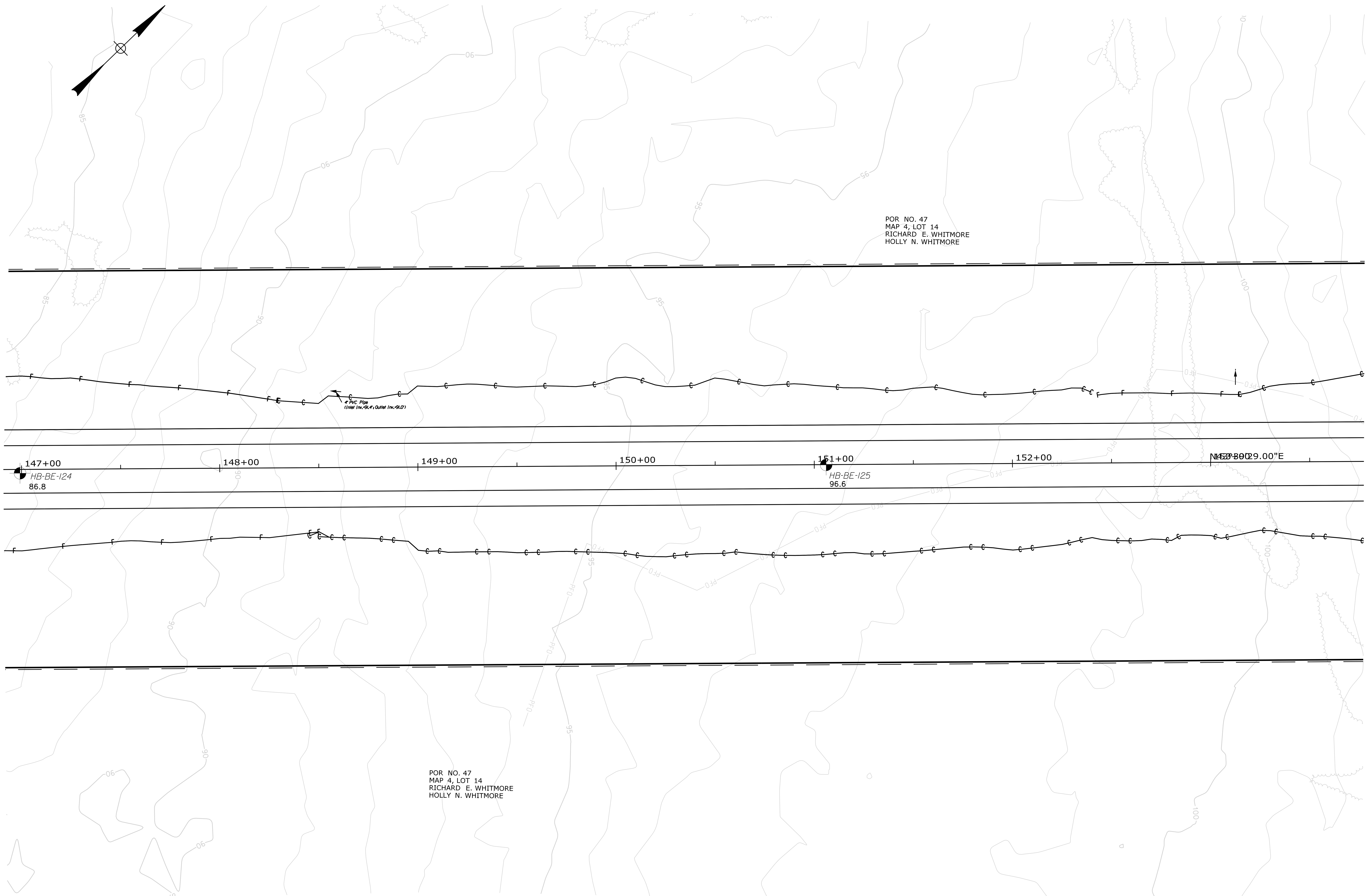

PLAN

25 0 25 50
Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
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REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

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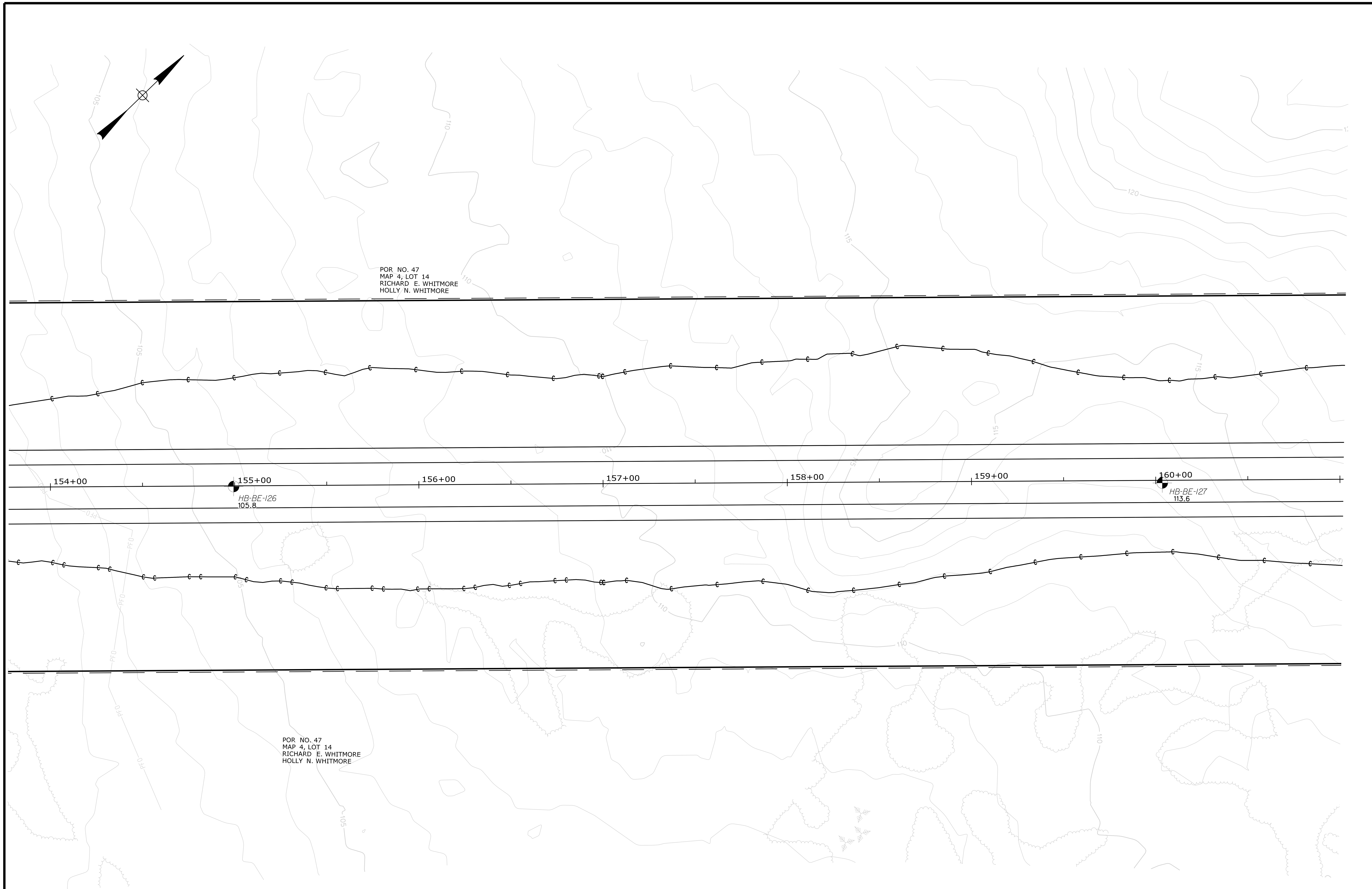
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
22
OF 114



PLAN

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Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
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CHECKED-REVIEWED	E. FORCE / W. CHADBOURNE	8-20-21
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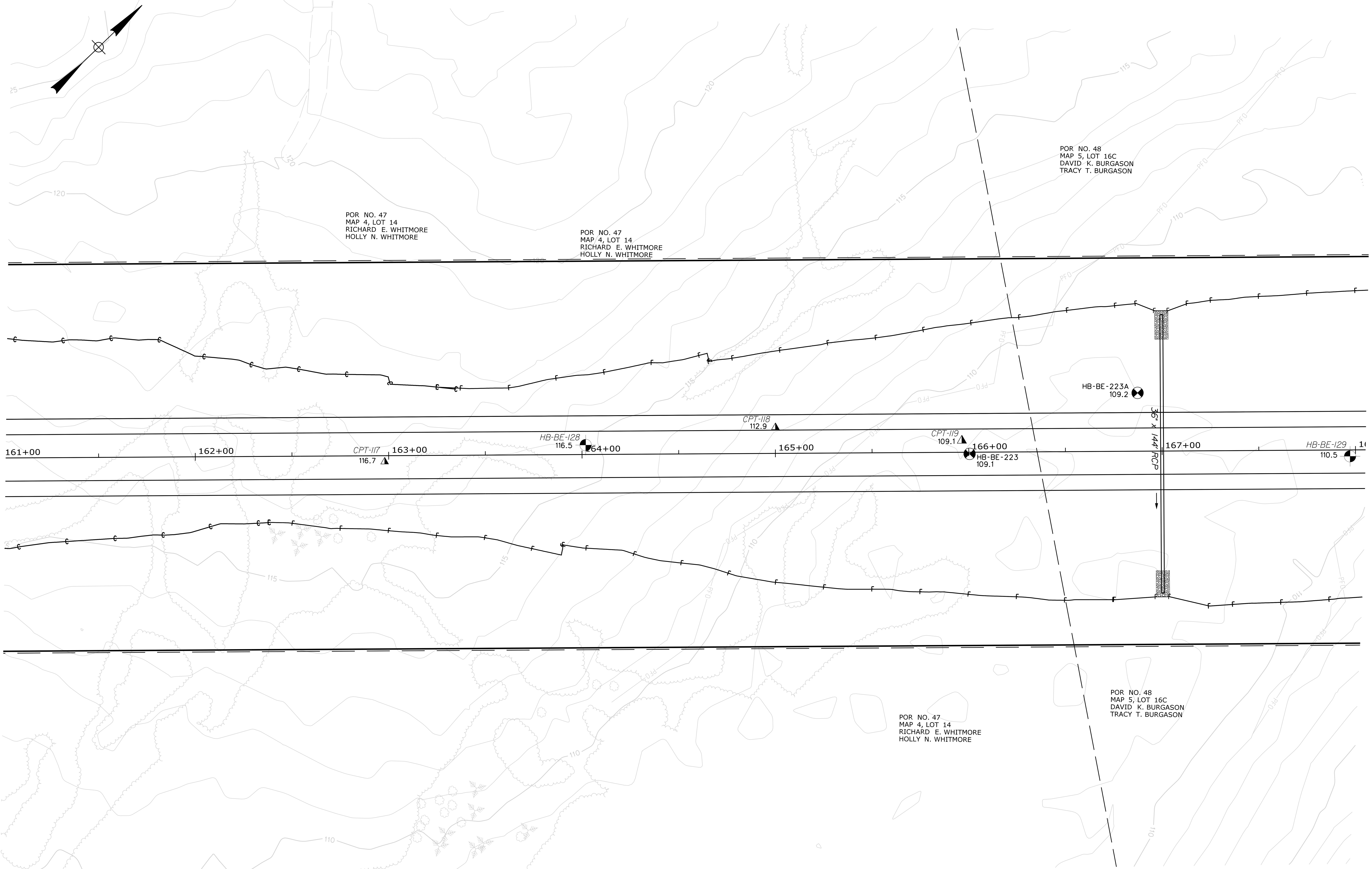
FIELD CHANGES		

SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
SUBSURFACE EXPLORATION LOCATION PLAN

SHEET NUMBER
23
OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan23.dgn Division: Username: Date:9/16/2021



PLAN

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Scale of Feet

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HALEY ALDRICH

Date:9/16/2021
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Filename: ...\CAD\I-395 Bypass\HDPlan24.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

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HIGHWAY PLANS

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PROJ. MANAGER			
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CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
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FIELD CHANGES			

SIGNATURE

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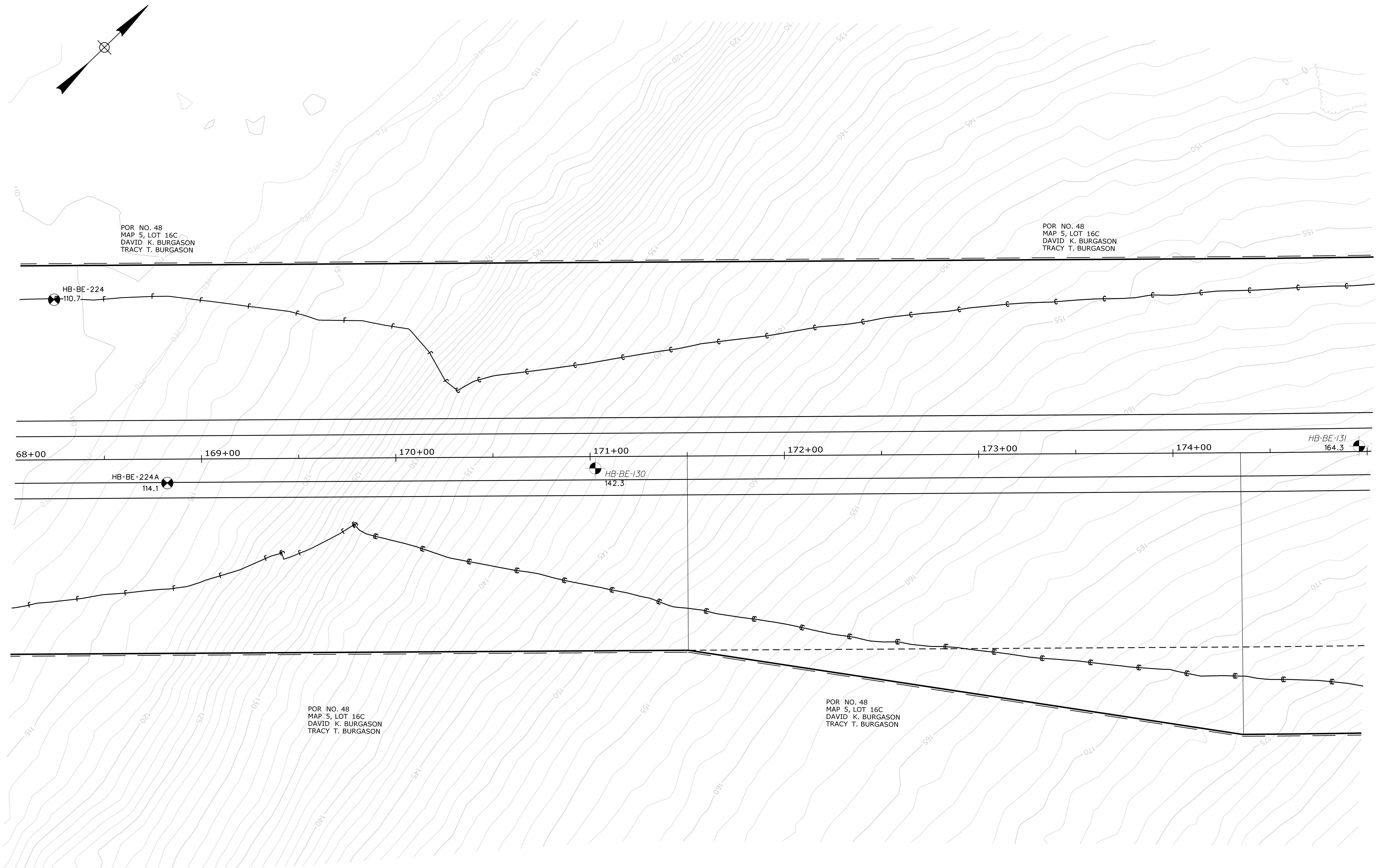
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION LOCATION PLAN

SHEET NUMBER
24
OF 114



PLAN

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Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

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HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	....		
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CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
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FIELD CHANGES	.....		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

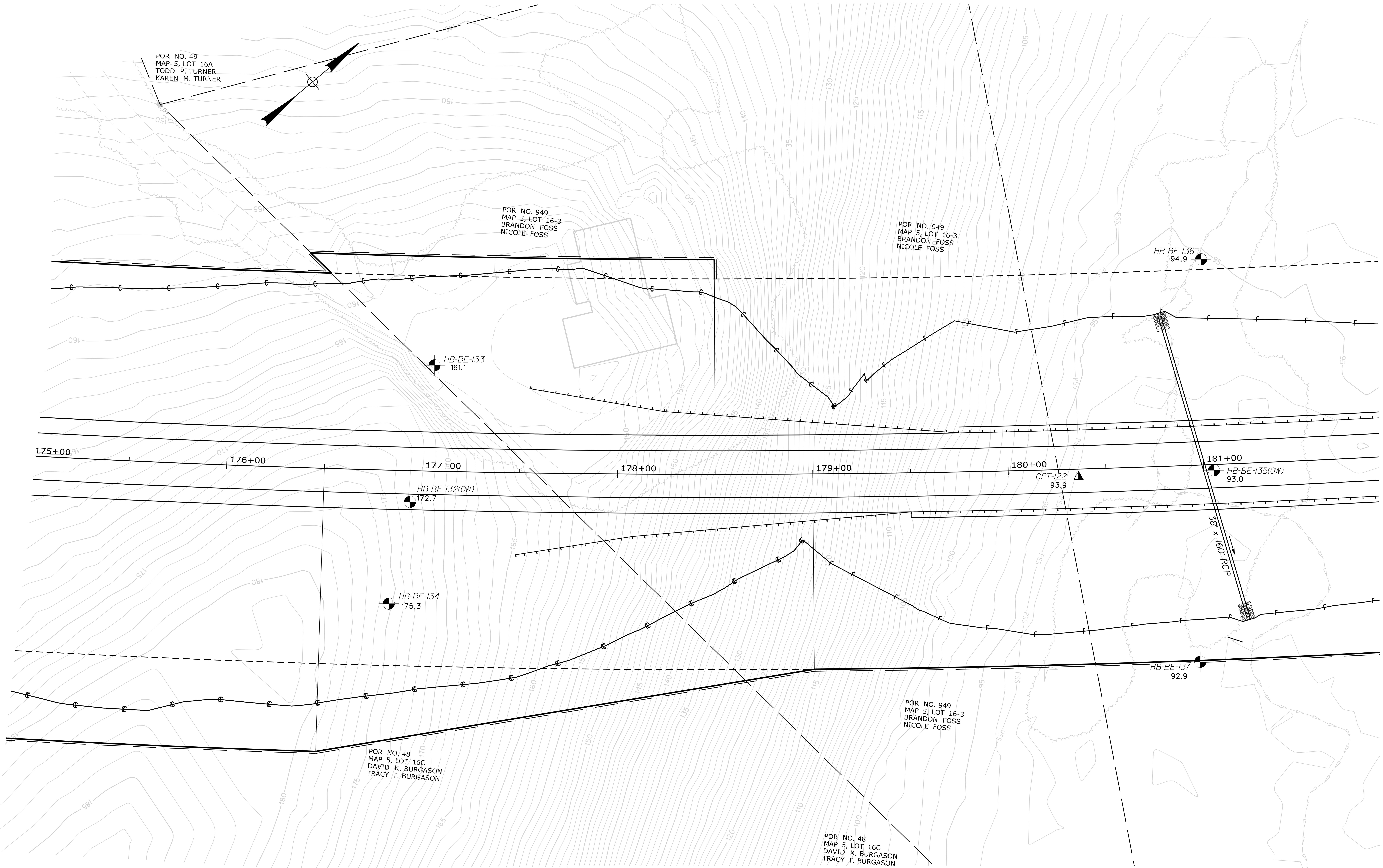
SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

25

OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan25.dgn Division: Username: Date:9/16/2021



PLAN

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Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

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HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	....	
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
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FIELD CHANGES	.....		.....

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
26
OF 114

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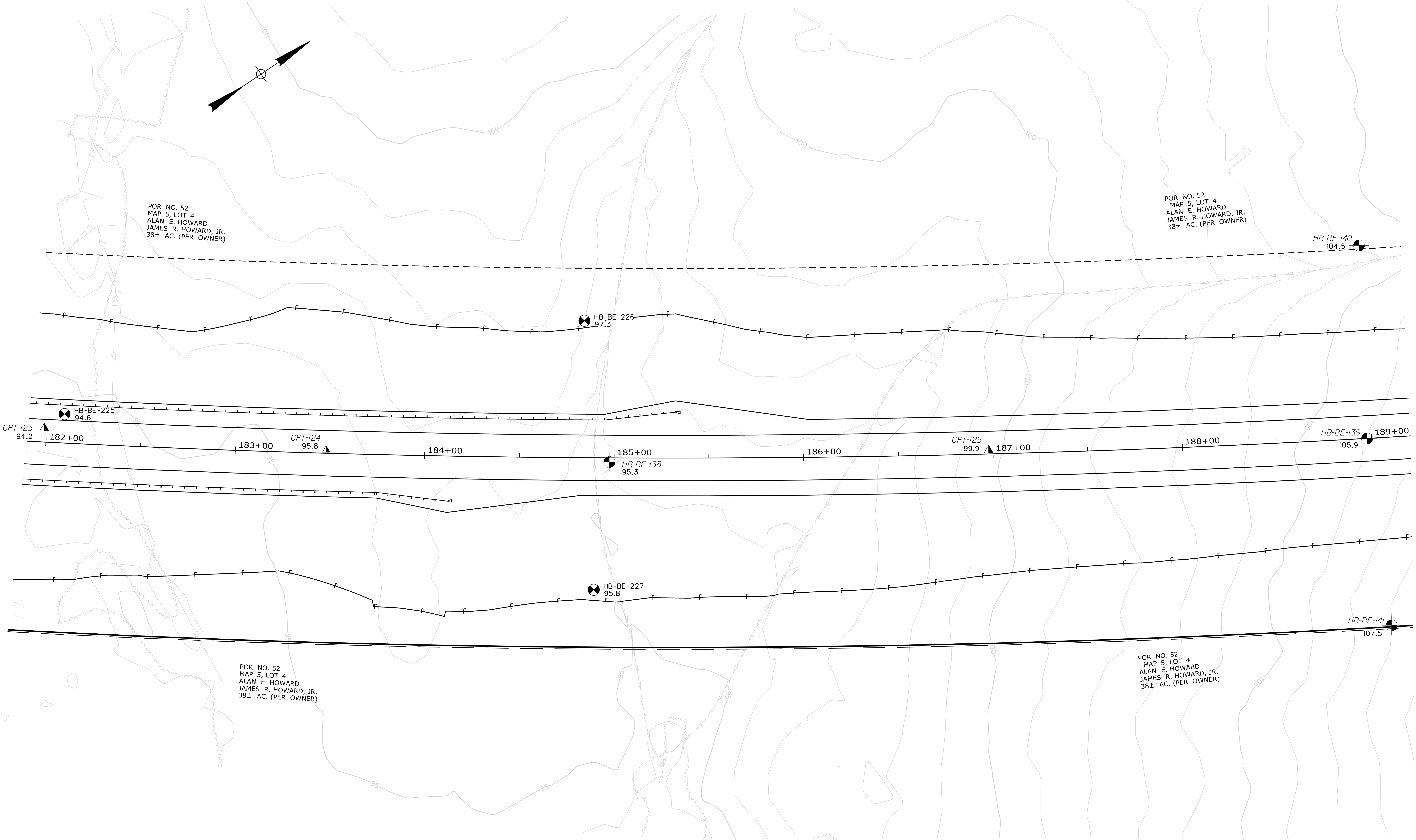


PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	K. POST	6-12-20
CHECKED-REVIEWED	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	E. FORCE	
DESIGN3-DETAILED3	E. FORCE	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

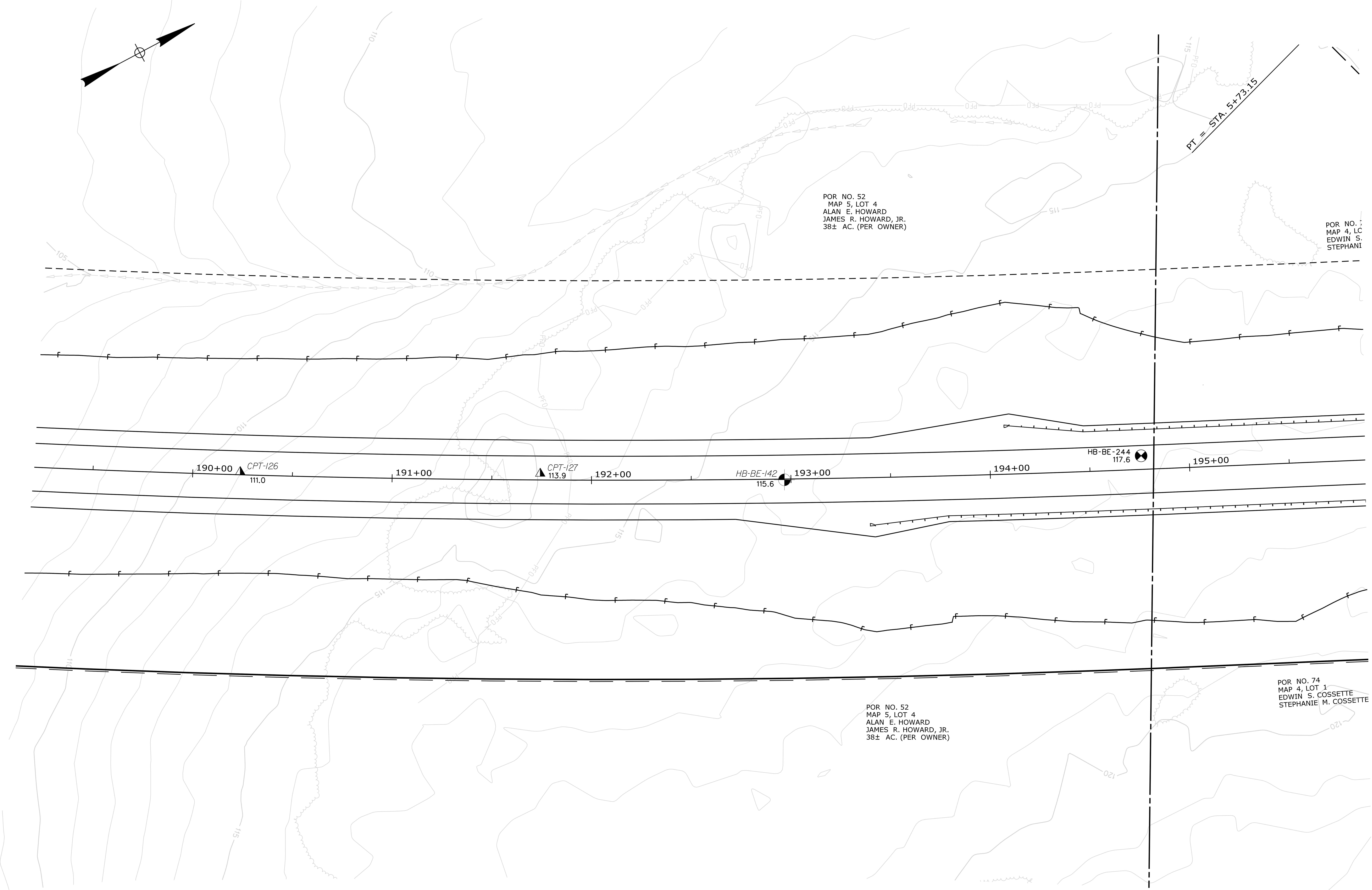
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
27
OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan28.dgn Division: Username: Date:9/16/2021



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE / K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE / W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

BREWER TO EDDINGTON I-395/ROUTE 9 CONNECTOR

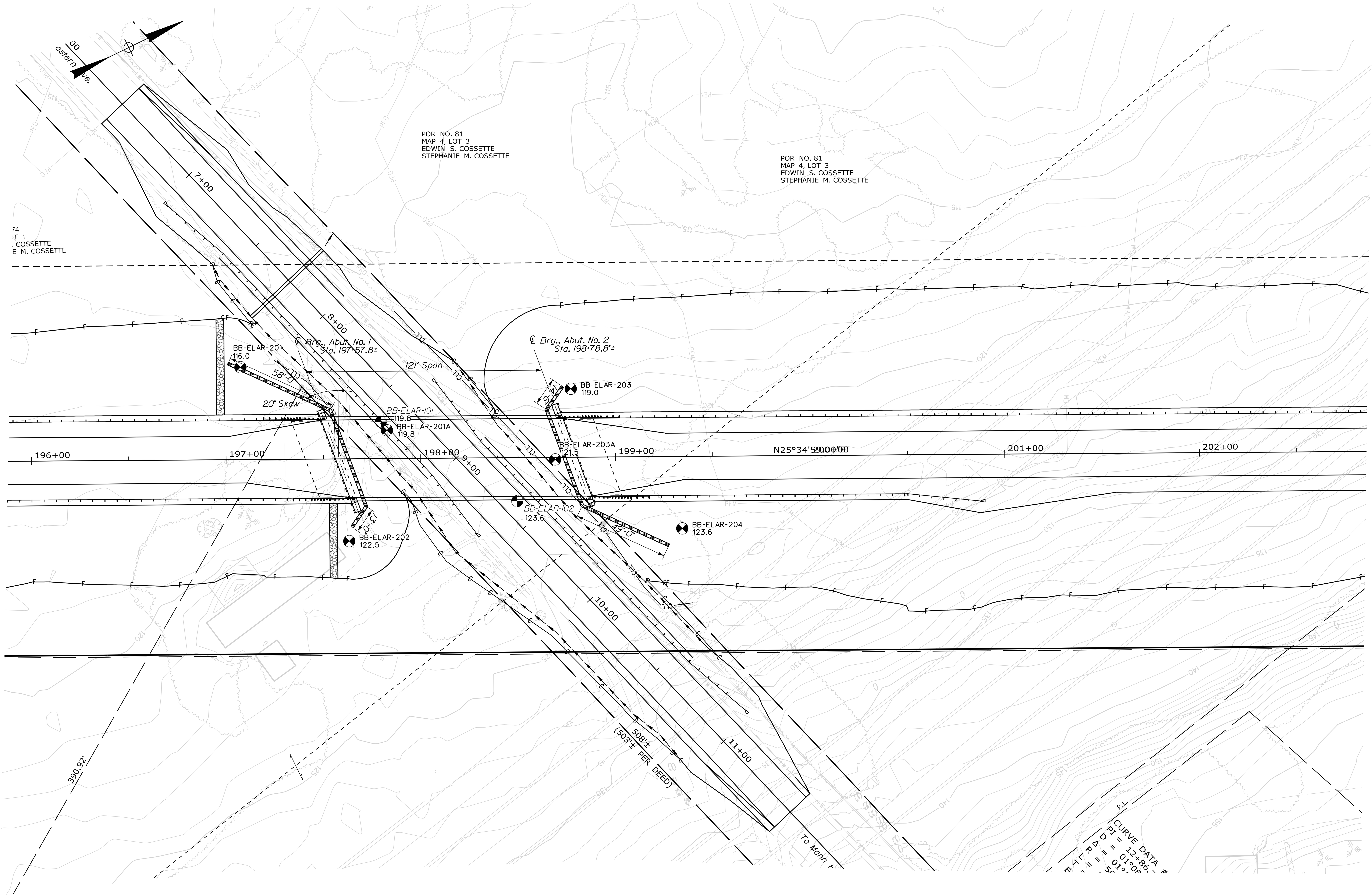
SUBSURFACE EXPLORATION LOCATION PLAN

SHEET NUMBER

28

OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan29.dgn Division: Username: Date:9/16/2021



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	....	
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	......	......	......
DESIGN3-DETAILED3	......	......	......
REVISIONS 1	......	......	......
REVISIONS 2	......	......	......
REVISIONS 3	......	......	......
REVISIONS 4	......	......	......
FIELD CHANGES	......	......	......

SIGNATURE

P.E. NUMBER

DATE

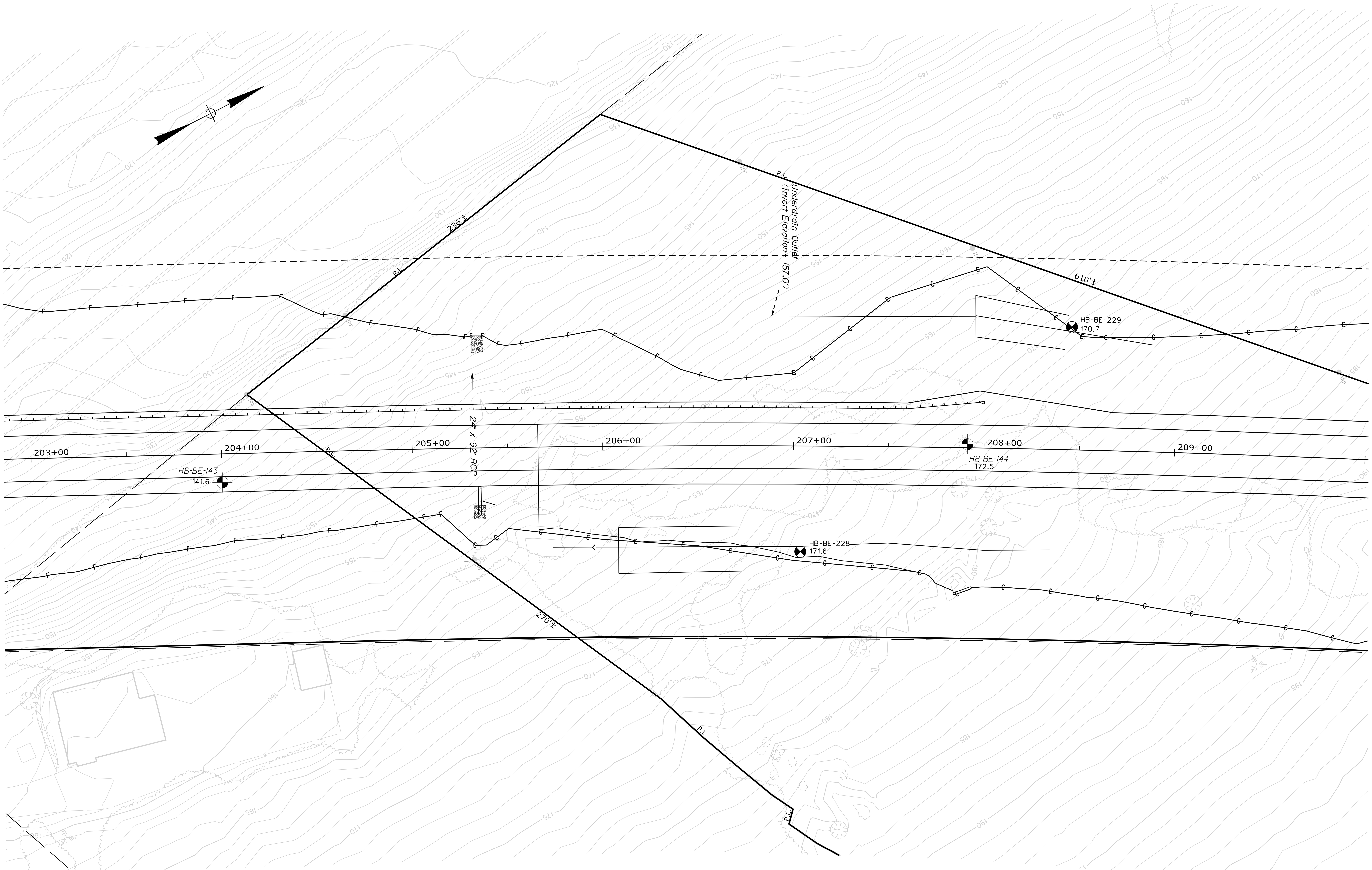
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

29

OF 114



PLAN

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Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

Filename: ...\CAD\I-395 Bypass\HDPlan30.dgn Division: Username: Date:9/16/2021

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST 6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE 8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

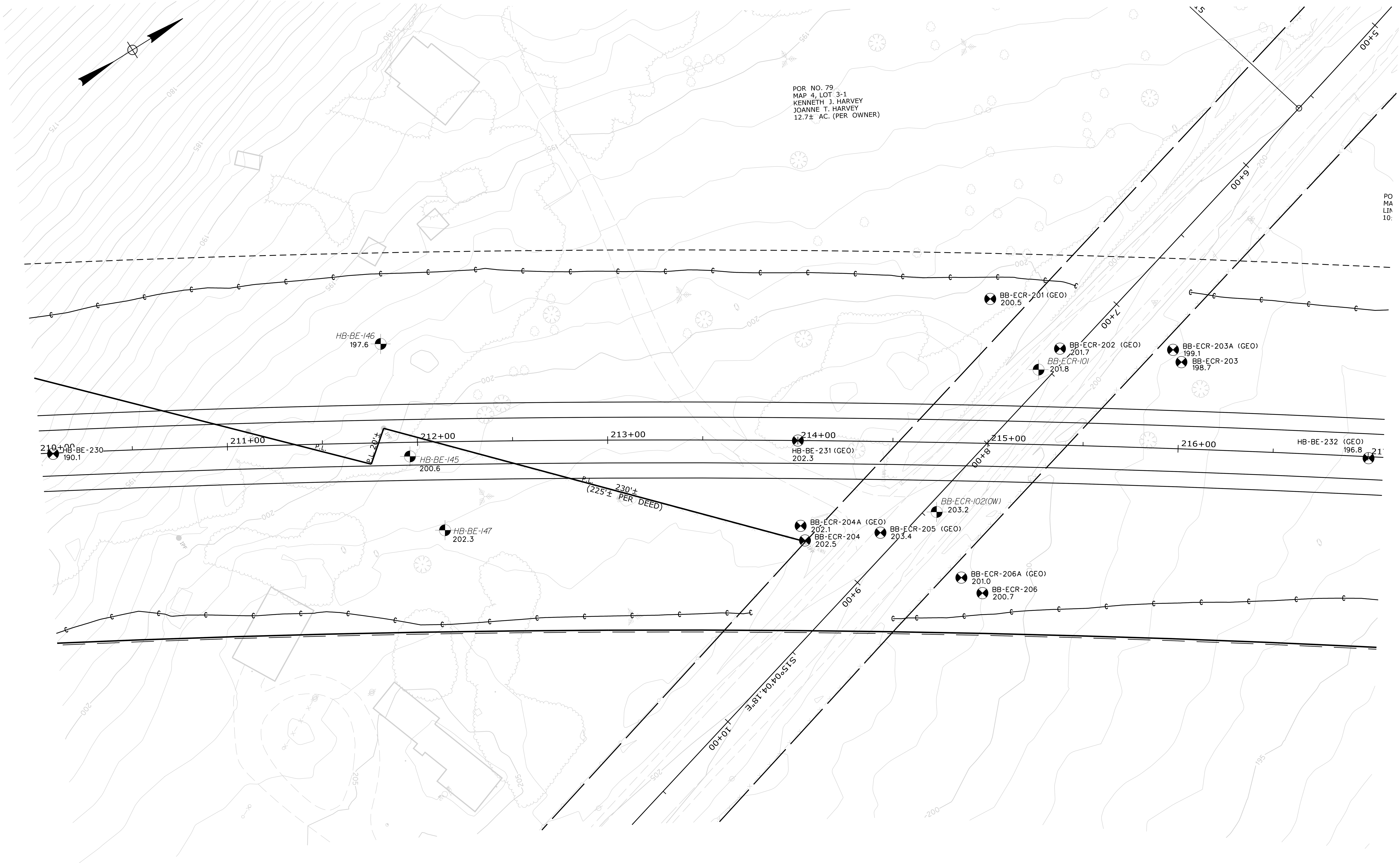
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
30
OF 114

Date:9/16/2021
Username:
Division:
Filename: ...\CAD\I-395 Bypass\HDPlan31.dgn



PLAN

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Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

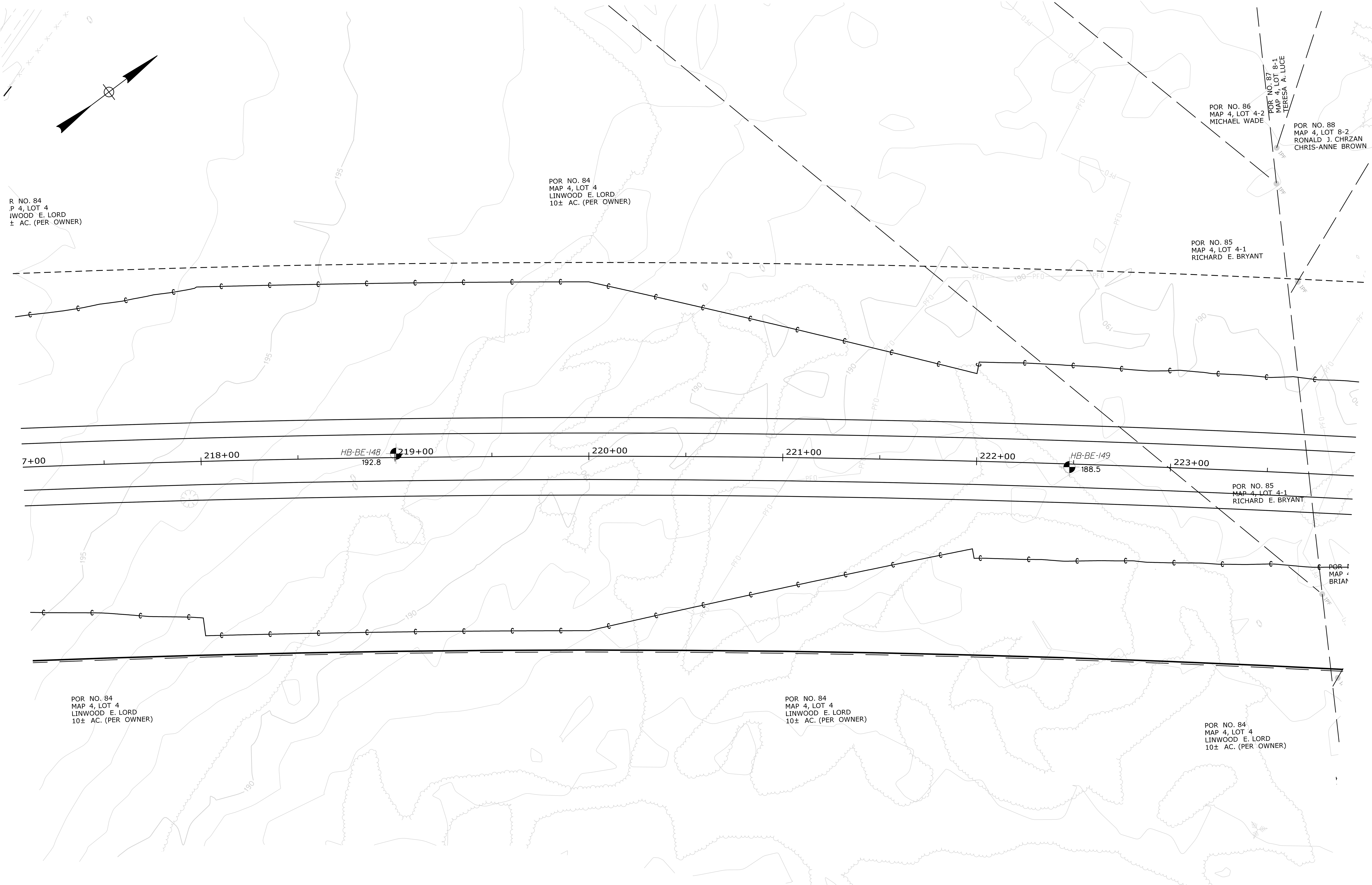
P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
31
OF 114



PLAN

25 0 25 50
Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

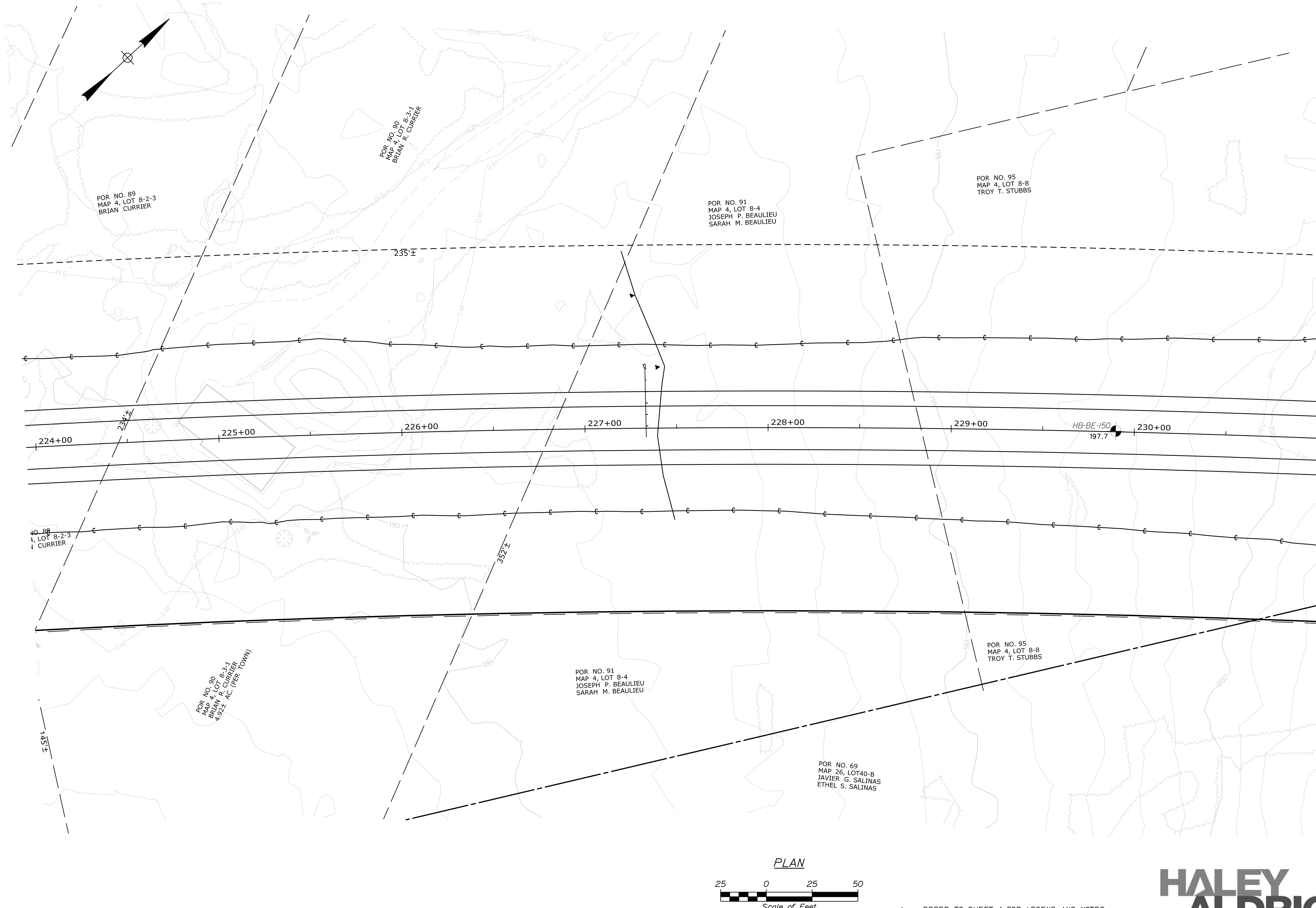
	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
32
OF 114



1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

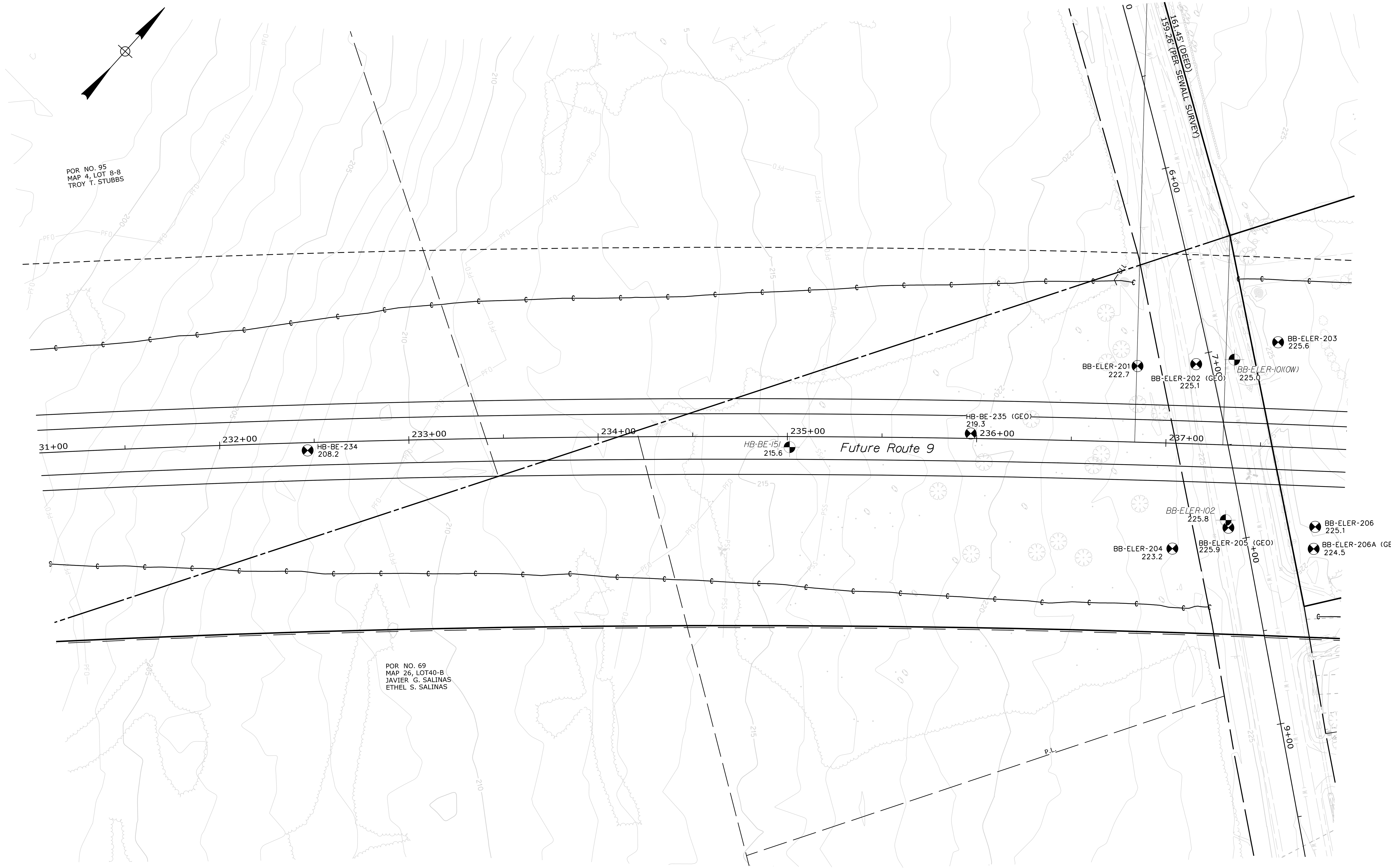
SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
SUBSURFACE EXPLORATION LOCATION PLAN

SHEET NUMBER
33
OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan33.dgn   Division: Username: Date:9/16/2021

Filename: ...\CAD\I-395 Bypass\HDPlan34.dgn
Division:
Username:
Date:9/16/2021



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

PROJ. MANAGER	....	BY	DATE
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

34

OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan35.dgn
Division:
Username:
Date:9/16/2021

PLAN

25 0 25 50
Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	----------	
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

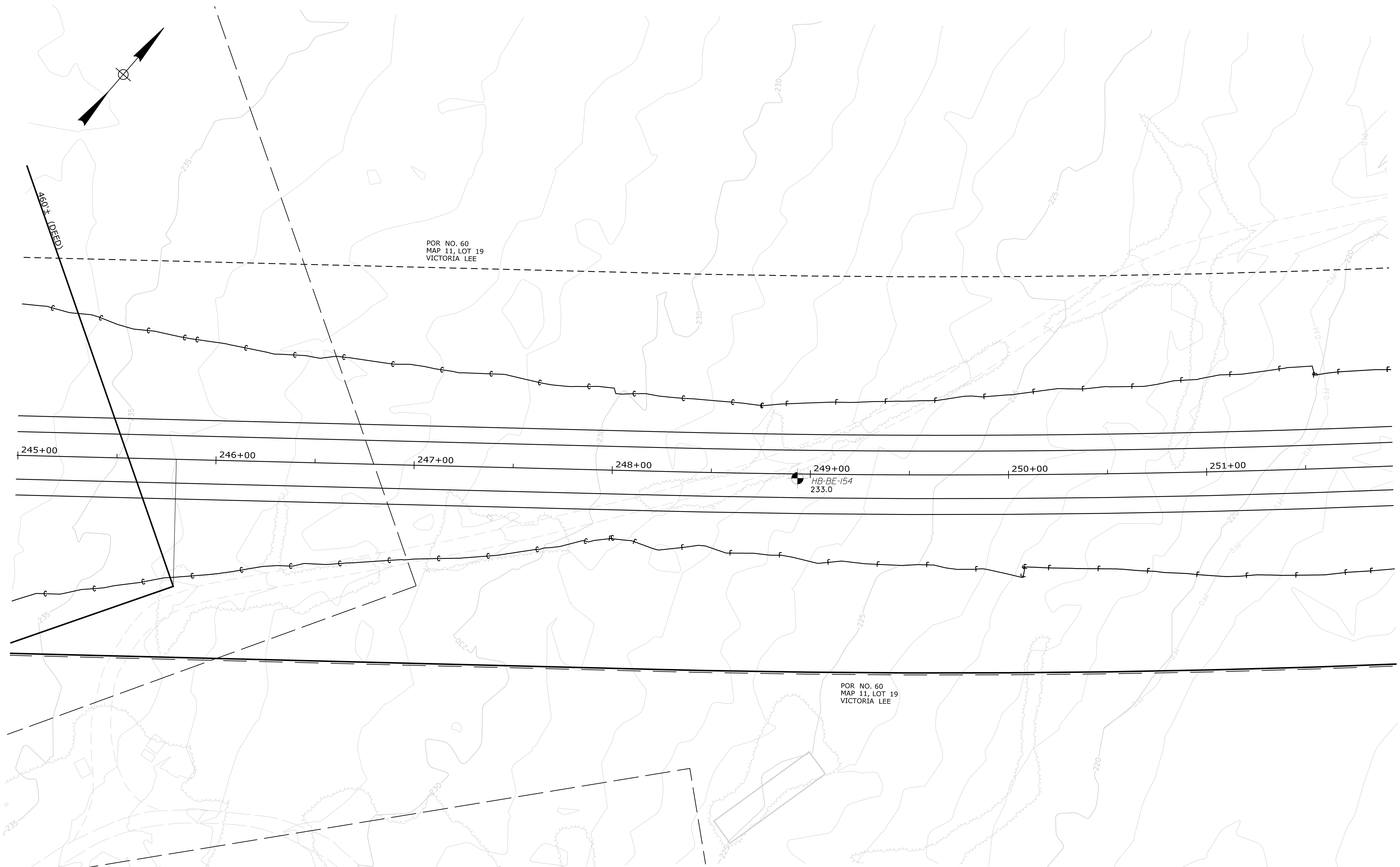
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
35
OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan36.dgn Division: Username: Date:9/16/2021



PLAN

25 0 25 50
Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	....		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

SIGNATURE

P.E. NUMBER

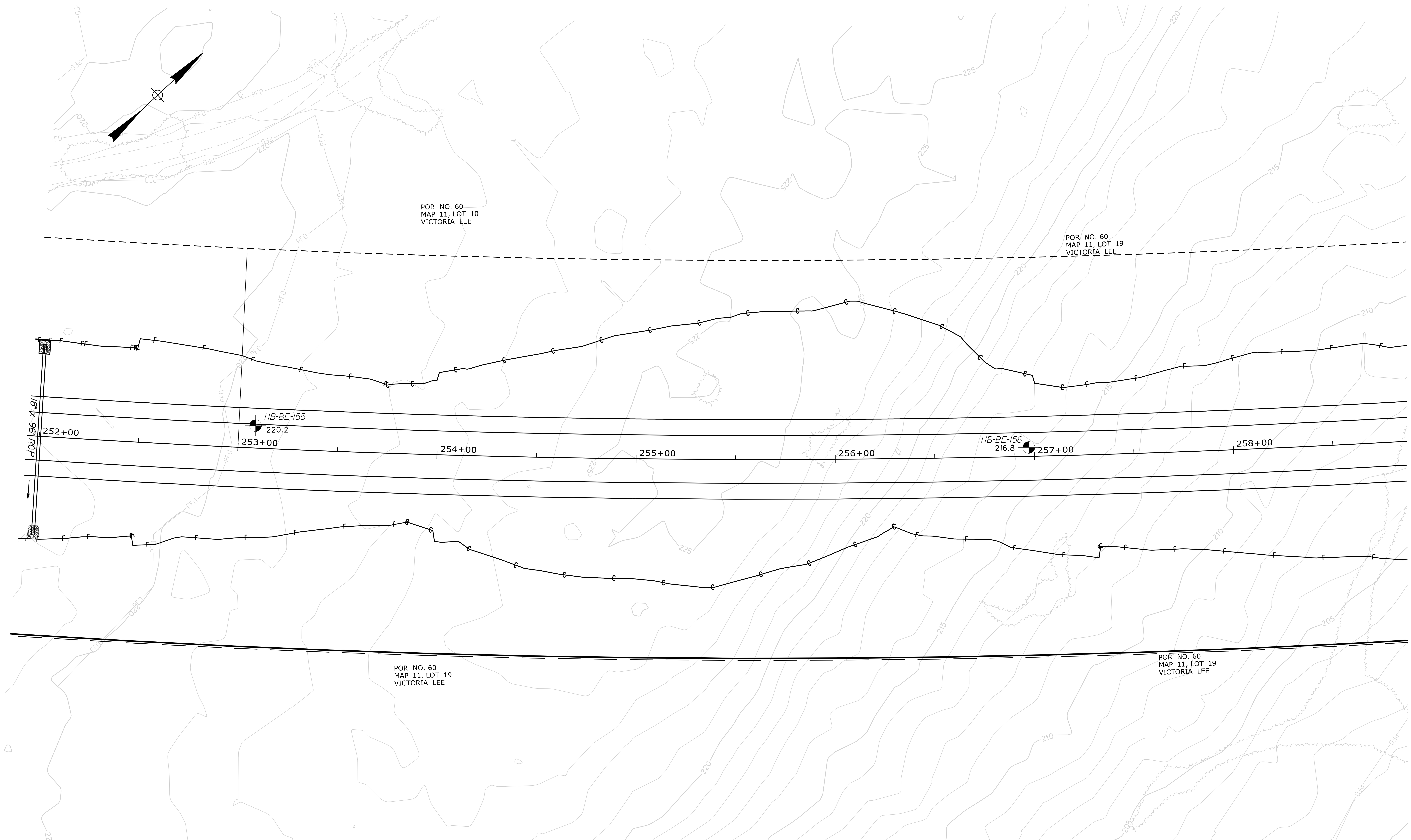
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
36
OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan37.dgn Division: Username: Date:9/16/2021



PLAN

25 0 25 50
Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	....		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

SIGNATURE

P.E. NUMBER

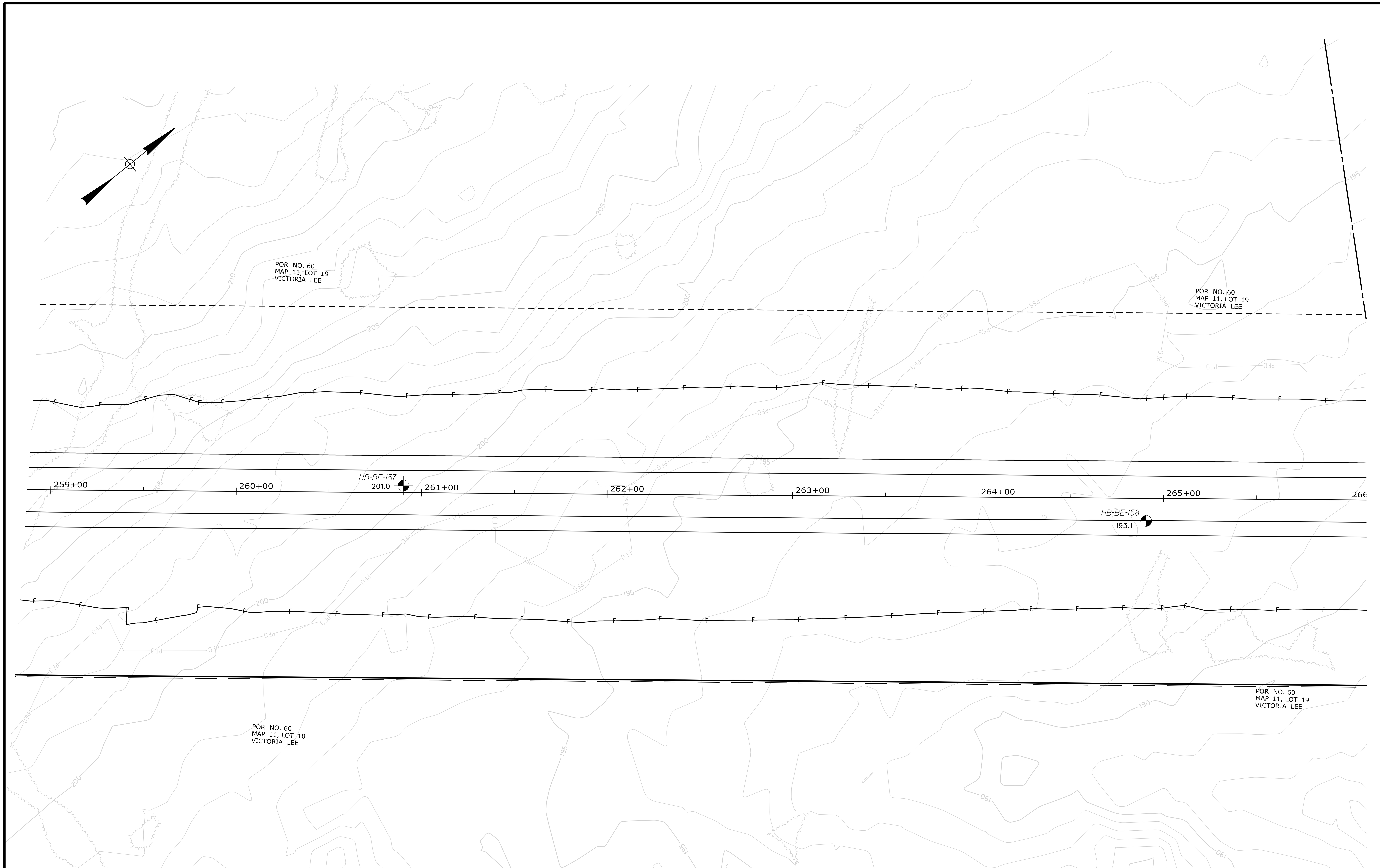
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
37
OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan38.dgn Division: Username: Date:9/16/2021



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

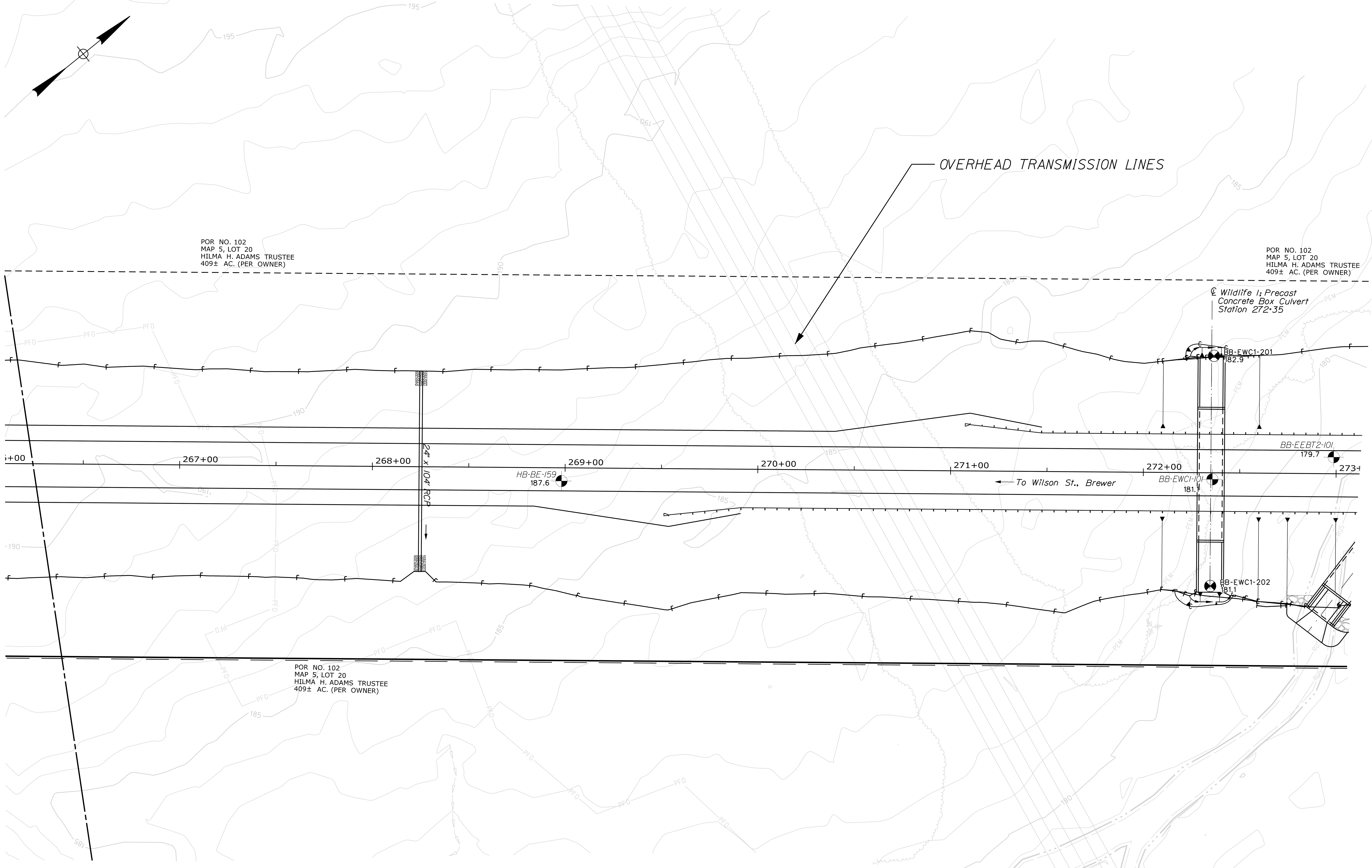
SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

38

OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan39.dgn Division: Username: Date:9/16/2021



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	......	
DESIGN-DETAILED	E. FORCE / K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE / W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....
DESIGN3-DETAILED3	.....	.....
REVISIONS 1	.....	.....
REVISIONS 2	.....	.....
REVISIONS 3	.....	.....
REVISIONS 4	.....	.....
FIELD CHANGES	.....	.....

SIGNATURE

P.E. NUMBER

DATE

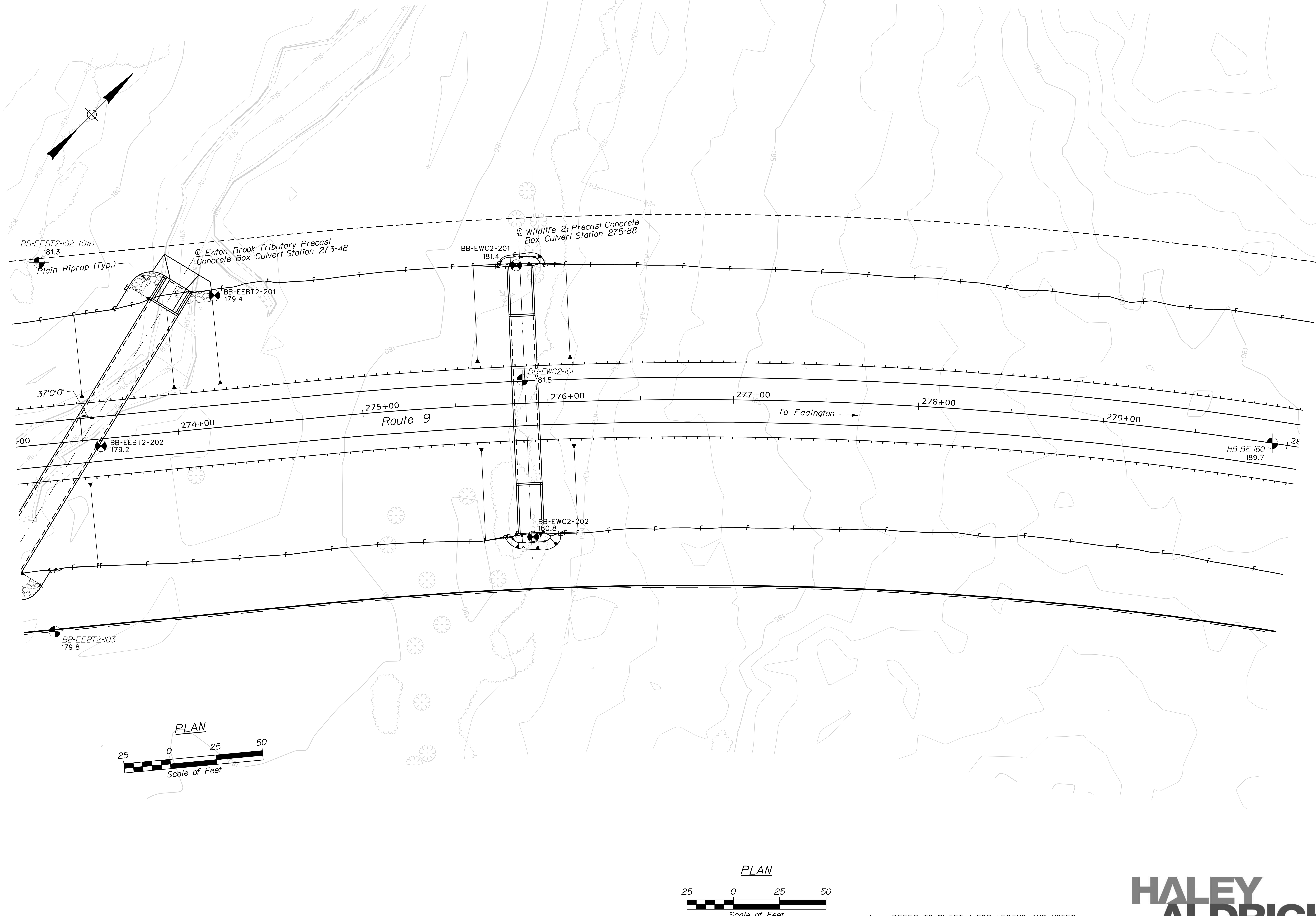
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

39

OF 114



1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST 6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE 8-20-21

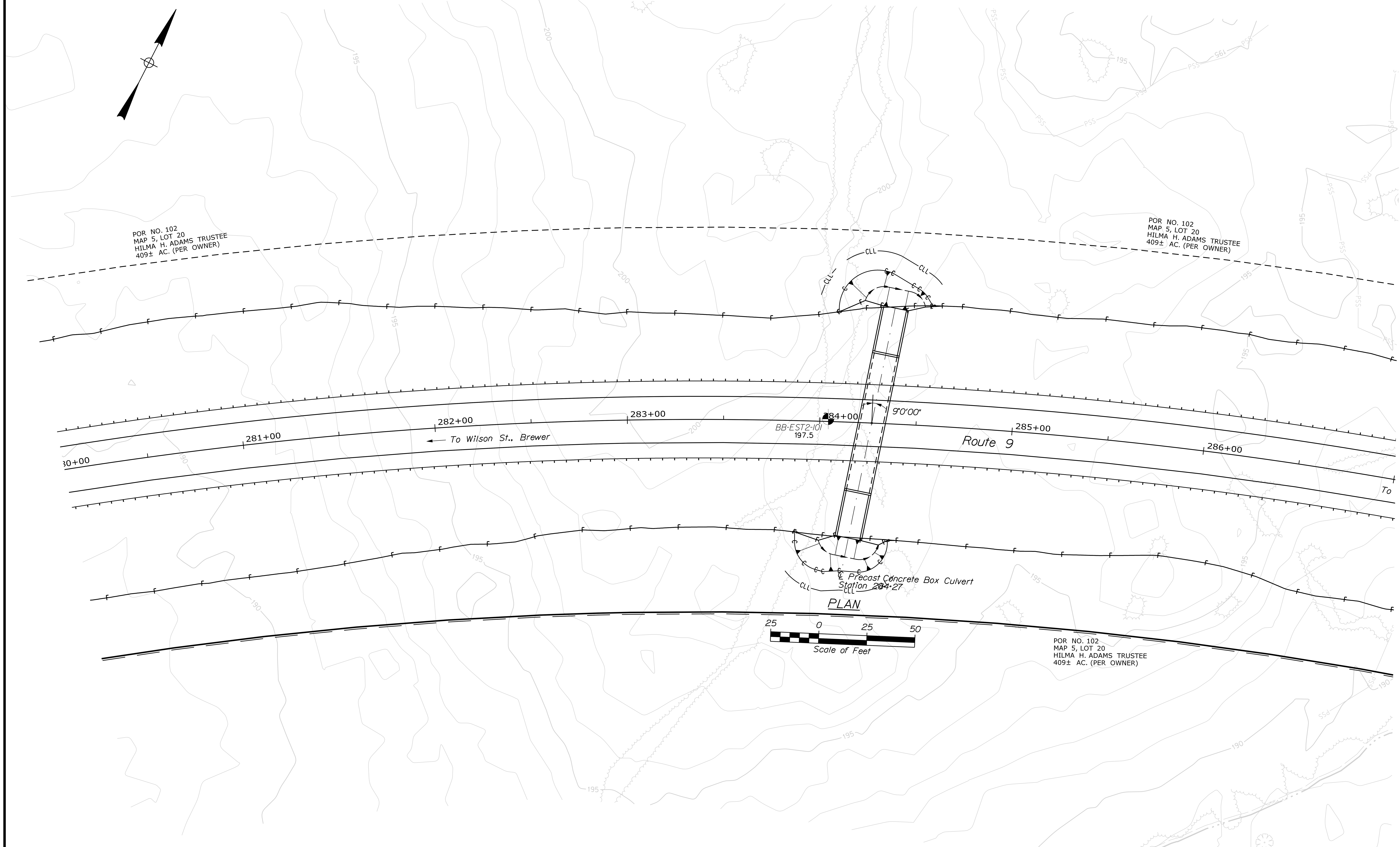
SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
SUBSURFACE EXPLORATION LOCATION PLAN

SHEET NUMBER
40
OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan40.dgn Division: Username: Date:9/16/2021

Filename: ...\CAD\I-395 Bypass\HDPlan41.dgn   Division: Username: Date:9/16/2021



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

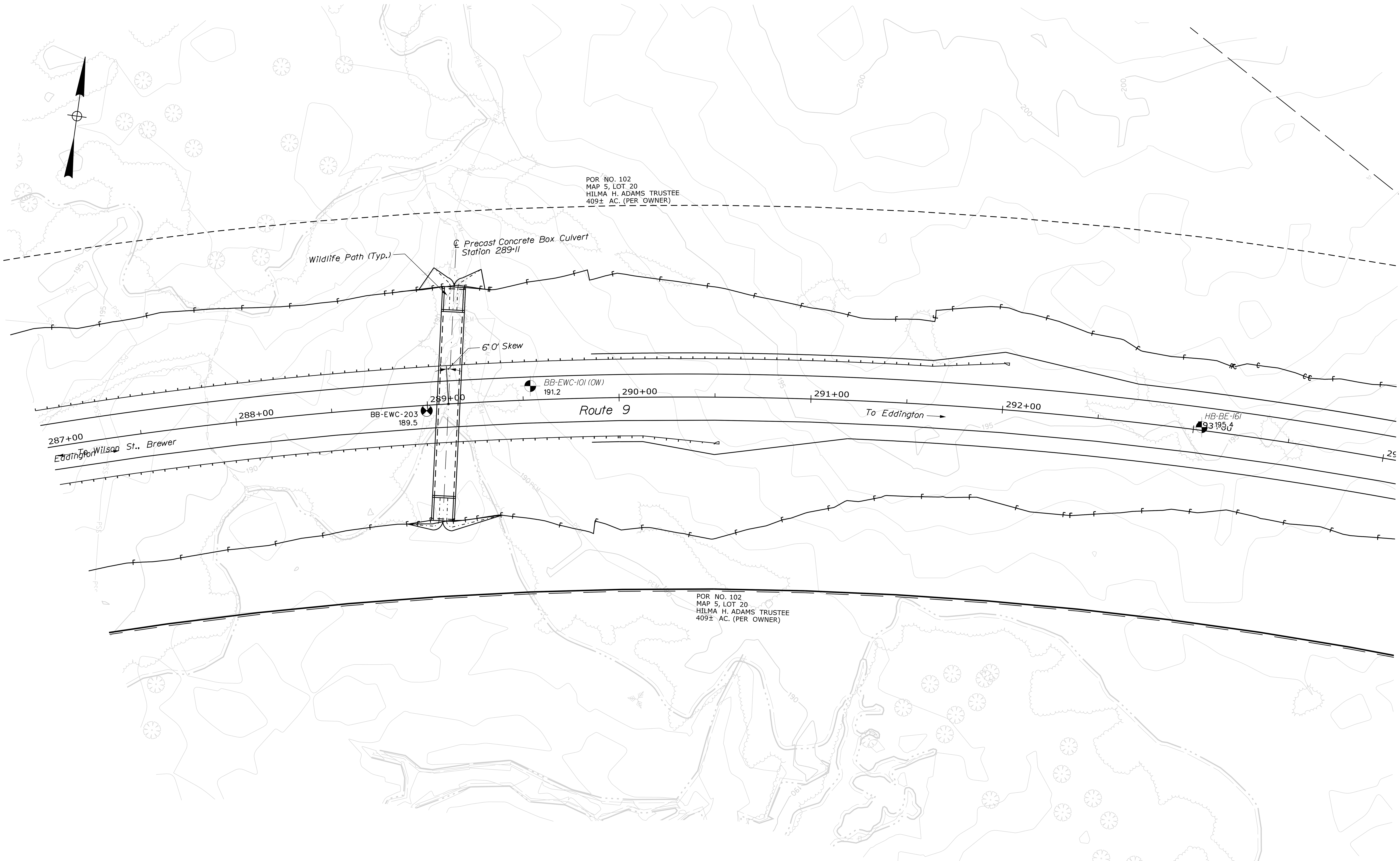
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

41

OF 114



PLAN

25 0 25 50
Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	....	
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

SIGNATURE

P.E. NUMBER

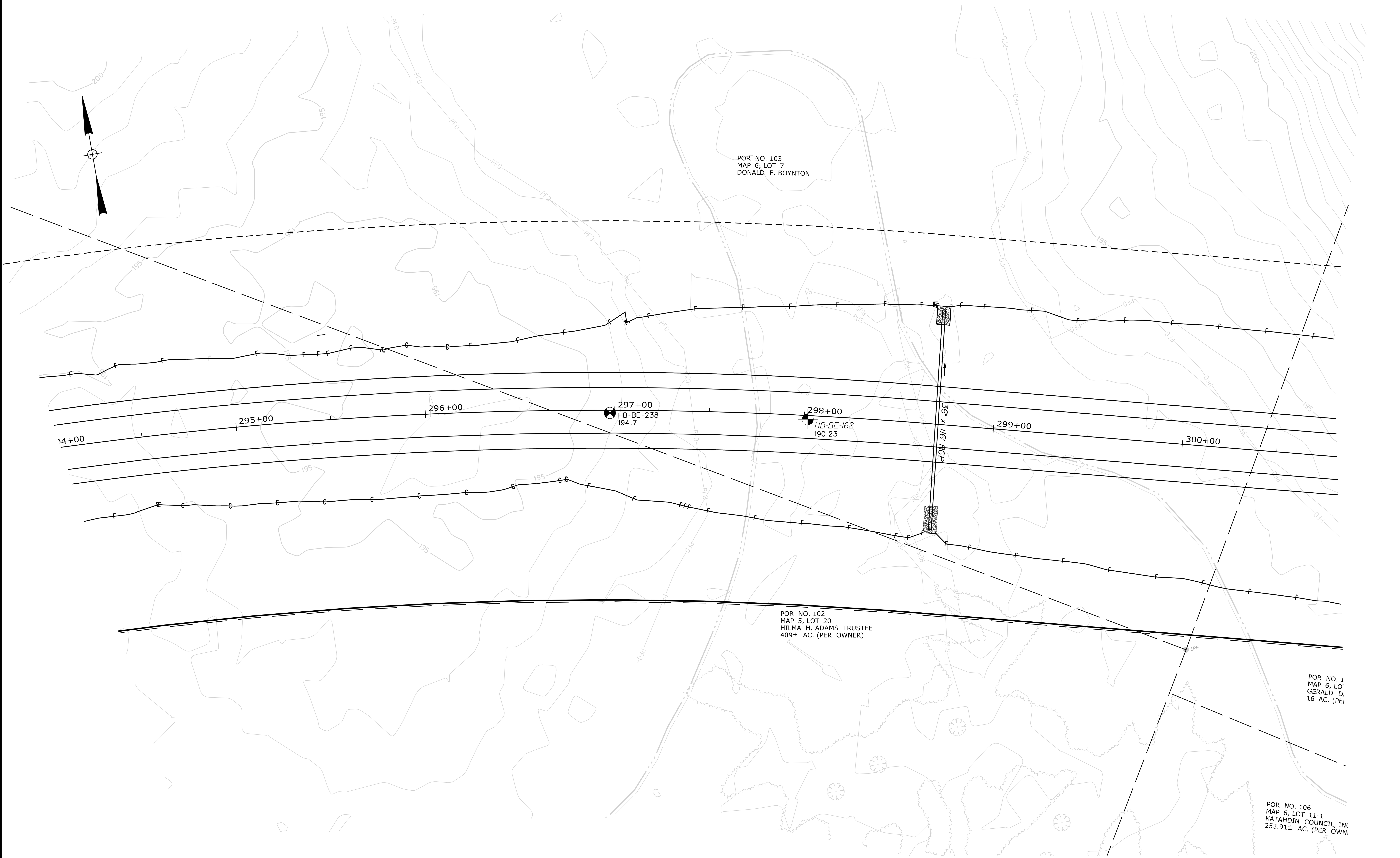
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
42
OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan43.dgn Division: Username: Date:9/16/2021



PLAN

25 0 25 50
Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

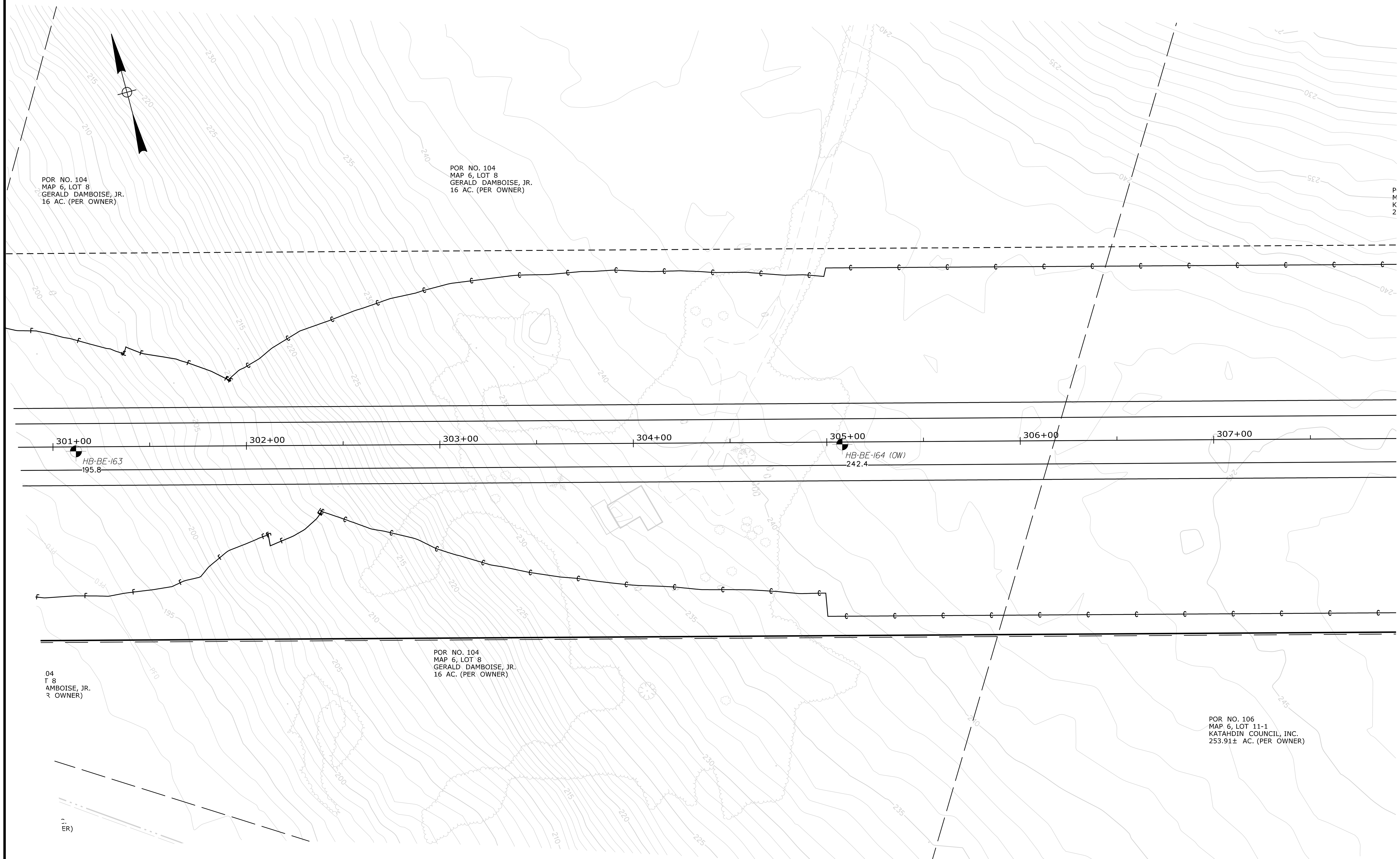
SHEET NUMBER
43
OF 114

Date:9/16/2021

Username:

Division:

Filename: ...\CAD\I-395 Bypass\HDPlan44.dgn



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	K. POST	6-12-20
CHECKED-REVIEWED	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
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REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

44

OF 114

Date:9/16/2021

Username:

Division:

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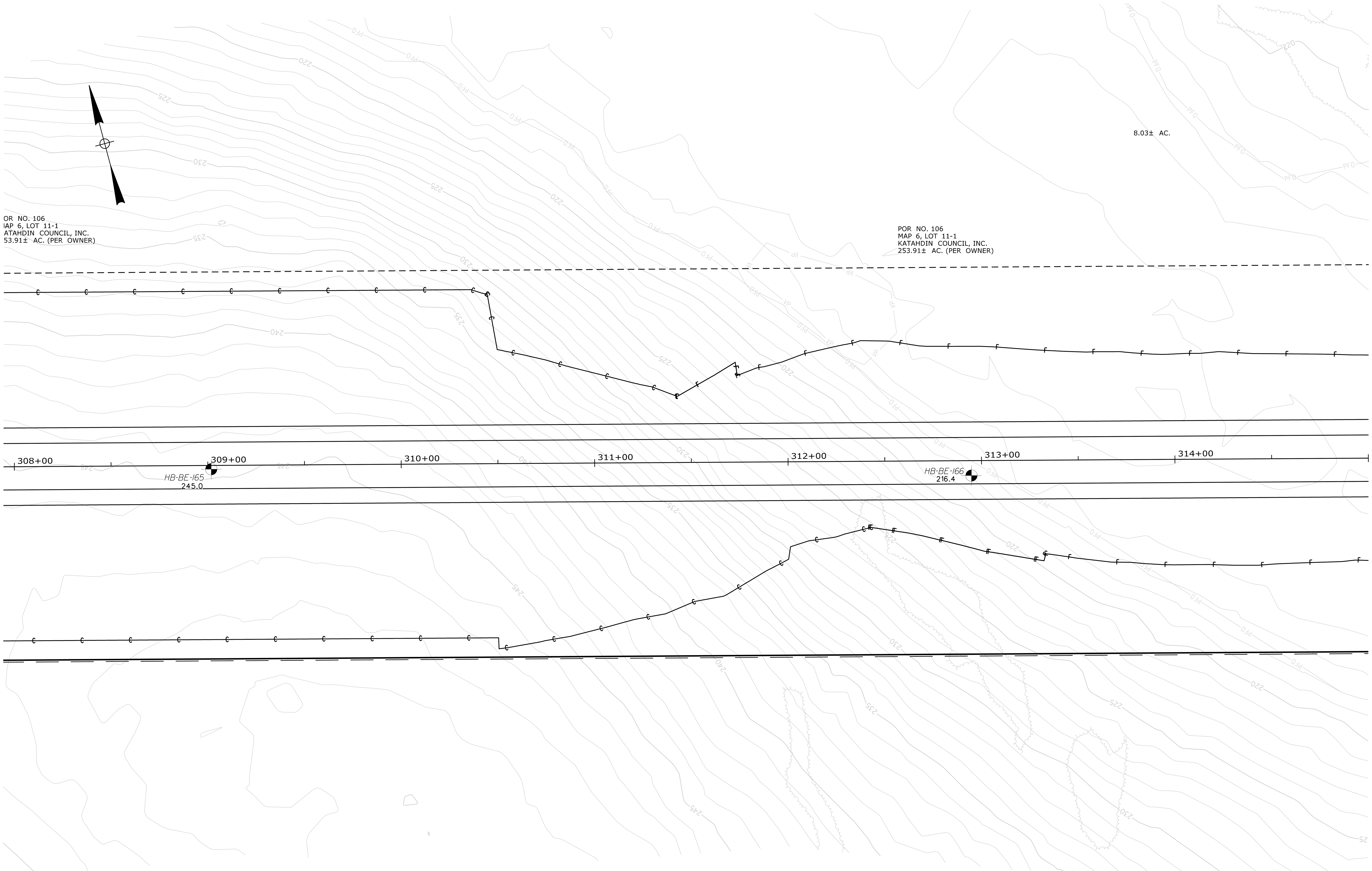


PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	------------		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	------	-----	-----
DESIGN3-DETAILED3	------	-----	-----
REVISIONS 1	------		-----
REVISIONS 2	------		-----
REVISIONS 3	------		-----
REVISIONS 4	------		-----
FIELD CHANGES	------		-----

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

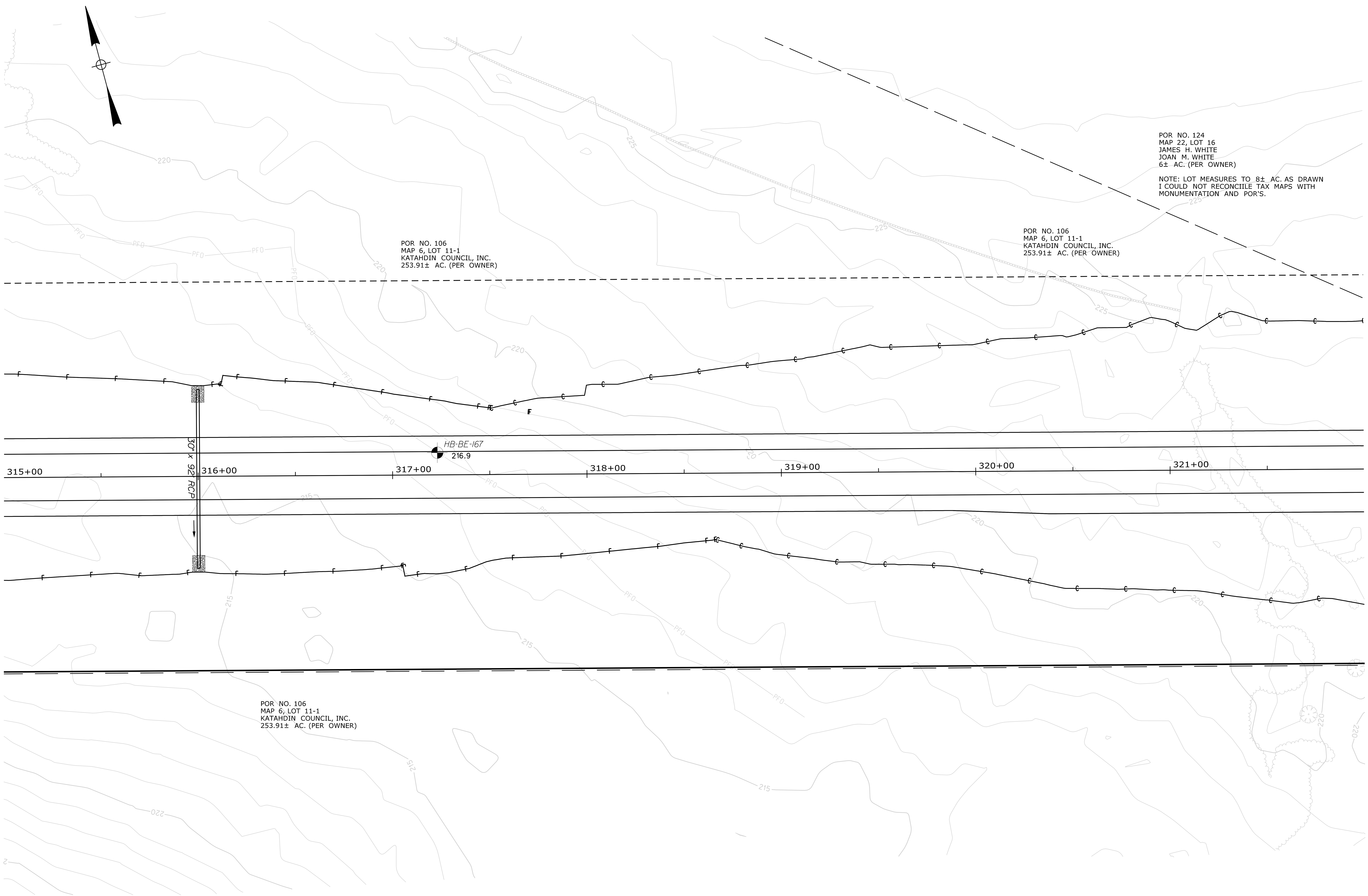
SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

45

OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan46.dgn   Division: Username: Date:9/16/2021



PLAN

25 0 25 50
Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

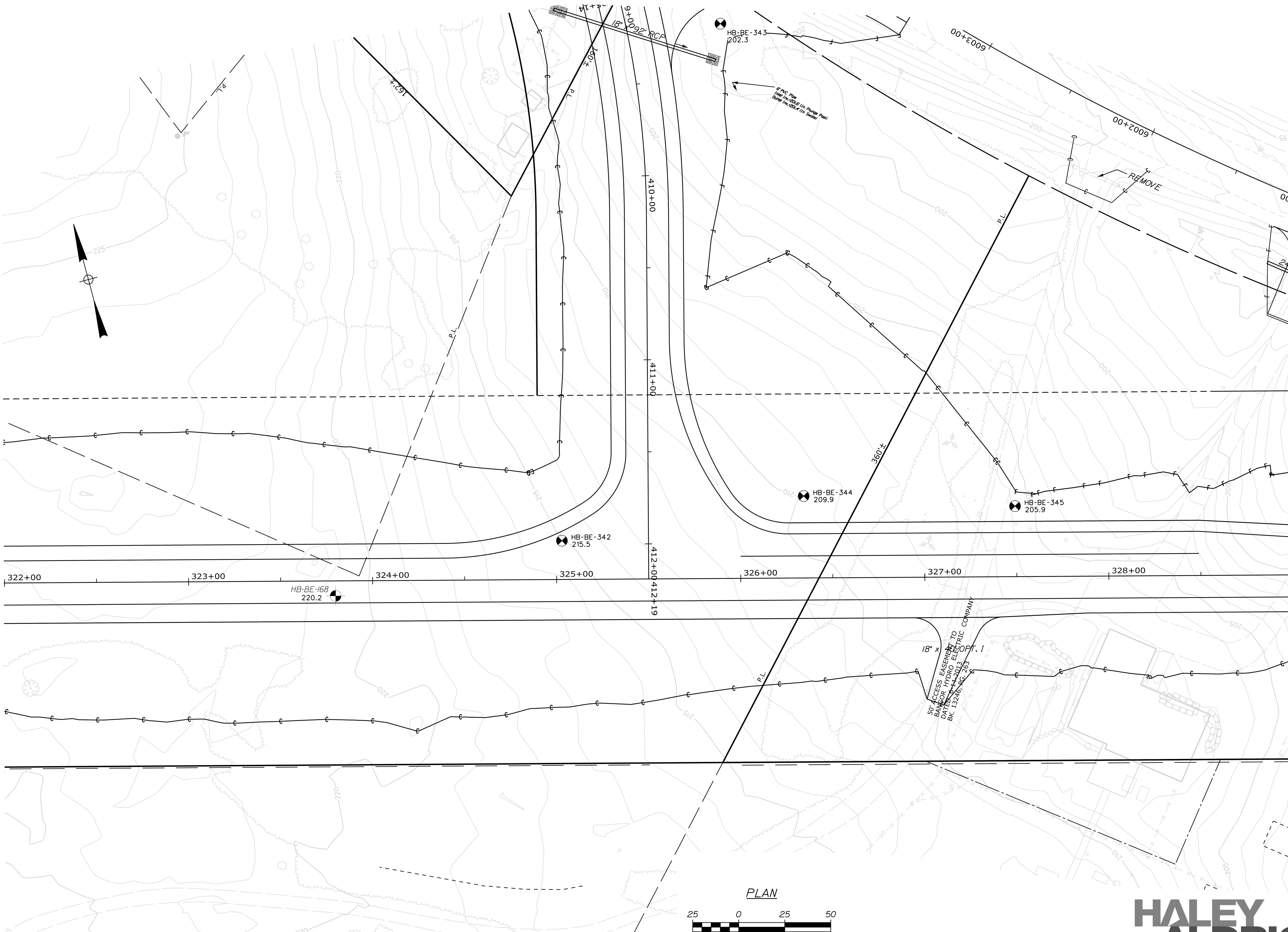
P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
46
OF 114



PLAN

25 0 25 50
Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

Filename: ...\CAD\I-395 Bypass\HDPlan47.dgn Division: Username: Date:9/16/2021

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	....		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

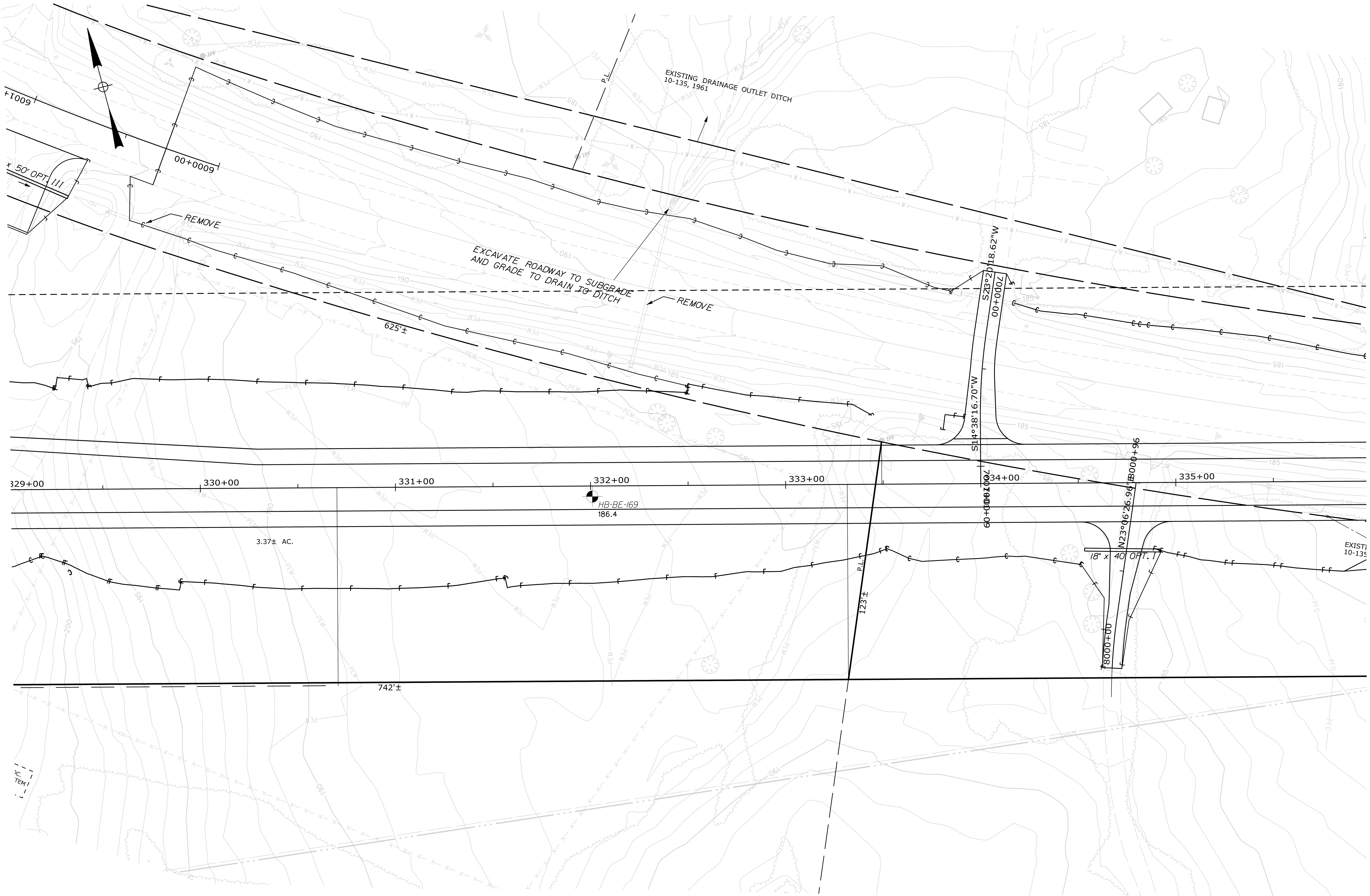
SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
47
OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\HDPlan48.dgn



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

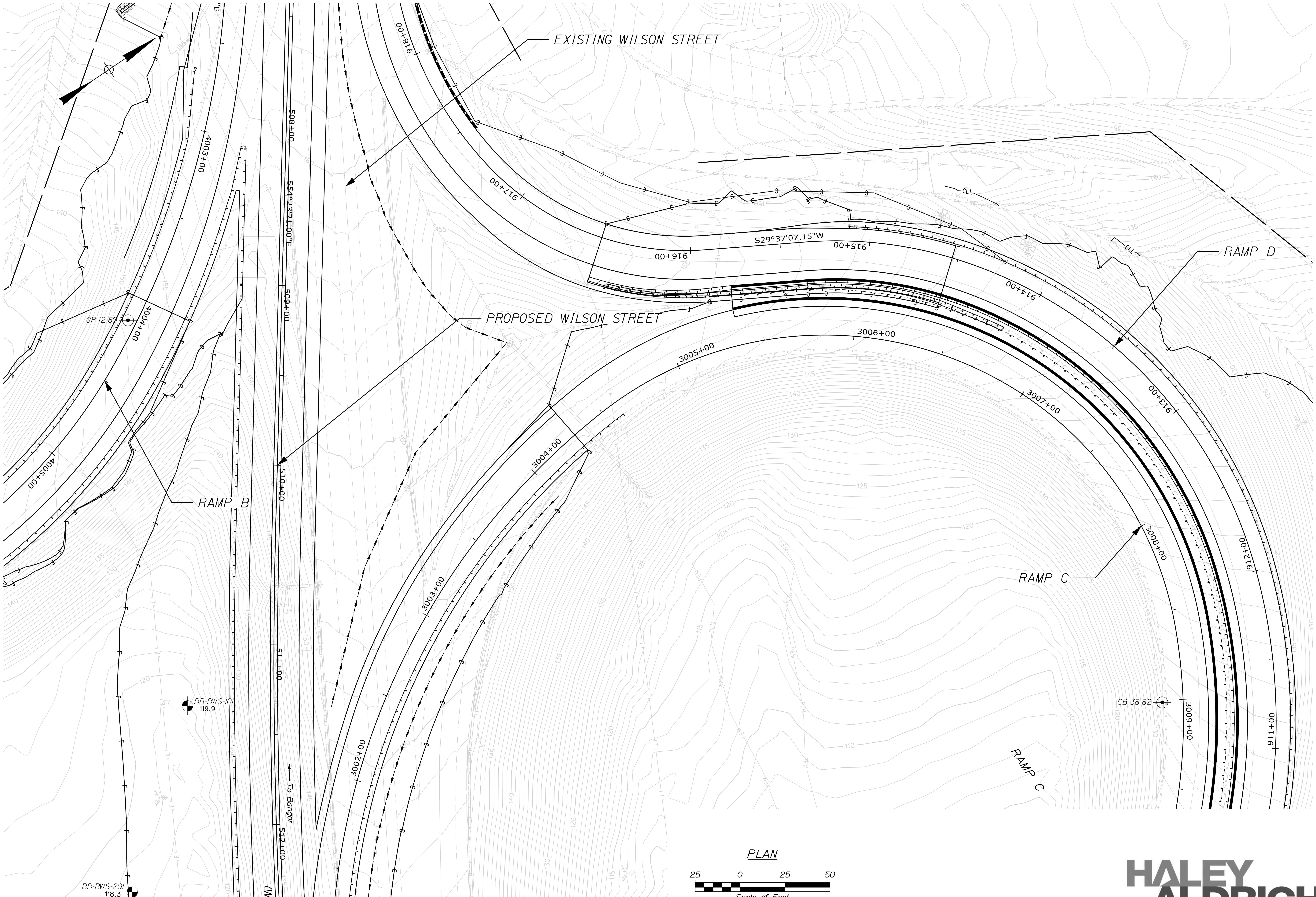
P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
48
OF 114



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

Filename: ...\CAD\I-395 Bypass\HDPlan49.DGN Division: Username: Date:9/16/2021

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	....		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

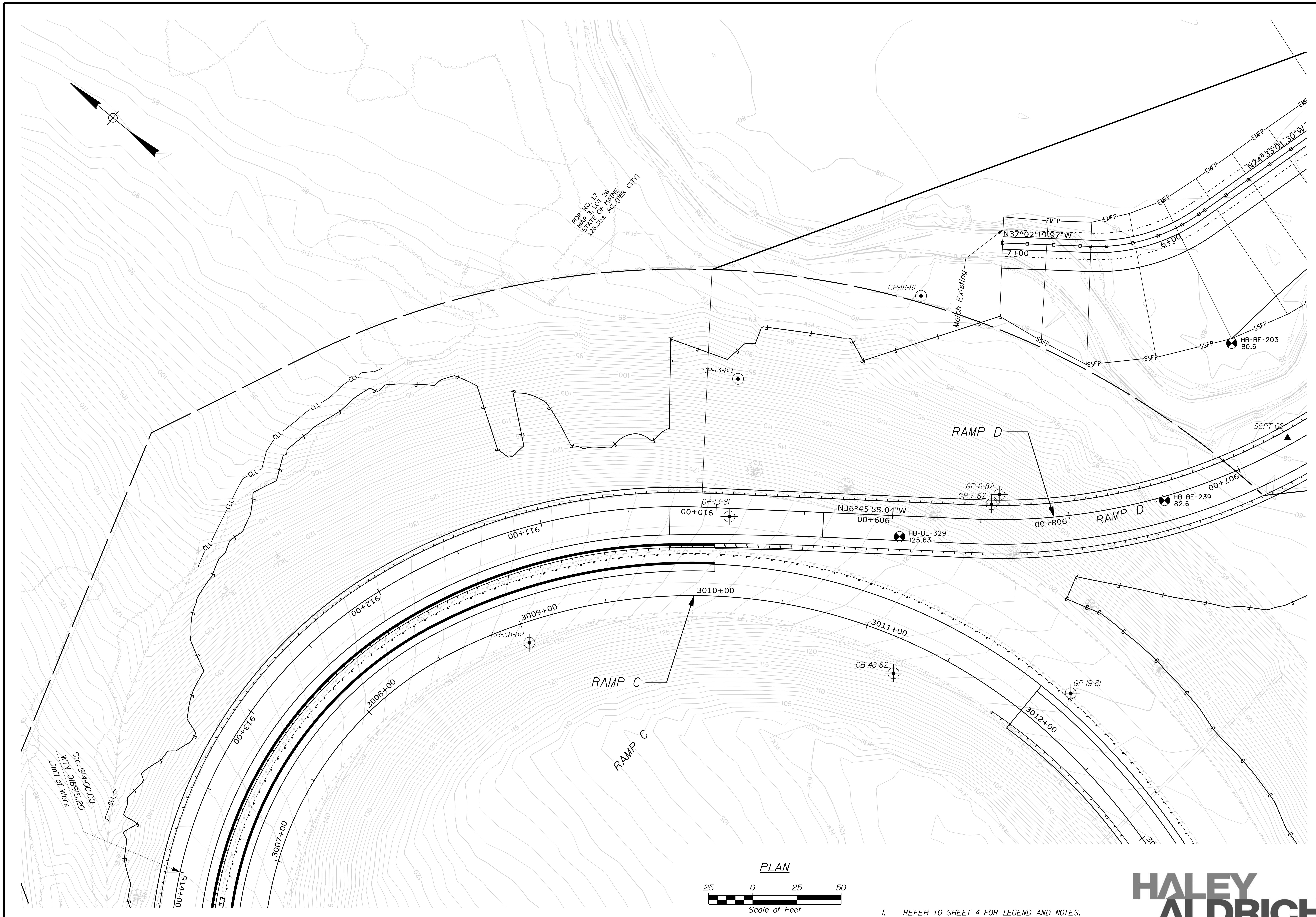
SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

49

OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan50.DGN   Division: Username: Date:9/16/2021



1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST 6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE 8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER

50

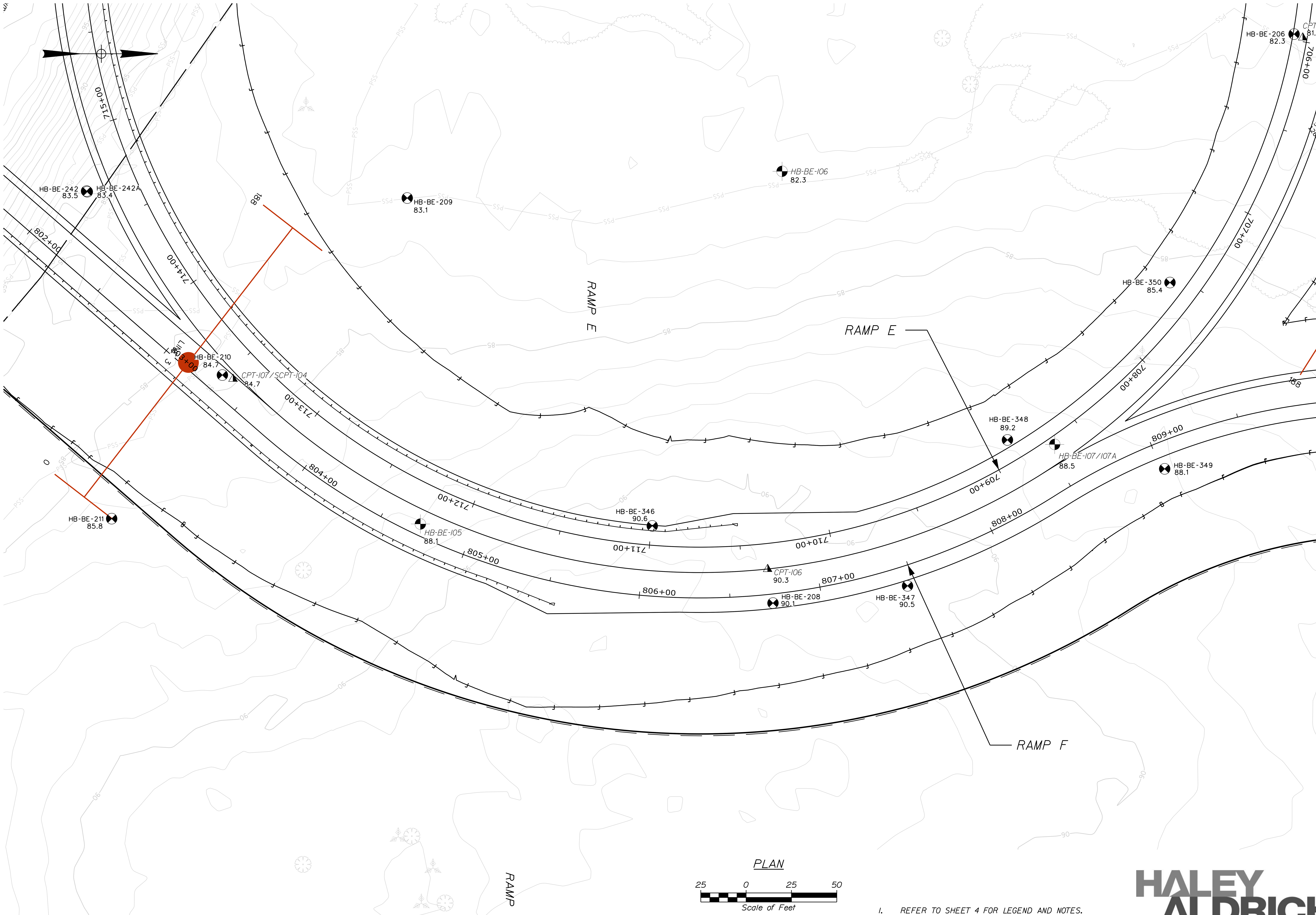
OF 114

Date:9/16/2021

Username:

Division:

Filename: ...\CAD\I-395 Bypass\HDPlan51.DGN



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

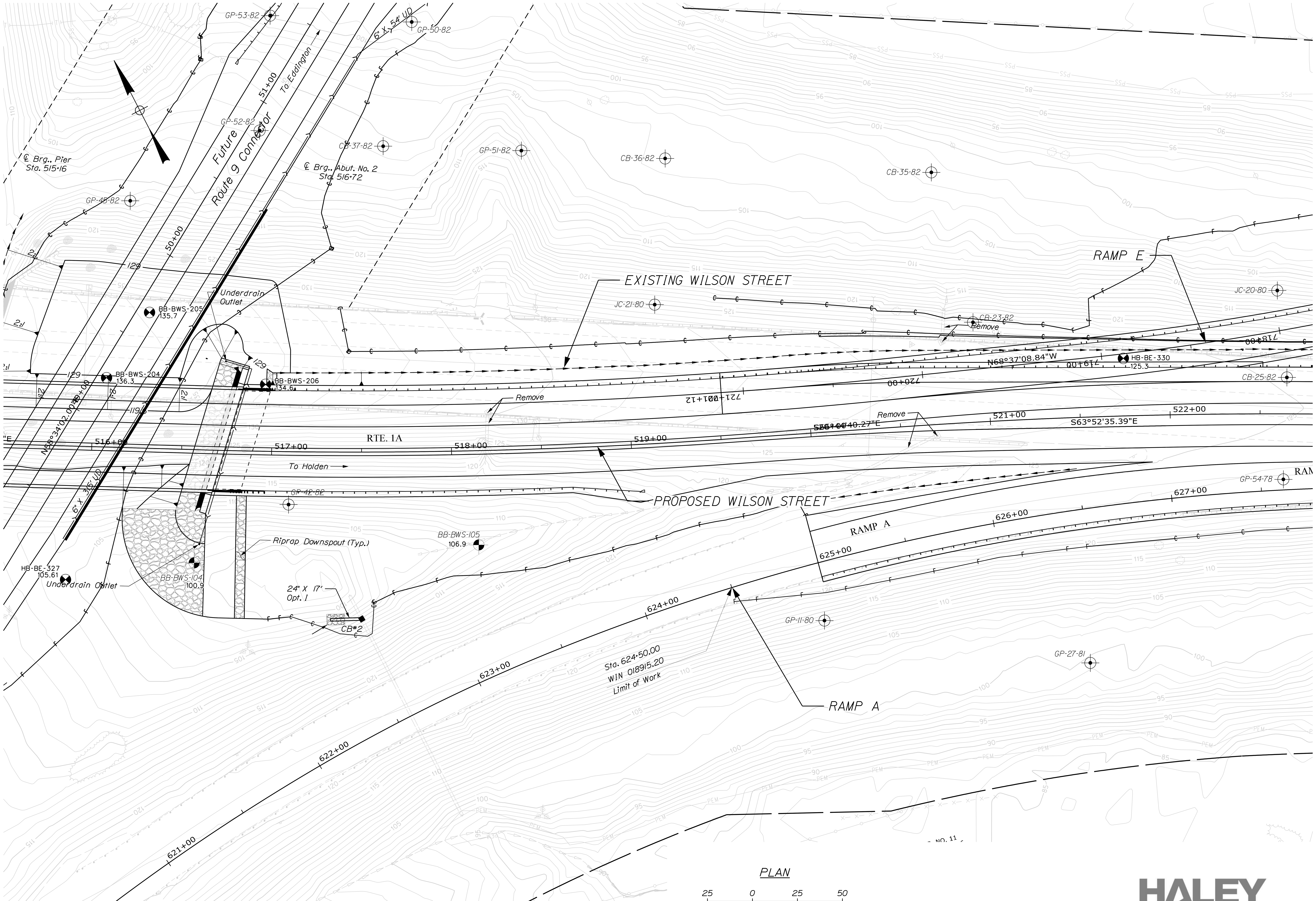
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
SUBSURFACE EXPLORATION LOCATION PLAN

SHEET NUMBER

51

OF 114



PLAN

25 0 25 50

Scale of Feet

1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED	E. FORCE	6-12-20
CHECKED-REVIEWED	E. FORCE	8-20-21
DESIGN2-DETAILED2	W. CHADBOURNE	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

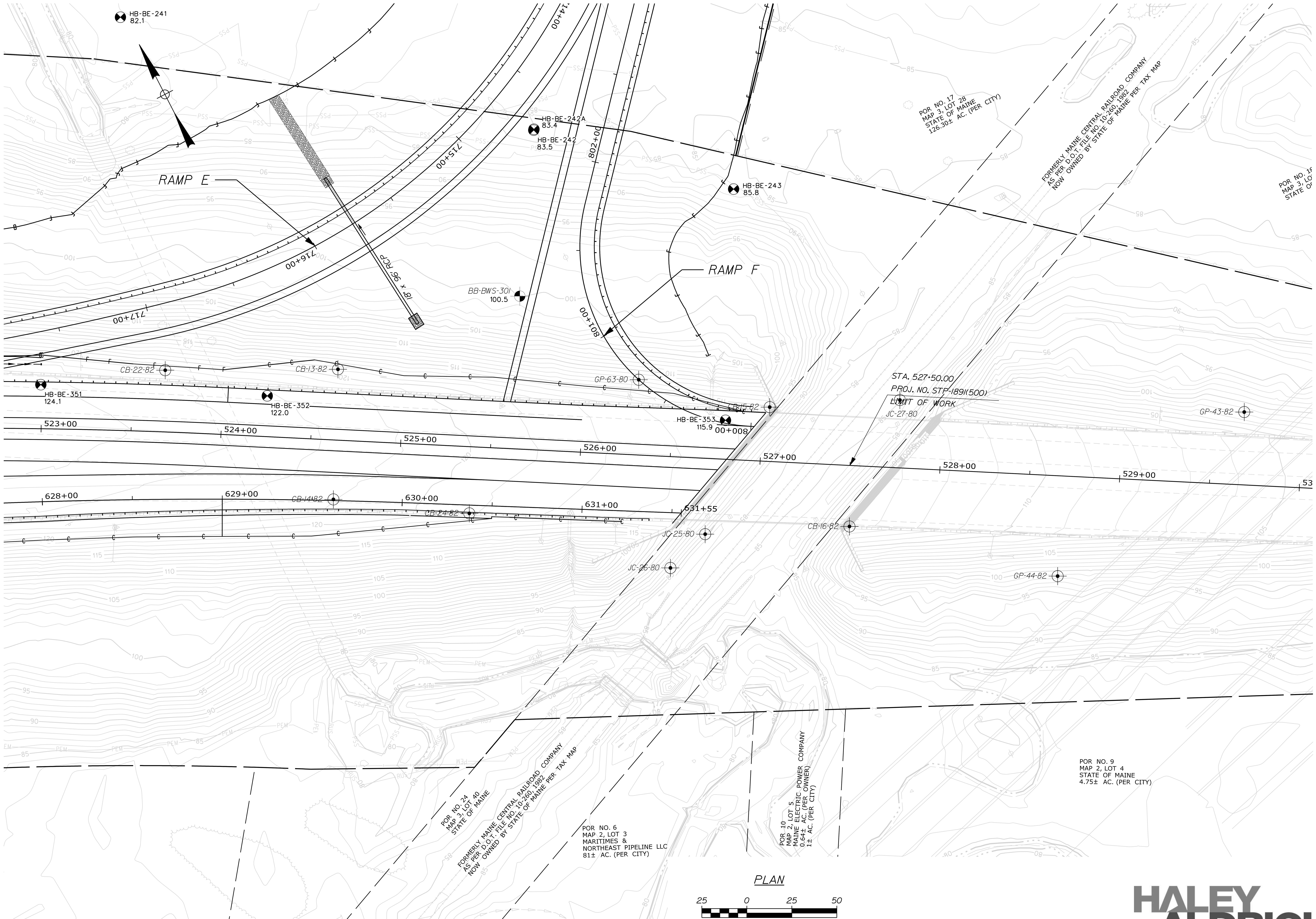
SHEET NUMBER

52

OF 114

Filename: ...\CAD\I-395 Bypass\HDPlan52.DGN Division: Username: Date:9/16/2021

Filename: ...\CAD\I-395 Bypass\HDPlan53.DGN Division: Username: Date:9/16/2021



1. REFER TO SHEET 4 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	....	
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....		.....
REVISIONS 2	.....		.....
REVISIONS 3	.....		.....
REVISIONS 4	.....		.....
FIELD CHANGES	.....		.....

SIGNATURE

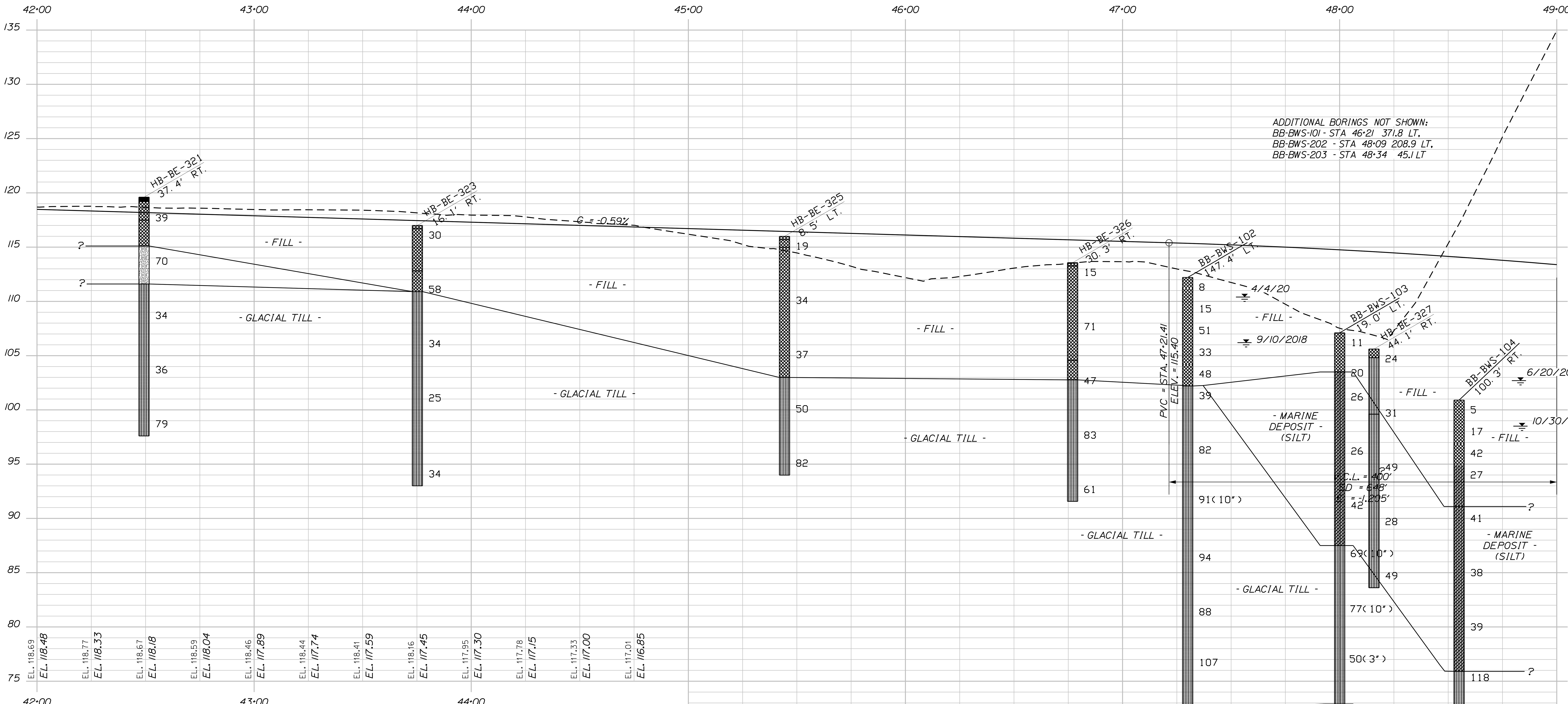
P.E. NUMBER

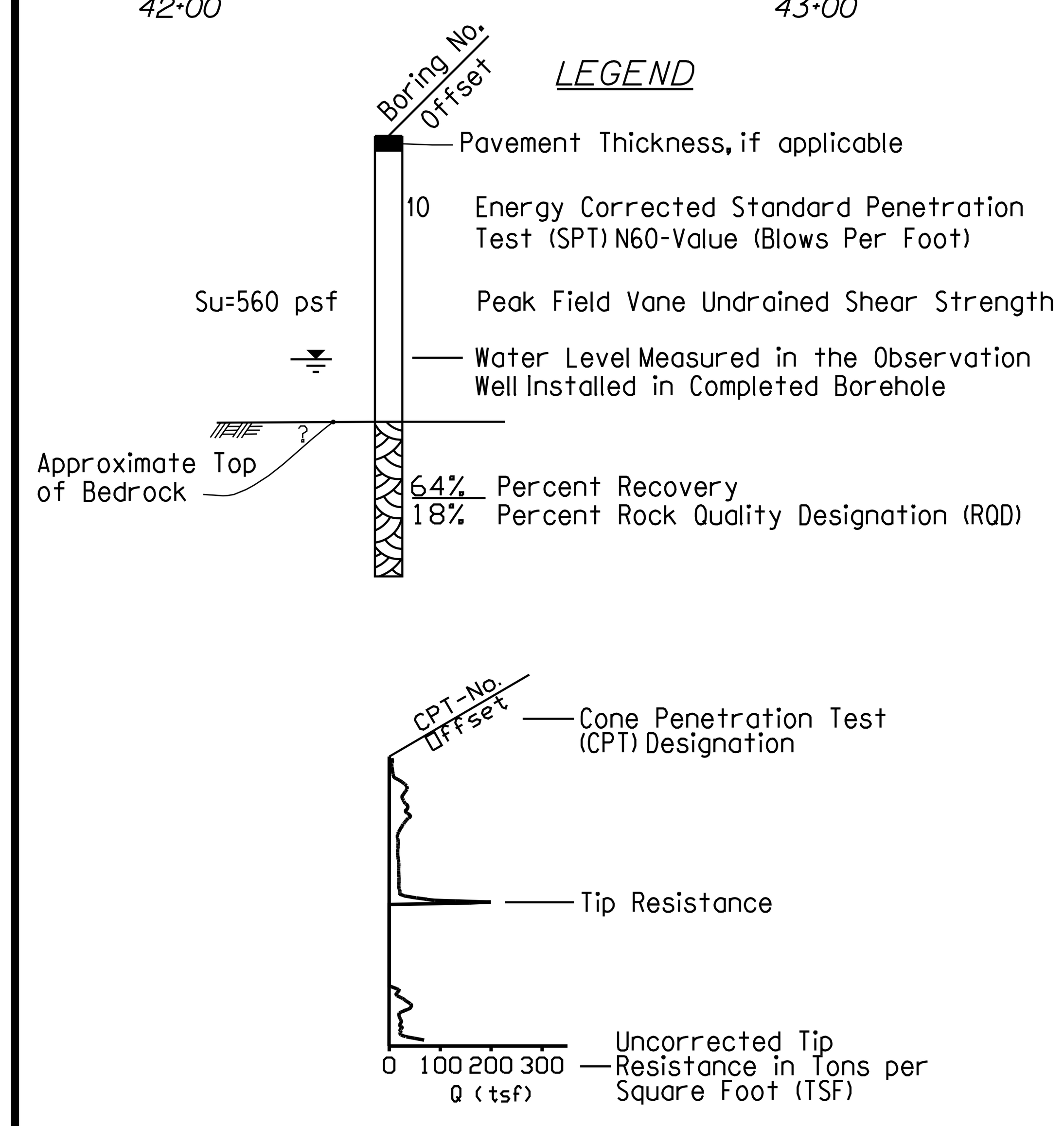
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SUBSURFACE EXPLORATION
LOCATION PLAN

SHEET NUMBER
53
OF 114





NOTES:

1. BORING OFFSET BASED ON PROPOSED I-395/ROUTE 9 CONNECTOR BASELINE.
2. THIS GENERALIZED INTERPRETIVE SUBSURFACE PROFILE IS INTENDED TO CONVEY TRENDS IN SUBSURFACE CONDITIONS. THE BOUNDARIES BETWEEN STRATA ARE APPROXIMATE AND IDEALIZED, AND HAVE BEEN DEVELOPED BY INTERPRETATIONS OF WIDELY SPACED EXPLORATIONS AND SAMPLES. ACTUAL SOIL AND ROCK TRANSITIONS MAY VARY AND ARE PROBABLY MORE ERRATIC. FOR MORE SPECIFIC INFORMATION REFER TO THE BORING LOGS IN APPENDIX A AND B, AND THE PIEZOCONE AND SEISMIC PIEZOCONE PENETRATION TEST REPORT IN APPENDIX D.
3. EXISTING AND PROPOSED SITE CONDITIONS ARE TAKEN FROM ELECTRONIC MICROSTATION FILES PROVIDED BY THE MAINE DEPARTMENT OF TRANSPORTATION.
4. ELEVATIONS ARE IN FEET AND REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
5. REFER TO APPENDIX A AND B FOR TEST BORING LOGS AND ROCK CORE PHOTOGRAPHS, APPENDIX C FOR OBSERVATION WELL INSTALLATION AND GROUNDWATER MONITORING REPORTS, AND APPENDIX D FOR PIEZOCONE AND SEISMIC PIEZOCONE PENETRATION TEST REPORT.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE / K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE / W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

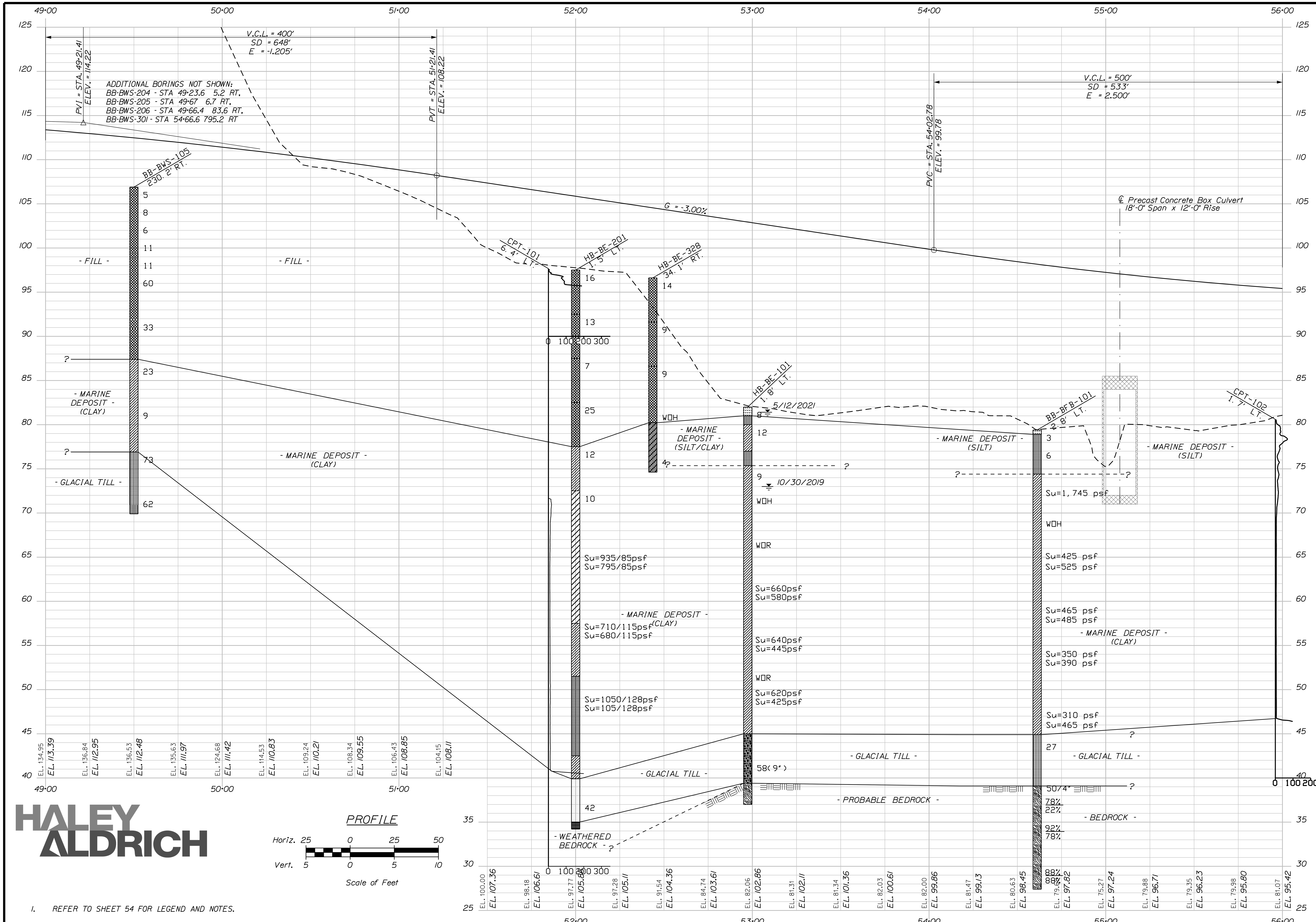
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
54
OF 114

Date:9/17/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile7.dgn

Date:9/17/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile8.dgn



HALEY ALDRICH

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	8-20-21
DESIGN2-DETAILED2	W. CHADBOURNE	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

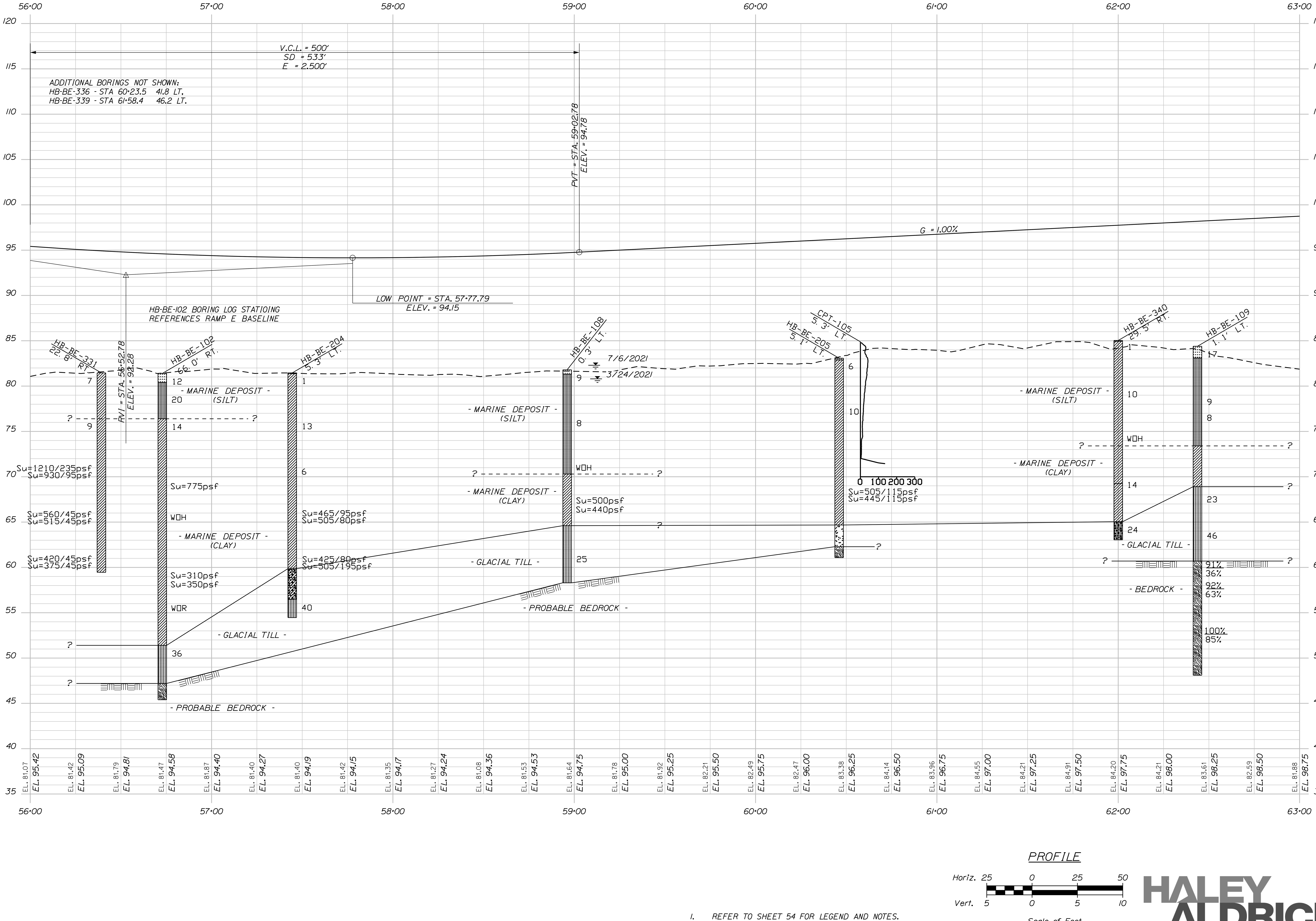
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

55

OF 114



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

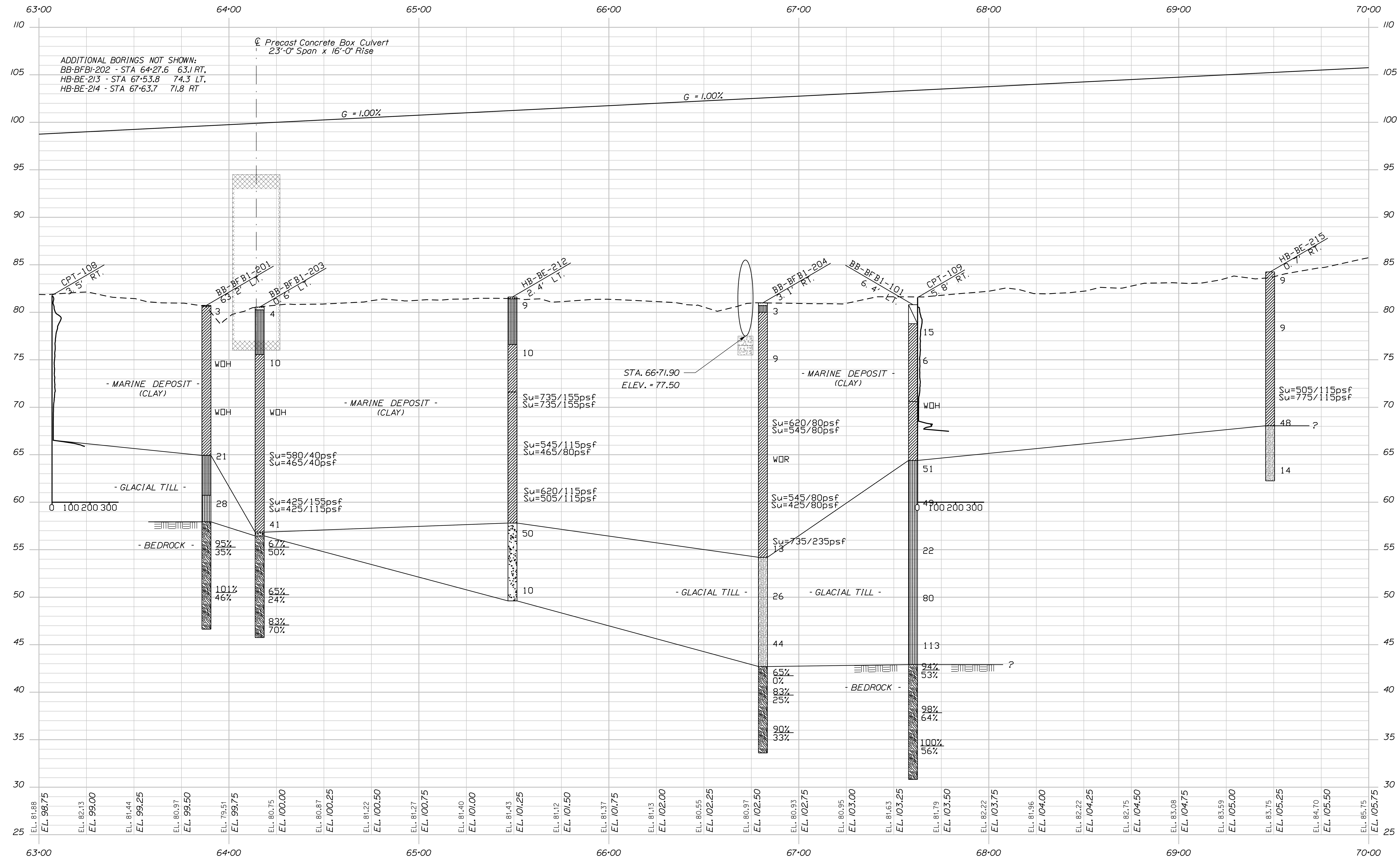
	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST 6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE 8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
56
OF 114

Date:9/16/2021
Username:
Division:
Filename: ...\CAD\I-395 Bypass\Profile10.dgn



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

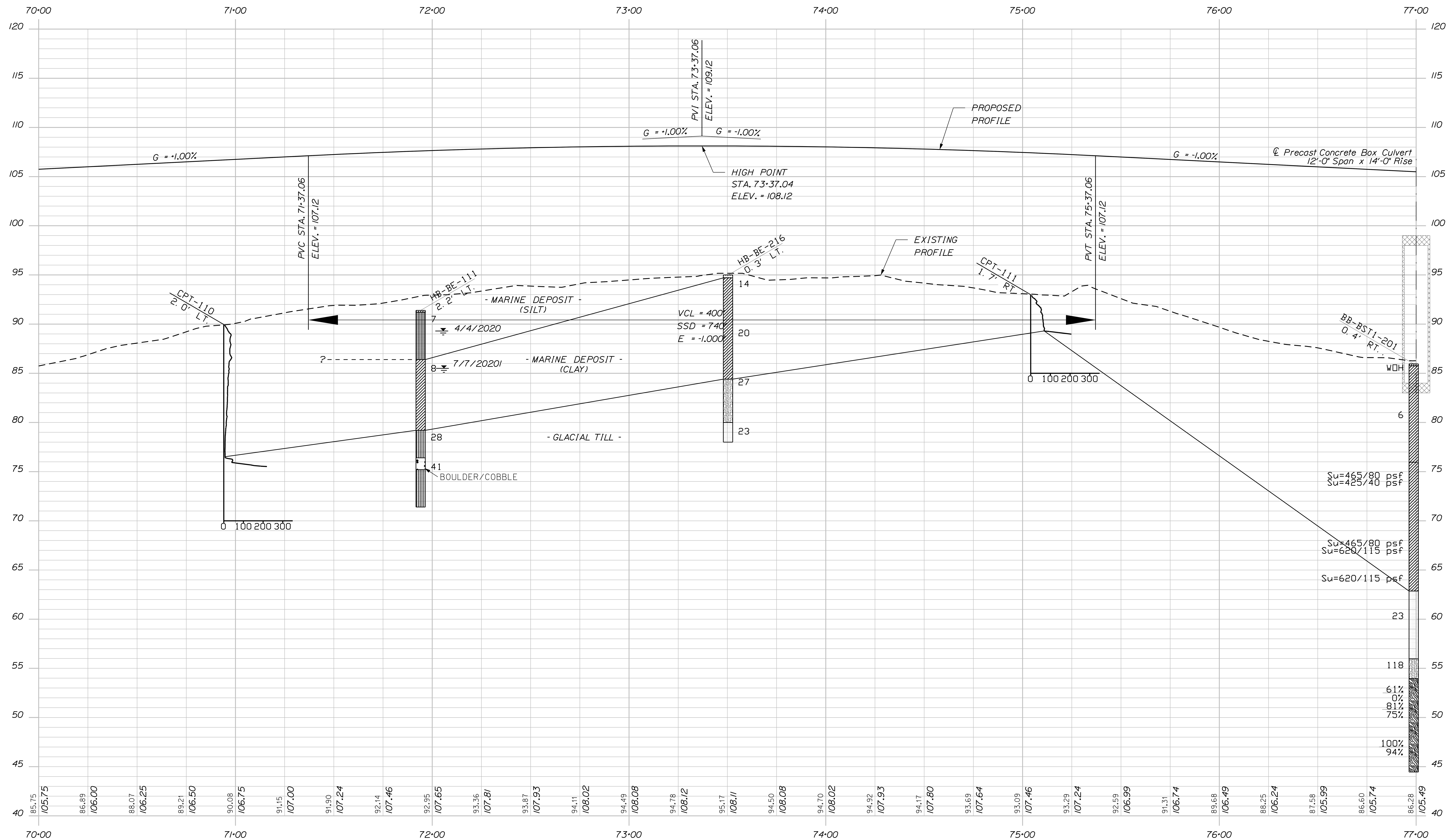
HIGHWAY PLANS

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED	E. FORCE	K. POST 6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE 8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
57
OF 114



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

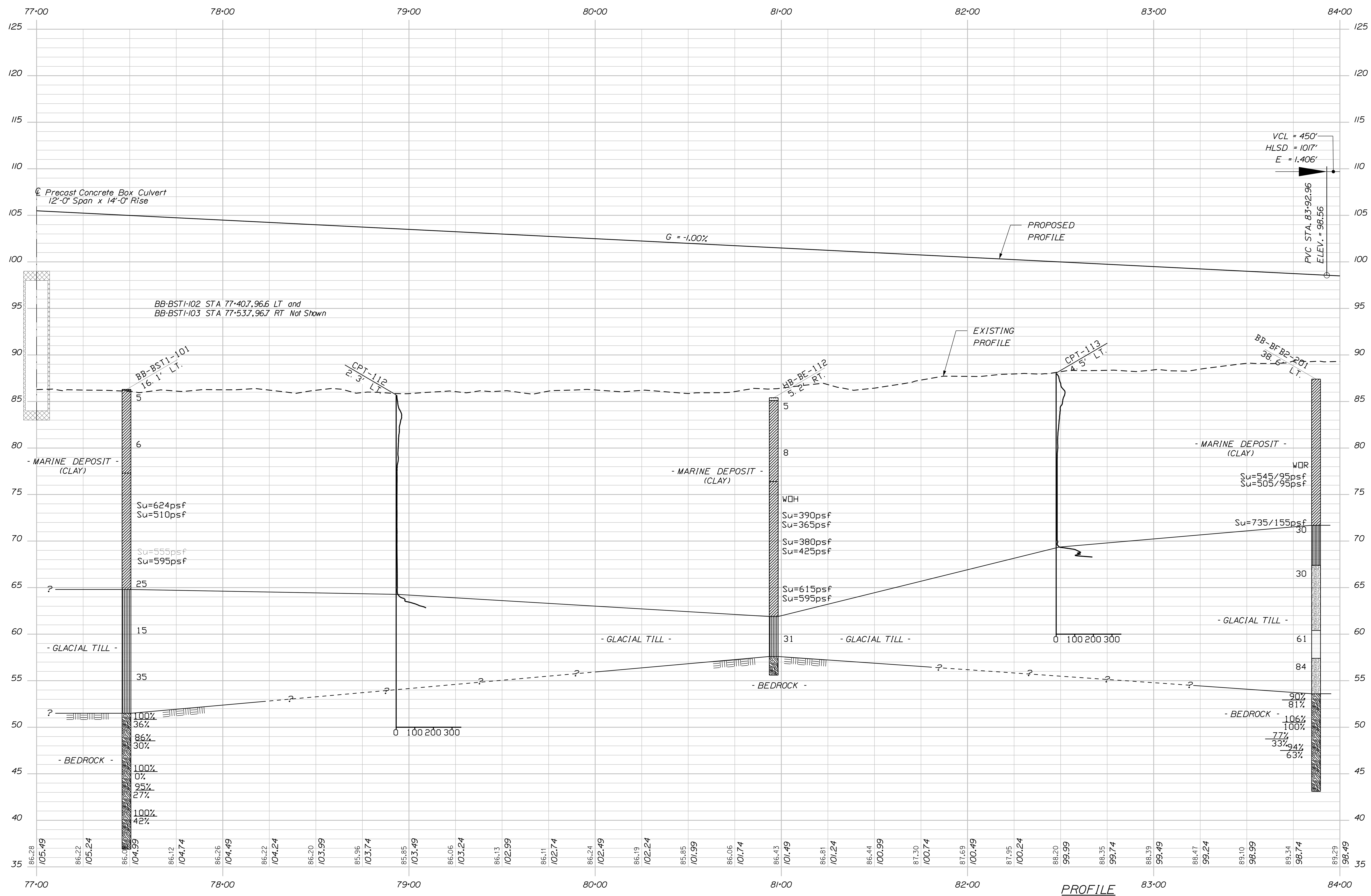
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE
PROFILE

SHEET NUMBER
58
OF 114

Date: 9/16/2021
Username:
Division:
Filename: ...\CAD\I-395 Bypass\Profile11.dgn

Date:9/16/2021
Username:
Division:
Filename: ...\CAD\I-395 Bypass\Profile12.dgn



Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE / K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE / W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

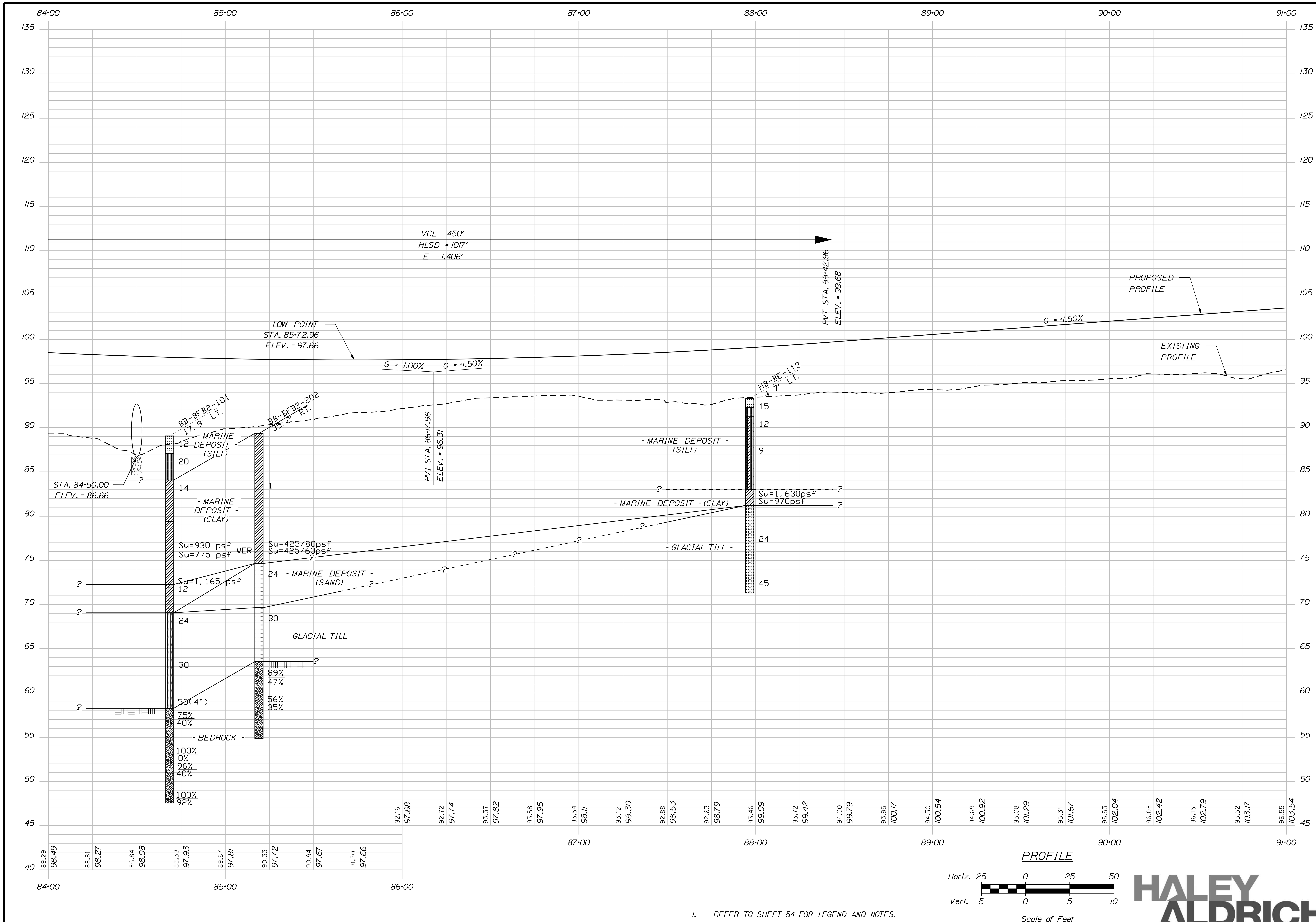
SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
59
OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile13.dgn



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

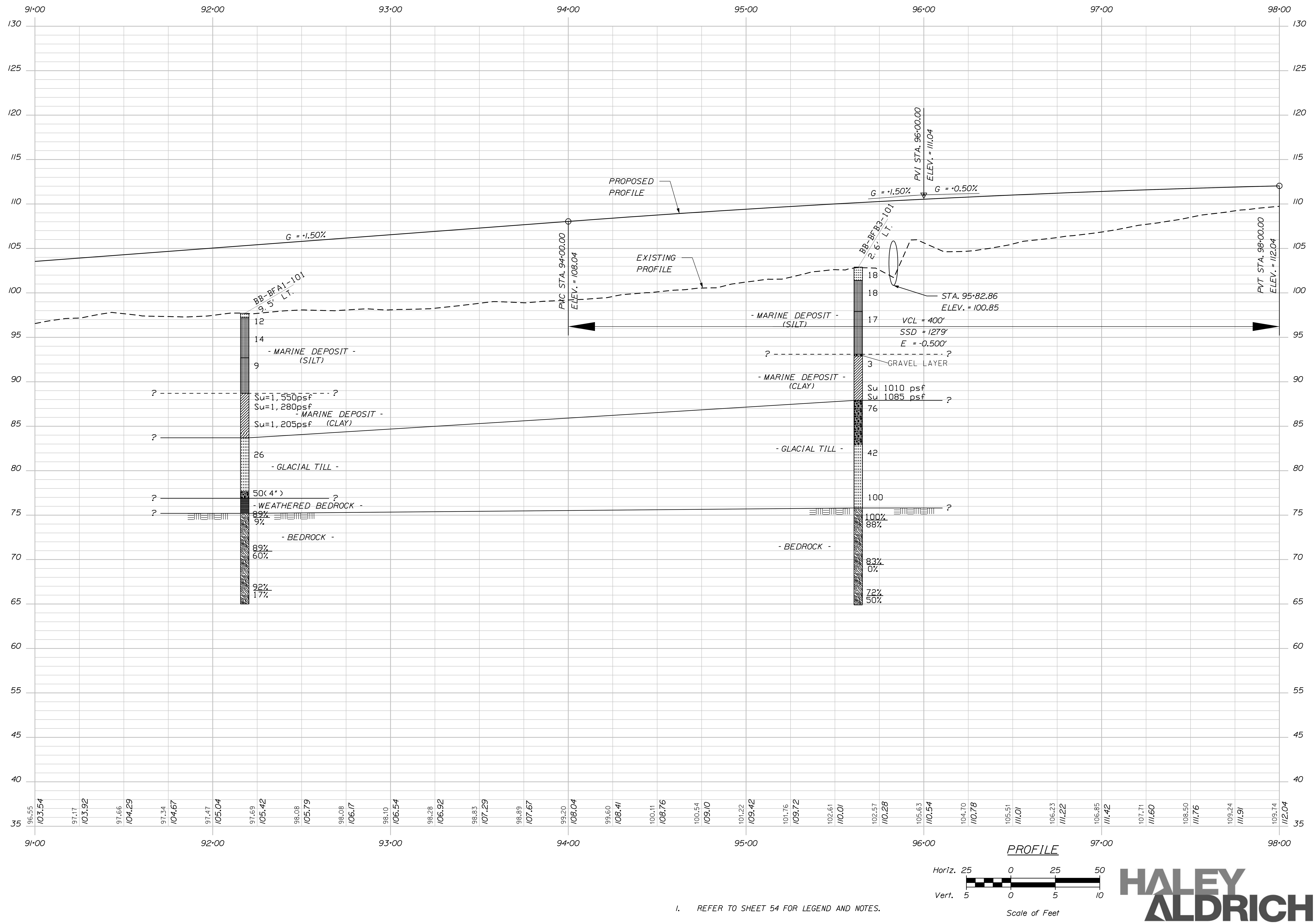
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

60

OF 114

Filename: ...\CAD\I-395 Bypass\Profile14.dgn Division: Username: Date:9/16/2021



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

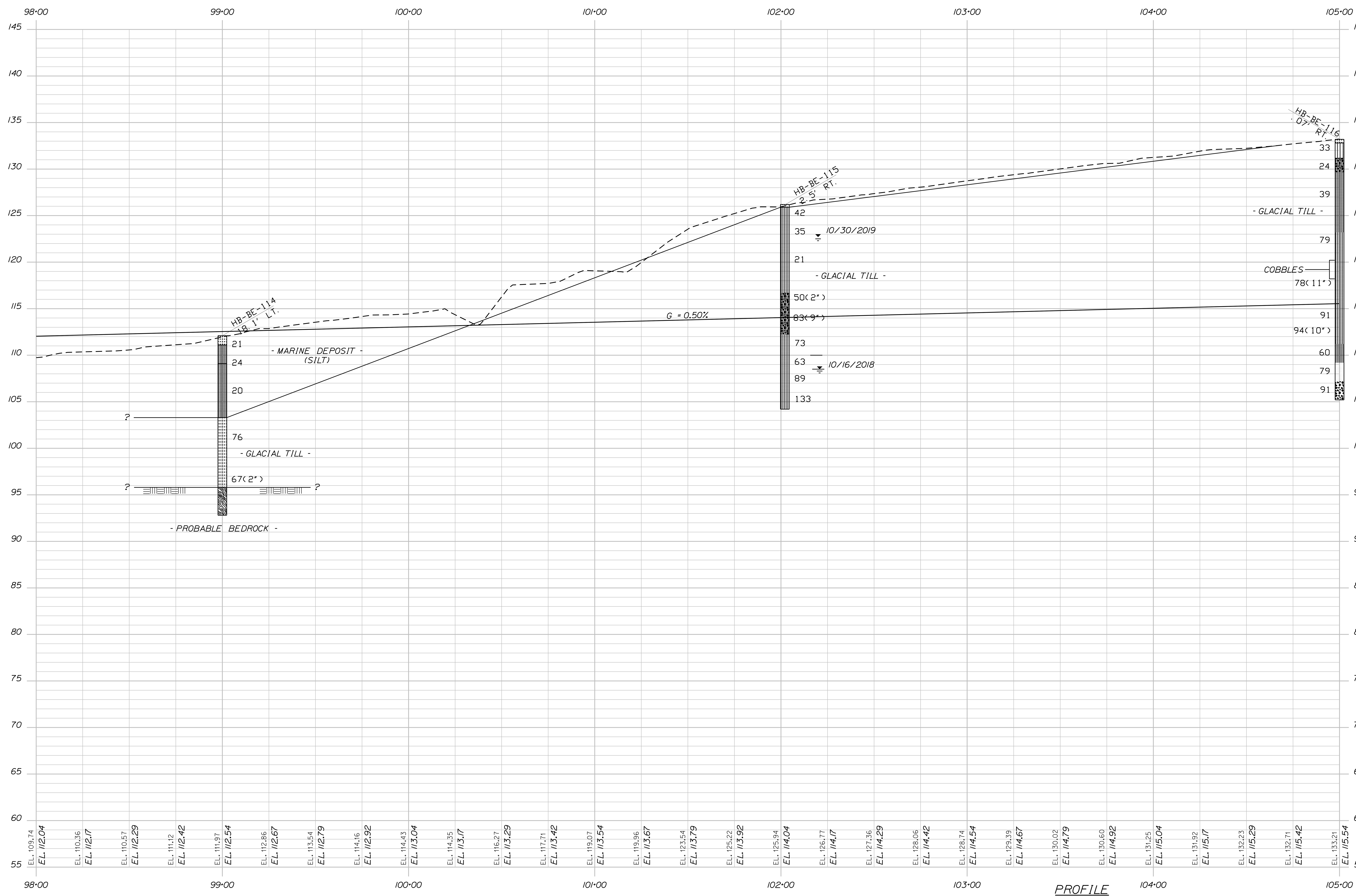
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

61

OF 114



PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST 6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE 8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

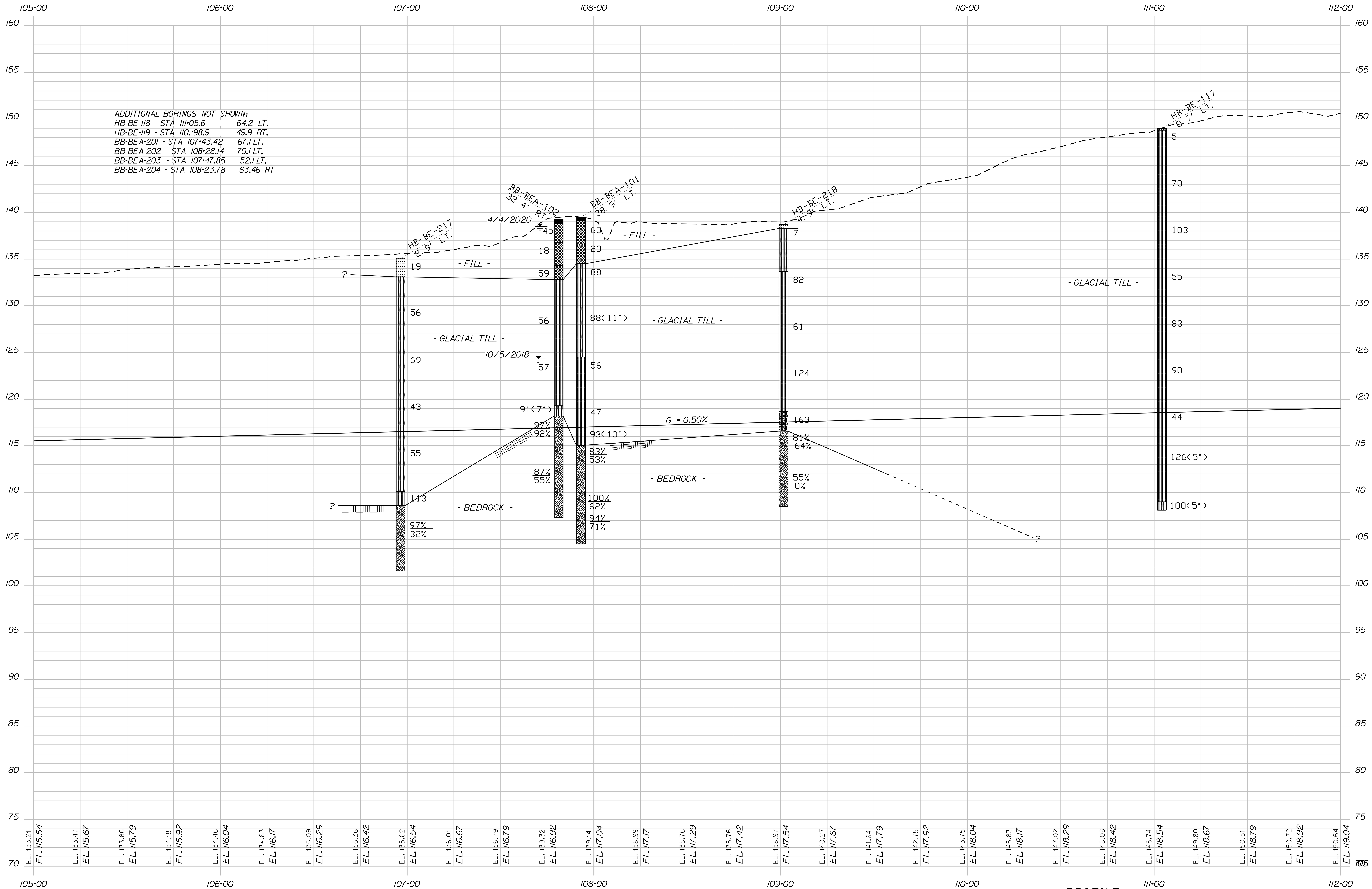
SHEET NUMBER

62

OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile15.dgn

Filename: ...\CAD\I-395 Bypass\Profile16.dgn   Division: Username: Date:9/16/2021



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

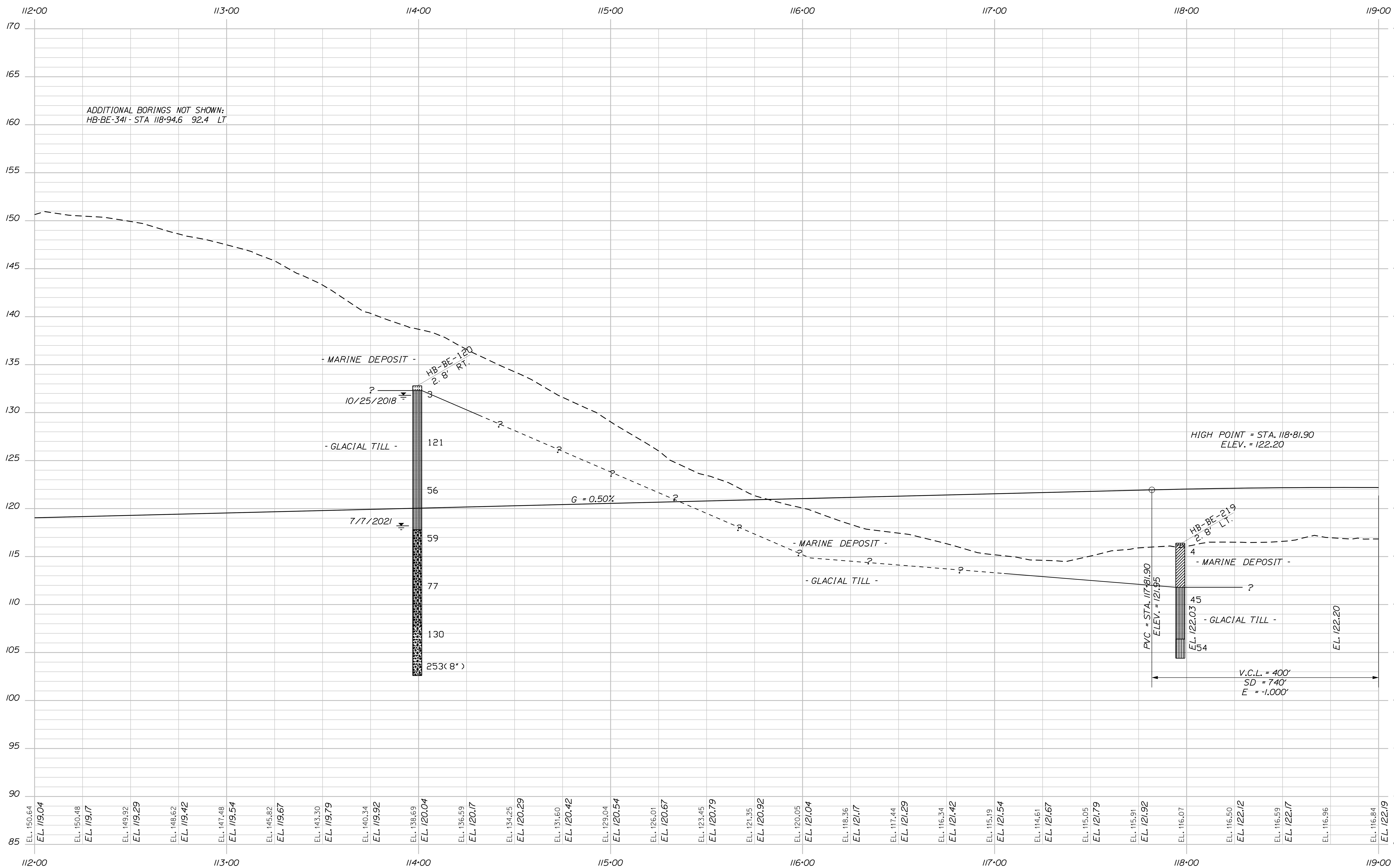
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE
PROFILE

SHEET NUMBER
63
OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile17.dgn



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

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018915.00

HIGHWAY PLANS

	BY	DATE	SIGNATURE
PROJ. MANAGER	....		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

P.E. NUMBER

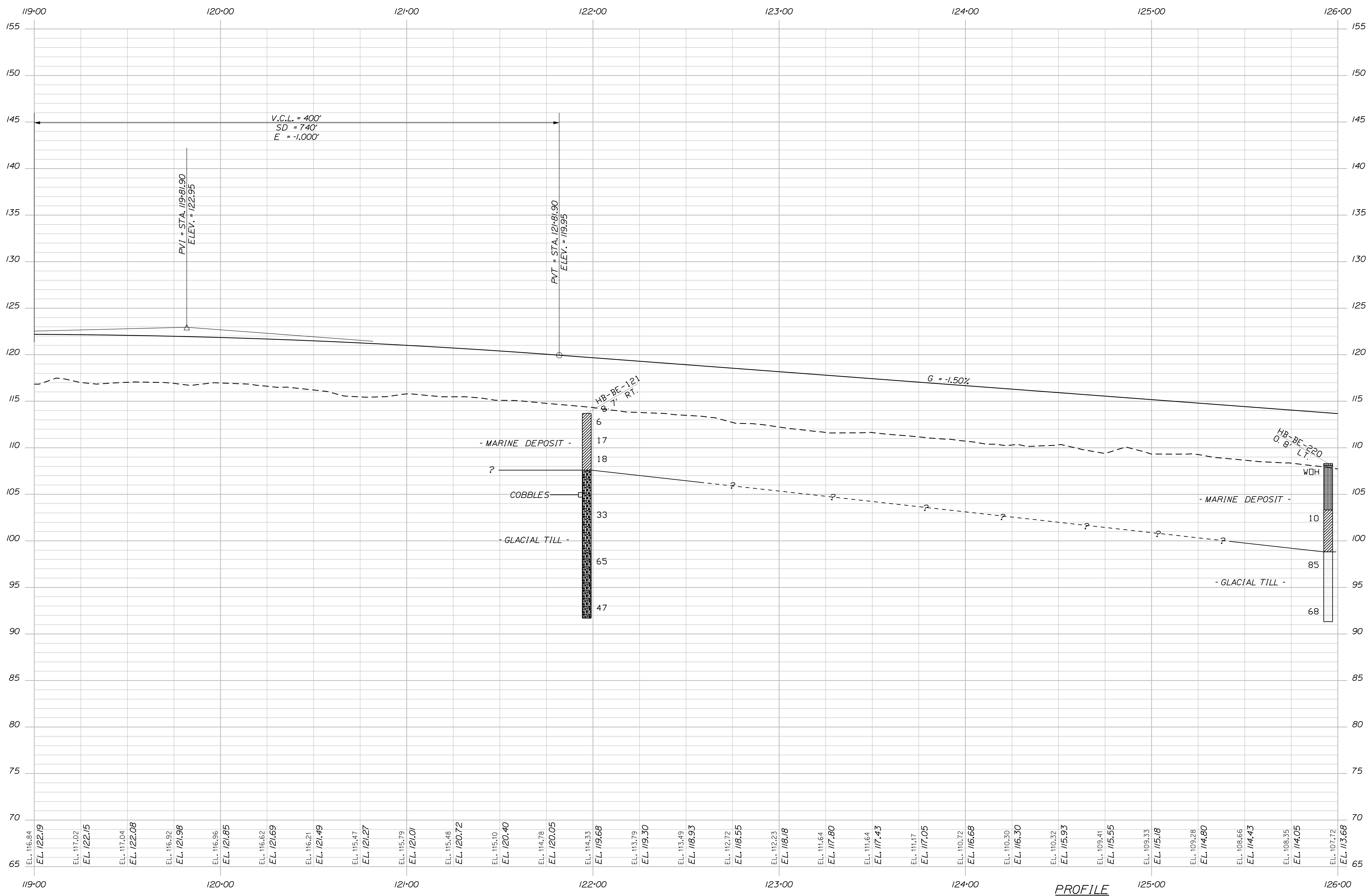
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
64
OF 114

Filename: ...\CAD\I-395 Bypass\Profile18.dgn Division: Username: Date:9/16/2021



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	....	
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

SIGNATURE

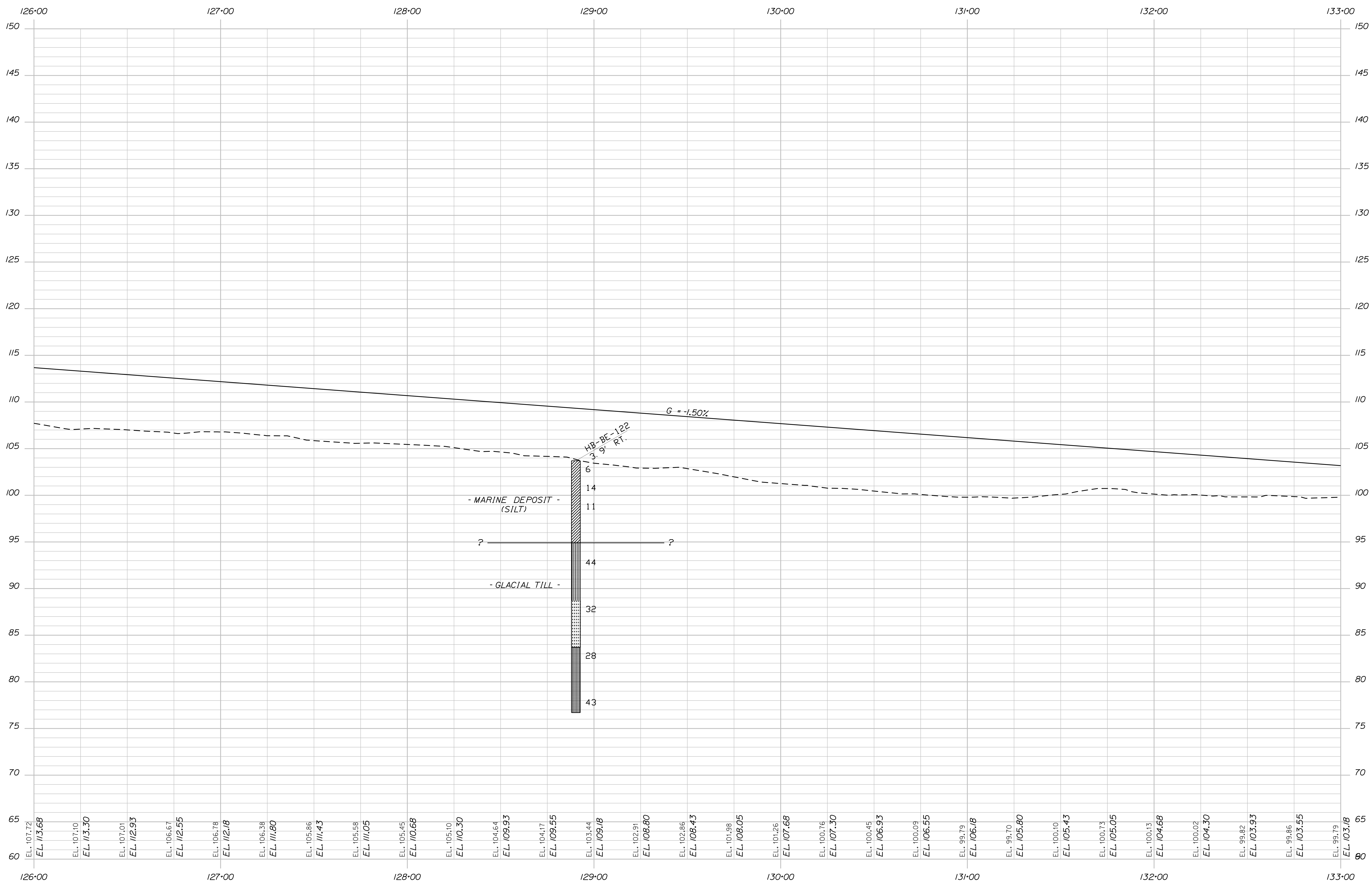
P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
65
OF 114



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST 6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE 8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

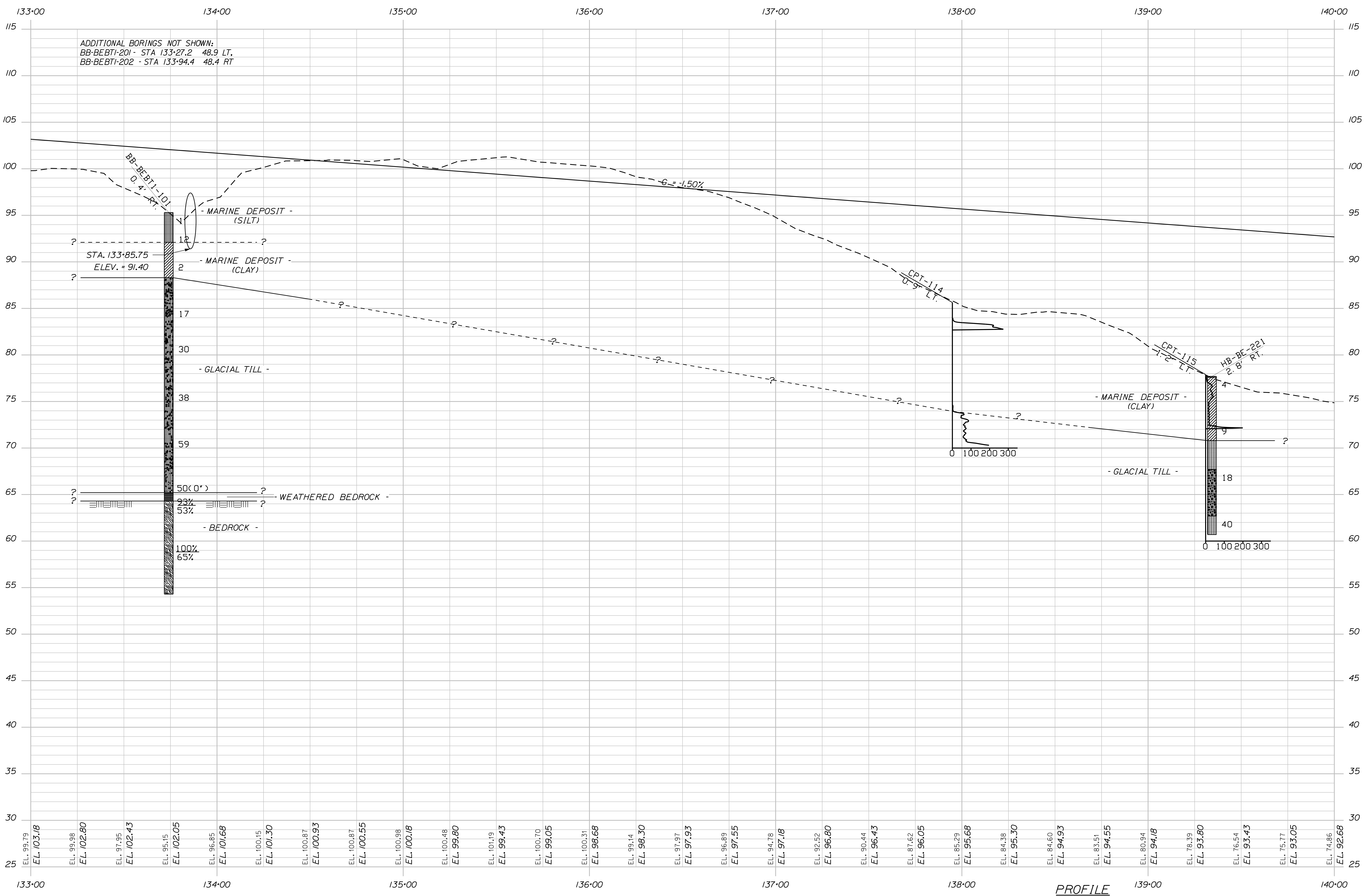
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE
PROFILE

SHEET NUMBER
66
OF 114

Filename: ...\CAD\I-395 Bypass\Profile19.dgn
Division:
Username:
Date:9/16/2021

Filename: ...\CAD\I-395 Bypass\Profile20.dgn Division: Username: Date:9/16/2021



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

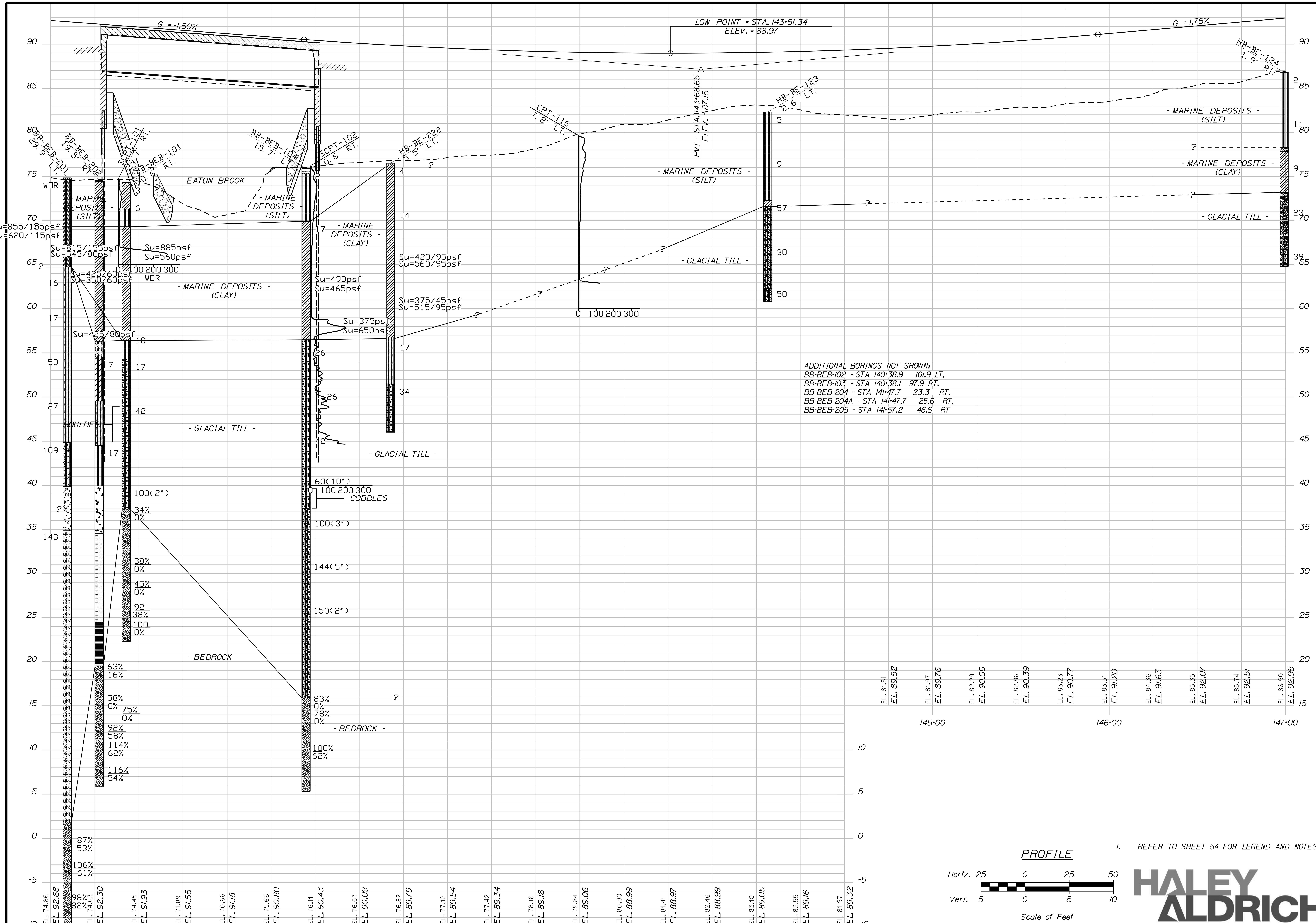
WIN 018915.00

HIGHWAY PLANS

	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
PROJ. MANAGER	.....				
DESIGN-DETAILED	E. FORCE	6-18-21			
CHECKED-REVIEWED	E. FORCE	8-20-21			
DESIGN2-DETAILED2	K. POST	.....			
DESIGN3-DETAILED3	W. CHADBOURNE	.....			
REVISIONS 1	.....	.....			
REVISIONS 2	.....	.....			
REVISIONS 3	.....	.....			
REVISIONS 4	.....	.....			
FIELD CHANGES	.....	.....			

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
67
OF 114



ADDITIONAL BORINGS NOT SHOWN:

BB-BEB-102	STA 140+38.9	101.9	LT.
BB-BEB-103	STA 140+38.1	97.9	RT.
BB-BEB-204	STA 141+47.7	23.3	RT.
BB-BEB-204A	STA 141+47.7	25.6	RT.
BB-BEB-205	STA 141+57.2	46.6	RT

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

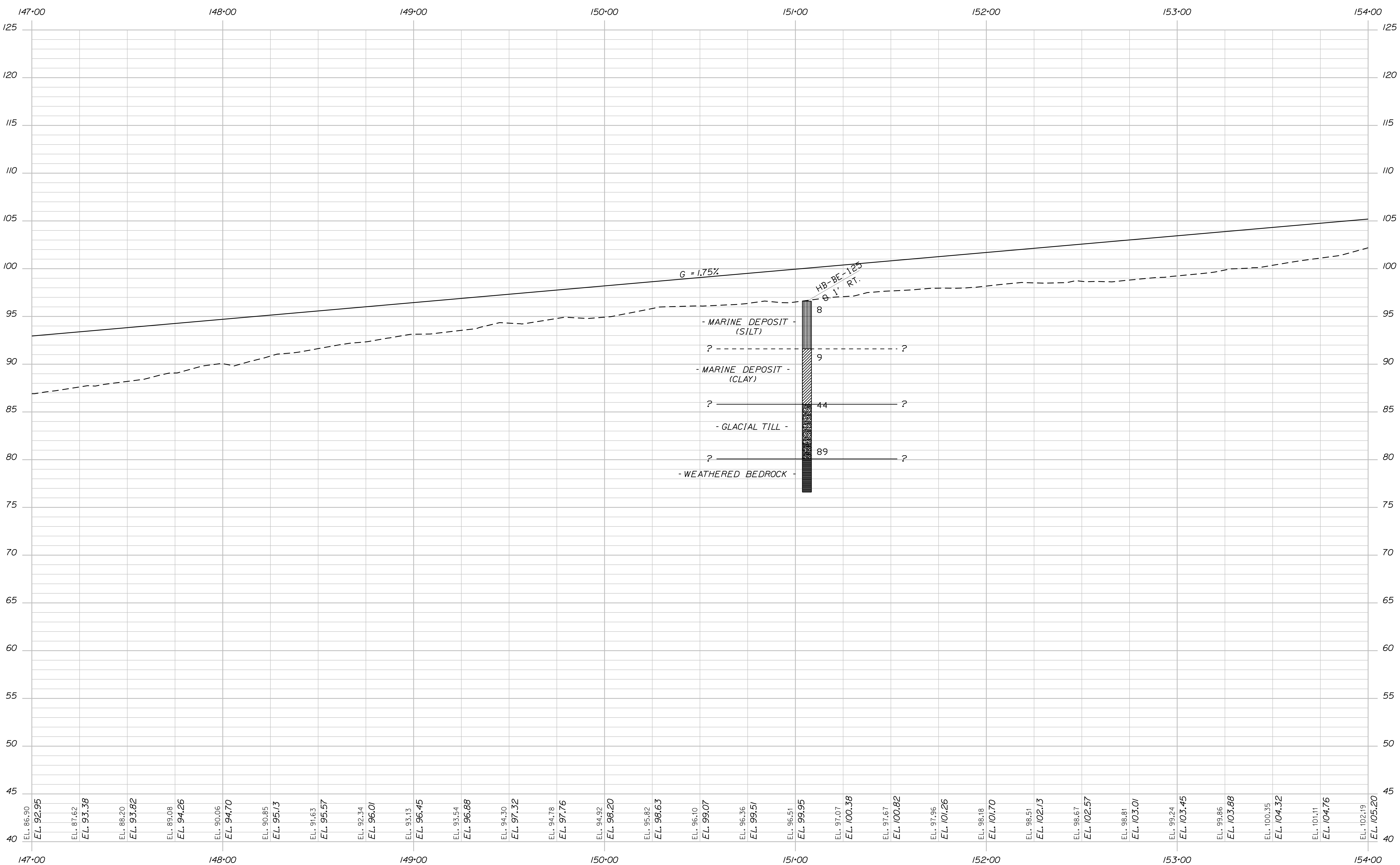
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
68
OF 114

Filename: ...\CAD\I-395 Bypass\Profile21.dgn
Division:
Username:
Date:9/16/2021

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile22.dgn



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE
PROFILE

SHEET NUMBER
69
OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile23.dgn

PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	....		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	
DESIGN3-DETAILED3	.....	.....	
REVISIONS 1	.....		
REVISIONS 2	.....		
REVISIONS 3	.....		
REVISIONS 4	.....		
FIELD CHANGES	.....		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

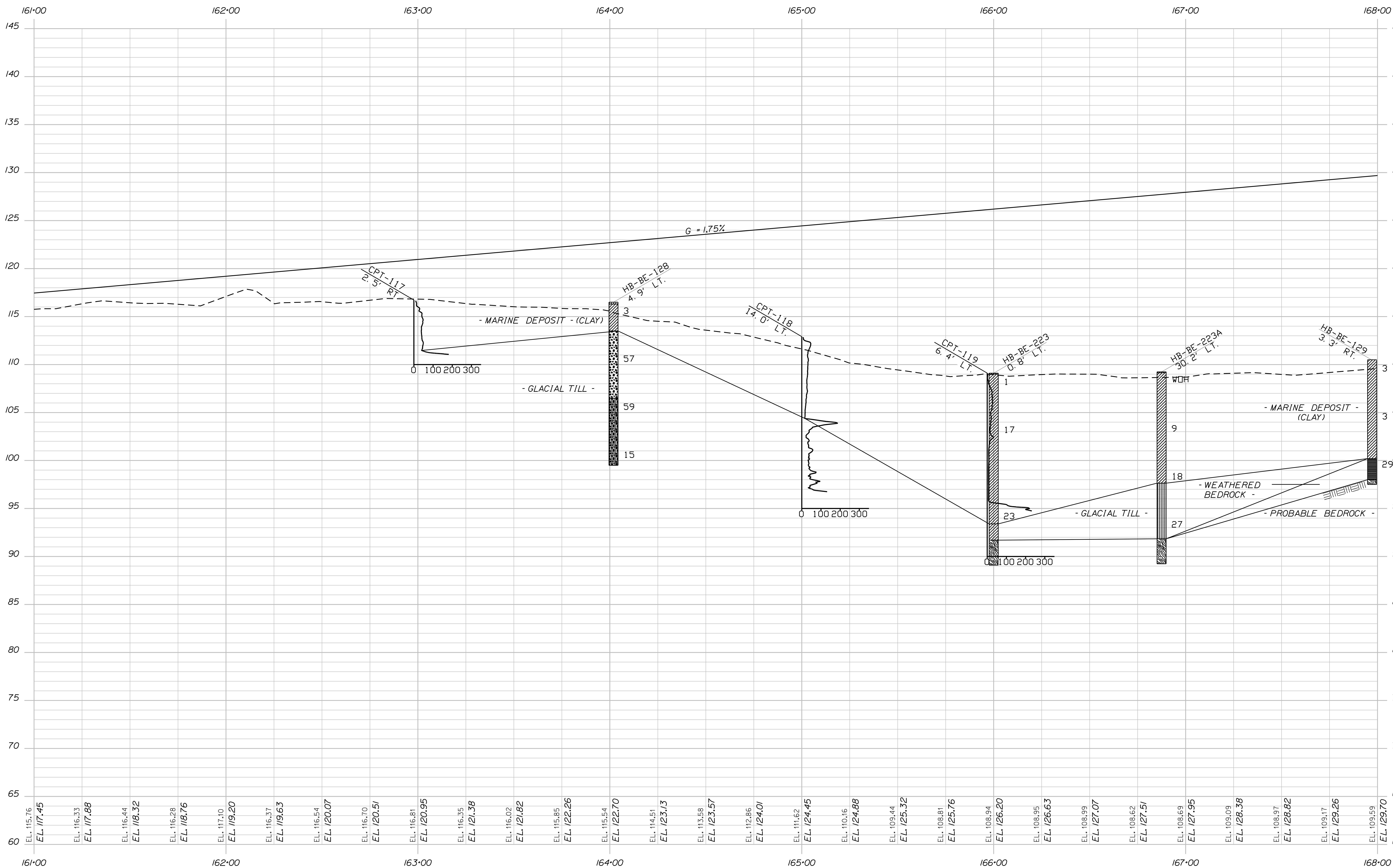
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

70

OF 114

Date:9/16/2021
Username:
Division:
Filename: ...\CAD\I-395 Bypass\Profile24.dgn



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

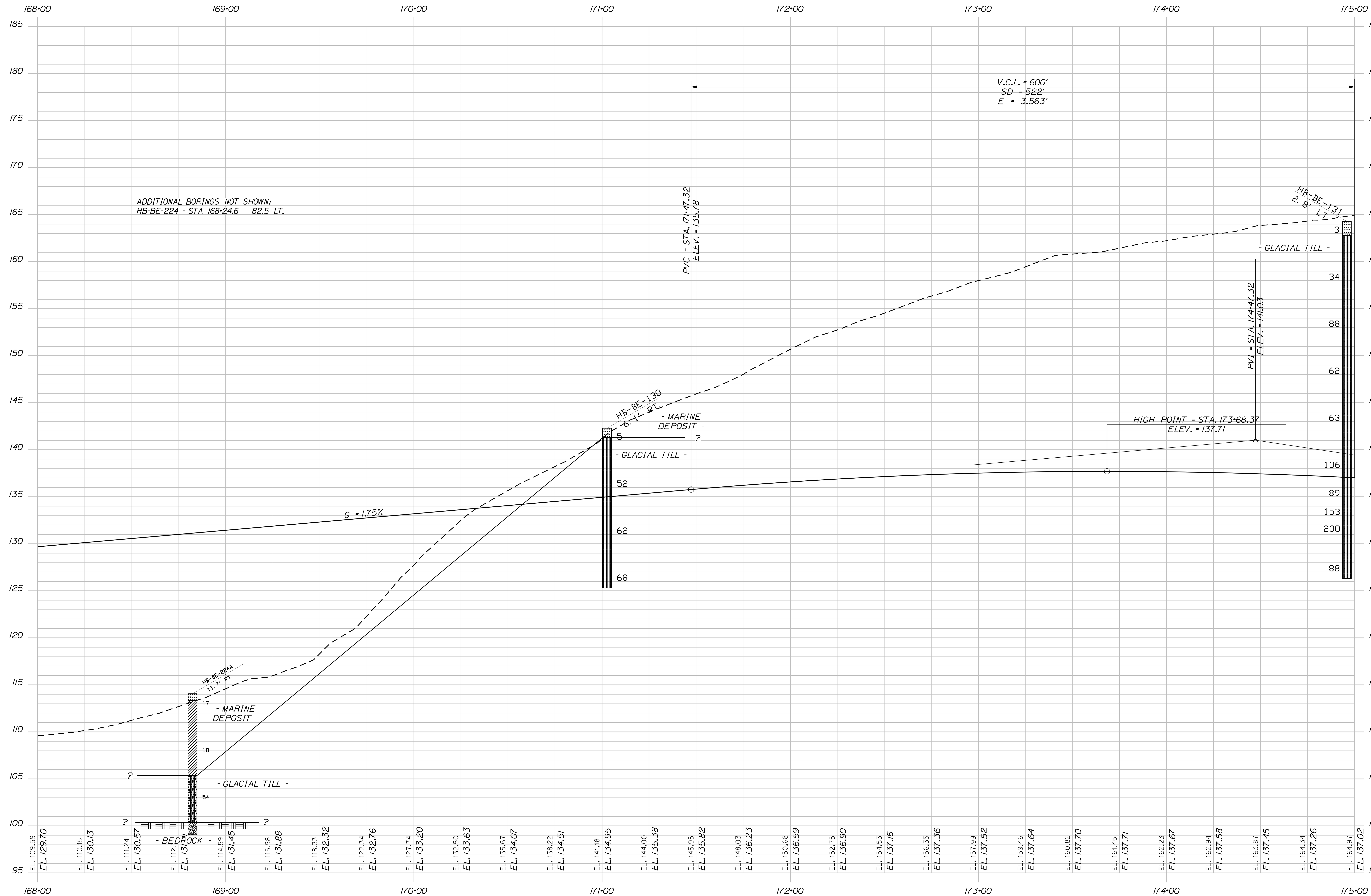
	BY	DATE
PROJ. MANAGER	....	
DESIGN-DETAILED	E. FORCE / K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE / W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....
DESIGN3-DETAILED3	.....	.....
REVISIONS 1	.....	.....
REVISIONS 2	.....	.....
REVISIONS 3	.....	.....
REVISIONS 4	.....	.....
FIELD CHANGES	.....	.....

SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
71
OF 114



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

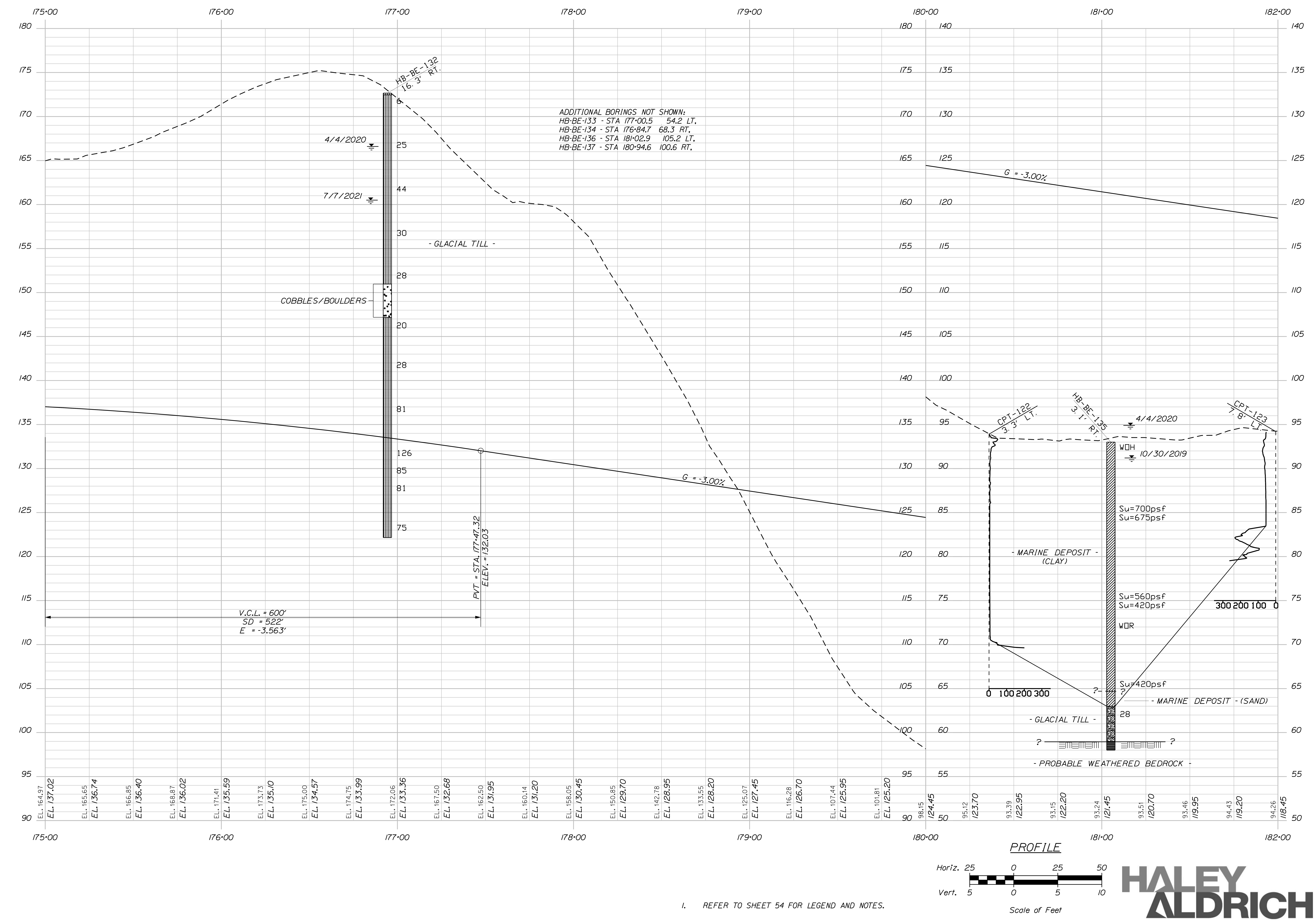
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
72
OF 114

Filename: ...\CAD\I-395 Bypass\Profile26.dgn
Division:
Username:
Date:9/16/2021



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	....	
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

SIGNATURE

P.E. NUMBER

DATE

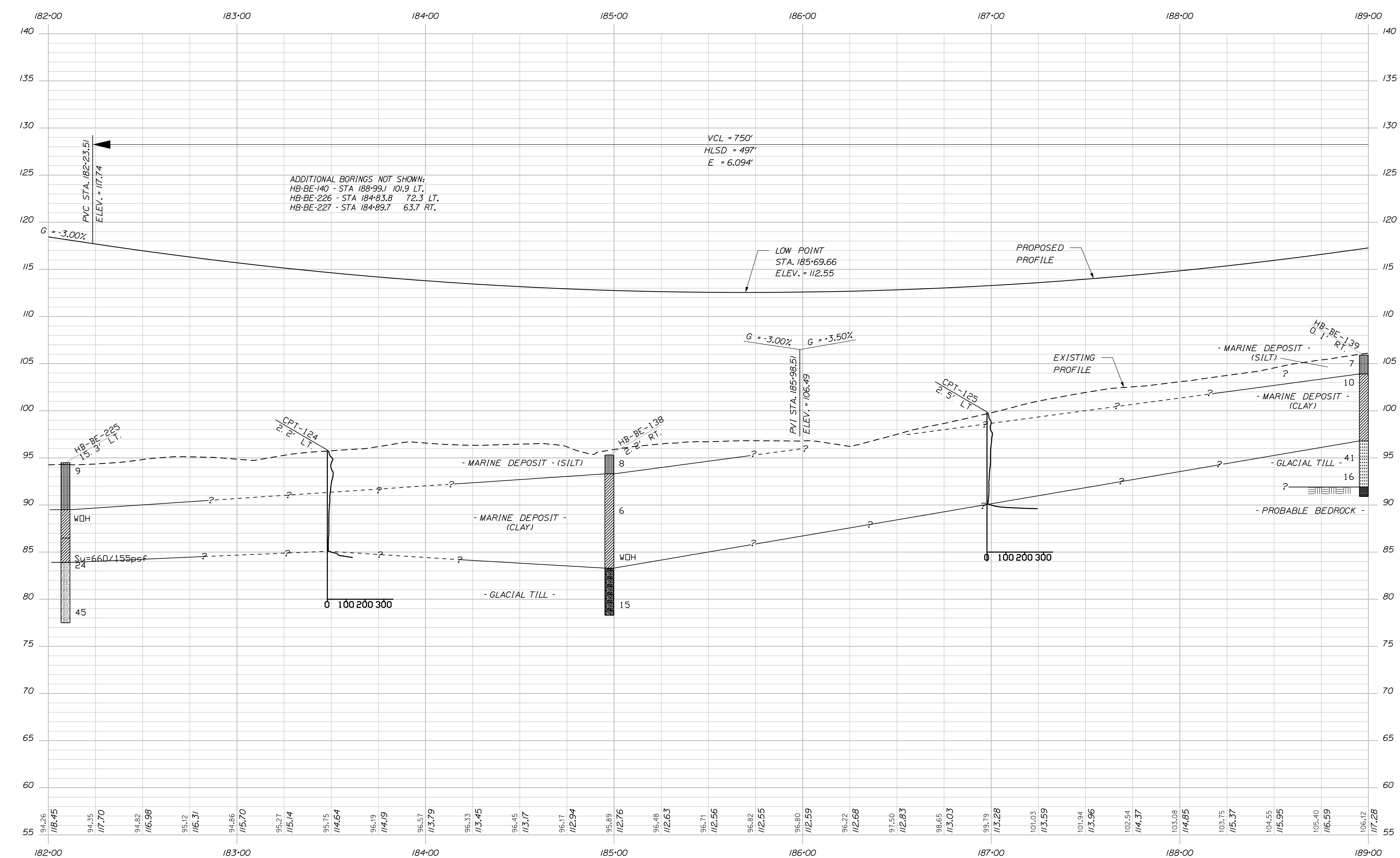
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

73

OF 114



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

HALEY ALDRICH

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile27.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST 6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE 8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
74
OF 114

Date:9/16/2021

Username:

Division:

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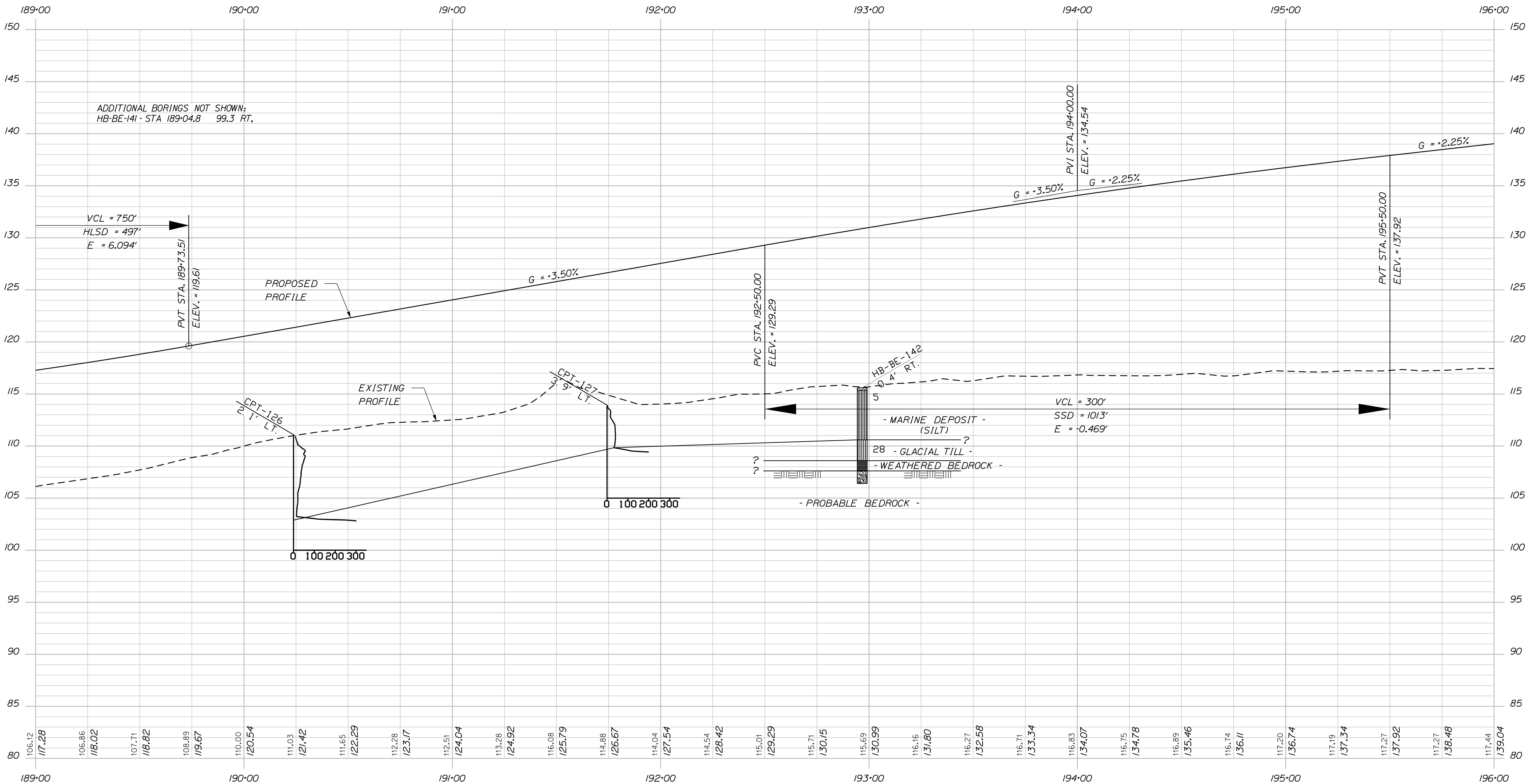


1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

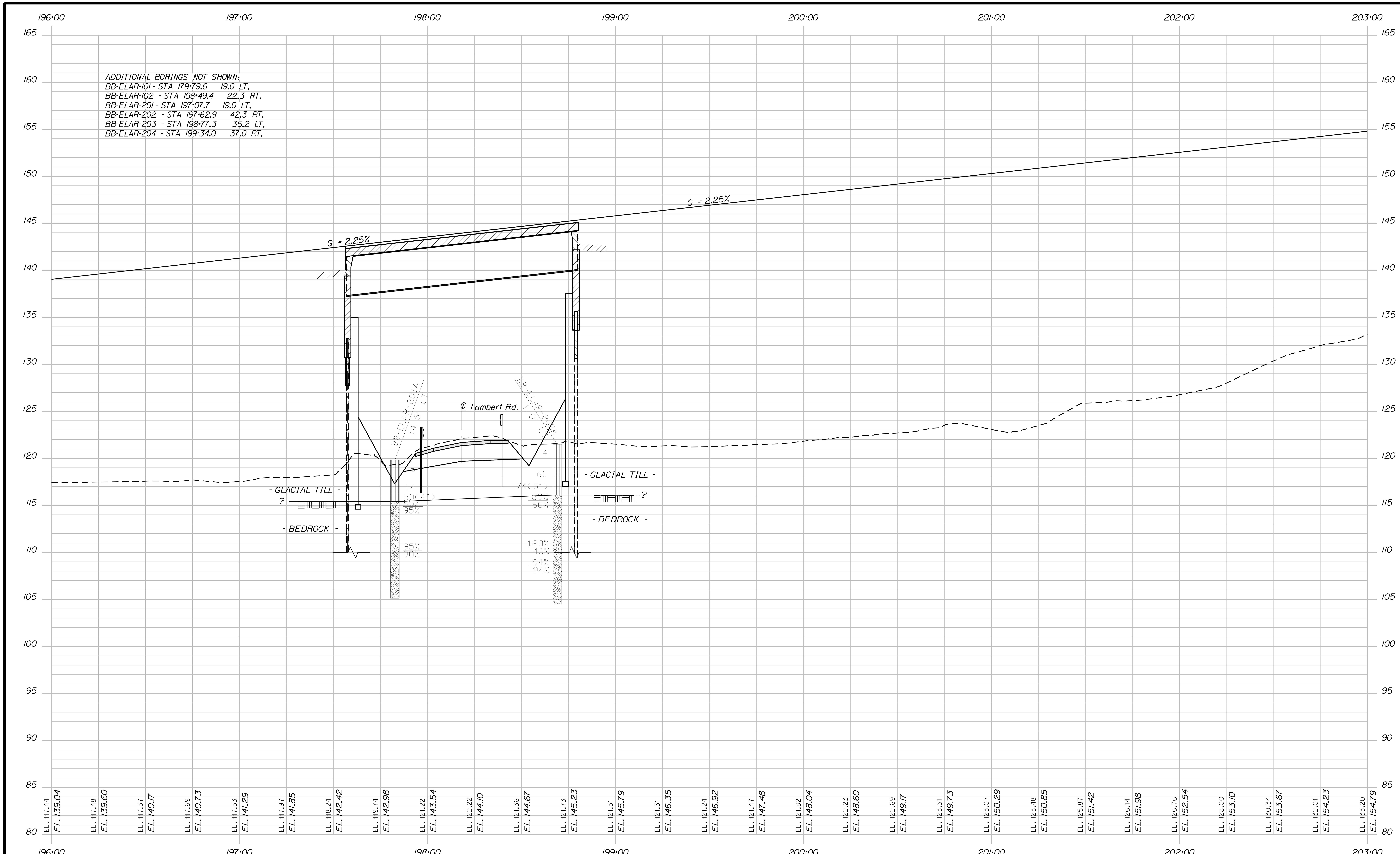
		SIGNATURE	
		P.E. NUMBER	
		DATE	
	BY	DATE	
PROJ. MANAGER	....		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile29.dgn



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
1891500
WIN 018915.00
HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	----------	
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

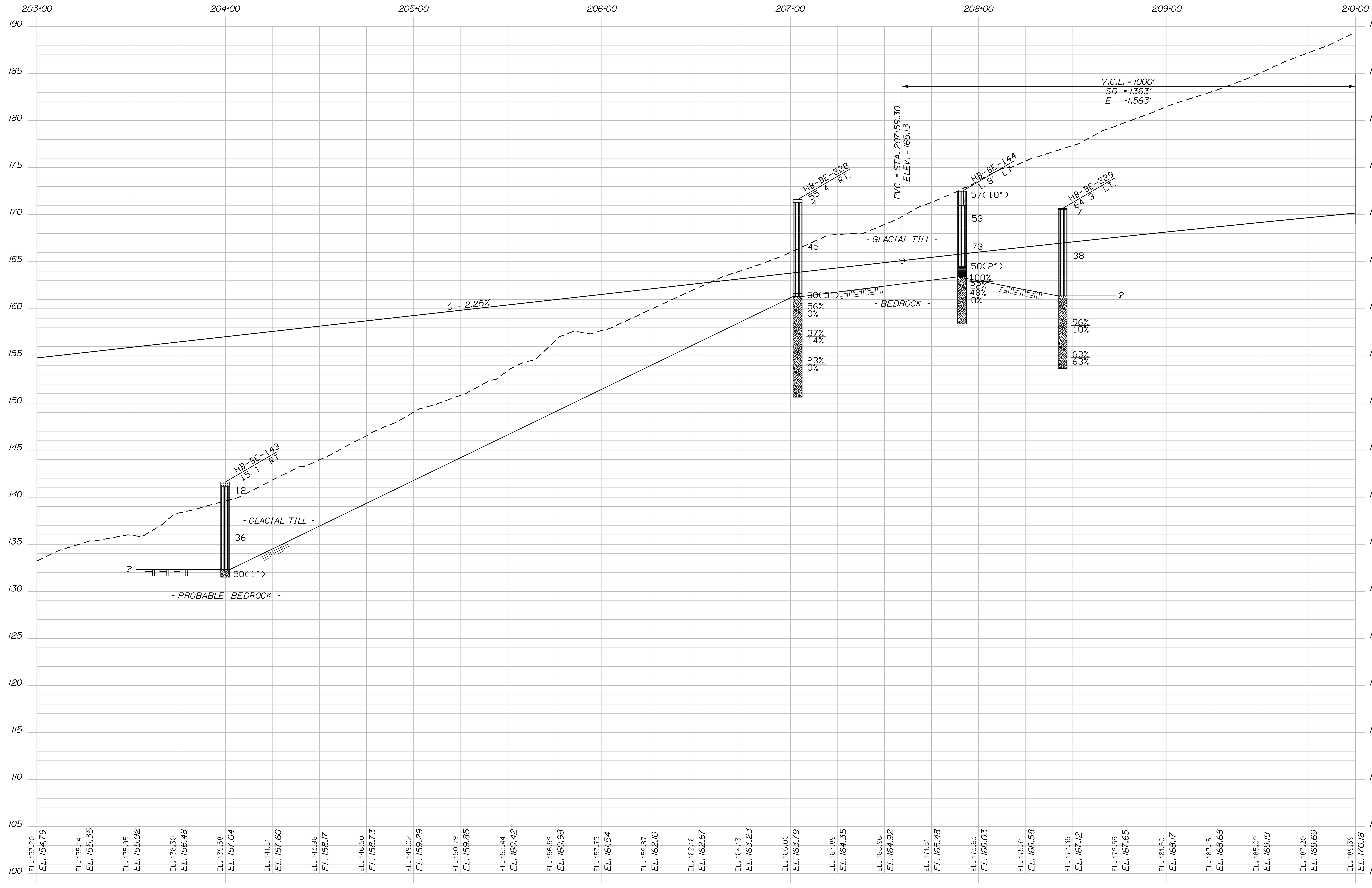
SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
76
OF 114

Filename: ...\CAD\I-395 Bypass\Profile30.dgn
Division:
Username:
Date:9/16/2021



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	....		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

SIGNATURE

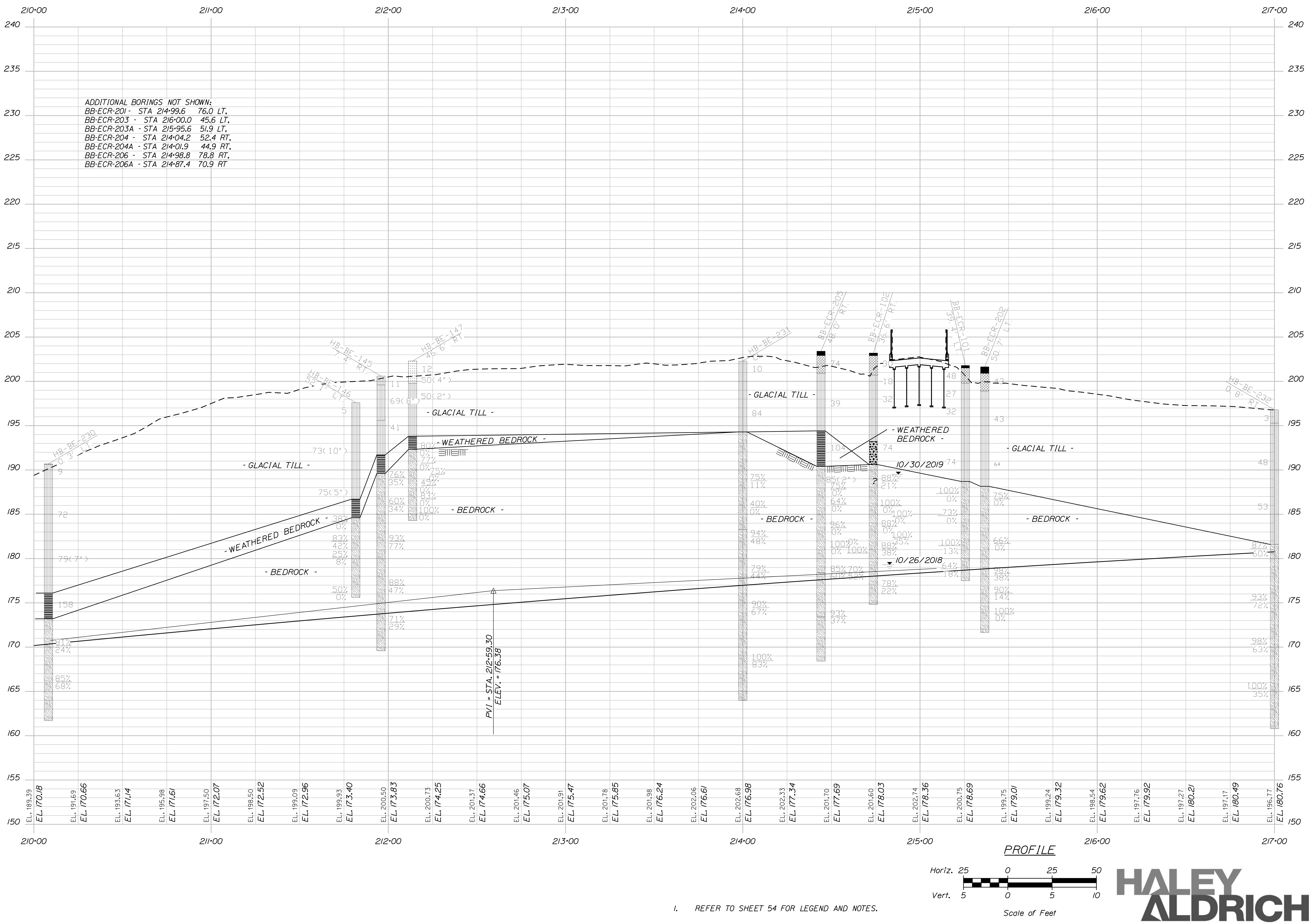
P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE
PROFILE

SHEET NUMBER
77
OF 114



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

Date:9/16/2021
Username:
Division:
Filename: ...\CAD\I-395 Bypass\Profile31.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE / K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE / W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

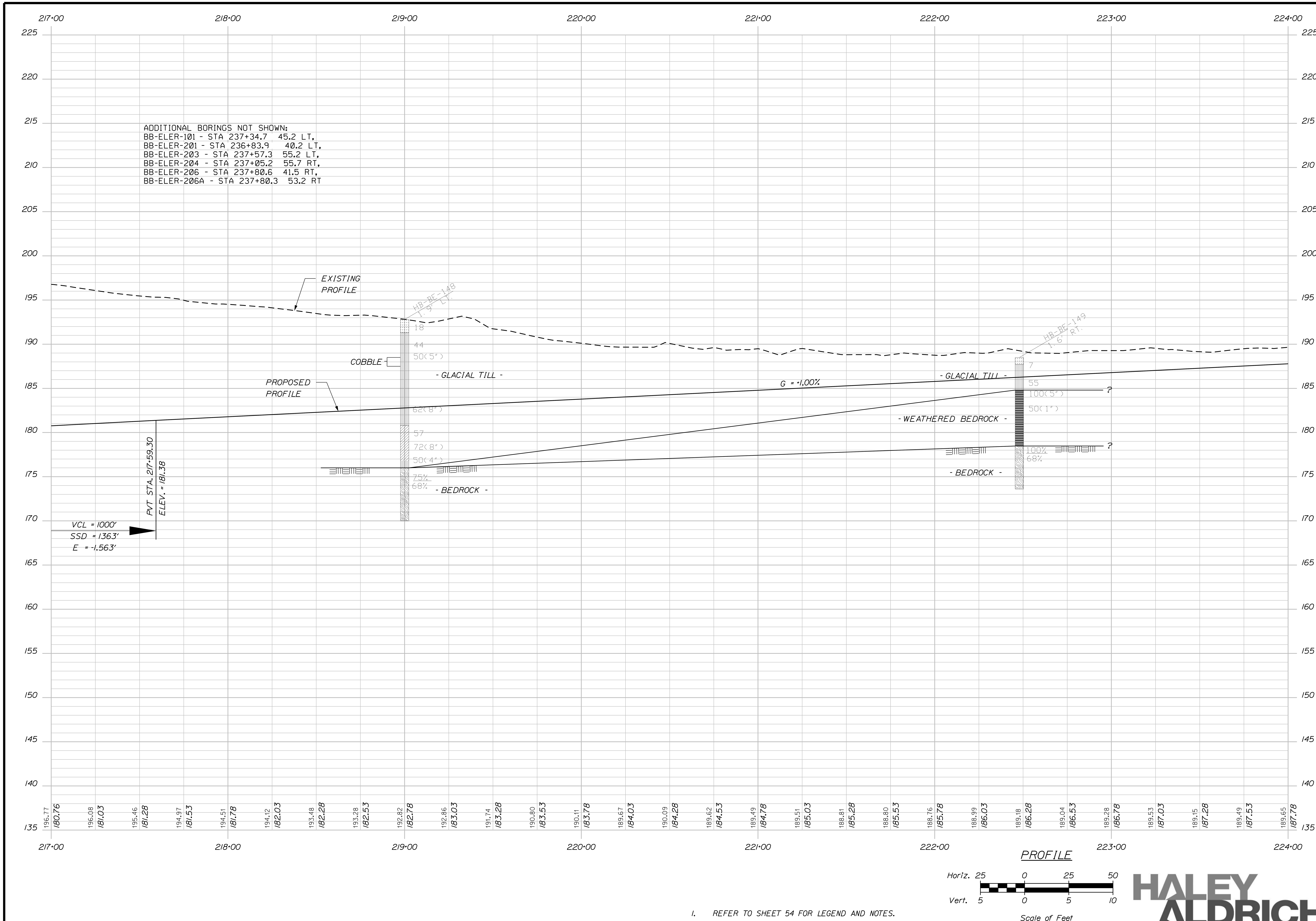
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

HALEY ALDRICH

SHEET NUMBER
78
OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile32.dgn



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

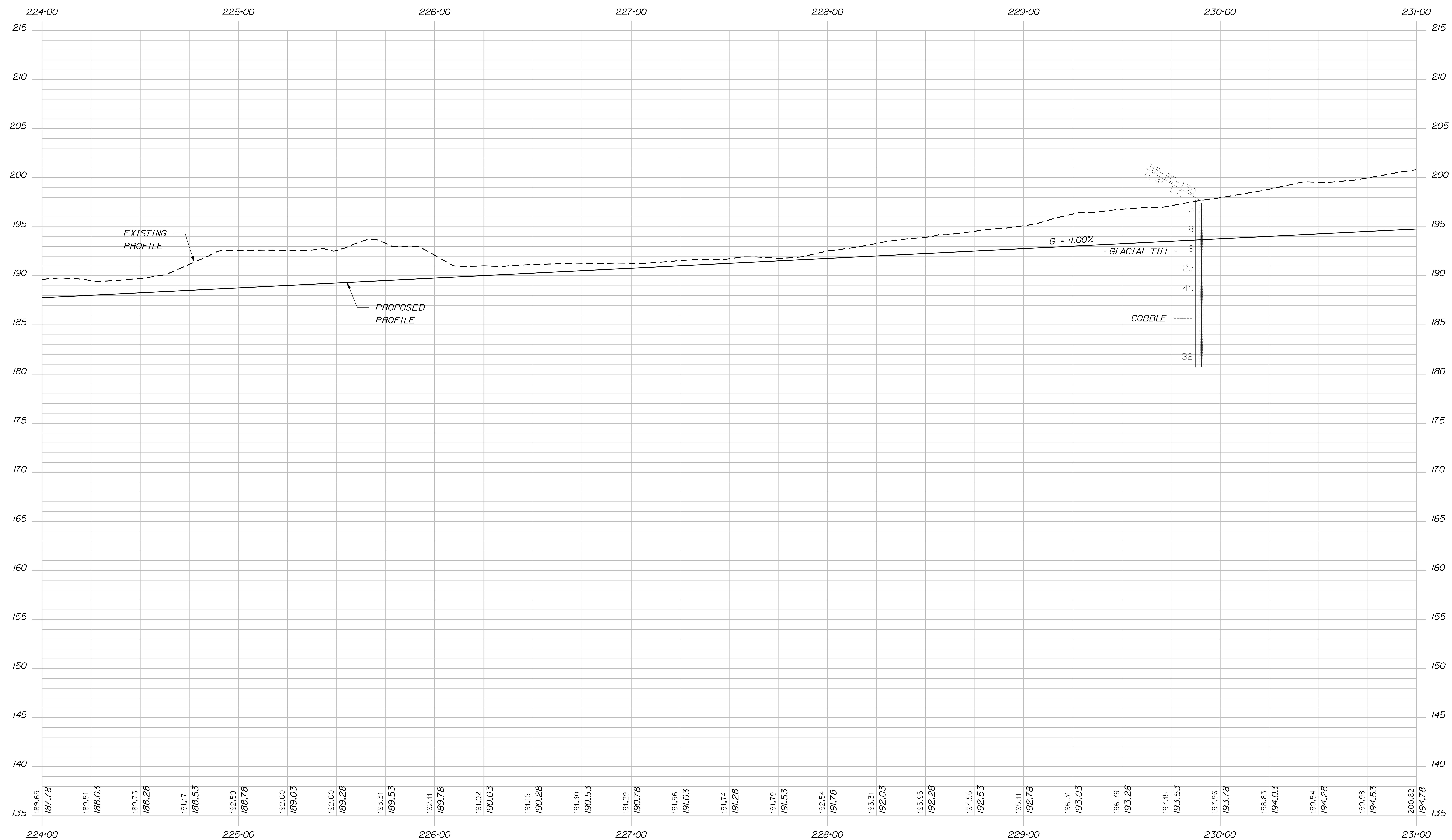
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

79

OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile33.dgn



PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

SIGNATURE

P.E. NUMBER

DATE

		BY	DATE
PROJ. MANAGER	----------		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----		-----
REVISIONS 2	-----		-----
REVISIONS 3	-----		-----
REVISIONS 4	-----		-----
FIELD CHANGES	-----		-----

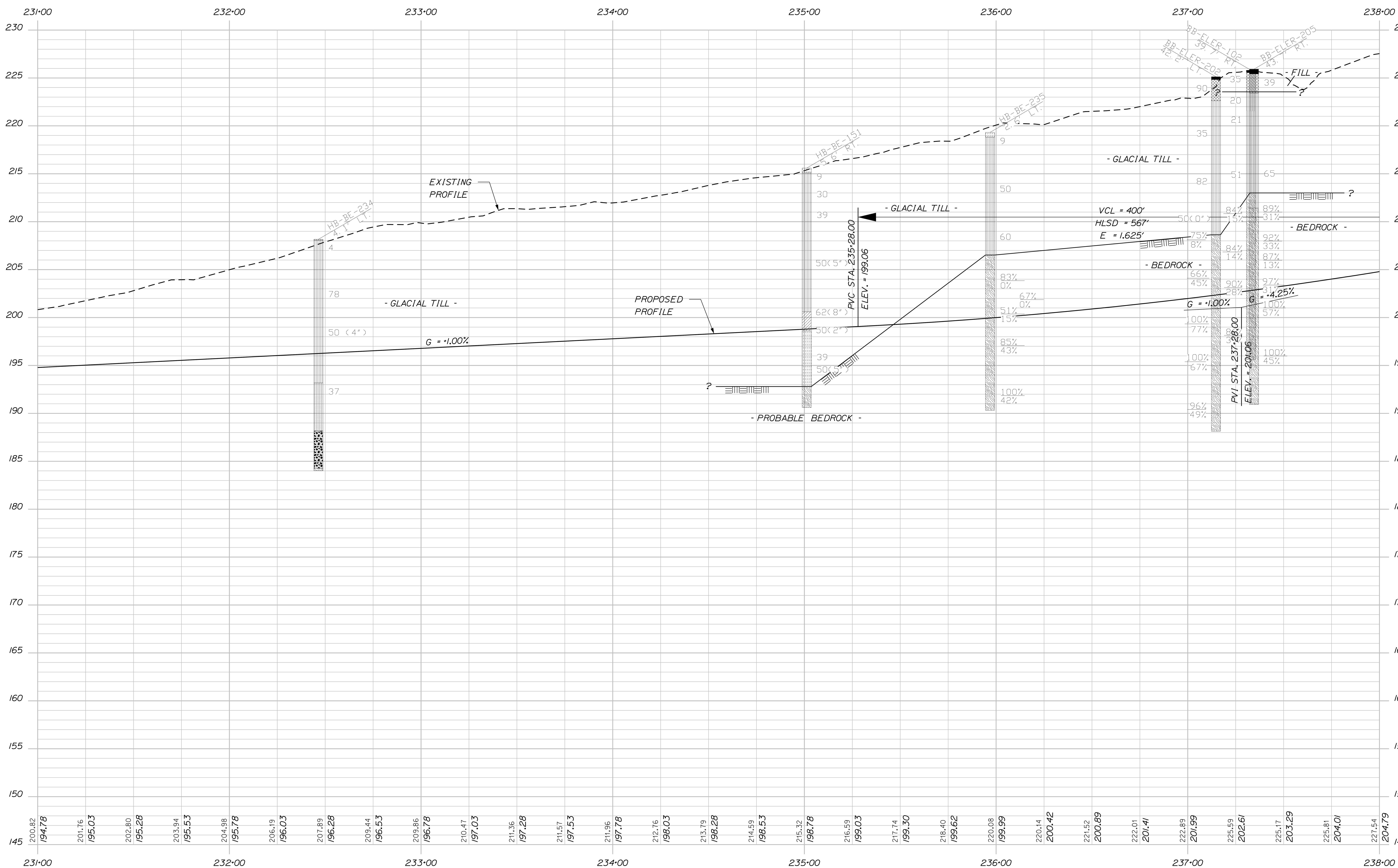
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

80

OF 114



PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

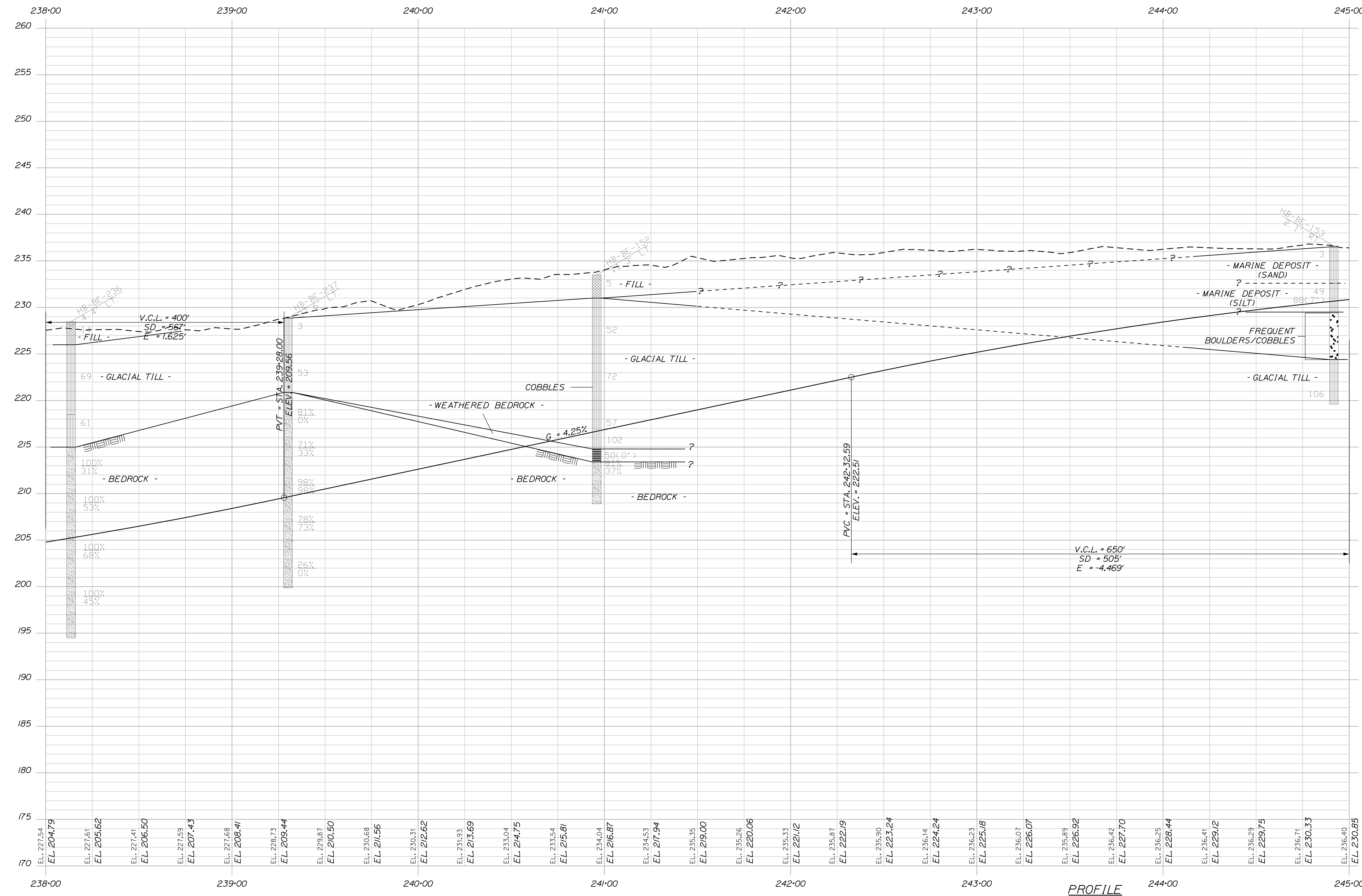
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

81

OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile35.dgn



PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	K. POST	6-18-21
CHECKED-REVIEWED	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

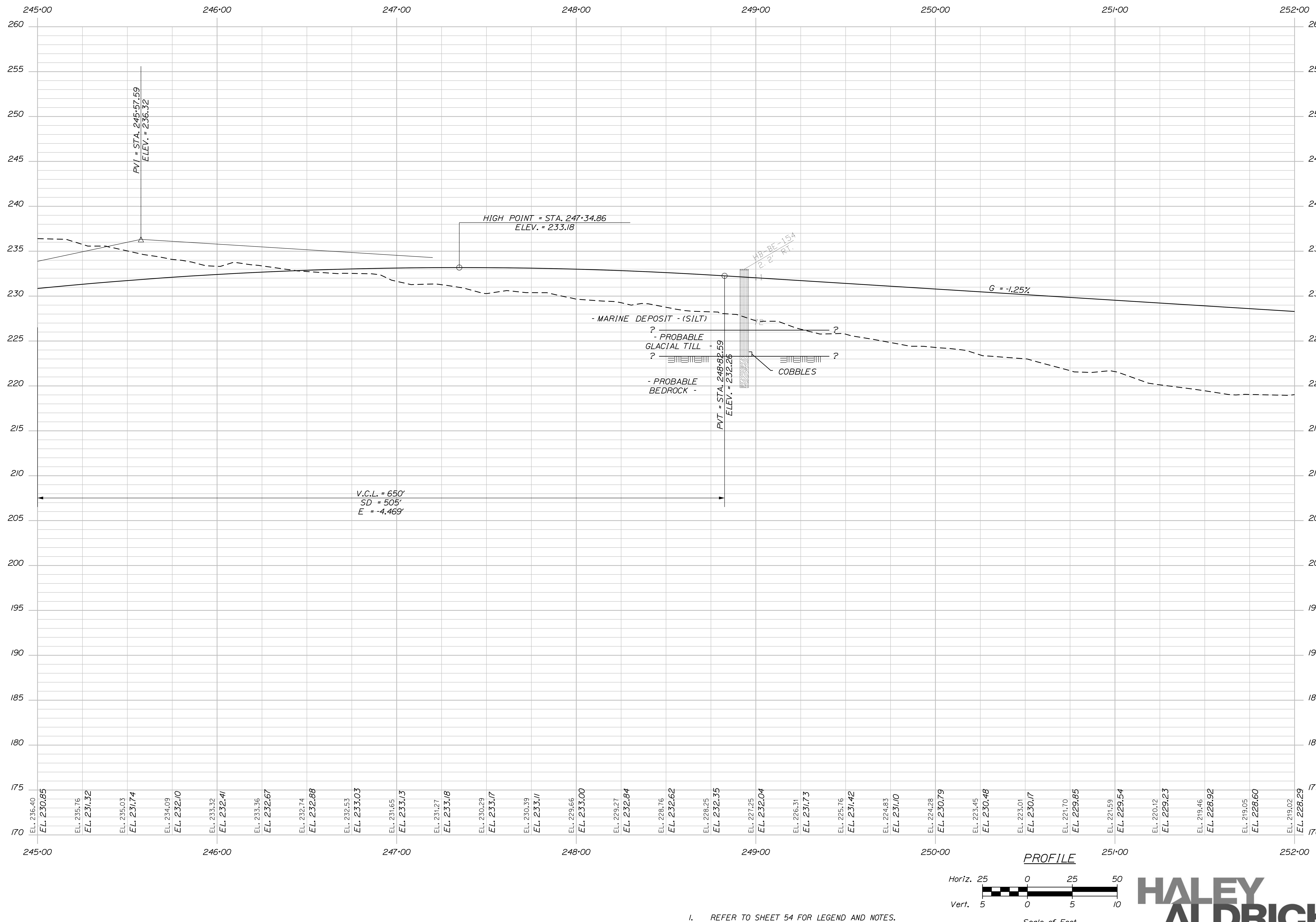
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

82

OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile36.dgn



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	....	
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	......	......	......
DESIGN3-DETAILED3	......	......	......
REVISIONS 1	......	......	......
REVISIONS 2	......	......	......
REVISIONS 3	......	......	......
REVISIONS 4	......	......	......
FIELD CHANGES	......	......	......

SIGNATURE

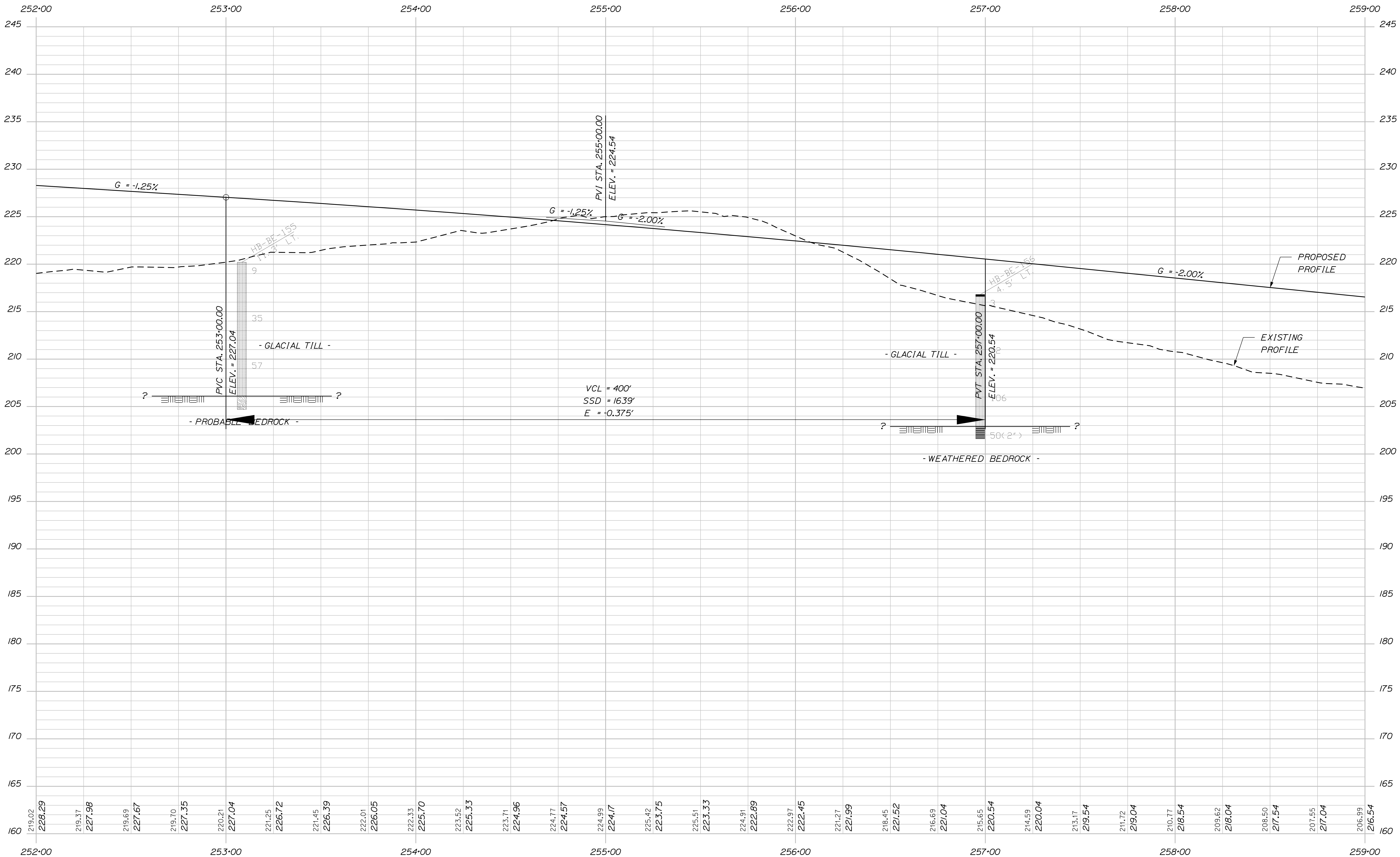
P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
83
OF 114



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

Filename: ...\CAD\I-395 Bypass\Profile37.dgn Division: Username: Date:9/16/2021

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE	SIGNATURE
PROJ. MANAGER	.....		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....		
REVISIONS 2	.....		
REVISIONS 3	.....		
REVISIONS 4	.....		
FIELD CHANGES	.....		

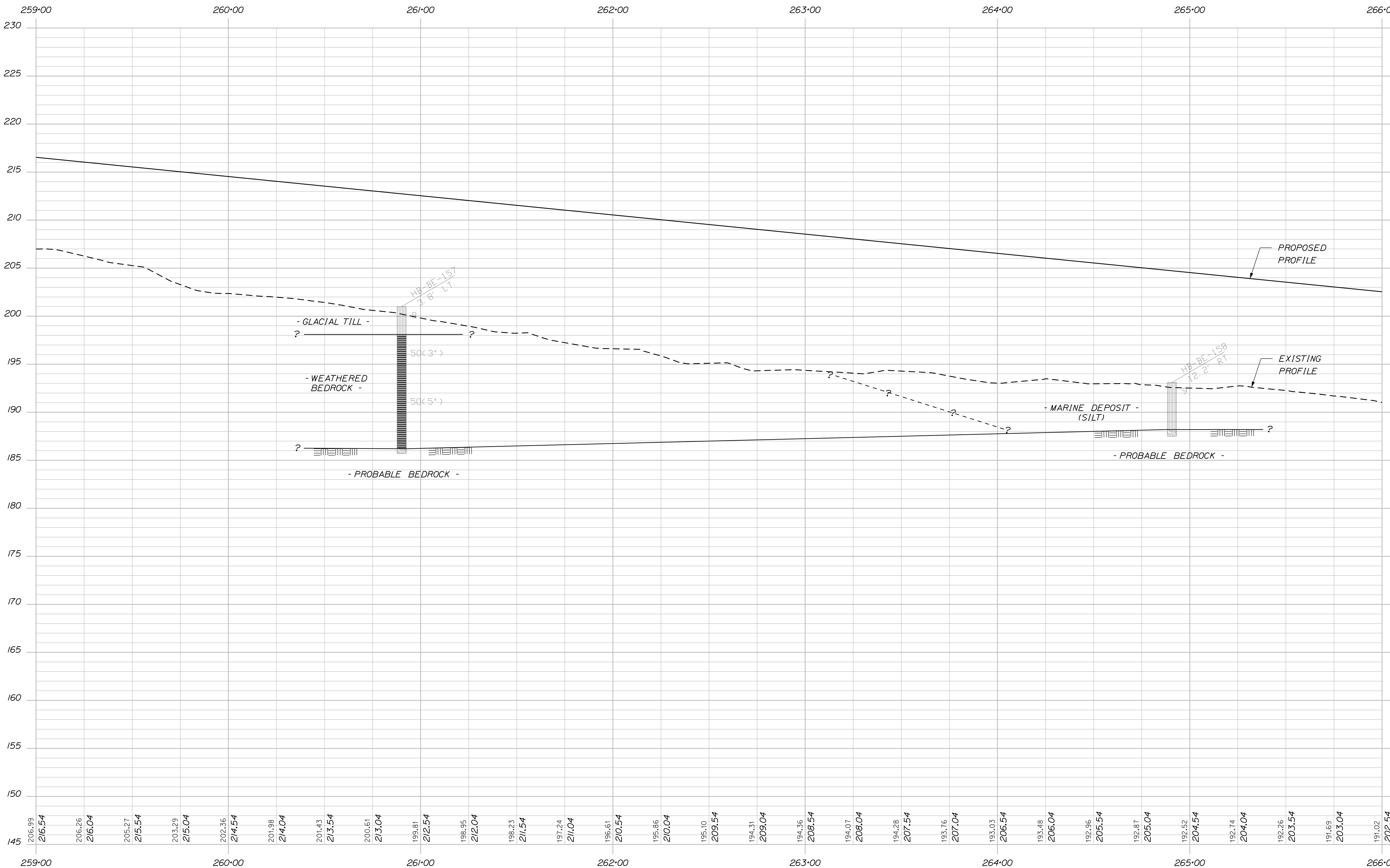
P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE
PROFILE

SHEET NUMBER
84
OF 114



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	....		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....		.....
REVISIONS 2	.....		.....
REVISIONS 3	.....		.....
REVISIONS 4	.....		.....
FIELD CHANGES	.....		.....

SIGNATURE

P.E. NUMBER

DATE

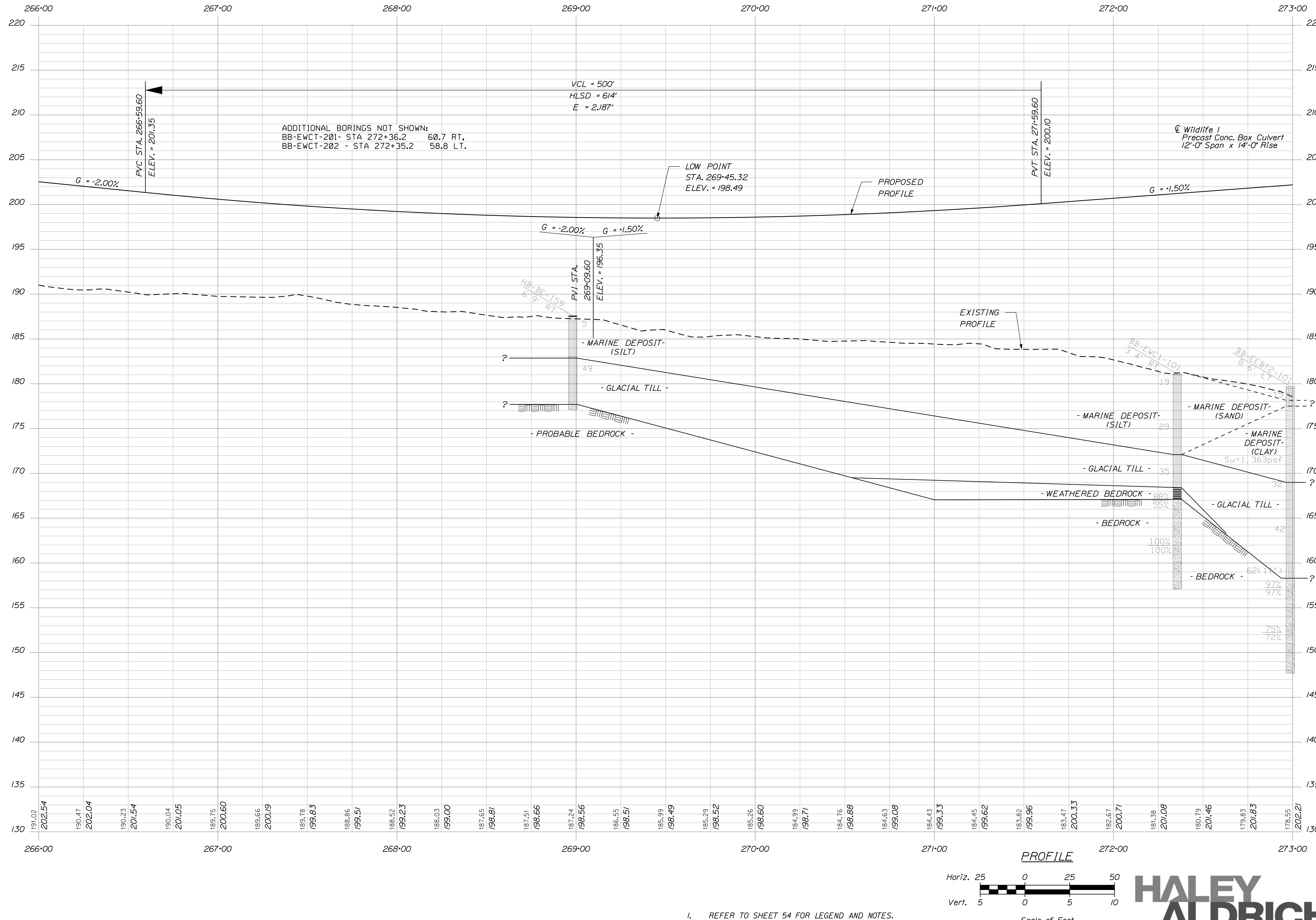
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

85

OF 114



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE	SIGNATURE
PROJ. MANAGER			
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
86
OF 114

Filename: ...\CAD\I-395 Bypass\Profile39.dgn Division: Username: Date:9/16/2021

Date:9/16/2021 Username: Division:
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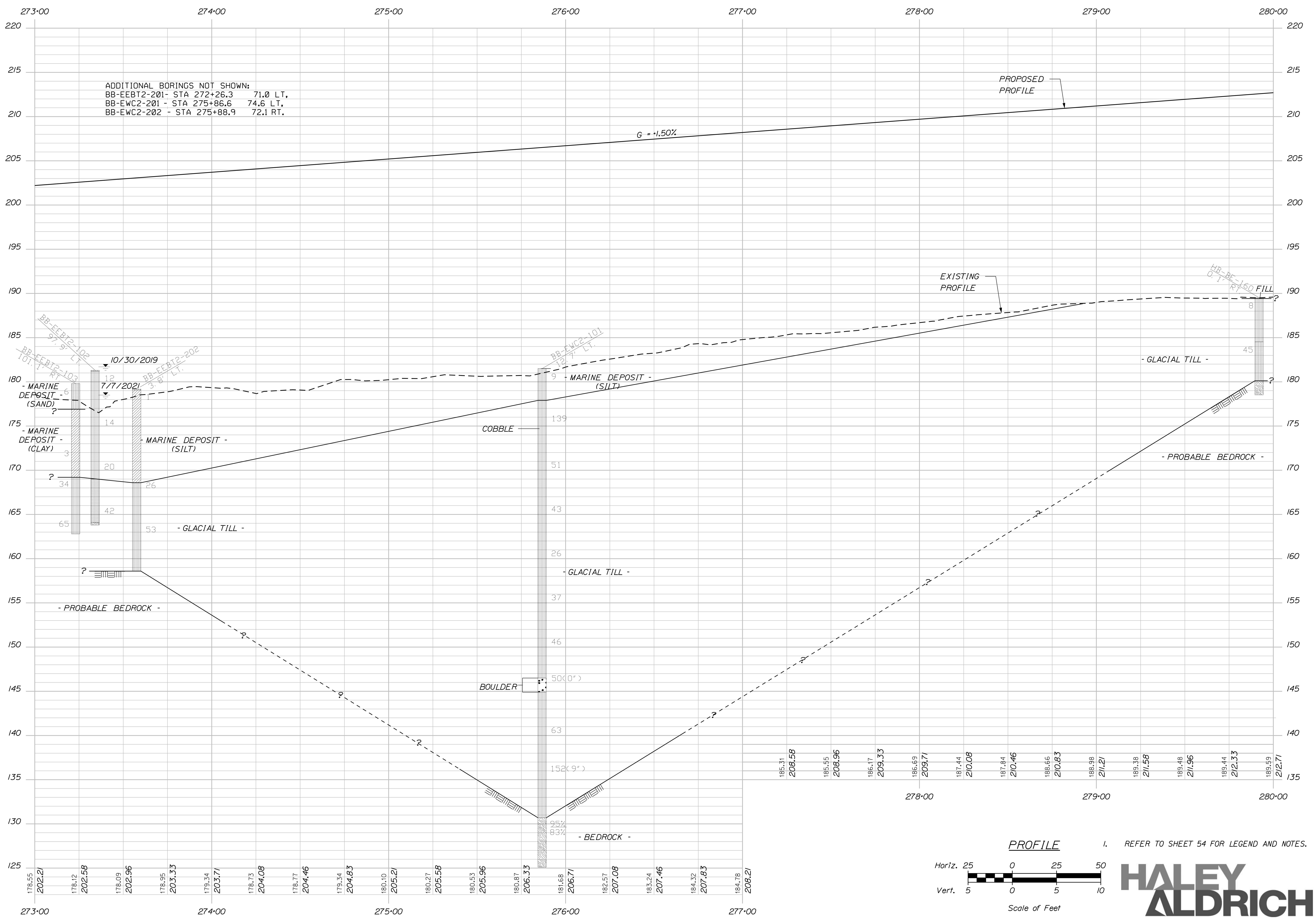


1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

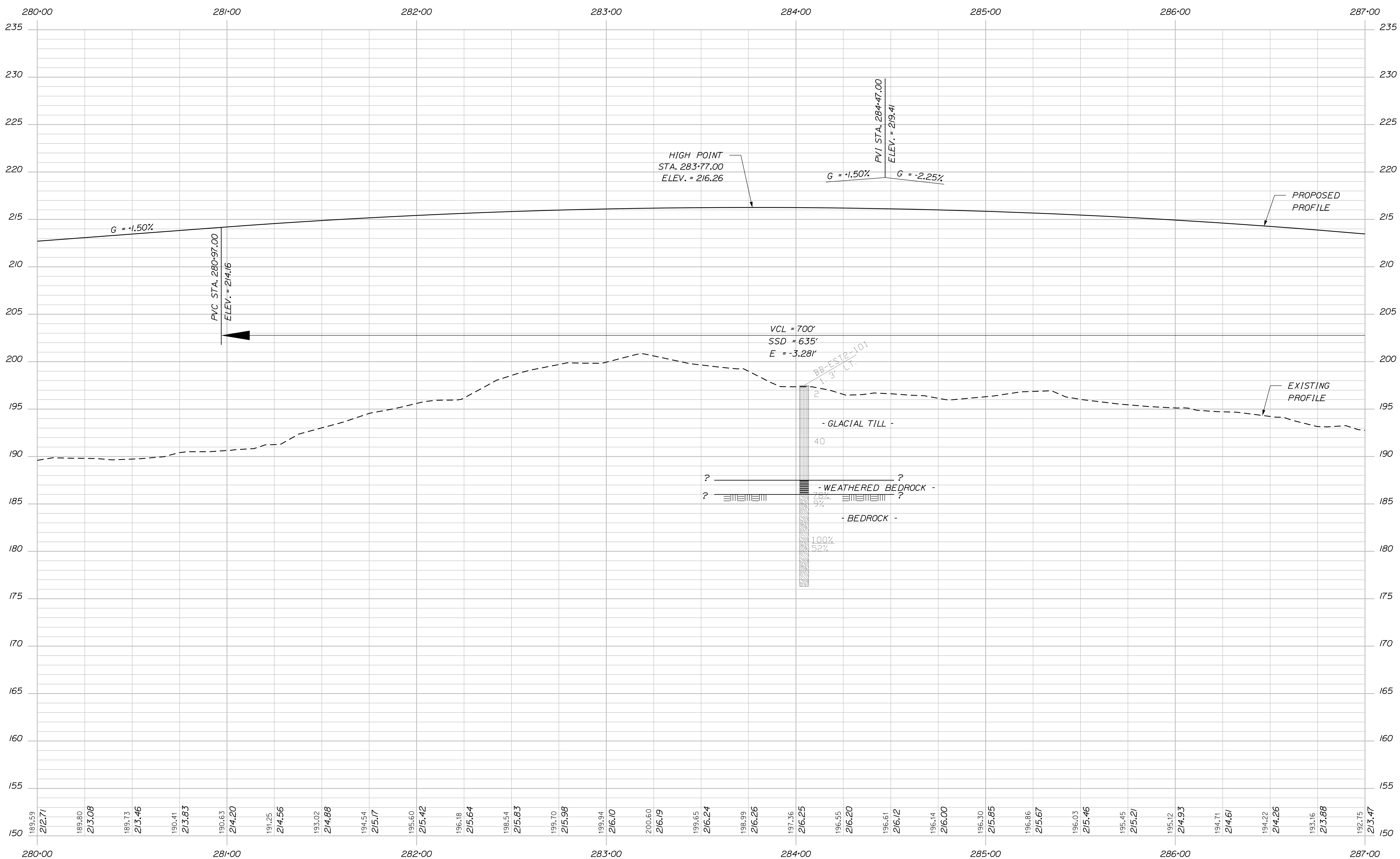
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

87

OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile41.dgn



PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

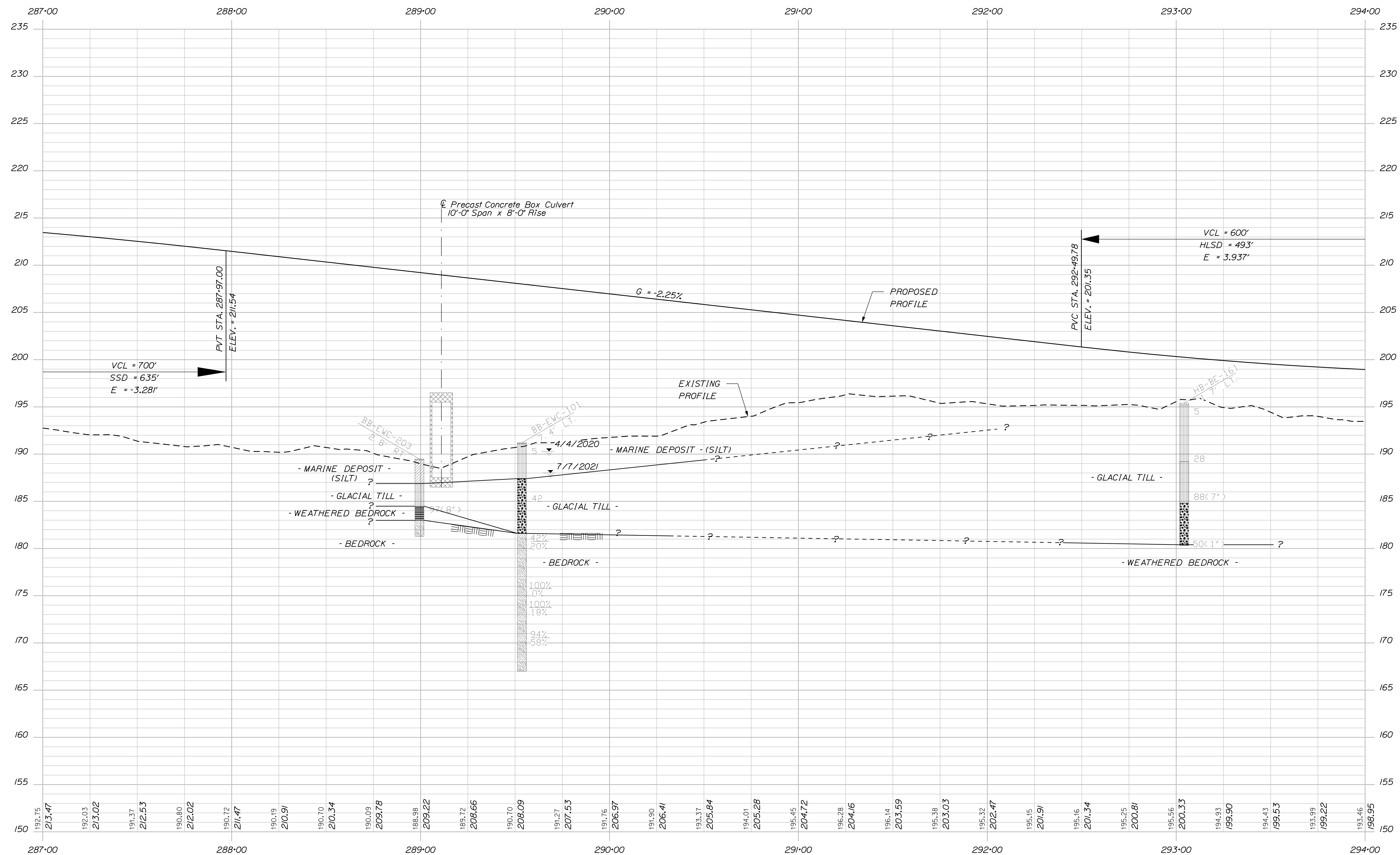
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE
PROFILE

SHEET NUMBER

88

OF 114



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

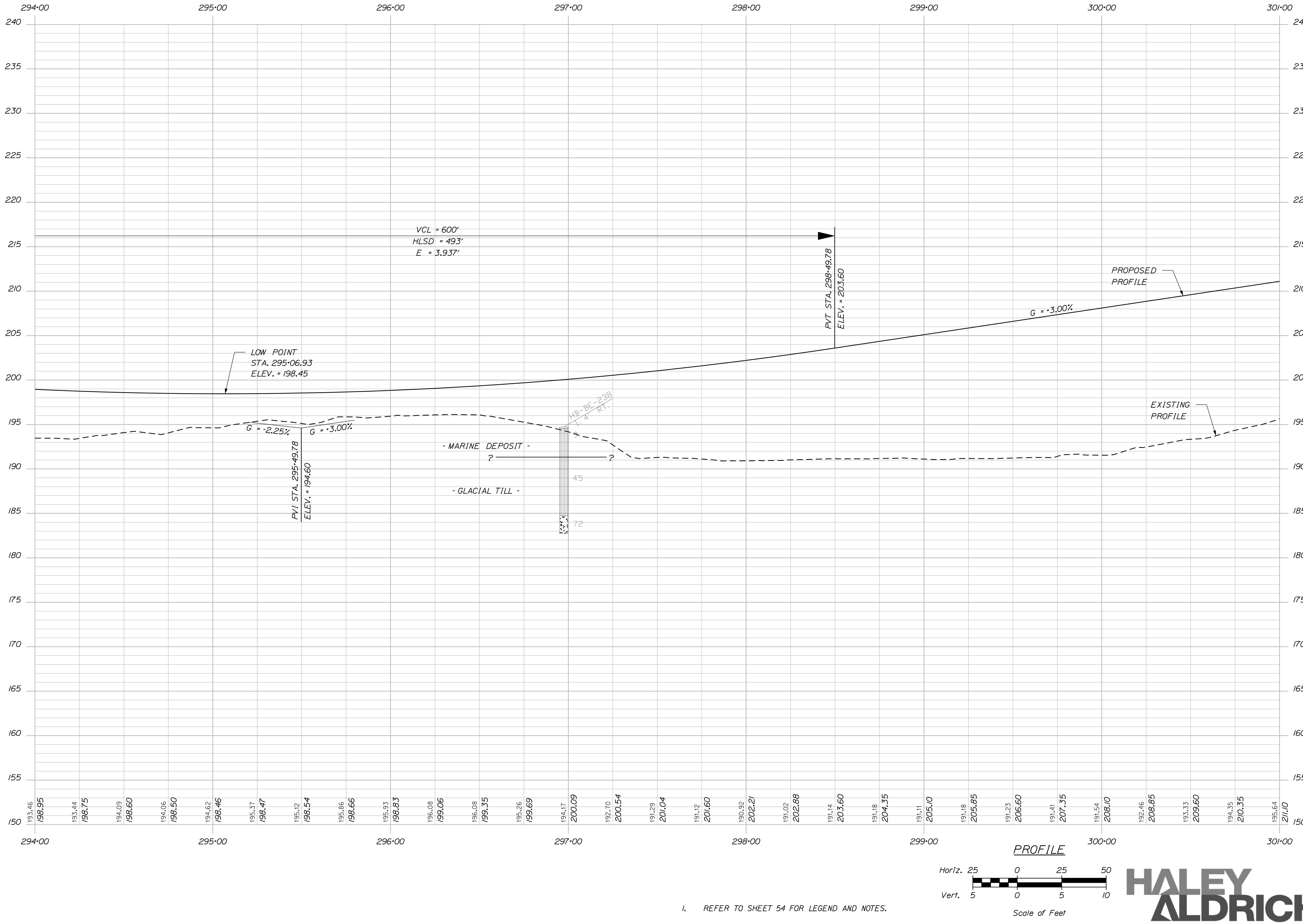
	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE / K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE / W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
89
OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile43.dgn



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	....	
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

SIGNATURE

P.E. NUMBER

DATE

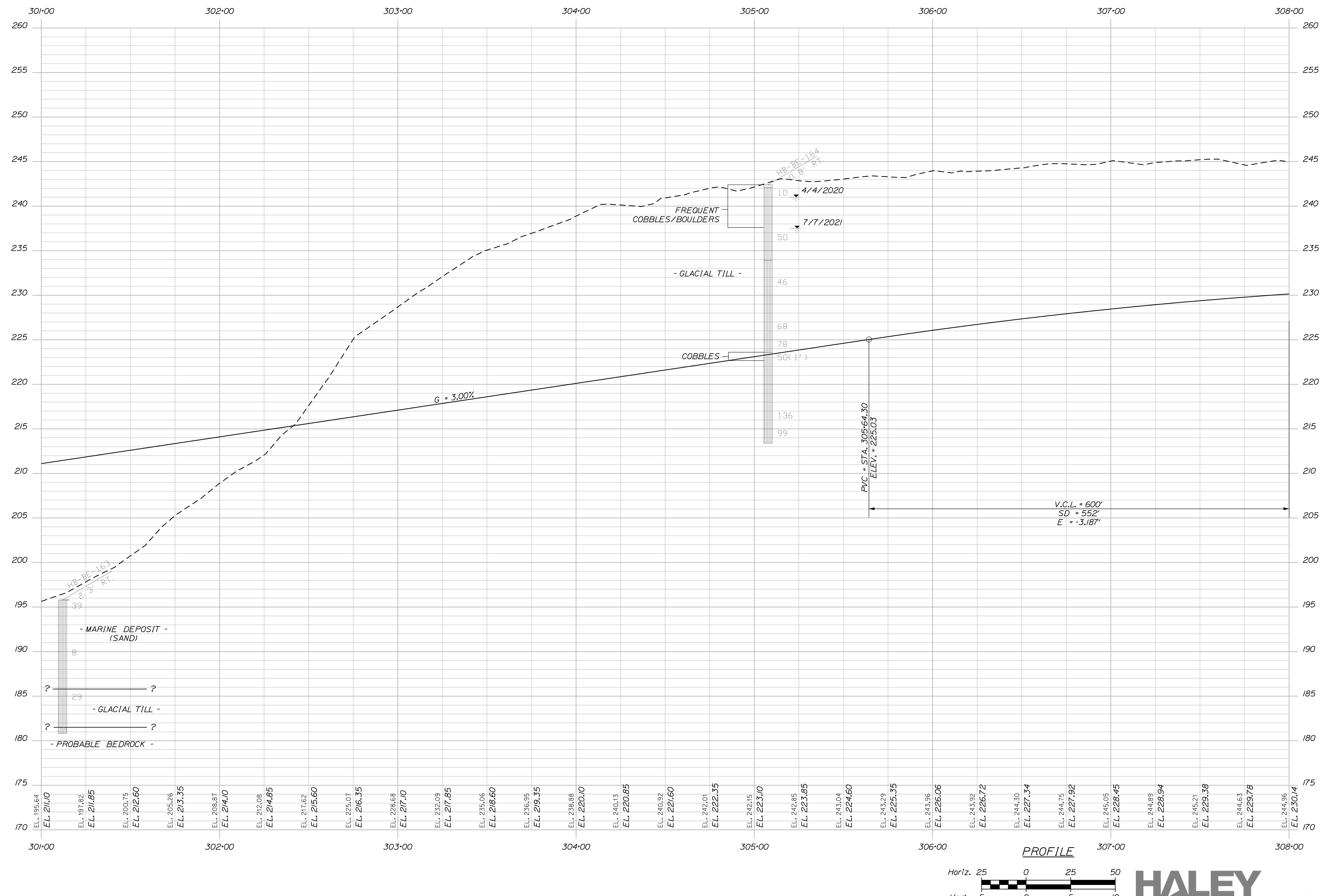
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

90

OF 114

Filename: ...\CAD\I-395 Bypass\Profile44.dgn
Division:
Username:
Date:9/16/2021



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

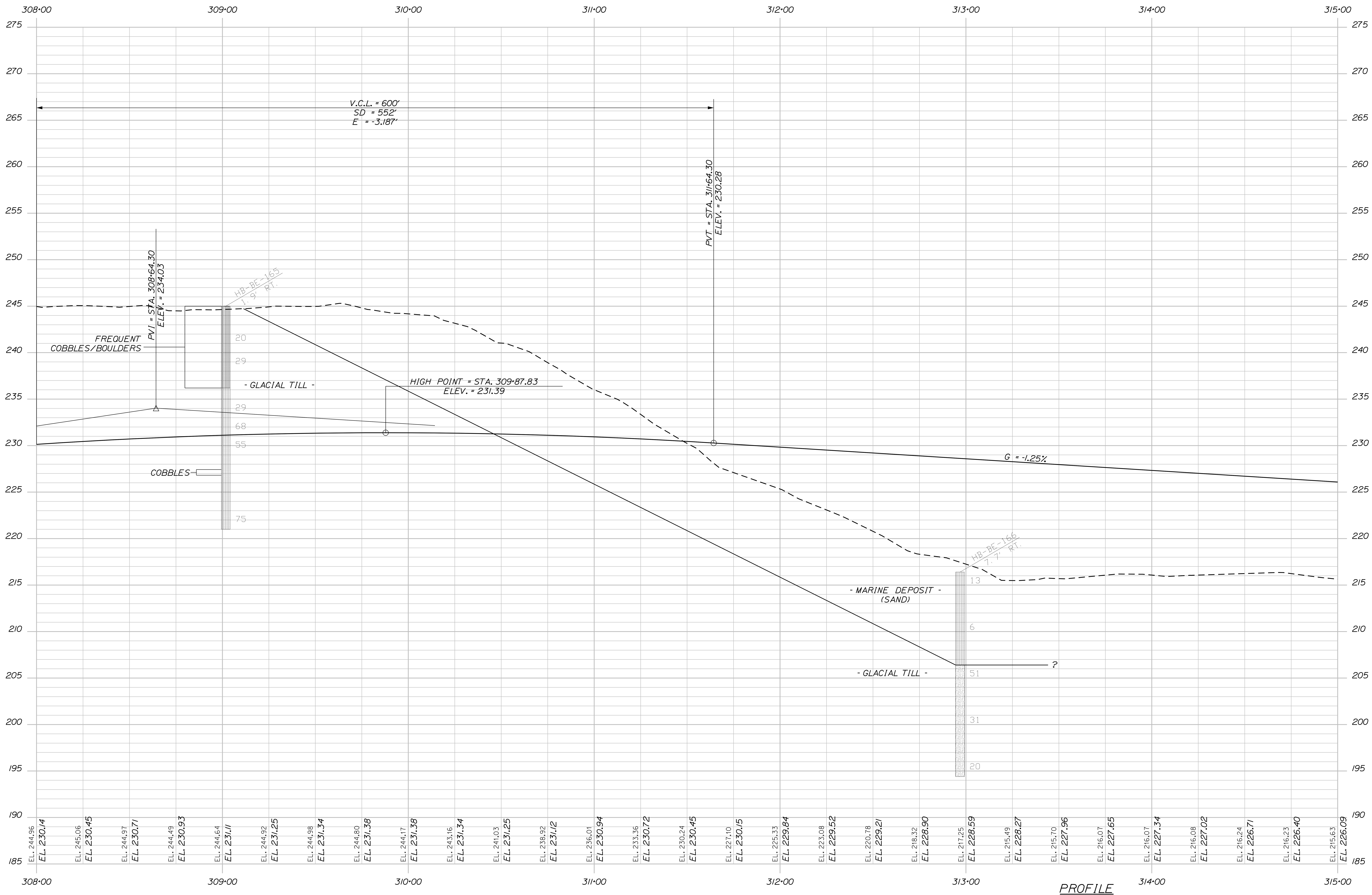
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

91

OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile45.dgn



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	....	
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
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DESIGN3-DETAILED3	......	......	......
REVISIONS 1	......	......	......
REVISIONS 2	......	......	......
REVISIONS 3	......	......	......
REVISIONS 4	......	......	......
FIELD CHANGES	......	......	......

SIGNATURE

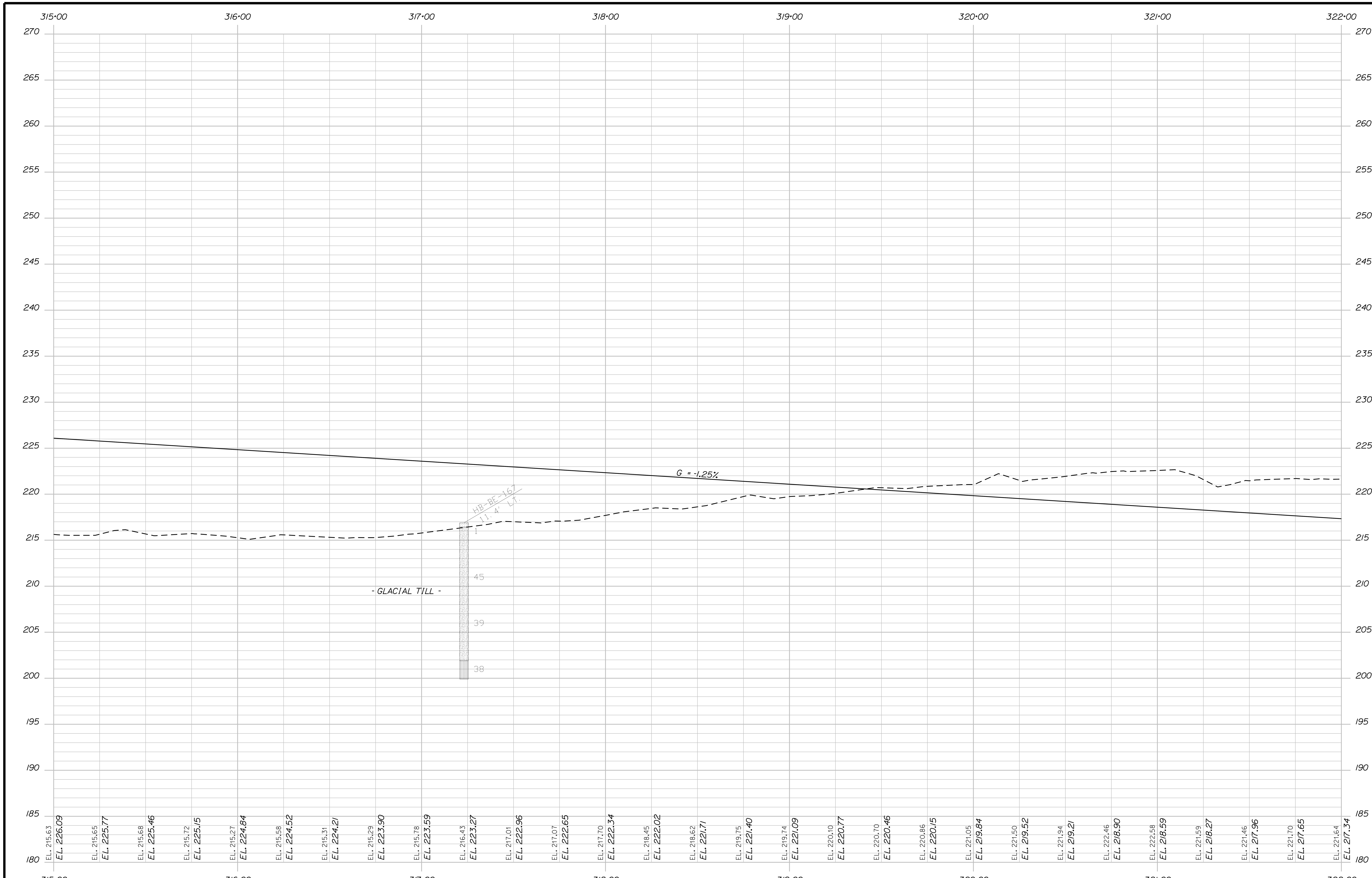
P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE
PROFILE

SHEET NUMBER
92
OF 114



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE / K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE / W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

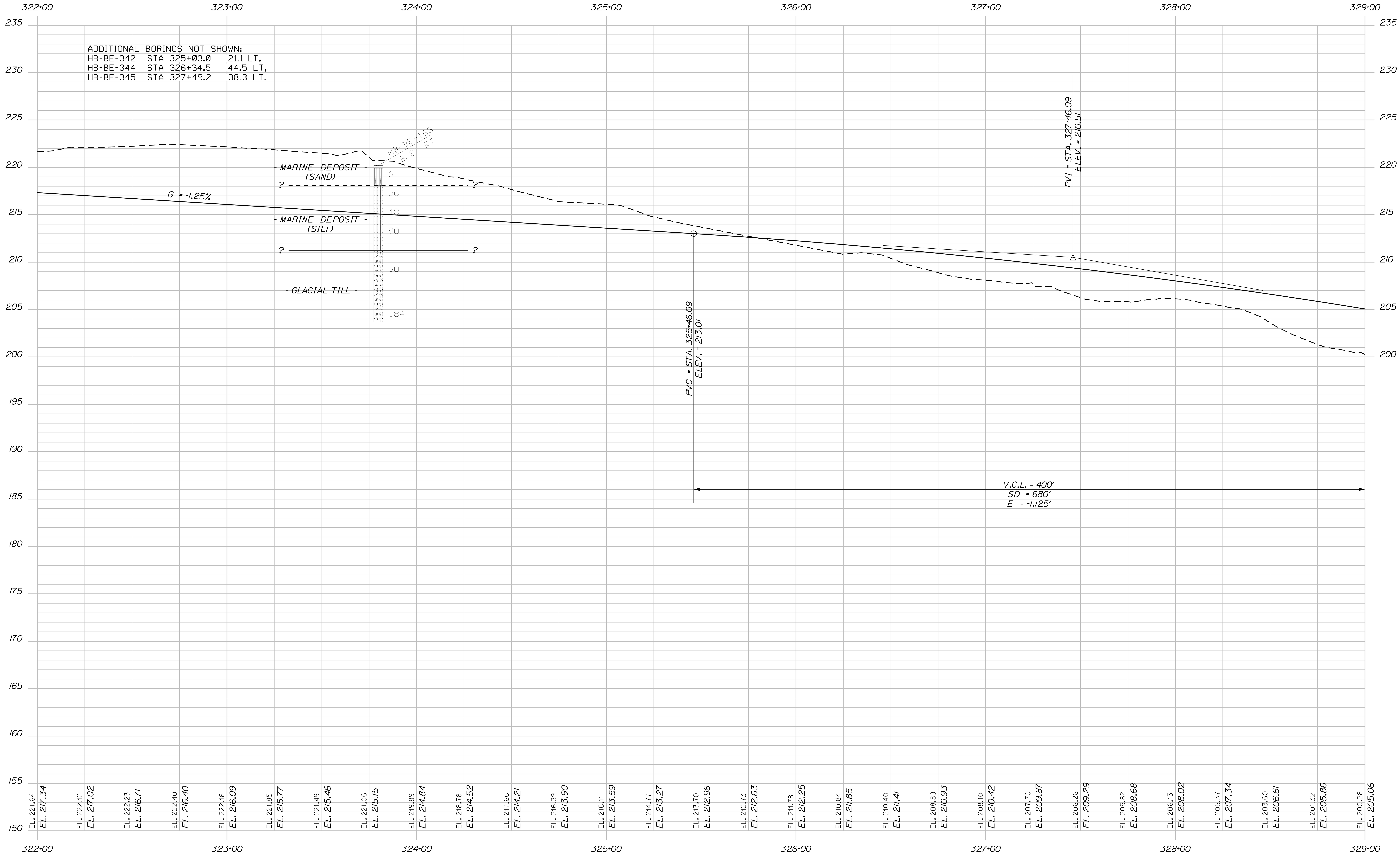
SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE
PROFILE

SHEET NUMBER
93
OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile47.dgn



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	....		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....		.....
REVISIONS 2	.....		.....
REVISIONS 3	.....		.....
REVISIONS 4	.....		.....
FIELD CHANGES	.....		.....

SIGNATURE

P.E. NUMBER

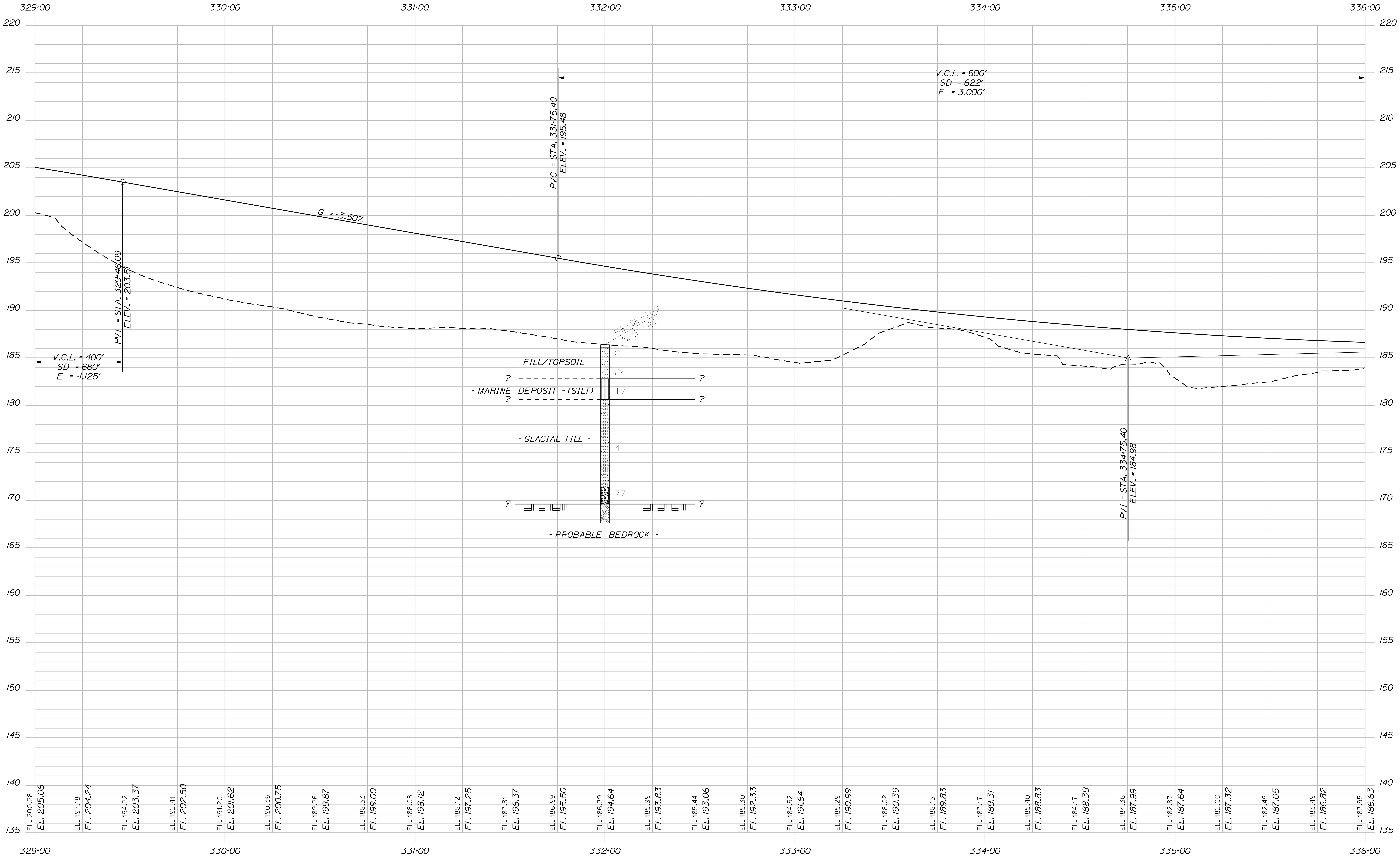
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
94
OF 114

Date:9/16/2021 Username: Division: Filename: ...\CAD\I-395 Bypass\Profile48.dgn



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	....	
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	.....	.....	.....
DESIGN3-DETAILED3	.....	.....	.....
REVISIONS 1	.....	.....	.....
REVISIONS 2	.....	.....	.....
REVISIONS 3	.....	.....	.....
REVISIONS 4	.....	.....	.....
FIELD CHANGES	.....	.....	.....

SIGNATURE

P.E. NUMBER

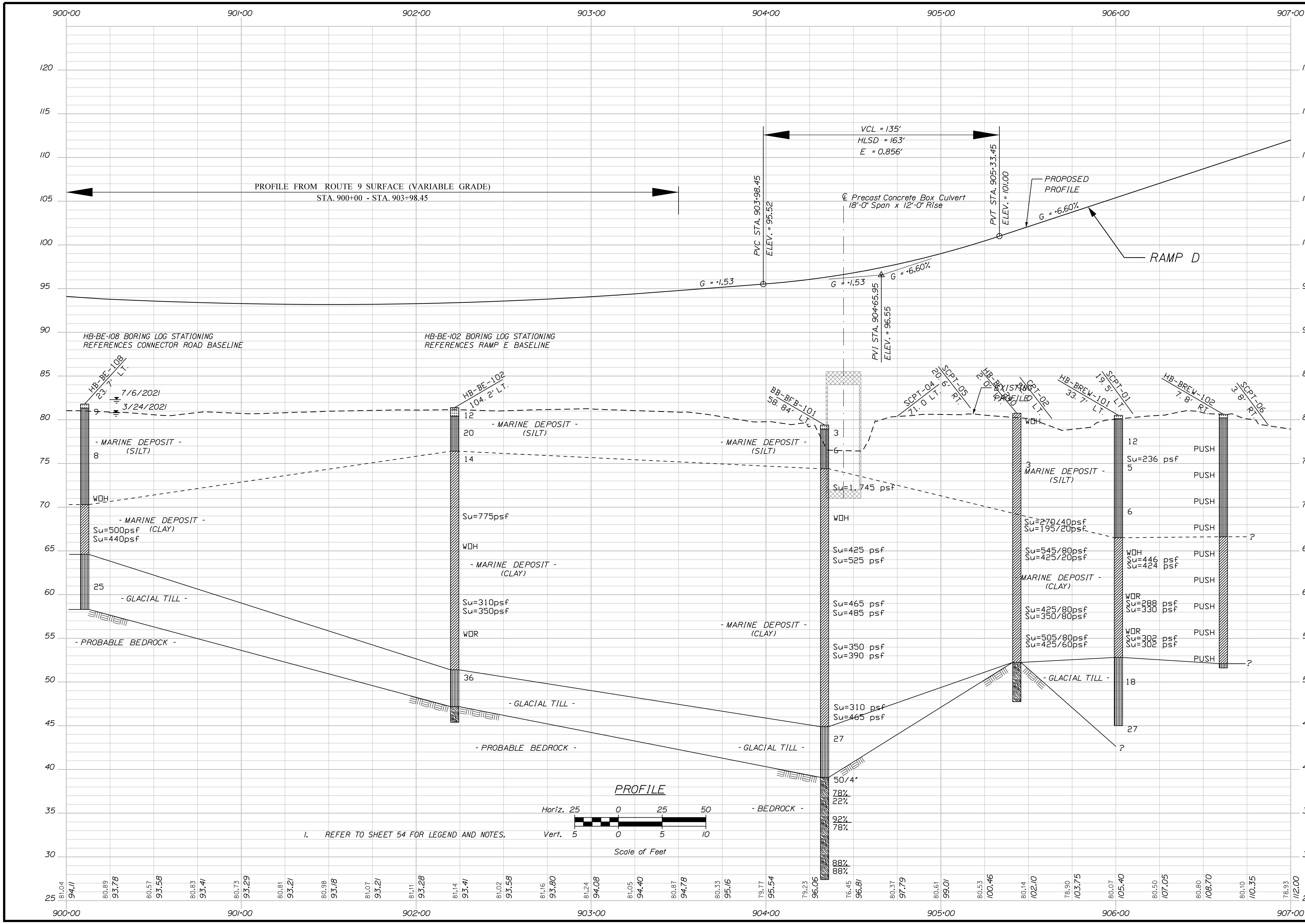
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
95
OF 114

Date:9/16/2021
Username:
Division:
Filename: ...\Profile50A Ramp D.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
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CHECKED-REVIEWED	E. FORCE / W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

96

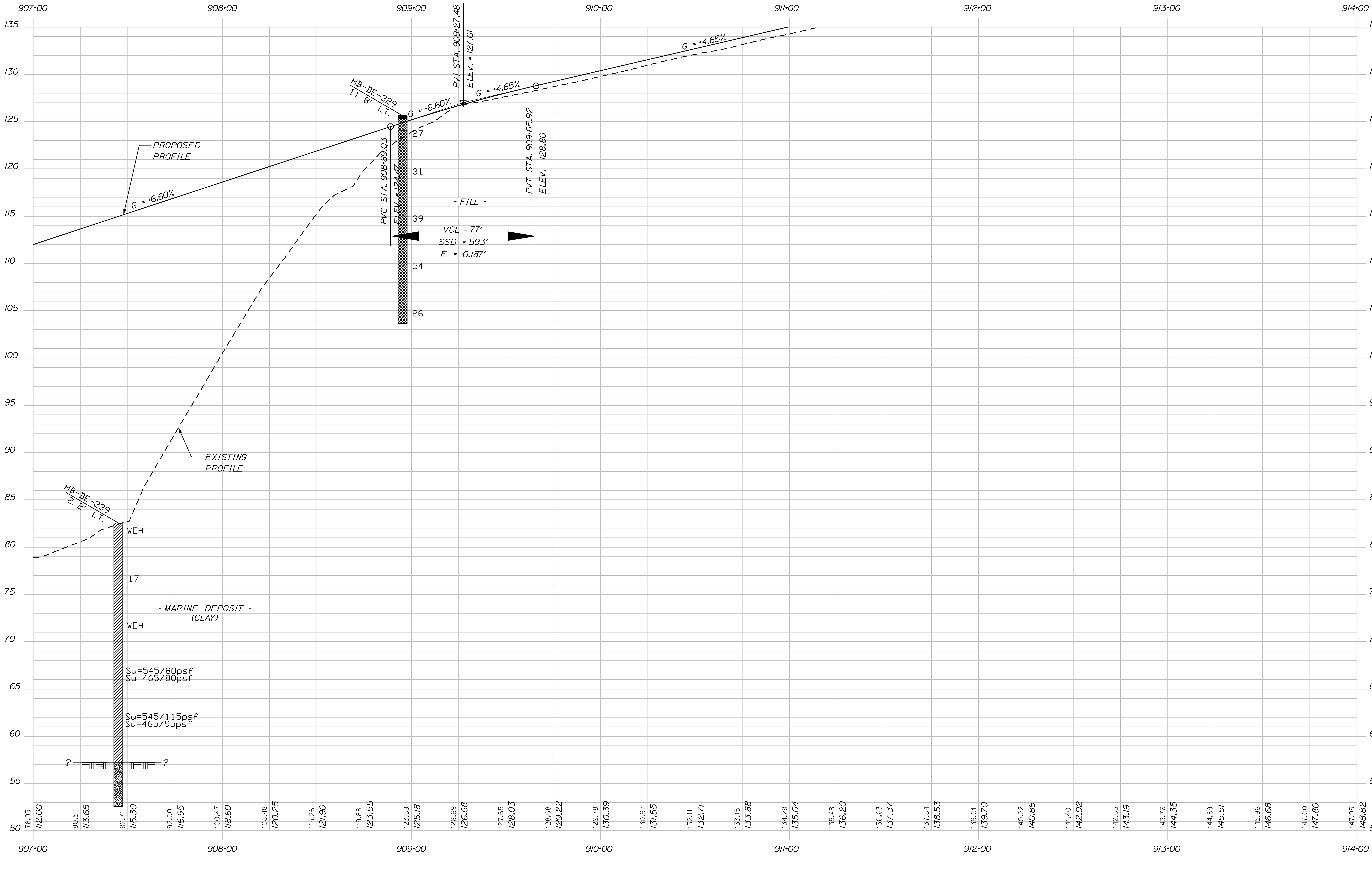
OF 114

Date:9/16/2021

Username:

Division:

Filename: ...\Profile50B Ramp D.dgn



PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

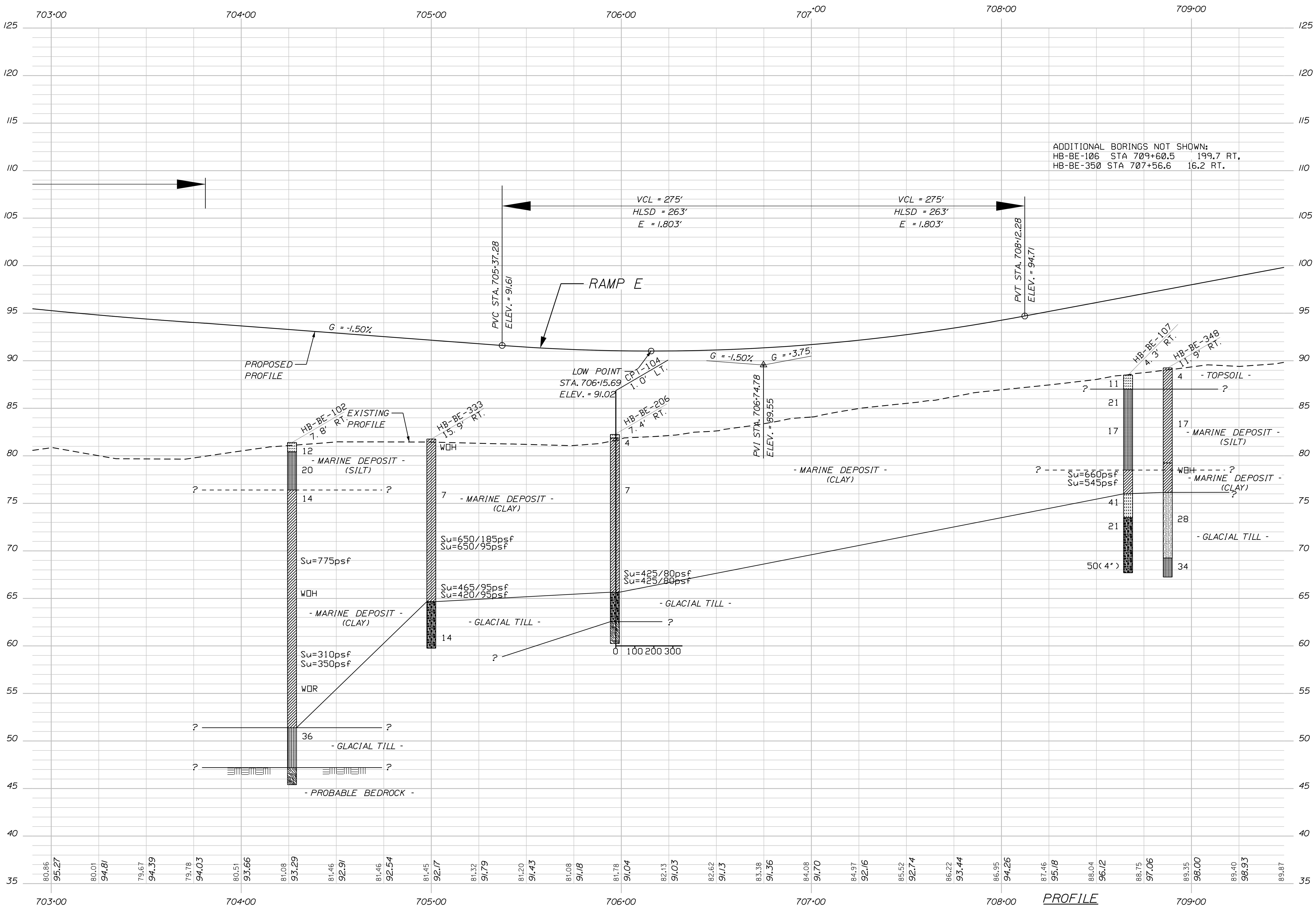
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

97

OF 114



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	E. FORCE	
DESIGN-DETAILED	E. FORCE	K. POST 6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE 8-20-21
DESIGN2-DETAILED2	.....	.....
DESIGN3-DETAILED3	.....	.....
REVISIONS 1	.....	.....
REVISIONS 2	.....	.....
REVISIONS 3	.....	.....
REVISIONS 4	.....	.....
FIELD CHANGES	.....	.....

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

98

OF 114

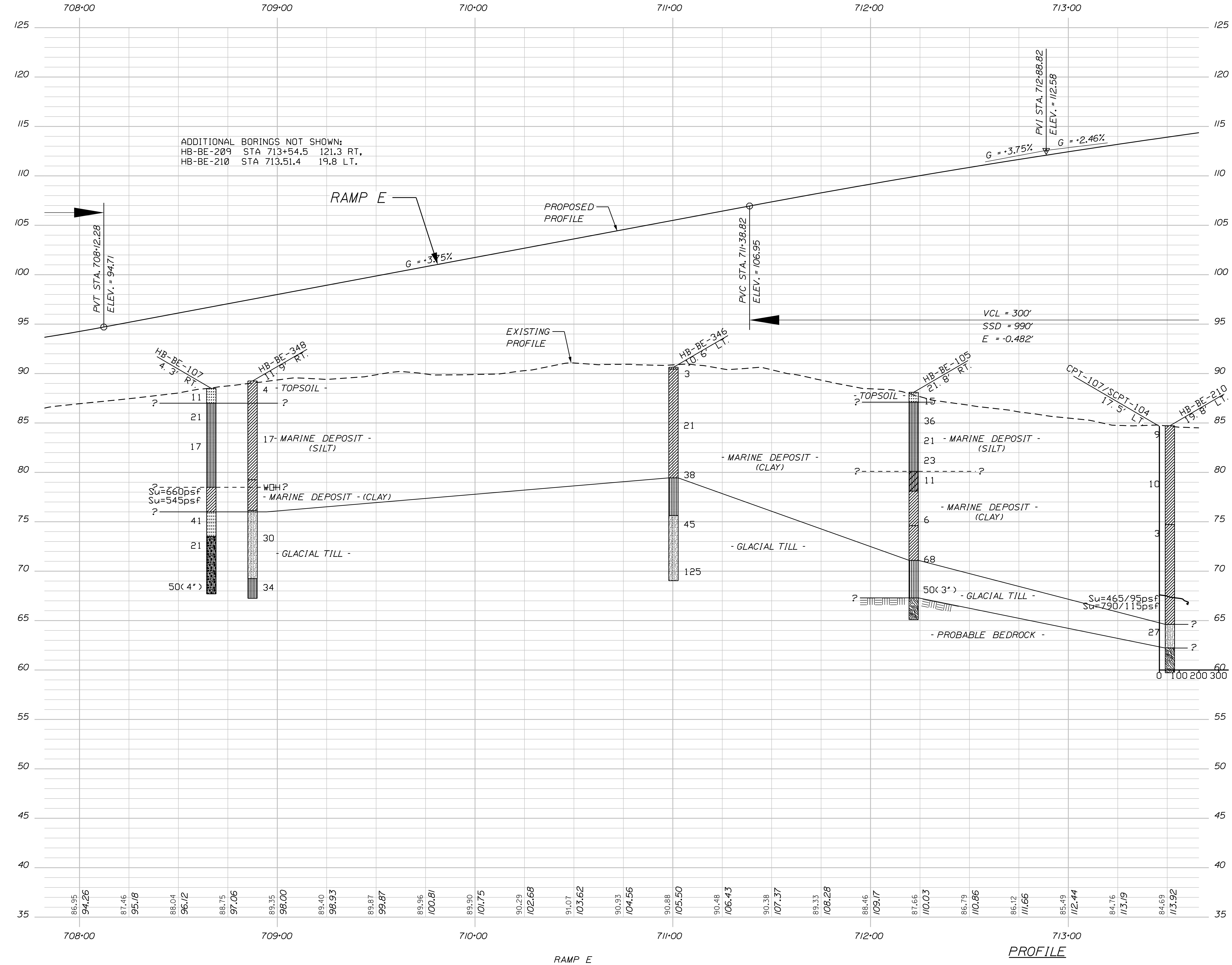
Filename: ...\Profile51A Ramp E.dgn
Division:
Username:
Date:9/16/2021

Date:9/16/2021

Username:

Division:

Filename: ...\Profile51B Ramp E.dgn



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST 6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE 8-20-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

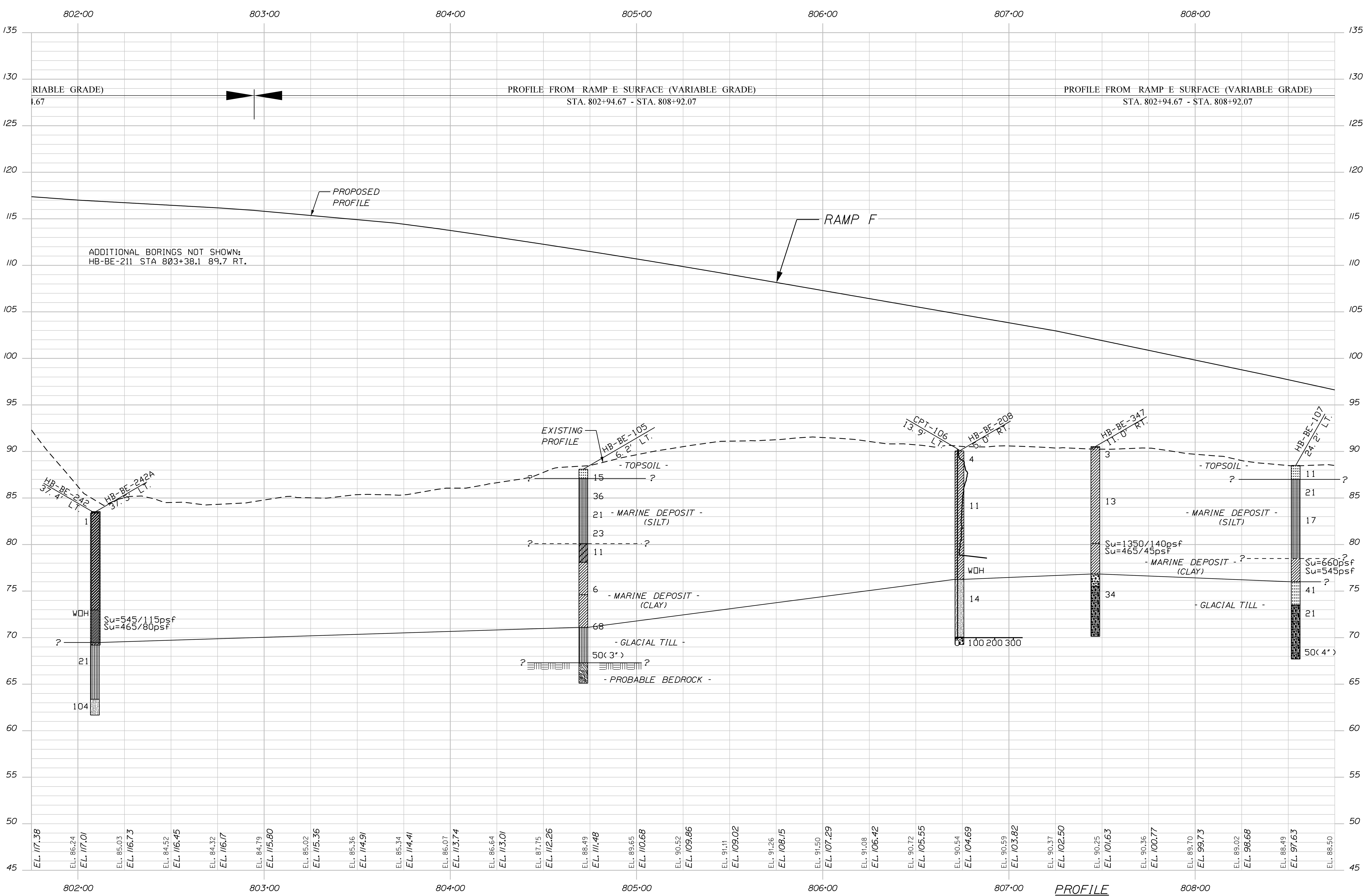
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

99

OF 114



PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
100
OF 114

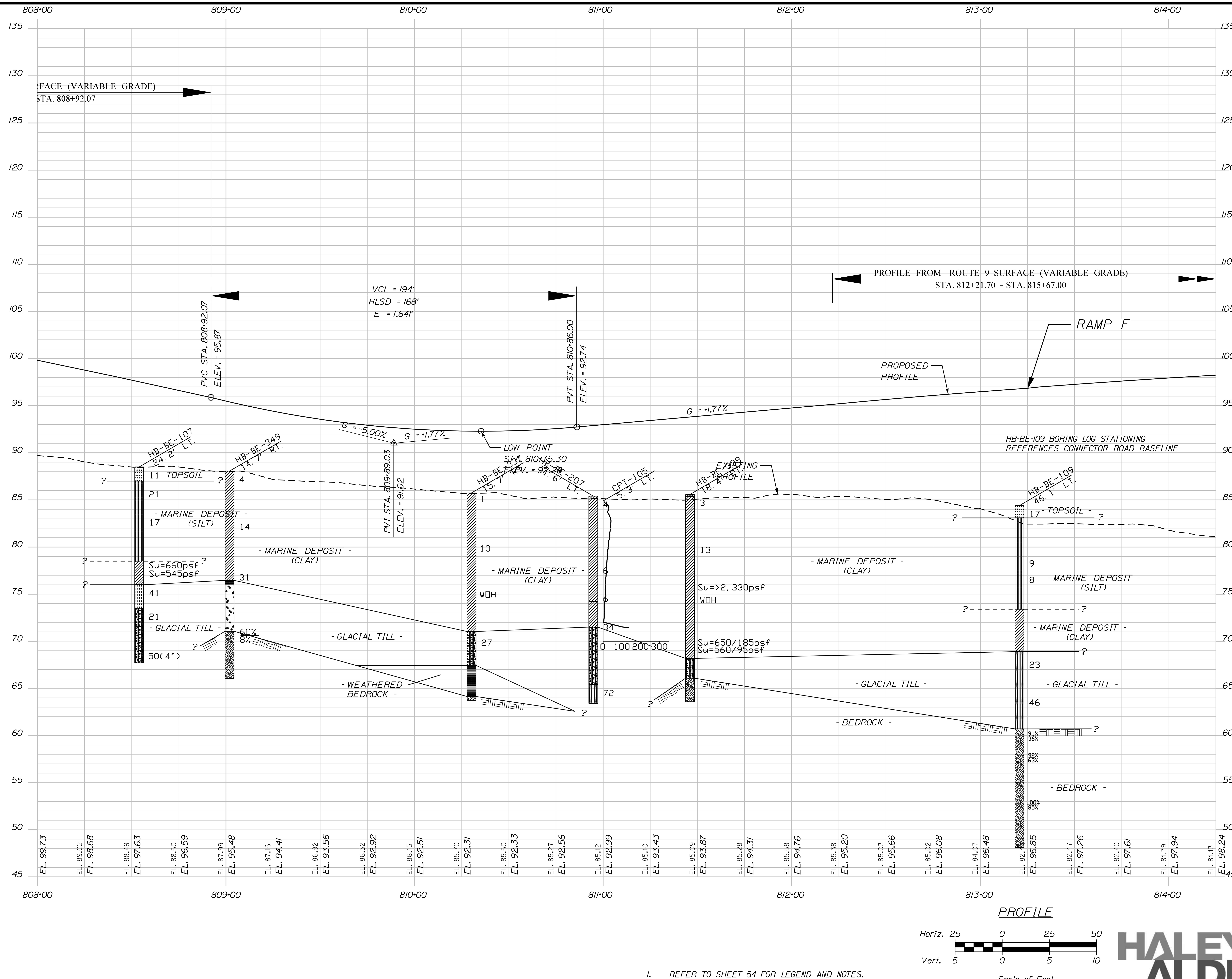
Date:9/16/2021 Username: Division: Filename: ...\Profile51C Ramp F.dgn

Date:9/16/2021

Username:

Division:

Filename: ...\Profile510 Ramp F.dgn



1. REFER TO SHEET 54 FOR LEGEND AND NOTES.

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	6-18-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2		
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REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

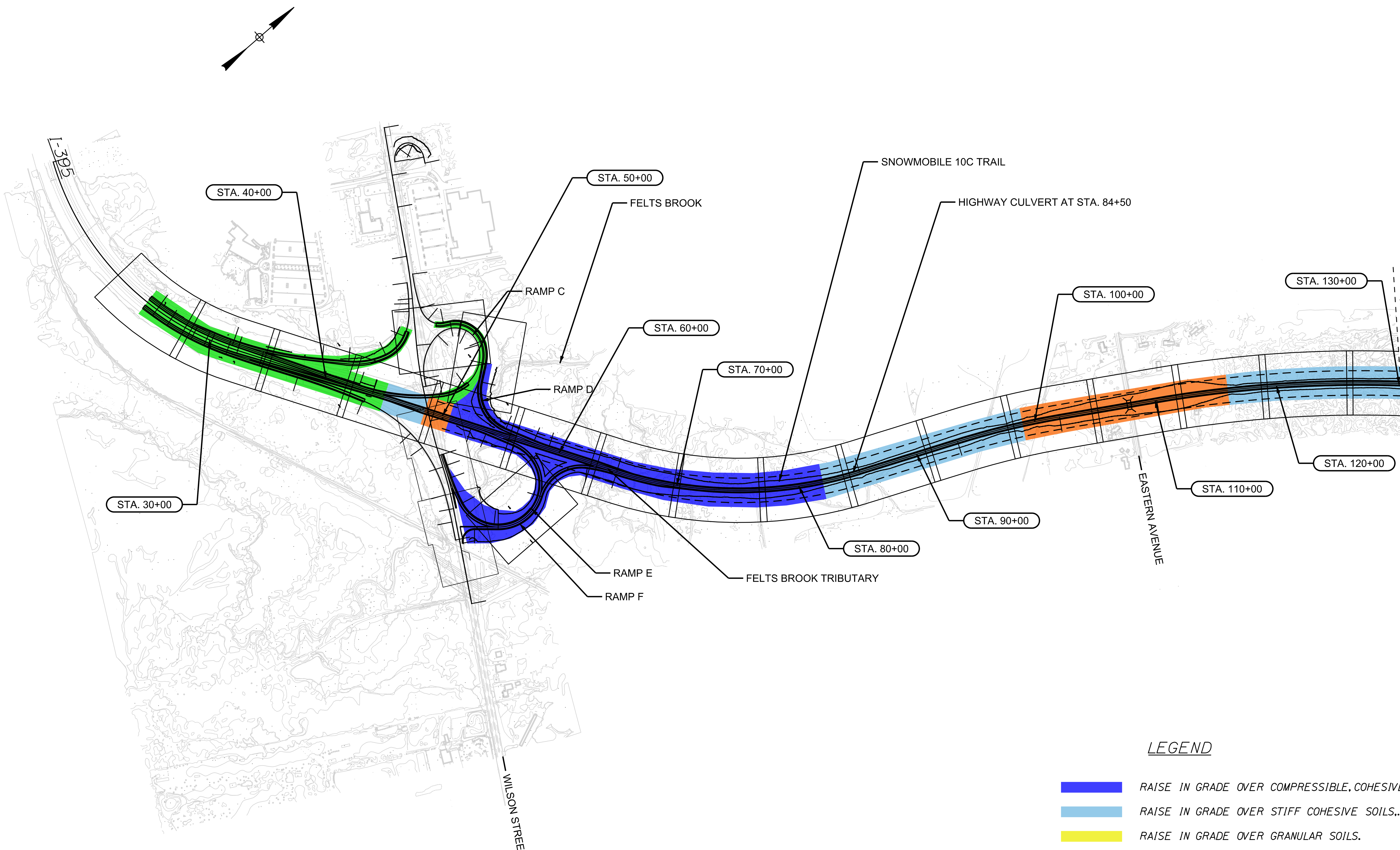
101

OF 114

Filename: ...\HDPlan-Getechnical Conditions Plan 1.dgnDivision:

Username:

Date:9/16/2021



LEGEND

- RAISE IN GRADE OVER COMPRESSIBLE, COHESIVE SOILS.
- RAISE IN GRADE OVER STIFF COHESIVE SOILS..
- RAISE IN GRADE OVER GRANULAR SOILS.
- CUT IN GRANULAR SOILS.
- CUT IN BEDROCK.
- AT GRADE, MINIMAL GEOTECHNICAL CONCERNS.

PLAN

500 0 500 1000

Scale of Feet

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

PROJ. MANAGER	------------	BY	DATE
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
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DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----		-----
REVISIONS 2	-----		-----
REVISIONS 3	-----		-----
REVISIONS 4	-----		-----
FIELD CHANGES	-----		-----

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
PRELIMINARY GEOTECHNICAL CONSIDERATIONS

SHEET NUMBER

102A

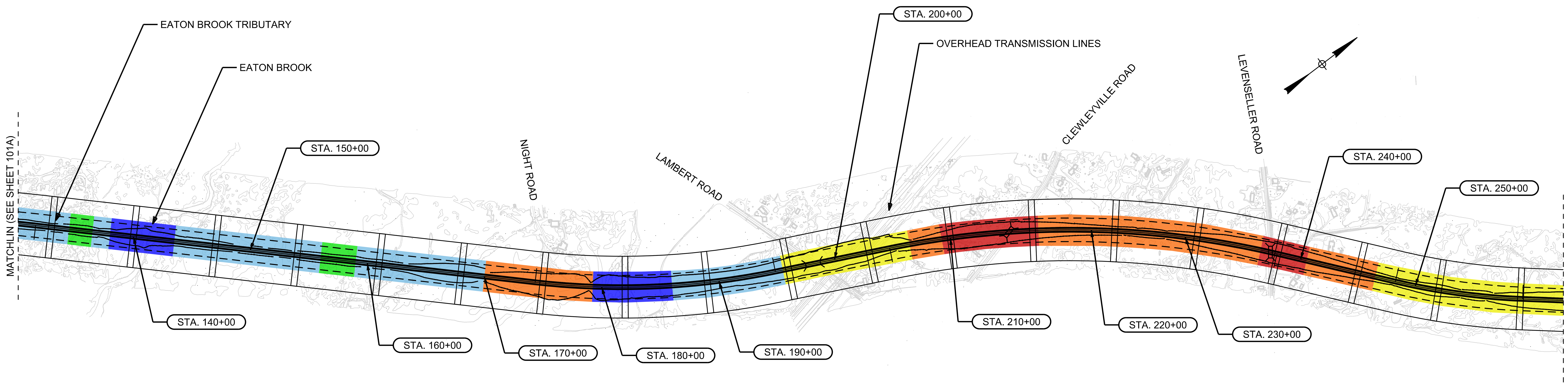
OF 114

Date:9/16/2021

Username:

Filename: ...\HDPlan-Getechnical Conditions Plan 2.dgn

Division:



LEGEND

- RAISE IN GRADE OVER COMPRESSIBLE, COHESIVE SOILS.
- RAISE IN GRADE OVER STIFF COHESIVE SOILS..
- RAISE IN GRADE OVER GRANULAR SOILS.
- CUT IN GRANULAR SOILS.
- CUT IN BEDROCK.
- AT GRADE, MINIMAL GEOTECHNICAL CONCERNS.

PLAN

500 0 500 1000

Scale of Feet

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	------------		
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----		-----
REVISIONS 2	-----		-----
REVISIONS 3	-----		-----
REVISIONS 4	-----		-----
FIELD CHANGES	-----		-----

SIGNATURE

P.E. NUMBER

DATE

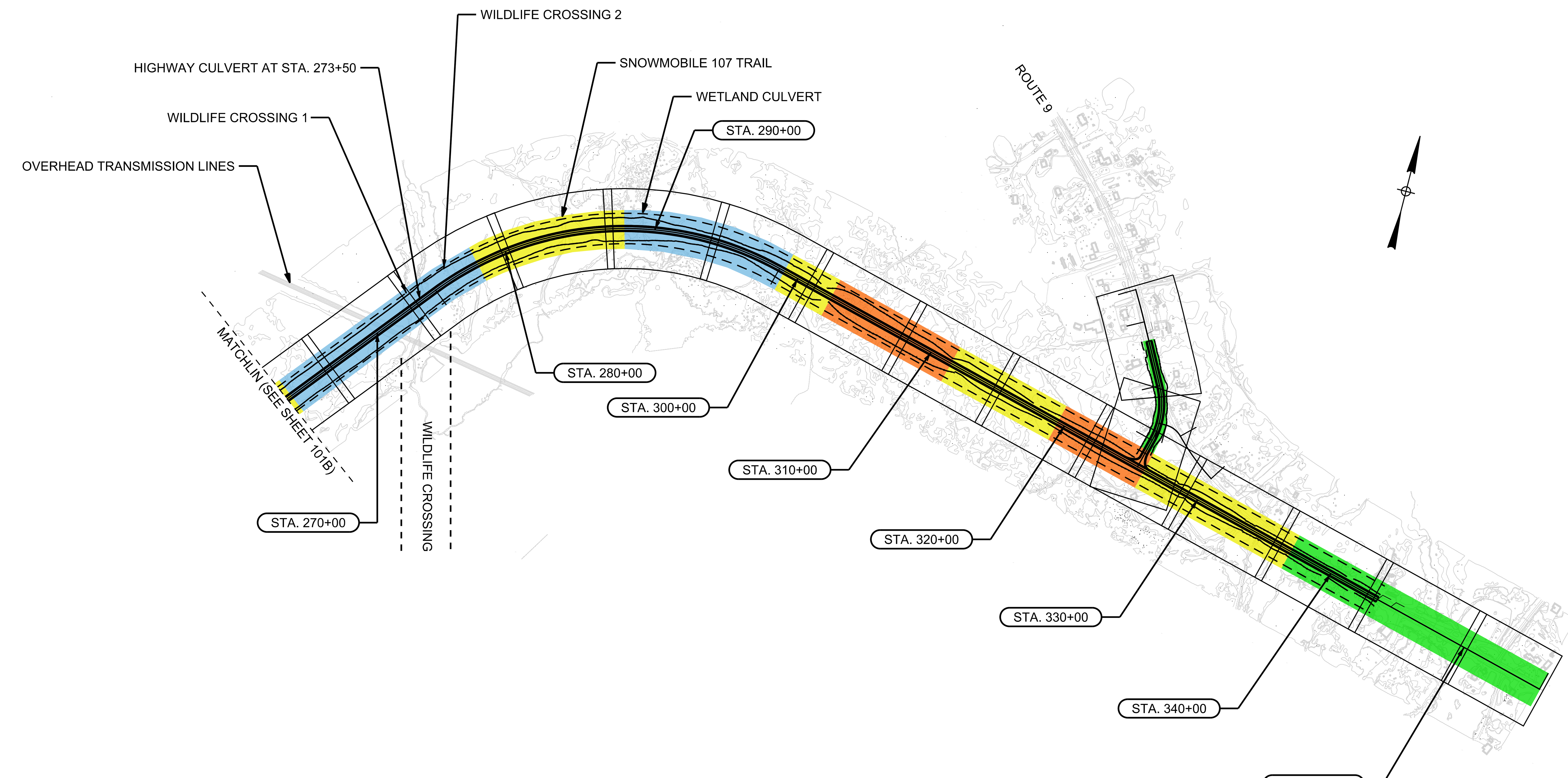
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

PRELIMINARY GEOTECHNICAL CONSIDERATIONS

SHEET NUMBER

102B

OF 114



LEGEND

- *RAISE IN GRADE OVER COMPRESSIBLE, COHESIVE SOILS.*
- *RAISE IN GRADE OVER STIFF COHESIVE SOILS..*
- *RAISE IN GRADE OVER GRANULAR SOILS.*
- *CUT IN GRANULAR SOILS.*
- *CUT IN BEDROCK.*
- *AT GRADE, MINIMAL GEOTECHNICAL CONCERNS.*

PLAN

500 0 500 1000
Scale of Feet

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN
018915.00

HIGHWAY PLANS

PROJ. MANAGER	----------	BY	DATE
DESIGN-DETAILED	E. FORCE	K. POST	6-12-20
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	8-20-21
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----		-----
REVISIONS 2	-----		-----
REVISIONS 3	-----		-----
REVISIONS 4	-----		-----
FIELD CHANGES	-----		-----

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
PRELIMINARY GEOTECHNICAL CONSIDERATIONS

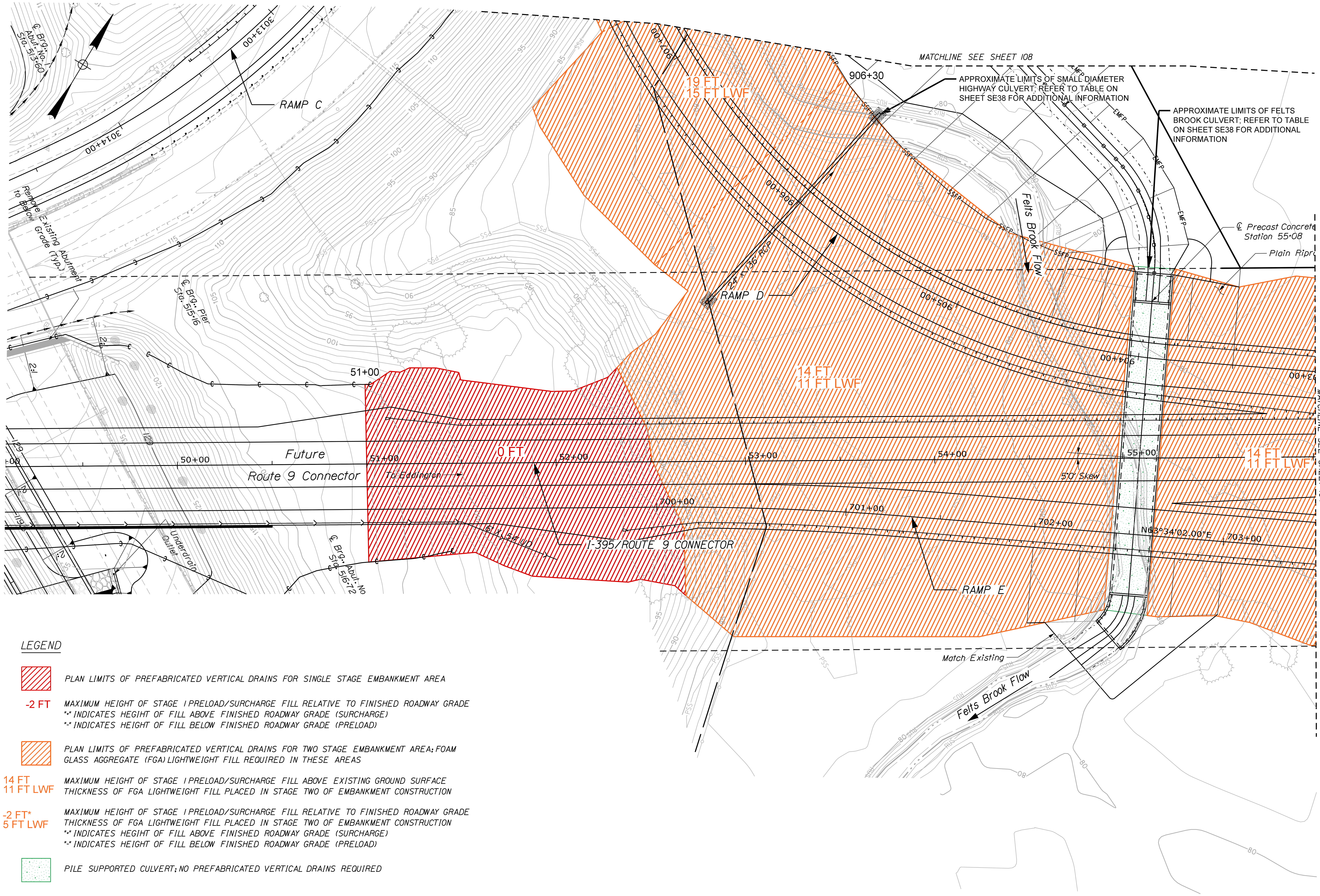
SHEET NUMBER

102C

OF 114

Filename: ...\HDPlan-Getechnical Conditions Plan 3.dgn Division: Username: Date:9/16/2021

Date:9/17/2021 Username: Division: Filename: ...\I-395 Bypass\HD_CSE_Plan8.dgn



LEGEND

(red hatch)	PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR SINGLE STAGE EMBANKMENT AREA
-2 FT	MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE "+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE) "-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)
(orange hatch)	PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR TWO STAGE EMBANKMENT AREA; FOAM GLASS AGGREGATE (FGA) LIGHTWEIGHT FILL REQUIRED IN THESE AREAS
14 FT 11 FT LWF	MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL ABOVE EXISTING GROUND SURFACE THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION
-2 FT* 5 FT LWF	MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION "+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE) "-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)
(green stipple)	PILE SUPPORTED CULVERT; NO PREFABRICATED VERTICAL DRAINS REQUIRED

PLAN

25 0 25 50
Scale of Feet

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

WIN 018915.00

HIGHWAY PLANS

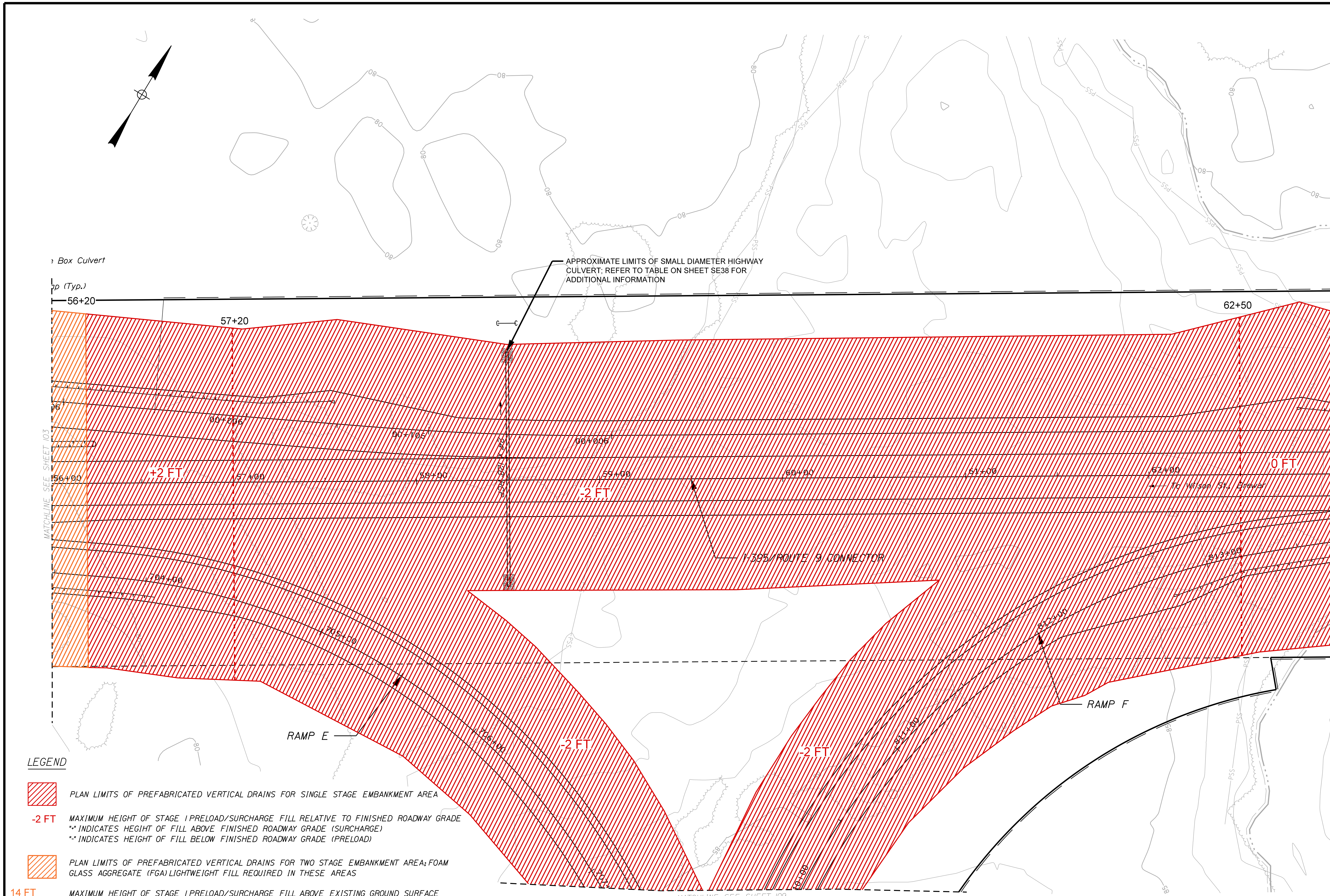
	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE	K. POST	7-15-21
CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE	9-17-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SPECIAL EMBANKMENT
CONSTRUCTION PLAN - AREA 1 (1 OF 8)

SHEET NUMBER
103
OF 114



LEGEND

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR SINGLE STAGE EMBANKMENT AREA

-2 FT — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR TWO STAGE EMBANKMENT AREA; FOAM GLASS AGGREGATE (FGA) LIGHTWEIGHT FILL REQUIRED IN THESE AREAS

14 FT / 11 FT LWF — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL ABOVE EXISTING GROUND SURFACE
THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION

-2 FT* / 5 FT LWF — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN

25 0 25 50
Scale of Feet

HALEY ALDRICH

Filename: ...\I-395 Bypass\HD_CSE_Plan9.dgn
Division:
Username:
Date:9/17/2021

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
1891500
WIN 018915.00
HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	E. FORCE / K. POST	7-15-21
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DESIGN2-DETAILED2		
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REVISIONS 1		
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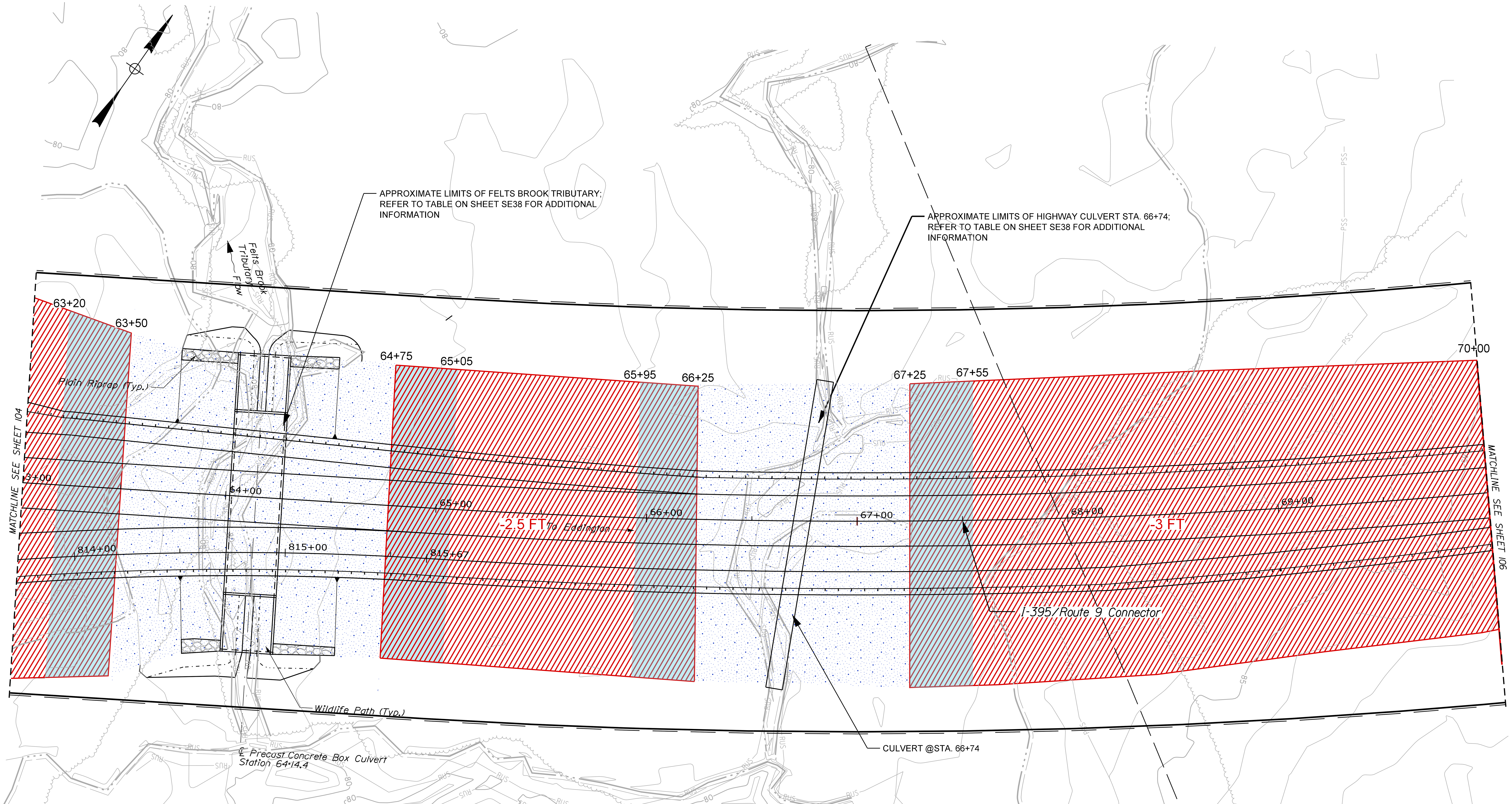
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
SPECIAL EMBANKMENT
CONSTRUCTION PLAN - AREA1 (2 OF 8)

SHEET NUMBER
104
OF 114



LEGEND

(red hatch)	PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR SINGLE STAGE EMBANKMENT AREA
-2 FT	MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE "+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE) "-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)
(dotted)	FULL HEIGHT FGA LIGHTWEIGHT FILL EMBANKMENT SECTION; NO PREFABRICATED VERTICAL DRAINS REQUIRED
(light blue)	TRANSITION AREA FROM FULL HEIGHT FGA LIGHTWEIGHT FILL EMBANKMENT SECTION TO NORMAL WEIGHT FILL EMBANKMENT SECTION; PREFABRICATED VERTICAL DRAINS REQUIRED

PLAN

25 0 25 50

Scale of Feet

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500

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HIGHWAY PLANS

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PROJ. MANAGER	.....	
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REVISIONS 4	.....	.....
FIELD CHANGES	.....	.....

SIGNATURE

P.E. NUMBER

DATE

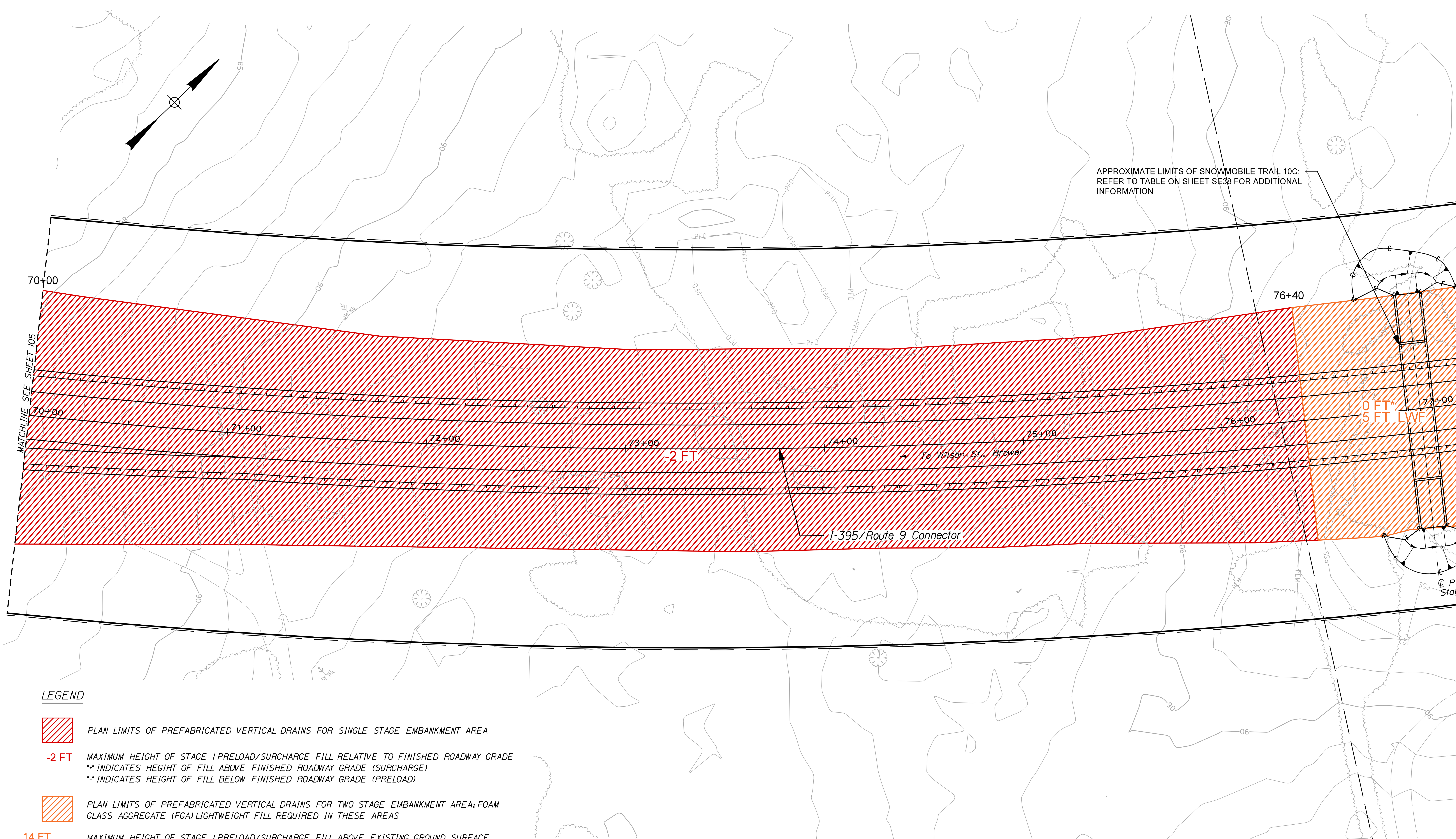
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SPECIAL EMBANKMENT
CONSTRUCTION PLAN - AREA 1 (3 OF 8)

SHEET NUMBER

105

OF 114



LEGEND

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR SINGLE STAGE EMBANKMENT AREA

-2 FT — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR TWO STAGE EMBANKMENT AREA; FOAM GLASS AGGREGATE (FGA) LIGHTWEIGHT FILL REQUIRED IN THESE AREAS

14 FT / 11 FT LWF — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL ABOVE EXISTING GROUND SURFACE
THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION

-2 FT* / 5 FT LWF — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN

25 0 25 50
Scale of Feet

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

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PROJ. MANAGER	----------		
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FIELD CHANGES	-----		-----

SIGNATURE

P.E. NUMBER

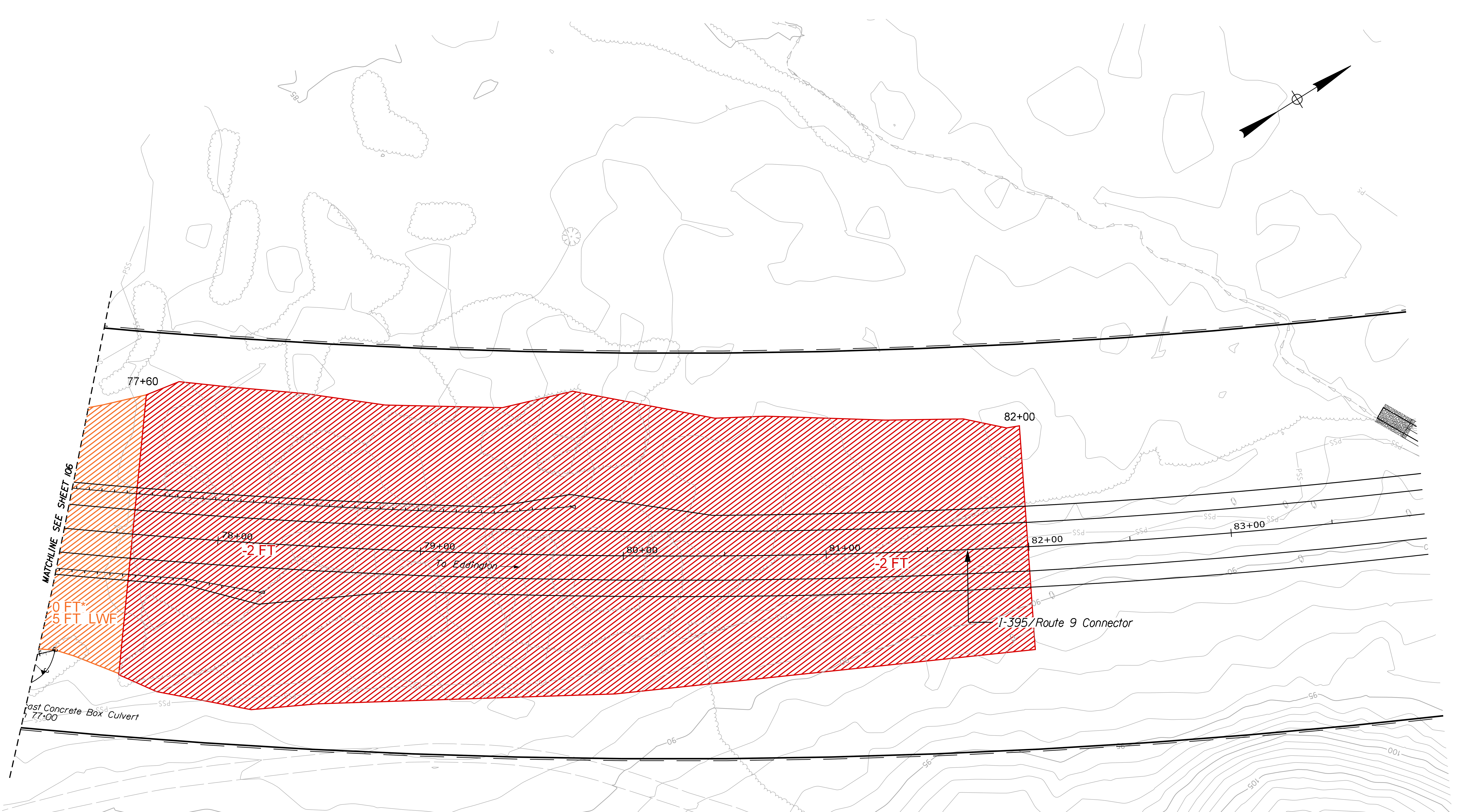
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SPECIAL EMBANKMENT
CONSTRUCTION PLAN - AREA 1 (4 OF 8)

SHEET NUMBER
106
OF 114

Filename: ...\I-395 Bypass\HD_GSE_Plan11.dgn Division: Username: Date:9/17/2021



LEGEND

(red hatch)	PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR SINGLE STAGE EMBANKMENT AREA
-2 FT	MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE "+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE) "-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)
(orange hatch)	PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR TWO STAGE EMBANKMENT AREA; FOAM GLASS AGGREGATE (FGA) LIGHTWEIGHT FILL REQUIRED IN THESE AREAS
14 FT 11 FT LWF	MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL ABOVE EXISTING GROUND SURFACE THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION
-2 FT* 5 FT LWF	MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION "+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE) "-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN

25 0 25 50

Scale of Feet

HALEY ALDRICH

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HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	....	
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CHECKED-REVIEWED	E. FORCE	W. CHADBOURNE 9-17-21
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REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SPECIAL EMBANKMENT
CONSTRUCTION PLAN - AREA 1 (5 OF 8)

SHEET NUMBER

107

OF 114

LEGEND

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR SINGLE STAGE EMBANKMENT AREA

-2 FT — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR TWO STAGE EMBANKMENT AREA; FOAM GLASS AGGREGATE (FGA) LIGHTWEIGHT FILL REQUIRED IN THESE AREAS

14 FT — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL ABOVE EXISTING GROUND SURFACE
11 FT LWF — THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION

-2 FT* — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
5 FT LWF — THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

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HIGHWAY PLANS

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DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

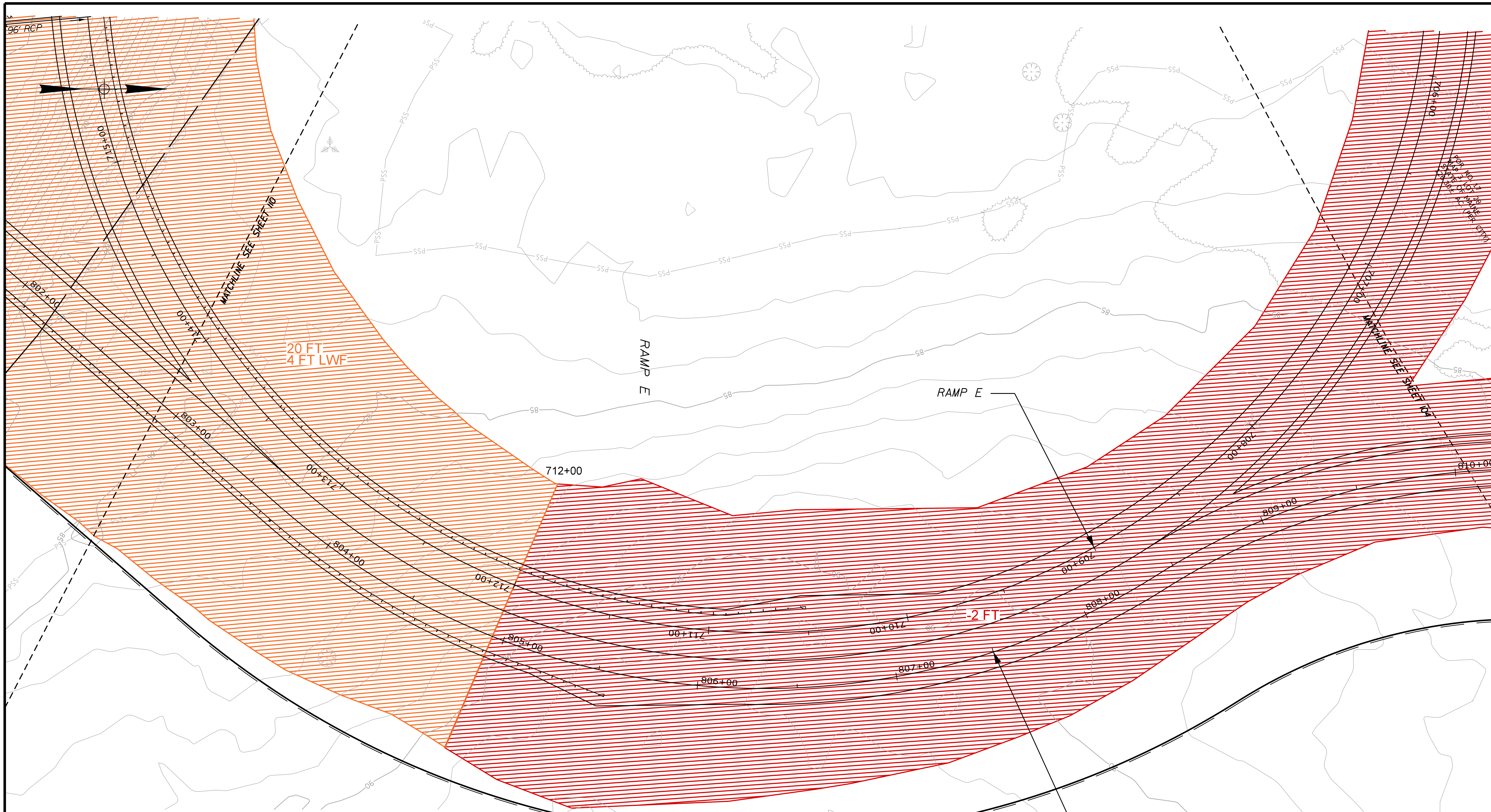
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SPECIAL EMBANKMENT CONSTRUCTION PLAN - AREA 1 (6 OF 8)

SHEET NUMBER

108

OF 114



LEGEND

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR SINGLE STAGE EMBANKMENT AREA

-2 FT — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR TWO STAGE EMBANKMENT AREA; FOAM GLASS AGGREGATE (FGA) LIGHTWEIGHT FILL REQUIRED IN THESE AREAS

14 FT — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL ABOVE EXISTING GROUND SURFACE
11 FT LWF — THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION

-2 FT* — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
5 FT LWF — THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN

25 0 25 50
Scale of Feet

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

1891500 — HIGHWAY PLANS
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	BY	DATE
PROJ. MANAGER		
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DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

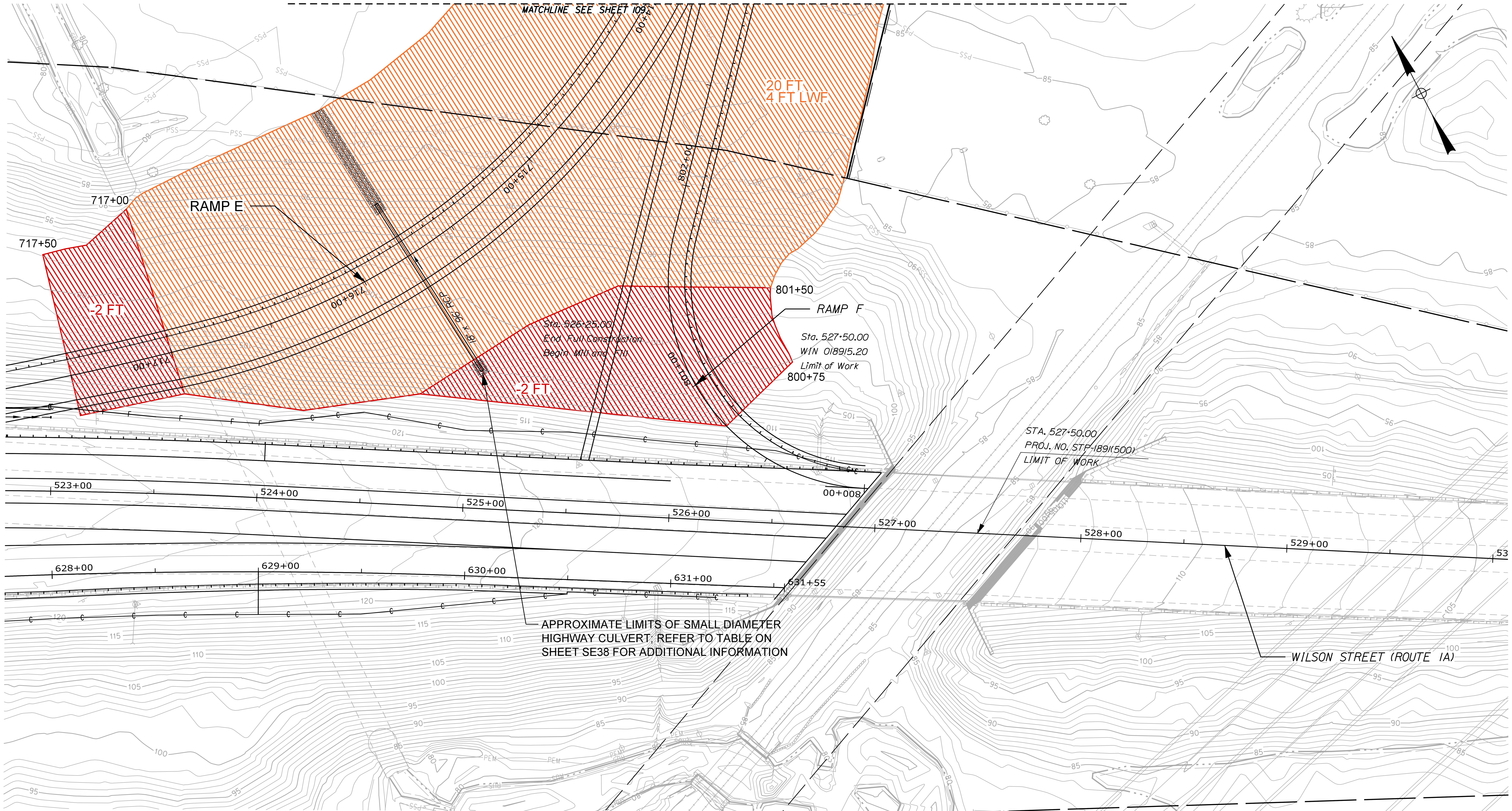
SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SPECIAL EMBANKMENT CONSTRUCTION PLAN - AREA 1 (7 OF 8)

SHEET NUMBER
109
OF 114

Date:9/17/2021
Username:
Division:
Filename: ...\I-395 Bypass\HD_CSE_Plan51.DGN



LEGEND

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR SINGLE STAGE EMBANKMENT AREA

-2 FT — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR TWO STAGE EMBANKMENT AREA; FOAM GLASS AGGREGATE (FGA) LIGHTWEIGHT FILL REQUIRED IN THESE AREAS

14 FT — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL ABOVE EXISTING GROUND SURFACE
11 FT LWF — THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION

-2 FT* — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
5 FT LWF — THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN

25 0 25 50

Scale of Feet

HALEY ALDRICH

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FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SPECIAL EMBANKMENT
CONSTRUCTION PLAN - AREA 1 (8 OF 8)

SHEET NUMBER
110
OF 114

Date:9/17/2021
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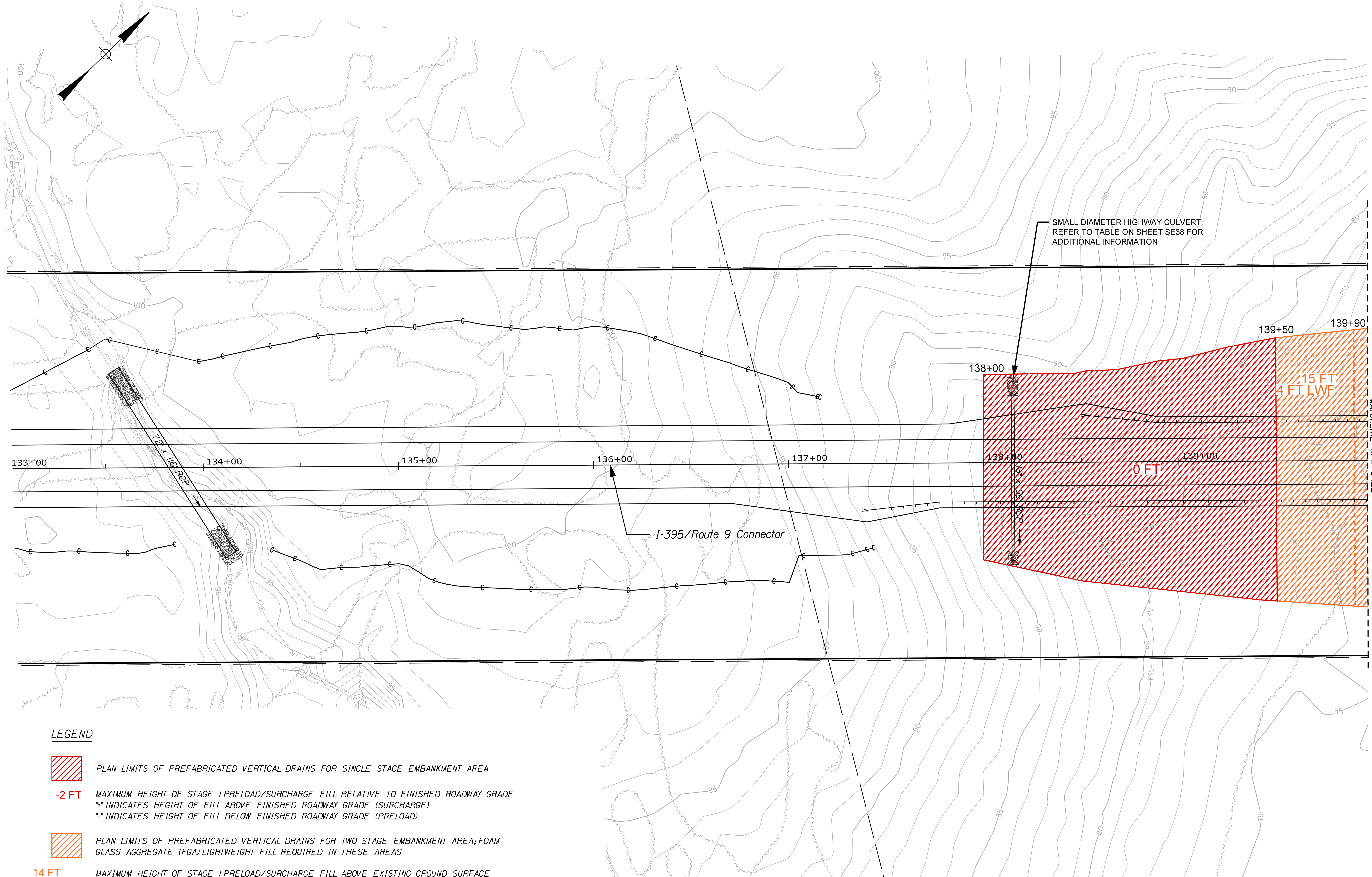

LEGEND

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR SINGLE STAGE EMBANKMENT AREA

-2 FT — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
"+" INDICATES HEGIHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR TWO STAGE EMBANKMENT AREA; FOAM GLASS AGGREGATE (FGA) LIGHTWEIGHT FILL REQUIRED IN THESE AREAS

14 FT / 11 FT LWF — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL ABOVE EXISTING GROUND SURFACE
THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION

-2 FT* / 5 FT LWF — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN

25 0 25 50
Scale of Feet

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REVISIONS 4		
FIELD CHANGES		

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DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SPECIAL EMBANKMENT CONSTRUCTION PLAN - AREA 2 (1 OF 2)

SHEET NUMBER

111

OF 114

Filename: ...\I-395 Bypass\HD_GSE_Plan20.dgn Division: Username: Date:9/17/2021

Date:9/17/2021

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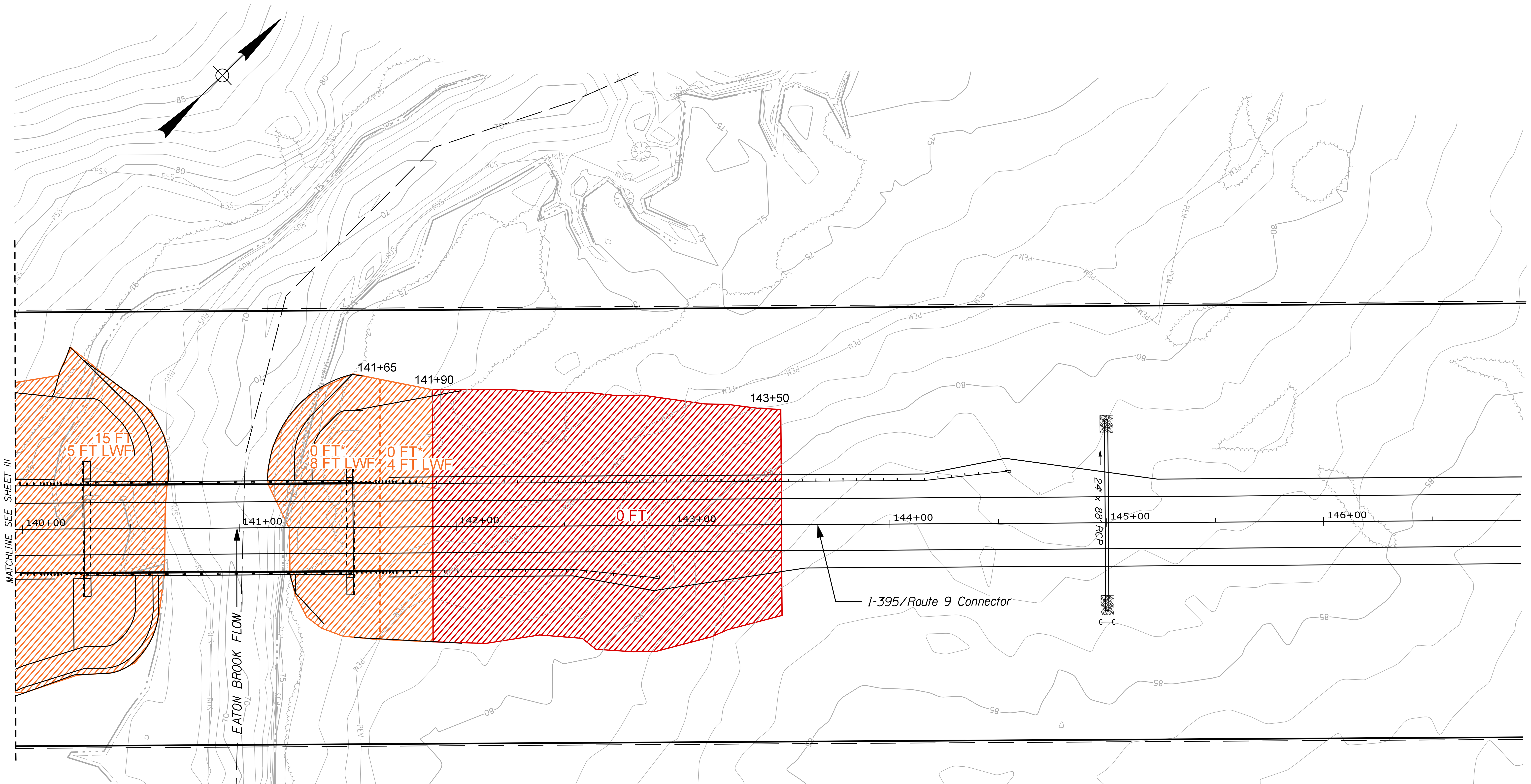

LEGEND

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR SINGLE STAGE EMBANKMENT AREA

-2 FT — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR TWO STAGE EMBANKMENT AREA; FOAM GLASS AGGREGATE (FGA) LIGHTWEIGHT FILL REQUIRED IN THESE AREAS

14 FT / 11 FT LWF — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL ABOVE EXISTING GROUND SURFACE
THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION

-2 FT* / 5 FT LWF — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN

25 0 25 50
Scale of Feet

HALEY ALDRICH

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DEPARTMENT OF TRANSPORTATION

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REVISIONS 4		
FIELD CHANGES		

SIGNATURE

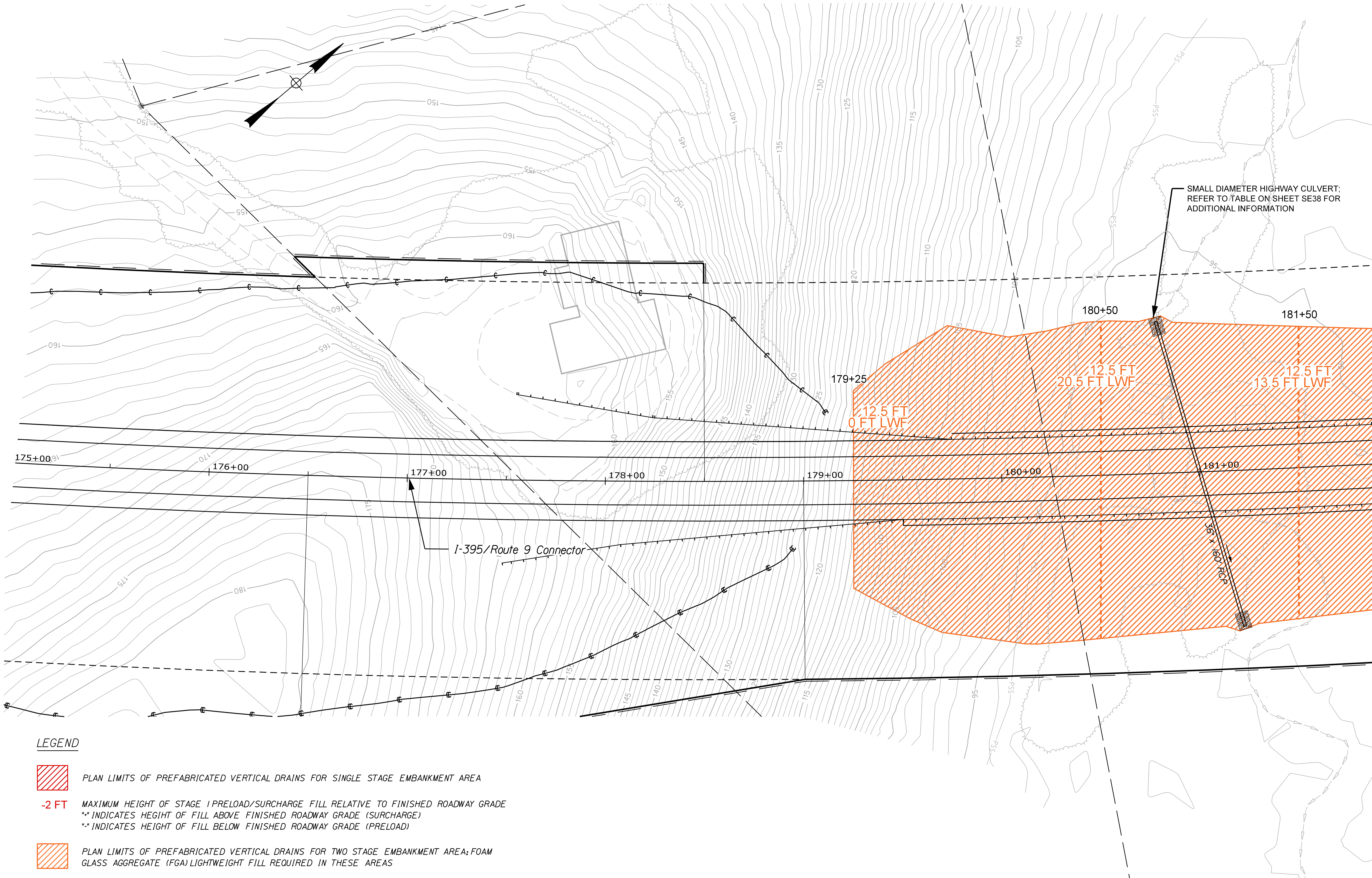
P.E. NUMBER

DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SPECIAL EMBANKMENT
CONSTRUCTION PLAN - AREA 2 (2 OF 2)

SHEET NUMBER
112
OF 114



LEGEND

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR SINGLE STAGE EMBANKMENT AREA

-2 FT — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR TWO STAGE EMBANKMENT AREA; FOAM GLASS AGGREGATE (FGA) LIGHTWEIGHT FILL REQUIRED IN THESE AREAS

14 FT / 11 FT LWF — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL ABOVE EXISTING GROUND SURFACE
THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION

-2 FT* / 5 FT LWF — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

1. MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL AND THICKNESS OF FGA LIGHTWEIGHT FILL INDICATED ON THIS SHEET ARE SPECIFIED AT STATION INDICATED. HEIGHT AND THICKNESS VARY LINEARLY BETWEEN STATIONS.

PLAN

25 0 25 50
Scale of Feet

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DESIGN-DETAILED	K. POST	7-15-21
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FIELD CHANGES	.....	.....

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P.E. NUMBER

DATE

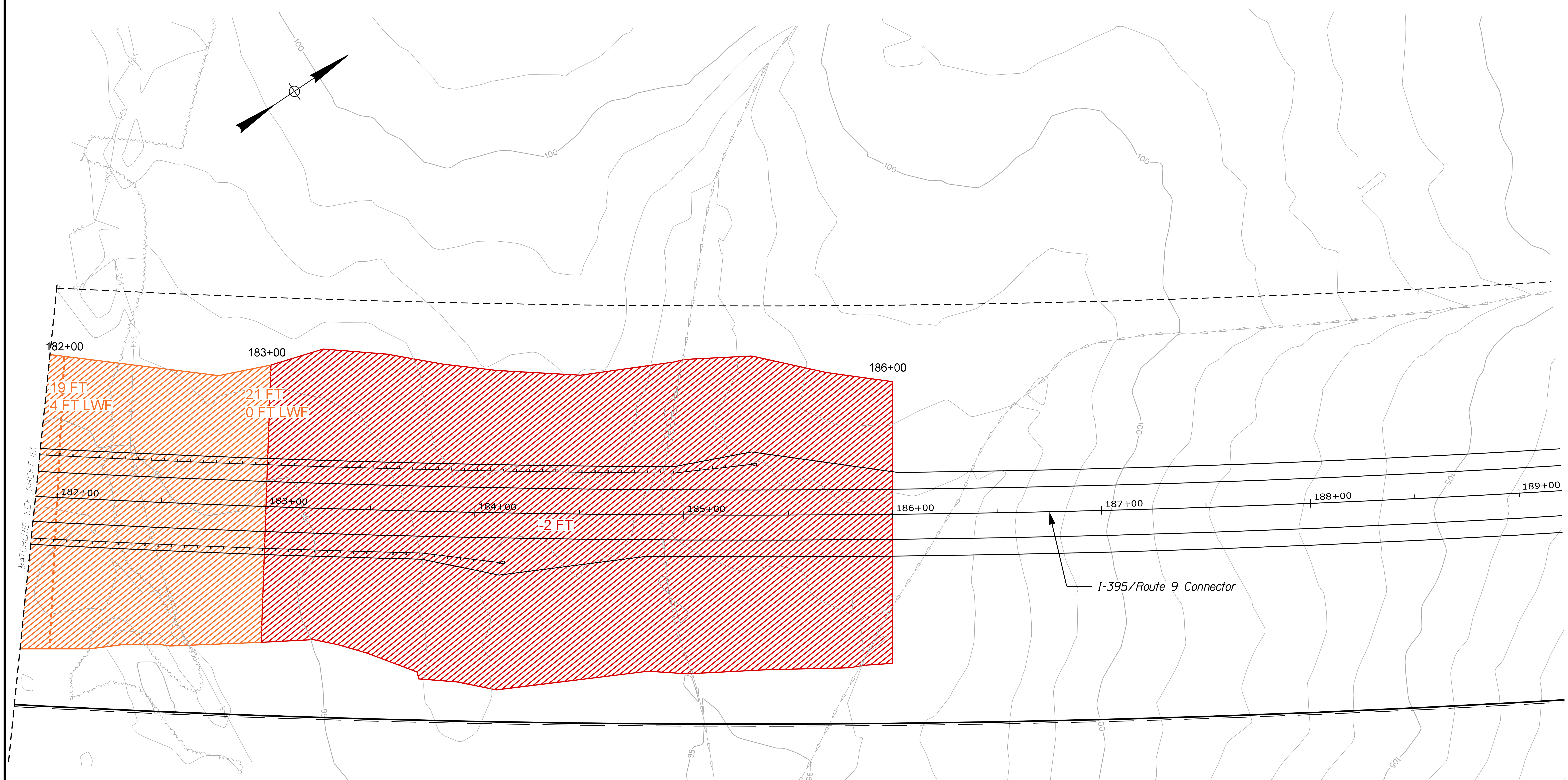
BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR

SPECIAL EMBANKMENT
CONSTRUCTION PLAN - AREA 4 (1 OF 2)

SHEET NUMBER
113
OF 114

Date:9/17/2021 Username: Division: Filename: ...\I-395 Bypass\HD_GSE_Plan26.dgn

Filename: ...\I-395 Bypass\HD_GSE_Plan27.dgn Division: Username: Date:9/17/2021



LEGEND

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR SINGLE STAGE EMBANKMENT AREA

-2 FT — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

PLAN LIMITS OF PREFABRICATED VERTICAL DRAINS FOR TWO STAGE EMBANKMENT AREA; FOAM GLASS AGGREGATE (FGA) LIGHTWEIGHT FILL REQUIRED IN THESE AREAS

14 FT / 11 FT LWF — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL ABOVE EXISTING GROUND SURFACE
THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION

-2 FT* / 5 FT LWF — MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL RELATIVE TO FINISHED ROADWAY GRADE
THICKNESS OF FGA LIGHTWEIGHT FILL PLACED IN STAGE TWO OF EMBANKMENT CONSTRUCTION
"+" INDICATES HEIGHT OF FILL ABOVE FINISHED ROADWAY GRADE (SURCHARGE)
"-" INDICATES HEIGHT OF FILL BELOW FINISHED ROADWAY GRADE (PRELOAD)

1. MAXIMUM HEIGHT OF STAGE I PRELOAD/SURCHARGE FILL AND THICKNESS OF FGA LIGHTWEIGHT FILL INDICATED IN TWO STAGE AREAS ON THIS SHEET ARE SPECIFIED AT STATION INDICATED. HEIGHT AND THICKNESS VARY LINEARLY BETWEEN STATIONS.

PLAN

25 0 25 50
Scale of Feet

HALEY ALDRICH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
1891500
WIN 018915.00
HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	K. POST	7-15-21
CHECKED-REVIEWED	W. CHADBOURNE	9-17-21
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
P.E. NUMBER
DATE

BREWER TO EDDINGTON
I-395/ROUTE 9 CONNECTOR
SPECIAL EMBANKMENT
CONSTRUCTION PLAN - AREA 4 (2 OF 2)

SHEET NUMBER
114
OF 114