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AN EMPLOYEE OWNED COMPANY

Consulting Engineers • Testing • Inspection Services • Analytical Laboratories

Established 1927

September 12, 2025

Ohio Department of Transportation District 2
317 East Poe Rd.
Bowling Green, Ohio 43402

Attention: Mr. Doug Rogers, P.E.
District Geotechnical Engineer

Reference: Roadway Exploration - Final Report
HEN-6/24-11.32/4.62
PID: 110524
City of Napoleon, Napoleon & Liberty Townships
Henry County, Ohio
CTL Project No: 22050022COL

Dear Mr. Rogers,

CTL Engineering, Inc. has completed the Final Report for the Roadway Exploration for this project. Enclosed is a digital (pdf) copy of the Roadway Exploration Final Report.

Thank you for the opportunity to work with you on this project. If you have any questions or need further information, please feel free to contact our office.

Respectfully Submitted

CTL ENGINEERING, INC.

Sastry Malladi, P.E
Project Engineer

ROADWAY EXPLORATION
FINAL REPORT

HEN-6/24-11.32/4.62
PID: 110524
FEDERAL PROJECT NO.: E191126
CITY OF NAPOLEON
NAPOLEON & LIBERTY TOWNSHIPS
HENRY COUNTY, OHIO
CTL PROJECT NO: 22050022COL

PREPARED FOR:

OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 2
317 EAST POE RD.
BOWLING GREEN, OHIO 43402

PREPARED BY:

CTL ENGINEERING, INC.
2860 FISHER ROAD
COLUMBUS, OHIO 43204
Phone 614-276-8123
Fax 614-276-6377

September 12, 2025

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I. EXECUTIVE SUMMARY

The project consists of removing and replacing the existing pavement on US 6/24 from the US 6 interchange to the Maumee River bridge in Napoleon and Liberty Townships, Henry County, Ohio.

According to the Stage 3 plans, full depth replacement of existing pavement along US 6/24 begins at Station 600+00. Full depth replacement ends along US 6 at Station 868+64.75, and along US 24 at Station 550+00. The new pavements will be constructed at or near existing grades. Stage 3 plans show that pavement resurfacing will be performed at US 24 eastbound beginning at Station 243+80 and ending at Station 250+70, and at both lanes of US 6/24 beginning at Station 250+70 and ending at Station 600+00. It is understood that pavement resurfacing will be performed for the ramps at the US 6/24 and Industrial Drive interchange.

An existing bridge along US 6/24 between stations 642+98.30 and 645+00.80 will be removed and replaced with embankment fill as part of this project.

Seventy (70) soil test borings, designated as B-001-0-22 through B-069-0-22, and B-009-1-22, were drilled for this project. All of the test borings except B-009-1-22 were drilled through the existing roadway pavement. Boring B-009-1-22 was drilled at the proposed embankment fill location underneath the bridge along US 6/24. One (1) auger boring, identified as B-009-2-22, was performed adjacent to B-009-1-22 to obtain Shelby tubes.

The surface materials encountered consisted of varying materials including asphalt, concrete and aggregate base materials to various depths. Beneath the surficial materials the test borings encountered both coarse-grained and fine-grained soils extending down to the test boring termination depths. The soils are described as gravel and/or stone fragments with sand (A-1-b), gravel and/or stone fragments with sand and silt (A-2-4), fine sand (A-3), coarse and fine sand (A-3a), sandy silt (A-4a), silt and clay (A-6a), silty clay (A-6b), elastic clay (A-7-5) or clay (A-7-6). SPT N_{60} values determined within the soils ranged from 6 blows per foot (bpf) to 67 bpf. The moisture content values ranging from 6 to 26 percent.

Groundwater was encountered in test borings B-009-1-22 and B-027-0-22 during drilling operations at depths ranging from 3.0 feet to 15.0 feet below the existing ground surface.

Based on the subsurface conditions encountered in these borings, and the results of the subgrade analyses, an estimated CBR value of 5.0 may be used in the pavement thickness design of the roadway. According to the requirements outlined in ODOT's Geotechnical Design Manual (GDM), the subgrade soils will require stabilization. Please refer to the *Analyses and Recommendation* section of this report for additional details.

II. INTRODUCTION

The project consists of removing and replacing the existing pavement on US 6/24 from the US 6 interchange to the Maumee River bridge in Napoleon and Liberty Townships, Henry County, Ohio.

According to the Stage 3 plans, full depth replacement of existing pavement along US 6/24 begins at Station 600+00. Full depth replacement ends along US 6 at Station 868+64.75, and along US 24 at Station 550+00. The new pavements will be constructed at or near existing grades. Stage 3 plans show that pavement resurfacing will be performed at US 24 eastbound beginning at Station 243+80 and ending at Station 250+70, and at both lanes of US 6/24 beginning at Station 250+70 and ending at Station 600+00. It is understood that pavement resurfacing will be performed for the ramps at the US 6/24 and Industrial Drive interchange.

An existing bridge along US 6/24 between stations 642+98.30 and 645+00.80 will be removed and replaced with embankment fill as part of this project.

This report is a Final Roadway Exploration report.

III. GEOLOGY AND OBSERVATIONS OF THE PROJECT

According to the Ohio Department of Natural Resources (ODNR) mapping, the project site is located within the Maumee Lake Plains physiographic region, which is in the Huron-Erie Lake Plains Section of Ohio.

According to the Web Soil Survey, United States Department of Agriculture, Natural Resources Conservation Service the major surficial soils mapped at the subject site are described as Hoytville clay loam, 0 to 1 percent slopes (HoA) and Lenawee silty clay loam, 0 to 1 percent slopes (Lf). These soils are known to be very low to low capacity to transmit water, and classified as very poorly to poorly drained.

According to the Quaternary Geology of Ohio, from the Ohio Division of Geological Survey, the overburden soils are mapped as Late Wisconsinan-age Lake-planed moraine or Lacustrine sand.

According to the mapping of bedrock geology in the area, ODNR Geological Survey, the surficial soil deposits on the site are underlain by Devonian-age shale bedrock formations identified as the Antrim Shale Formation. The formation is described as dark brown to black carbonaceous shale that is thinly laminated.

According to ODNR's Karst Interactive Map, there are no mapped karst features in the general vicinity of the project area. Additionally, karst features were not observed at the ground surface during our field exploration.

According to ODNR's Mines of Ohio website, no mapped mining has been performed in the area.

A site visit was performed by an engineer from CTL on April 12, 2022. The surrounding area is relatively flat. The project area is located within rural and commercial setting. The Maumee River runs parallel to the roadway within one mile. The US 6/24 roadway goes over multiple creeks within the project limits. The existing pavement condition is moderate with longitudinal and transverse cracks throughout the project area.

Historical geotechnical records were obtained from ODOT's Transportation Information Mapping System (TIMS) for the current roadway alignment. Results of the explorations indicated that predominantly cohesive soils are present at the subgrade elevation. Pertinent historic soil borings are included on the soil profile sheets.

IV. EXPLORATION

Seventy (70) soil test borings, designated as B-001-0-22 through B-069-0-22, and B-009-1-22, were drilled for this project. All of the test borings except B-009-1-22 were drilled through the existing roadway pavement. Boring B-009-1-22 was drilled at the proposed embankment fill location underneath the bridge along US 6/24. One (1) auger boring, identified as B-009-2-22, was performed adjacent to B-009-1-22 to obtain Shelby tubes.

The borings were drilled between April 11 and April 22, 2022. The roadway borings were extended to depths of 7.0 feet below grade. The embankment boring B-009-1-22 was extended to a depth of 30 feet below grade.

The borings were performed with a truck mounted drill rig utilizing 3.25-inch Hollow Stem Augers (HSA). Standard Penetration Tests (SPTs) were conducted using a 140-pound automatic hammer, falling 30 inches, to drive 2-inch O.D. the hammer system used was calibrated on October 20, 2021. The energy transfer ratio associated with the automatic SPT hammer was 72.0 percent.

The coordinates, ground surface elevations, stations and offsets at the test boring locations which were provided by ODOT District 2 personnel.

Soil samples obtained from drilling operation, were preserved in glass jars, visually classified in the field and laboratory, and tested for natural moisture content. Representative soil samples were subjected to laboratory testing including grain size distribution, Atterberg limits, hand penetrometer and sulfate testing. Two undisturbed

Shelby Tube samples collected from B-009-2-22 were subjected to one dimensional consolidation testing. Results of the field and laboratory testing are shown in Appendix B and Appendix C.

V. FINDINGS

Test borings B-001-0-22 through B-069-0-22 were drilled through the existing roadway and encountered 4 to 12 inches of asphalt and 6 to 8 inches of concrete overlying 4 to 8 inches of base course. Borings B-009-1-22 and B-009-2-22 encountered 6 inches of topsoil at the surface.

Below the surface cover, the borings generally encountered both coarse-grained and fine-grained soils extending down to the test boring termination depths. The soils are described as gravel and/or stone fragments with sand (A-1-b), gravel and/or stone fragments with sand and silt (A-2-4), fine sand (A-3), coarse and fine sand (A-3a), sandy silt (A-4a), silt and clay (A-6a), silty clay (A-6b), elastic clay (A-7-5) or clay (A-7-6). SPT N_{60} values determined within the soils ranged from 6 blows per foot (bpf) to 67 bpf. The moisture content values ranging from 6 to 26 percent.

Sulfate testing was performed per the Ohio Department of Transportation (ODOT) Supplemental Specification SS 1122 on the soil samples within the upper 3 feet of proposed subgrade. Results of the sulfate tests are presented on the test boring logs. The soils exhibited sulfate values ranging from less than 100 ppm to 3,000 ppm.

Groundwater was encountered in boring B-027-0-22 at a depth of 3.0 feet below grade (Elevation 676.0) during and after completion of drilling. Groundwater was encountered in boring B-009-1-22 after the completion of boring at a depth of 15.0 feet below grade (Elevation 669.8).

VI. ANALYSES AND RECOMMENDATIONS

Based on the soil data obtained from the field and laboratory testing, the following recommendations are provided.

A. Subgrade Considerations

A subgrade analysis was performed utilizing the subsurface information from the drilled borings within the project limits and ODOT Geotechnical Design Manual (GDM) Section 600.

Based on the current project limits for full depth replacement of existing roadways, B-005-0-22 through B-069-0-22 (excluding borings B-009-1-22 drilled for the

embankment fill and B-062-0-22 through B-066-0-22 drilled for ramps at US 6/24 and Industrial Drive interchange) were utilized in subgrade analysis. No full depth replacement of existing pavement is planned on the western end of the project (borings B-001-0-22 through B-004-0-22), and along the ramps at the US 6/24 and Industrial Drive interchange.

A copy of the Subgrade Analysis spreadsheet is provided in Appendix D. According to the Stage 3 plans the proposed pavement section will be 17.25 inches thick. The cut/fill values at the test boring locations were determined using the proposed elevations shown on the Stage 3 plans along with a pavement thickness of 1.4 feet.

The natural moisture content values of the near surface soil samples ranged from 4 to 37 percent, averaging 20 percent. The estimated optimum moisture content (OMC) values ranged from 6 to 26 percent, averaging 17 percent. On average, the natural moisture content values are 3 percent higher than the optimum moisture content values.

The average N_{60L} value for the project is 11 bpf. The average PI for the project is 18.

Group Index values were calculated for each of the samples tested. The Group Index values for the soils ranged from 0 to 20, averaging 13. This average Group Index value corresponds to an estimated California Bearing Ratio (CBR) value of 5.0. The pavement for this project may be designed using a CBR value of 5.0, provided the pavement subgrade soils are prepared per ODOT requirements.

Based on the requirements outlined in the GDM Section 600, it is estimated that subgrade stabilization will be required within the project limits. The subgrade stabilization may consist of excavate and replace per Item 204. The estimated depth of subgrade stabilization is summarized in Table 1.
The approximate depth of excavate and replace is measured from the top of the proposed pavement subgrade level. It should be noted that the location and depth of subgrade stabilization provided below is only an estimate. The actual depths and horizontal limits of excavate and replace will be determined by the Project Engineer in the field based upon proofrolling.

Table 1. HEN-6/24-11.32/4.62 Estimated Unstable Soil Replacement

Roadway	Approximate Limits	Approximate Depth of Excavate and Replace (inches)	
		With geotextile	With geogrid
US 6/24	604+32.11 to 610+84	15	12
US 6/24	619+36 to 627+22	12	--
US 6/24	682+19 to 690+49	12	--
US 6/24	762+54 to 770+58	12	--
US 6 EB	833+96 to 850+36	12	--
US 6	863+23 to 868+64.75	15	12
US 6 WB	1849+72 to 1856+64	18	12
US 24 EB	507+00 to 517+50	12	--
US 24 EB	519+50 to 527+56	12	--
US 24	536+21 to 543+16	12	--
US 24 WB	1518+80 to 1526+86	12	--
US 6 & 24 Ramp A	107+20 to 113+90	12	--
US 6 & 24 Ramp B	214+00 to 220+00	15	12
US 6 & 24 Ramp D	1+00 to 13+85	12	--
US 6 & 24 Ramp E	500+00 to 505+65	18	12

If the soils at the excavated depth exhibit unstable conditions, then a bridge lift should be placed as outlined in Item 203.05 of the ODOT Construction and Material Specifications. As a minimum, bridge lifts should be expected near the borings listed in Table 2 due to low N_{60} values.

Table 2. HEN-6/24-11.32/4.62 Expected Bridge Lift Locations

Roadway	Boring No.	Approximate Station
US 6/24	B-005-0-22	607+28
US 6 WB	B-039-0-22	1853+64
US 6	B-042-0-22	866+82
US 6 & 24 Ramp B	B-052-0-22	216+83
US 6 & 24 Ramp E	B-053-0-22	501+75
SR 424 Ramp A	B-067-0-22	853+90

Unsuitable A-7-5 soils were encountered in some areas at the proposed subgrade level. According to the ODOT GDM Section 610, these soils should be completely removed or excavated to 36 inches below subgrade level, whichever is less. The excavation should be replaced with Item 204 material or granular material.

For estimating purposes, it can be assumed that these unsuitable soils will need to be removed from locations and depths summarized in Table 3 below.

Table 3. HEN-6/24-11.32/4.62 Estimated Unsuitable Soil Replacement

Roadway	Approximate Limits	Approximate Depth Excavate and Replace (inches)
US 6/24	674+37 to 682+19	13
US 6/24	690+49 to 698+80	31
US 6/24	770+57 to 778+64	31
US 6 & 24 Ramp D	13+85 to 20+00	36
SR 424 Ramp A	850+20 to 857+66.52	13

As an alternative to undercutting the unstable soils indicated in Table 1, or the unsuitable soils in Table 3, Item 206 chemical stabilization using cement or lime would be an option for this project. Per the Subgrade Analysis spreadsheet, the recommended depth for chemical stabilization is 12 inches. However, per ODOT GDM Section 610, appropriate laboratory testing should be performed to confirm if the A-7-5 soils are suitable for chemical stabilization.

According to ODOT GDM Section 605, if it is determined that 30 percent or more of the subgrade area must be stabilized, consideration should be given to stabilizing

the entire project (global stabilization). As per the subgrade analysis spreadsheet, it is estimated that the percentage of subgrade requiring stabilization due to the presence of unstable and unsuitable soil is 35%.

According to the Stage 3 plans, it is understood that global stabilization using cement is being considered for this project. As mentioned earlier, laboratory testing should be performed to confirm if the A-7-5 soils are suitable for chemical stabilization. Contingency undercut quantities should be included on the plans in case it is determined that chemical stabilization is not appropriate for the A-7-5 soils. For contingency estimates, it can be assumed that the unsuitable soils will need to be undercut from the locations summarized in Table 3 above.

B. Embankments

The existing bridge along US 6/24 between stations 642+98.30 and 645+00.80 will be removed and replaced with embankment fill as part of this project. The weight of the new embankment fill will result in settlement of the underlying soils. The following settlement analysis was performed.

Settlement Analysis

A settlement analysis was performed in the area of the maximum fill at Station 644+00. Results of the settlement analyses are summarized in Table 4. Settlement calculations are provided in Appendix E.

Table 4. Settlement Analyses

Station	Boring No's	Estimated Settlement (inches)
644+00	B-009-1-22, B-009-2-22	5.6

According to the GDM Section 504, where a structure, utility, or other roadway infrastructure or adjacent property is not influenced by settlement of the embankment, a predicted total settlement of 3 inches or less is considered reasonable and should not require any corrective action. In the area of maximum fill, it is estimated that total settlement will be about 5.6 inches. It is estimated that 3 inches of settlement will remain after approximately 2 weeks of fill placement. Therefore, it is CTL's opinion that settlement monitoring is needed for the embankment fills during construction.

C. General Construction and Earthwork

1. Site preparation and earthwork should be performed in accordance with the ODOT Construction and Material Specifications, and applicable sections of the ODOT GDM.

2. Embankment side slopes should be seeded and vegetation growth permitted to limit erosion, sloughing and slope failure.

3. Temporary excavations in excess of 4 feet in depth, if required, should be sloped or shored according to OSHA requirements.

VII. CHANGED CONDITIONS

The evaluations, conclusions, and recommendations in this report are based on our interpretation of the field and laboratory data obtained during the exploration, our understanding of the project and our experience with similar sites and subsurface conditions using generally accepted geotechnical engineering practices. Although individual test borings are representative of the subsurface conditions at the boring locations on the dates drilled, they are not necessarily representative of the subsurface conditions between boring locations or subsurface conditions during other seasons of the year.

In the event that changes in the project are proposed, additional information becomes available, or if it is apparent that subsurface conditions are different from those provided in this report, CTL Engineering should be notified so that our recommendations can modified, if required.

VIII. TESTING AND OBSERVATION

During the design process, it is recommended that CTL Engineering work with the project designers to confirm that the geotechnical recommendations are properly incorporated into the final plans and specifications, and to assist with establishing criteria for the construction observation and testing.

CTL Engineering is not responsible for independent conclusions, opinions and recommendations made by others based on the data and recommendations provided in this report. It is recommended that CTL be retained to provide construction quality control services on this project. If CTL Engineering is not retained for these services, CTL shall assume no responsibility for compliance with the design concepts or recommendations provided.

IX. CLOSING

The report was prepared by CTL Engineering, Inc. (Consultant) solely for the use of the Client in accordance with an executed contract. The Client's use of or reliance on this report is limited by the terms and conditions of the contract and by the qualifications and limitations stated in the report. It is also acknowledged that the Client's use of and reliance of this report is limited for reasons which include: actual site conditions that may change with time; hidden conditions, not discoverable within the scope of the assessment, may exist at the site; and the scope of the investigation may have been limited by time, budget and other constraints imposed by the Client.

Neither the report, nor its contents conclusions or recommendations, are intended for the use of any party other than the Client. Consultant and the Client assume no liability for any reliance placed on this report by such party. The rights of the Client under contract may not be assigned to any person or entity, without the consent of the Consultant which consent shall not be unreasonably withheld.

This geotechnical report does not address the environmental conditions of the site. The Consultant is not responsible for consequences or conditions arising from facts that were concealed, withheld, or not fully disclosed at the time the assessment was conducted.

To the fullest extent permitted by law, the Consultant and Client agree to indemnify and hold each other, and their officers and employees harmless from and against claims, damages, losses and expenses arising out of unknown or concealed conditions. Furthermore, neither the Consultant nor its employees shall be liable to the Owner in an amount in excess of the available professional liability insurance coverage of the Consultant. In addition, Client and Consultant agree neither shall be liable for any special, indirect or consequential damages of any kind or nature.

The Consultant's services have been provided consistent with its professional standard of care. No other warranties are made, either expressed or implied.

Respectfully Submitted,

CTL ENGINEERING, INC.

Sastry Malladi, P.E
Project Engineer

Shahedur Rahman
Project Engineer

APPENDIX A
GEOTECHNICAL PROFILE ROADWAY

PROJECT DESCRIPTION

A MAJOR REHABILITATION PROJECT IN HENRY COUNTY TO REMOVE AND REPLACE THE EXISTING PAVEMENT ON US 6/24 FROM THE US 6 INTERCHANGE TO THE MAUMEE RIVER BRIDGE. REPAIR BRIDGES WITHIN THE SAME SECTION. ADDITIONALLY, AN EXISTING BRIDGE WILL BE REMOVED AND REPLACED WITH A NEW EMBANKMENT.

HISTORIC RECORDS

HISTORICAL GEOTECHNICAL RECORDS WERE OBTAINED FROM ODOT'S TRANSPORTATION INFORMATION MAPPING SYSTEM (TIMS) FOR THE CURRENT ROADWAY ALIGNMENT. RESULTS OF THE EXPLORATIONS INDICATED THAT PREDOMINANTLY COHESIVE SOILS ARE PRESENT AT THE SUBGRADE ELEVATION. PERTINENT HISTORIC SOIL BORINGS ARE INCLUDED ON THE SOIL PROFILE SHEETS.

GEOLOGY

ACCORDING TO THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) MAPPING, THE PROJECT SITE IS LOCATED WITHIN THE MAUMEE LAKE PLAINS PHYSIOGRAPHIC REGION, WHICH IS IN THE HURON- ERIE LAKE PLAINS SECTION OF OHIO. ACCORDING TO THE QUATERNARY GEOLOGY OF OHIO, FROM THE OHIO DIVISION OF GEOLOGICAL SURVEY, THE OVERBURDEN SOILS ARE MAPPED AS LATE WISCONSINAN-AGE LAKE-PLANED MORAINE OR LACUSTRINE SAND.

ACCORDING TO THE MAPPING OF BEDROCK GEOLOGY IN THE AREA, ODNR GEOLOGICAL SURVEY, THE SURFICIAL SOIL DEPOSITS ON THE SITE ARE UNDERLAIN BY DEVONIAN- AGE SHALE BEDROCK FORMATIONS IDENTIFIED AS THE ANTRIM SHALE FORMATION.

ACCORDING TO ODNR'S KARST INTERACTIVE MAP, THERE ARE NO MAPPED KARST FEATURES IN THE GENERAL VICINITY OF THE PROJECT AREA. ACCORDING TO ODNR'S MINES OF OHIO WEBSITE, NO MAPPED MINING HAS BEEN PERFORMED IN THE AREA.

RECONNAISSANCE

A SITE VISIT WAS PERFORMED BY AN ENGINEER FROM CTL ON APRIL 12, 2022. THE SURROUNDING AREA IS RELATIVELY FLAT. THE PROJECT AREA IS LOCATED WITHIN RURAL AND COMMERCIAL SETTING. THE MAUMEE RIVER RUNS PARALLEL TO THE ROADWAY WITHIN ONE MILE. THE US 6/24 ROADWAY GOES OVER MULTIPLE CREEKS WITHIN THE PROJECT LIMITS. THE EXISTING PAVEMENT CONDITION IS MODERATE WITH LONGITUDINAL AND TRANSVERSE CRACKS THROUGHOUT THE PROJECT AREA.

SUBSURFACE EXPLORATION

SEVENTY (70) SOIL TEST BORINGS, DESIGNATED AS B-001-0-22 THROUGH B-069-0-22, AND B-009-1-22, WERE DRILLED FOR THIS PROJECT. ALL OF THE TEST BORINGS EXCEPT B-009-1-22 WERE DRILLED THROUGH THE EXISTING ROADWAY PAVEMENT. BORING B-009-1-22 WAS DRILLED AT THE PROPOSED EMBANKMENT FILL LOCATION UNDERNEATH THE BRIDGE ALONG US 6/24. ONE (1) AUGER BORING, IDENTIFIED AS B-009-2-22, WAS PERFORMED ADJACENT TO B-009-1-22 TO OBTAIN SHELBY TUBES. THE BORINGS WERE DRILLED BETWEEN APRIL 11 AND APRIL 22, 2022.

THE BORINGS WERE PERFORMED WITH A TRUCK MOUNTED DRILL RIG UTILIZING 3.25-INCH HOLLOW STEM AUGERS (HSA). STANDARD PENETRATION TESTS (SPTS) WERE CONDUCTED USING A 140-POUND AUTOMATIC HAMMER, FALLING 30 INCHES, TO DRIVE 2-INCH O.D. THE HAMMER SYSTEM USED WAS CALIBRATED ON OCTOBER 20, 2021. THE ENERGY TRANSFER RATIO ASSOCIATED WITH THE AUTOMATIC SPT HAMMER WAS 72.0 PERCENT.

EXPLORATION FINDINGS

TEST BORINGS B-001-0-22 THROUGH B-069-0-22 WERE DRILLED THROUGH THE EXISTING ROADWAY AND ENCOUNTERED 4 TO 12 INCHES OF ASPHALT AND 6 TO 8 INCHES OF CONCRETE OVERLYING 4 TO 8 INCHES OF BASE COURSE. BORINGS B-009-1-22 AND B-009-2-22 ENCOUNTERED 6 INCHES OF TOPSOIL AT THE SURFACE. BELOW THE SURFACE COVER, THE BORINGS GENERALLY ENCOUNTERED BOTH COARSE-GRAINED AND FINE-GRAINED SOILS EXTENDING DOWN TO THE TEST BORING TERMINATION DEPTHS. THE SOILS ARE DESCRIBED AS GRAVEL AND/OR STONE FRAGMENTS WITH SAND (A-1-b), GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT (A-2-4), FINE SAND (A-3), COARSE AND FINE SAND (A-3a), SANDY SILT (A-4a), SILT AND CLAY (A-6a), SILTY CLAY (A-6b), ELASTIC CLAY (A-7-5) OR CLAY (A-7-6).

GROUNDWATER WAS ENCOUNTERED IN BORING B-027-0-22 AT A DEPTH OF 3.0 FEET BELOW GRADE (ELEVATION 676.0) DURING AND AFTER COMPLETION OF DRILLING. GROUNDWATER WAS ENCOUNTERED IN BORING B-009-1-22 AFTER THE COMPLETION OF BORING AT A DEPTH OF 15.0 FEET BELOW GRADE (ELEVATION 669.8).

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS DATED JANUARY 2022.

AVAILABLE INFORMATION

THE SOIL, BEDROCK, AND GROUND WATER INFORMATION COLLECTED FOR THIS SUBSURFACE EXPLORATION THAT CAN BE CONVENIENTLY DISPLAYED ON THE SOIL PROFILE SHEETS HAS BEEN PRESENTED. GEOTECHNICAL REPORTS, IF PREPARED, ARE AVAILABLE FOR REVIEW ON THE OFFICE OF CONTRACT SALES WEBSITE.

LEGEND

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b	1	0
GRAVEL AND/OR STONE FRAGMENTS W/SAND AND SILT	A-2-4	1	0
FINE SAND	A-3	1	0
COARSE AND FINE SAND	A-3a	0	1
SANDY SILT	A-4a	11	7
SILT AND CLAY	A-6a	50	45
SILTY CLAY	A-6b	16	48
ELASTIC CLAY	A-7-5	5	1
CLAY	A-7-6	62	39
	TOTAL	147	141

PAVEMENT OR BASE = X = APPROXIMATE THICKNESS — VISUAL

SOD AND TOPSOIL = X = APPROXIMATE THICKNESS — VISUAL

EXPLORATION LOCATION - PLAN VIEW

DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.

AUGER BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.

WC — INDICATES WATER CONTENT IN PERCENT.

N_{60} — INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.

INDICATES FREE WATER ELEVATION.

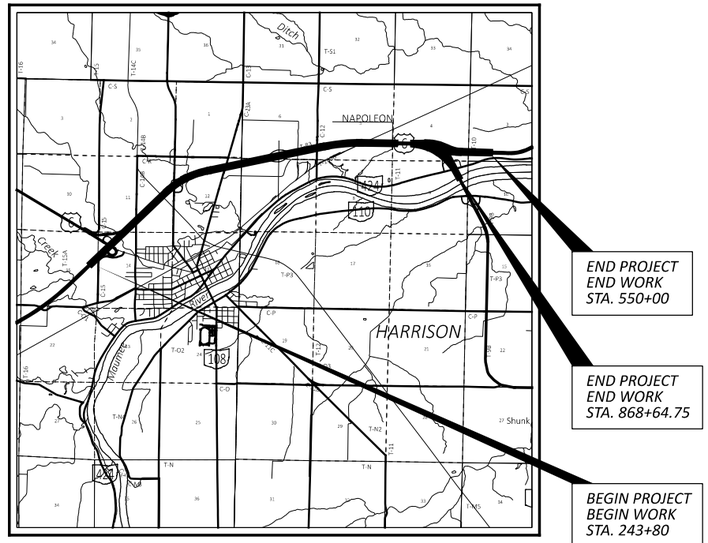
INDICATES WATER AT COMPLETION

HISTORIC BORING LOCATION - PLAN VIEW

SS — INDICATES A SPLIT SPOON SAMPLE.

NP — INDICATES A NON-PLASTIC SAMPLE.

HISTORIC BORING DESCRIPTIONS	ODOT CLASS	CLASSIFIED MECH./VISUAL	
COARSE AND FINE SAND	A-3a	4	0
SANDY SILT	A-4a	6	0
SILT	A-4b	1	0
SILT AND CLAY	A-6a	68	0
SILTY CLAY	A-6b	48	0
ELASTIC CLAY	A-7-5	1	0
CLAY	A-7-6	46	0
	TOTAL	174	0



LOCATION MAP

SCALE IN MILES

0 1 2 3 4

N

PARTICLE SIZE DEFINITIONS

BOULDERS	COBBLES	GRAVEL	COARSE SAND	FINE SAND	SILT	CLAY
	12"	3"	2.0 mm	0.42 mm	0.074 mm	0.005 mm
			No. 10 SIEVE	No. 40 SIEVE	No. 200 SIEVE	

RECON. - EH 04/12/2022
DRILLING - CTL ENGINEERING, INC. 04/11/2022 – 04/22/2022
DRAWN - N.K.S 05/20/2024
REVIEWED - JG 11/20/2024

GEOTECHNICAL PROFILE - ROADWAY

DESIGN AGENCY
CTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE: (614)276-8123
FAX: (614)276-6377

DESIGNER: N.K.S
REVIEWER: SM 09-03-25
PROJECT ID: 110524
SUBSET: 1 TOTAL: 70
SHEET: P.1039 TOTAL: 1108

HEN-6/24-11.32/4.62

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 12-09-2025 TIME: 10:03:29 USER: hp
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MODEL: Sheet PAPERSIZE: 11x17 (in.) DATE: 04-09-2025 TIME: 12:02:18 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shahed\22050022COL_ODOT\Mod_04.09.25\110524ID001.dgn

SUMMARY OF SOIL TEST DATA

US 6/24

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N_{60}	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-001-0-22	01.00-02.50	SS-1	67	100	4.5	3	19	20	37	21	38	31	7	20	A-4a (5)	3000
STA. 243+64, 51' LT.	02.50-04.00	SS-2	24	100	4.5	5	7	14	33	41	31	19	12	15	A-6a (9)	-
LATITUDE = 41.39274	04.00-05.50	SS-3	30	100	4.5				SAME AS SS-2					13	A-6a (VISUAL)	-
LONGITUDE = -84.15327	05.50-07.00	SS-4	43	100	4.5				SAME AS SS-2					15	A-6a (VISUAL)	-
B-002-0-22	01.00-02.50	SS-1	22	100	4.5	0	4	10	29	57	40	23	17	18	A-6b (11)	<100
STA. 252+70, 34' RT.	02.50-04.00	SS-2	17	67	2.5	0	6	34	24	36	35	20	15	26	A-6a (7)	-
LATITUDE = 41.39432	04.00-05.50	SS-3	17	100	3.5				SAME AS SS-2					24	A-6a (VISUAL)	-
LONGITUDE = -84.1507	05.50-07.00	SS-4	19	100	3.5				SAME AS SS-2					23	A-6a (VISUAL)	-
B-003-0-22	01.00-02.50	SS-1	10	56	4.5	0	2	12	31	55	51	28	23	23	A-7-6 (15)	<100
STA. 259+27.39, 55' LT.	02.50-04.00	SS-2	17	67	3.75	0	2	11	30	57	54	26	28	23	A-7-6 (18)	-
LATITUDE = 41.39453	04.00-05.50	SS-3	17	100	3.25				BROWN AND GRAY, SILTY CLAY					19	A-6b (VISUAL)	-
LONGITUDE = -84.15088	05.50-07.00	SS-4	20	100	3.5				SAME AS SS-3					23	A-6b (VISUAL)	-
B-004-0-22	01.00-02.50	SS-1	20	100	4.5	0	3	16	32	49	41	23	18	19	A-7-6 (11)	320
STA. 598+55, 34' RT.	02.50-04.00	SS-2	20	100	4.5	0	1	2	15	82	56	29	27	23	A-7-6 (18)	-
LATITUDE = 41.39722	04.00-05.50	SS-3	19	100	4.5				SAME AS SS-2					21	A-7-6 (VISUAL)	-
LONGITUDE = -84.14682	05.50-07.00	SS-4	14	100	4.5				SAME AS SS-2					15	A-7-6 (VISUAL)	-
B-005-0-22	01.00-02.50	SS-1	7	100	3.75	4	3	13	33	47	39	21	18	21	A-6b (11)	<100
STA. 607+28, 54' LT.	02.50-04.00	SS-2	7	100	2.75	3	4	13	35	45	38	22	16	22	A-6b (10)	-
LATITUDE = 41.39907	04.00-05.50	SS-3	12	100	1.25				SAME AS SS-2					22	A-6b (VISUAL)	-
LONGITUDE = -84.14479	05.50-07.00	SS-4	25	100	4.5				SAME AS SS-2					15	A-6b (VISUAL)	-
B-006-0-22	01.00-02.50	SS-1	12	100	3	0	1	12	32	55	52	26	26	23	A-7-6 (17)	<100
STA. 614+40, 35' RT.	02.50-04.00	SS-2	11	100	3.5	1	2	9	29	59	48	24	24	26	A-7-6 (15)	-
LATITUDE = 41.40027	04.00-05.50	SS-3	10	100	2				SAME AS SS-2					32	A-7-6 (VISUAL)	-
LONGITUDE = -84.14272	05.50-07.00	SS-4	22	100	3				SAME AS SS-2					23	A-7-6 (VISUAL)	-
B-007-0-22	01.00-02.50	SS-1	11	100	4.5	0	2	14	31	53	46	23	23	22	A-7-6 (14)	<100
STA. 624+31, 52' LT.	02.50-04.00	SS-2	11	100	4.5	1	3	13	32	51	44	24	20	23	A-7-6 (13)	-
LATITUDE = 41.40236	04.00-05.50	SS-3	23	100	4.5				SAME AS SS-2					26	A-7-6 (VISUAL)	-
LONGITUDE = -84.14037	05.50-07.00	SS-4	26	100	3.75				SAME AS SS-2					23	A-7-6 (VISUAL)	-
B-008-0-22	01.00-02.50	SS-1	18	100	4.5	5	6	15	36	38	25	15	10	9	A-4a (8)	700
STA. 630+13, 34' RT.	02.50-04.00	SS-2	13	100	4.5	5	5	13	32	45	36	21	15	16	A-6a (10)	-
LATITUDE = 41.40331	04.00-05.50	SS-3	16	100	4.5				SAME AS SS-2					19	A-6a (VISUAL)	-
LONGITUDE = -84.13864	05.50-07.00	SS-4	23	100	4.5				GRAY, SANDY SILT					19	A-4a (VISUAL)	-
B-009-0-22	01.00-02.50	SS-1	16	100	3.25	4	5	20	39	32	22	14	8	11	A-4a (7)	500
STA. 639+56, 49' LT.	02.50-04.00	SS-2	12	44	4.5	4	4	13	28	51	36	20	16	18	A-6b (10)	-
LATITUDE = 41.40529	04.00-05.50	SS-3	20	89	4.5				SAME AS SS-2					14	A-6b (VISUAL)	-
LONGITUDE = -84.13641	05.50-07.00	SS-4	22	100	4.5				SAME AS SS-2					24	A-6b (VISUAL)	-
B-009-1-22	00.50-02.00	SS-1	12	100	2.75	0	2	31	23	44	45	24	21	37	A-7-6 (12)	-
STA. 644+08, 87' RT.	03.50-05.00	SS-2	5	67	1.75	0	1	11	25	63	61	29	32	40	A-7-6 (20)	-
LATITUDE = 41.4059	06.00-07.50	SS-3	8	56	4.25				HARD, GRAY AND BROWN MOTTLED, SILT AND CLAY, LITTLE SAND, TRACE GRAVEL, DAMP					19	A-6a (10)	-
LONGITUDE = -84.13489	08.50-10.00	SS-4	11	100	4.25	2	6	13	34	45	33	20	13	18	A-6a (9)	-
	11.00-12.50	SS-5	28	100	4.5	4	7	13	33	43	31	19	12	15	A-6a (9)	-
	13.50-15.00	SS-6	25	100	4.5				SAME AS SS-5					14	A-6a (VISUAL)	-
	16.00-17.50	SS-7	16	100	4.5				SAME AS SS-5					15	A-6a (VISUAL)	-
	18.50-20.00	SS-8	17	100	3.75				SAME AS SS-5					16	A-6a (9)	-
	23.50-25.00	SS-9	19	100	4.5	4	5	11	34	46	30	17	13	16	A-6a (9)	-
	28.50-30.00	SS-10	22	100	4.5				SAME AS SS-9					13	A-6a (VISUAL)	-

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DESIGN AGENCY

DESIGNER N.K.S

REVIEWER SM 09-03-25

PROJECT ID 110524

SUBSET 2 TOTAL 70

SHEET P.1040 TOTAL 1108

GEOTECHNICAL PROFILE - ROADWAY

SUMMARY OF SOIL TEST DATA

MODEL: Sheet PAPERSIZE: 11x17 (in.) DATE: 04-09-2025 TIME: 12:04:35 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shahed\22050022COL_ODOT\Mod_04.09.25\110524ID002.dgn

SUMMARY OF SOIL TEST DATA
US 6/24

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N_{60}	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-009-2-22	06.00-08.00	ST-1	-	60	-	8	5	13	32	42	36	21	15	19	A-6a (10)	-
STA. 644+08, 87' RT.	18.00-20.00	ST-2	-	75	-	5	6	13	34	42	29	17	12	16	A-6a (9)	-
LATITUDE = 41.4059																
LONGITUDE = -84.13489																
B-010-0-22	01.00-02.50	SS-1	13	100	3.75	1	4	13	29	53	42	23	19	14	A-7-6 (12)	<100
STA. 645+70, 33' RT.	02.50-04.00	SS-2	11	100	4.5	3	6	13	31	47	33	20	13	15	A-6a (9)	-
LATITUDE = 41.40632	04.00-05.50	SS-3	17	100	4.5				SAME AS SS-2					16	A-6a (VISUAL)	-
LONGITUDE = -84.13461	05.50-07.00	SS-4	16	100	4.5				SAME AS SS-2					24	A-6a (VISUAL)	-
B-011-0-22	01.00-02.50	SS-1	12	100	4.5	7	4	12	31	46	36	20	16	18	A-6b (10)	880
STA. 653+50, 52' LT.	02.50-04.00	SS-2	10	100	4.5	0	1	11	37	51	44	22	22	23	A-7-6 (14)	-
LATITUDE = 41.40795	04.00-05.50	SS-3	10	100	2.75				SAME AS SS-2					19	A-7-6 (VISUAL)	-
LONGITUDE = -84.13273	05.50-07.00	SS-4	18	100	4.5				SAME AS SS-2					25	A-7-6 (VISUAL)	-
B-012-0-22	01.00-02.50	SS-1	14	100	4.5	4	6	14	33	43	30	18	12	14	A-6a (9)	<100
STA. 662+14, 35' RT.	02.50-04.00	SS-2	19	100	4.5	4	9	14	34	39	31	19	12	15	A-6a (8)	-
LATITUDE = 41.40912	04.00-05.50	SS-3	29	100	4.5				SAME AS SS-2					15	A-6a (VISUAL)	-
LONGITUDE = -84.12997	05.50-07.00	SS-4	41	100	4.5				SAME AS SS-2					14	A-6a (VISUAL)	-
B-013-0-22	01.00-02.50	SS-1	16	56	4.5	4	7	13	33	43	29	18	11	16	A-6a (8)	220
STA. 670+83, 58' LT.	02.50-04.00	SS-2	13	100	4.5	7	6	13	32	42	31	19	12	16	A-6a (9)	-
LATITUDE = 41.41041	04.00-05.50	SS-3	41	100	4.5				SAME AS SS-2					13	A-6a (VISUAL)	-
LONGITUDE = -84.12729	05.50-07.00	SS-4	34	100	4.5				SAME AS SS-2					16	A-6a (VISUAL)	-
B-014-0-22	01.00-02.50	SS-1	17	100	4.5	1	0	1	19	79	53	31	22	16	A-7-5 (15)	<100
STA. 677+90, 33' RT.	02.50-04.00	SS-2	16	100	4.5	1	2	5	24	68	48	27	21	23	A-7-6 (14)	-
LATITUDE = 41.41079	04.00-05.50	SS-3	26	100	4.5				SAME AS SS-2					15	A-7-6 (VISUAL)	-
LONGITUDE = -84.12473	05.50-07.00	SS-4	41	100	4.5				SAME AS SS-2					15	A-7-6 (VISUAL)	-
B-015-0-22	01.00-02.50	SS-1	11	89	4.5	1	1	12	29	57	46	24	22	18	A-7-6 (14)	<100
STA. 686+48, 53' LT.	02.50-04.00	SS-2	10	100	4.5	2	3	2	19	74	51	27	24	23	A-7-6 (16)	-
LATITUDE = 41.41156	04.00-05.50	SS-3	18	100	4.5				SAME AS SS-2					22	A-7-6 (VISUAL)	-
LONGITUDE = -84.12176	05.50-07.00	SS-4	22	100	4.5				SAME AS SS-2					14	A-7-6 (VISUAL)	-
B-016-0-22	01.00-02.50	SS-1	23	44	4.5	5	6	13	33	43	29	18	11	11	A-6a (8)	<100
STA. 694+49, 32' RT.	02.50-04.00	SS-2	17	33	4.5	0	2	9	31	58	55	31	24	22	A-7-5 (17)	-
LATITUDE = 41.41182	04.00-05.50	SS-3	20	100	4.5				BROWN AND GRAY, SILTY CLAY					24	A-6b (VISUAL)	-
LONGITUDE = -84.11884	05.50-07.00	SS-4	20	100	4.5				SAME AS SS-3					27	A-6b (VISUAL)	-
B-017-0-22	01.00-02.50	SS-1	18	100	4.5	1	2	9	31	57	47	24	23	24	A-7-6 (15)	<100
STA. 703+12, 34' LT.	02.50-04.00	SS-2	14	100	-	0	6	47	15	32	24	14	10	23	A-4a (2)	-
LATITUDE = 41.41252	04.00-05.50	SS-3	14	100	4.5				GRAY, SILTY CLAY					18	A-6b (VISUAL)	-
LONGITUDE = -84.11583	05.50-07.00	SS-4	19	100	4.5				SAME AS SS-3					24	A-6b (VISUAL)	-
B-018-0-22	01.00-02.50	SS-1	16	56	4.5	1	2	9	42	46	37	22	15	19	A-6a (10)	<100
STA. 708+73, 33' RT.	02.50-04.00	SS-2	11	22	4.5				SAME AS SS-1					23	A-6a (VISUAL)	-
LATITUDE = 41.41268	04.00-05.50	SS-3	22	100	4.5	0	1	8	46	45	46	24	22	20	A-7-6 (14)	-
LONGITUDE = -84.11378	05.50-07.00	SS-4	23	100	4.5				SAME AS SS-3					26	A-7-6 (VISUAL)	-
B-019-0-22	01.00-02.50	SS-1	12	67	4.5	4	6	12	30	48	31	20	11	17	A-6a (8)	<100
STA. 719+05, 33' LT.	02.50-04.00	SS-2	8	100	4	2	4	14	30	50	38	21	17	17	A-6b (11)	-
LATITUDE = 41.41349	04.00-05.50	SS-3	17	100	-				BROWN, COARSE AND FINE SAND					14	A-3a (VISUAL)	-
LONGITUDE = -84.11017	05.50-07.00	SS-4	20	100	4.5				GRAY, SILTY CLAY					18	A-6b (VISUAL)	-

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DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 3 TOTAL 70
SHEET P.1041 TOTAL 1108

GEOTECHNICAL PROFILE - ROADWAY
SUMMARY OF SOIL TEST DATA

MODEL: Sheet PAPERSIZE: 11x17 (in.) DATE: 04-09-2025 TIME: 12:07:28 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shahed\22050022COL_ODOT\Mod_04.09.25\110524ID003.dgn

SUMMARY OF SOIL TEST DATA

US 6/24

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N_{60}	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-020-0-22	01.00-02.50	SS-1	19	56	4.5	2	3	15	41	39	32	19	13	12	A-6a (9)	<100
STA. 726+36, 34' RT.	02.50-04.00	SS-2	12	44	4.5	2	2	14	42	40	36	20	16	5	A-6b (10)	-
LATITUDE = 41.41375	04.00-05.50	SS-3	22	100	4.5				GRAY, SILTY CLAY					23	A-6b (VISUAL)	-
LONGITUDE = -84.10752	05.50-07.00	SS-4	22	100	4.5				SAME AS SS-3					20	A-6b (VISUAL)	-
B-021-0-22	01.00-02.50	SS-1	20	100	4.5	0	1	4	52	43	42	27	15	22	A-7-6 (10)	<100
STA. 733+91, 33' LT.	02.50-04.00	SS-2	13	100	4.5	0	4	55	22	19	21	15	6	13	A-4a (1)	-
LATITUDE = 41.41439	04.00-05.50	SS-3	11	100	4.5				GRAY, SILTY CLAY					25	A-6b (VISUAL)	-
LONGITUDE = -84.10489	05.50-07.00	SS-4	11	100	2.5				SAME AS SS-3					27	A-6b (VISUAL)	-
B-022-0-22	01.00-02.50	SS-1	12	100	4.5	0	0	4	59	37	40	25	15	22	A-6a (10)	<100
STA. 743+24, 33' LT.	02.50-04.00	SS-2	13	33	4.5	0	0	5	58	37	41	24	17	22	A-7-6 (11)	-
LATITUDE = 41.41478	04.00-05.50	SS-3	17	67	4.5				SAME AS SS-2					23	A-7-6 (VISUAL)	-
LONGITUDE = -84.10151	05.50-07.00	SS-4	13	67	4.5				SAME AS SS-2					23	A-7-6 (VISUAL)	-
B-023-0-22	01.00-02.50	SS-1	18	100	4.5	0	0	5	46	49	49	25	24	21	A-7-6 (15)	-
STA. 753+44, 34' LT.	02.50-04.00	SS-2	17	67	4.5	0	1	6	42	51	47	25	22	21	A-7-6 (14)	-
LATITUDE = 41.41558	04.00-05.50	SS-3	17	67	3.5				SAME AS SS-2					27	A-7-6 (VISUAL)	-
LONGITUDE = -84.09794	05.50-07.00	SS-4	16	100	3.5				SAME AS SS-2					28	A-7-6 (VISUAL)	-
B-024-0-22	01.00-02.50	SS-1	16	89	4.5	1	0	2	47	50	45	25	20	23	A-7-6 (13)	<100
STA. 758+47, 33' RT.	02.50-04.00	SS-2	16	33	4.5	0	0	2	51	47	43	24	19	21	A-7-6 (12)	-
LATITUDE = 41.41571	04.00-05.50	SS-3	11	100	3.25				SAME AS SS-2					26	A-7-6 (VISUAL)	-
LONGITUDE = -84.0961	05.50-07.00	SS-4	7	100	-				BROWN, SANDY SILT					27	A-4a (VISUAL)	-
B-025-0-22	01.00-02.50	SS-1	14	100	3.75	0	1	6	47	46	41	22	19	24	A-7-6 (12)	1300
STA. 766+60, 33' RT.	02.50-04.00	SS-2	10	33	4.5	0	1	3	44	52	39	23	16	25	A-6b (10)	-
LATITUDE = 41.41637	04.00-05.50	SS-3	8	100	3.75				SAME AS SS-2					24	A-6b (VISUAL)	-
LONGITUDE = -84.09326	05.50-07.00	SS-4	14	100	-				SAME AS SS-2					27	A-6b (VISUAL)	-
B-026-0-22	01.00-02.50	SS-1	14	100	4.5	13	4	8	29	46	39	23	16	28	A-6b (10)	<100
STA. 774+55, 34' RT.	02.50-04.00	SS-2	14	44	4.5	0	1	3	46	50	57	36	21	32	A-7-5 (16)	-
LATITUDE = 41.41655	04.00-05.50	SS-3	19	44	4.5				GRAY AND BROWN, SILTY CLAY					23	A-6b (VISUAL)	-
LONGITUDE = -84.09036	05.50-07.00	SS-4	25	100	3.75				SAME AS SS-3					24	A-6b (VISUAL)	-
B-027-0-22	01.00-02.50	SS-1	12	100	4.5	0	0	4	52	44	41	23	18	18	A-7-6 (11)	<100
STA. 782+72, 33' LT.	02.50-04.00	SS-2	7	44	4.5	0	1	5	44	50	45	26	19	26	A-7-6 (13)	-
LATITUDE = 41.41696	04.00-05.50	SS-3	17	56	2.5				GRAY, SILTY CLAY					30	A-6b (VISUAL)	-
LONGITUDE = -84.08742	05.50-07.00	SS-4	17	100	3				SAME AS SS-3					17	A-6b (VISUAL)	-
B-028-0-22	01.00-02.50	SS-1	16	100	4.5	0	1	8	14	77	35	21	14	10	A-6a (10)	<100
STA. 789+26, 35' RT.	02.50-04.00	SS-2	12	100	3.75	0	0	5	47	48	45	25	20	19	A-7-6 (13)	-
LATITUDE = 41.41684	04.00-05.50	SS-3	16	100	4.5				DARK GRAY, SILTY CLAY					24	A-6b (VISUAL)	-
LONGITUDE = -84.08503	05.50-07.00	SS-4	23	100	4				SAME AS SS-3					26	A-6b (VISUAL)	-
B-029-0-22	01.00-02.50	SS-1	17	67	4.5	0	2	19	41	38	33	18	15	20	A-6a (10)	<100
STA. 800+24, 32' LT.	02.50-04.00	SS-2	13	22	4.5	0	3	24	37	36	30	17	13	13	A-6a (9)	-
LATITUDE = 41.41705	04.00-05.50	SS-3	16	56	4.5				SAME AS SS-2					14	A-6a (VISUAL)	-
LONGITUDE = -84.08103	05.50-07.00	SS-4	19	100	4.5				GRAY, SILTY CLAY					28	A-6b (VISUAL)	-
B-030-0-22	01.00-02.50	SS-1	14	100	3.5	0	1	7	39	53	45	23	22	17	A-7-6 (14)	<100
STA. 805+01, 32' LT.	02.50-04.00	SS-2	13	33	-	0	3	16	30	51	46	25	21	17	A-7-6 (14)	-
LATITUDE = 41.41688	04.00-05.50	SS-3	22	33	-				GRAY CLAY					22	A-7-6 (VISUAL)	-
LONGITUDE = -84.07929	05.50-07.00	SS-4	24	33	4.25				SAME AS SS-3					21	A-7-6 (VISUAL)	-

DESIGN AGENCY
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DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 4 TOTAL 70
SHEET P.1042 TOTAL 1108

GEOTECHNICAL PROFILE - ROADWAY

SUMMARY OF SOIL TEST DATA

SUMMARY OF SOIL TEST DATA
US 6/24

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N_{60}	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-031-0-22	01.00-02.50	SS-1	16	100	4	0	2	8	33	57	52	29	23	24	A-7-6 (16)	<100
STA. 814+45, 52' LT.	02.50-04.00	SS-2	11	100	3.75	0	1	5	32	62	58	28	30	25	A-7-6 (20)	-
LATITUDE = 41.41712	04.00-05.50	SS-3	12	100	3.75	SAME AS SS-2								23	A-7-6 (VISUAL)	-
LONGITUDE = -84.07585	05.50-07.00	SS-4	19	100	4.5	SAME AS SS-2								16	A-7-6 (VISUAL)	-
B-032-0-22	01.00-02.50	SS-1	14	89	3	0	1	10	43	46	56	29	27	19	A-7-6 (18)	<100
STA. 821+92, 33' RT.	02.50-04.00	SS-2	11	100	3.5	0	2	31	31	36	28	16	12	17	A-6a (7)	-
LATITUDE = 41.4169	04.00-05.50	SS-3	16	100	3.75	GRAY, SILTY CLAY								15	A-6b (VISUAL)	-
LONGITUDE = -84.07312	05.50-07.00	SS-4	32	100	3	SAME AS SS-3								29	A-6b (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6 EB

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N_{60}	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-038-0-22	01.00-02.50	SS-1	11	100	3	0	2	9	29	60	55	28	27	26	A-7-6 (18)	<100
STA. 846+55, 26' RT.	02.50-04.00	SS-2	8	100	3	0	2	11	28	59	60	28	32	30	A-7-6 (20)	-
LATITUDE = 41.41492	04.00-05.50	SS-3	17	100	1.75	SAME AS SS-2								29	A-7-6 (VISUAL)	-
LONGITUDE = -84.06471	05.50-07.00	SS-4	26	100	3.25	GRAY, SILTY CLAY								26	A-6b (VISUAL)	-
B-040-0-22	01.00-02.50	SS-1	14	100	4.5	4	5	8	24	59	41	24	17	5	A-7-6 (11)	<100
STA. 854+17, 18' RT.	02.50-04.00	SS-2	10	100	4.5	5	6	14	32	43	32	19	13	15	A-6a (9)	-
LATITUDE = 41.4136	04.00-05.50	SS-3	12	100	4.5	SAME AS SS-2								17	A-6a (VISUAL)	-
LONGITUDE = -84.06258	05.50-07.00	SS-4	19	100	4.5	SAME AS SS-2								25	A-6a (VISUAL)	-
B-041-0-22	01.00-02.50	SS-1	17	100	4.5	5	6	13	35	41	30	18	12	15	A-6a (9)	<100
STA. 859+64, 16' LT.	02.50-04.00	SS-2	20	100	4.5	5	6	13	44	32	31	19	12	15	A-6a (9)	-
LATITUDE = 41.41251	04.00-05.50	SS-3	40	100	4.5	SAME AS SS-2								16	A-6a (VISUAL)	-
LONGITUDE = -84.06121	05.50-07.00	SS-4	34	100	4.5	SAME AS SS-2								16	A-6a (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N_{60}	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-042-0-22	01.00-02.50	SS-1	10	56	4.5	9	6	12	30	43	40	21	19	13	A-6b (11)	<100
STA. 866+82, 37' LT.	02.50-04.00	SS-2	7	100	4.5	4	3	28	24	41	36	19	17	19	A-6b (9)	-
LATITUDE = 41.41134	04.00-05.50	SS-3	13	89	4.5	SAME AS SS-2								20	A-6b (VISUAL)	-
LONGITUDE = -84.06006	05.50-07.00	SS-4	18	89	4.5	SAME AS SS-2								23	A-6b (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6 WB

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N_{60}	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-033-0-22	01.00-02.50	SS-1	14	89	4	1	3	18	32	46	44	25	19	13	A-7-6 (12)	<100
STA. 1829+54.88, 37' LT	02.50-04.00	SS-2	16	100	3.75	1	2	9	30	58	37	22	15	26	A-6a (10)	-
LATITUDE = 41.41719	04.00-05.50	SS-3	16	100	3.5	GRAY AND BROWN, SILTY CLAY								24	A-6b (VISUAL)	-
LONGITUDE = -84.07036	05.50-07.00	SS-4	30	100	3.75	SAME AS SS-3								18	A-6b (VISUAL)	-
B-035-0-22	01.00-02.50	SS-1	22	100	4.5	0	3	13	35	49	45	25	20	21	A-7-6 (13)	<100
STA. 1835+63, 48.75' LT.	02.50-04.00	SS-2	16	100	-	0	4	87	6	3	NP	NP	NP	12	A-3 (0)	-
LATITUDE = 41.41723	04.00-05.50	SS-3	14	100	4.5	GRAY, SILT AND CLAY								23	A-6a (VISUAL)	-
LONGITUDE = -84.06814	05.50-07.00	SS-4	20	100	4.5	BROWN, SANDY SILT								16	A-4a (VISUAL)	-

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DESIGNER N.K.S

REVIEWER SM 09-03-25

PROJECT ID 110524

SUBSET 5 TOTAL 70

SHEET P.1043 TOTAL 1108

GEOTECHNICAL PROFILE - ROADWAY

SUMMARY OF SOIL TEST DATA

MODEL: Sheet PAPERSIZE: 11x17 (in.) DATE: 04-09-2025 TIME: 12:11:08 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shahed\22050022COL_ODOT\Mod_04.09.25\110524ID005.dgn

SUMMARY OF SOIL TEST DATA
US 6 WB CONT.

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N_{60}	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-037-0-22	01.00-02.50	SS-1	13	67	4.5	0	4	13	29	54	50	24	26	21	A-7-6 (16)	<100
STA. 1845+79.56, 11.82' LT.	02.50-04.00	SS-2	12	44	4.5	1	5	14	32	48	38	21	17	20	A-6b (11)	-
LATITUDE = 41.4164	04.00-05.50	SS-3	30	67	4.5				SAME AS SS-2					15	A-6b (VISUAL)	-
LONGITUDE = -84.06459	05.50-07.00	SS-4	28	100	4.5				SAME AS SS-2					15	A-6b (VISUAL)	-
B-039-0-22	01.00-02.50	SS-1	8	67	2.25	1	3	7	47	42	47	25	22	23	A-7-6 (14)	<100
STA. 1853+64, 6.8' LT.	02.50-04.00	SS-2	6	11	-	2	6	28	25	39	30	17	13	19	A-6a (7)	-
LATITUDE = 41.41483	04.00-05.50	SS-3	14	100	4				SAME AS SS-2					17	A-6a (VISUAL)	-
LONGITUDE = -84.06265	05.50-07.00	SS-4	19	100	3				SAME AS SS-2					13	A-6a (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 24 EB

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N_{60}	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-034-0-22	01.00-02.50	SS-1	18	100	4.5	0	2	16	47	35	30	18	12	17	A-6a (9)	<100
STA. 1499+80.45, 2.77' RT.	02.50-04.00	SS-2	13	100	4.5	0	1	5	44	50	38	22	16	18	A-6b (10)	-
LATITUDE = 41.41673	04.00-05.50	SS-3	17	100	4.5				SAME AS SS-2					20	A-6b (VISUAL)	-
LONGITUDE = -84.06998	05.50-07.00	SS-4	22	100	2.5				GRAY AND BROWN, SILTY CLAY					37	A-6a (VISUAL)	-
B-036-0-22	01.00-02.50	SS-1	10	67	-	1	4	9	32	54	43	23	20	22	A-7-6 (13)	<100
STA. 1506+64.15, 38.54' RT.	02.50-04.00	SS-2	13	44	3.75	0	2	16	44	38	35	20	15	16	A-6a (10)	-
LATITUDE = 41.41619	04.00-05.50	SS-3	18	100	3.75				SAME AS SS-2					21	A-6a (VISUAL)	-
LONGITUDE = -84.0676	05.50-07.00	SS-4	18	100	3.75				GRAY, SILT AND CLAY					18	A-6a (VISUAL)	-
B-044-0-22	01.00-02.50	SS-1	13	56	4.5	0	1	5	41	53	37	23	14	22	A-6a (10)	<100
STA. 516+48, 2' RT.	02.50-04.00	SS-2	12	67	4.5	4	11	8	45	32	30	18	12	16	A-6a (9)	-
LATITUDE = 41.4156	04.00-05.50	SS-3	22	67	3				BROWN, SILTY CLAY					23	A-6b (VISUAL)	-
LONGITUDE = -84.06409	05.50-07.00	SS-4	20	100	3.5				SAME AS SS-3					22	A-6b (VISUAL)	-
B-046-0-22	01.00-02.50	SS-1	13	67	4	2	5	12	40	41	31	19	12	19	A-6a (9)	<100
STA. 524+01, 3' RT.	02.50-04.00	SS-2	18	100	-	4	5	13	30	48	37	21	16	21	A-6b (10)	-
LATITUDE = 41.41549	04.00-05.50	SS-3	13	100	4.25				SAME AS SS-2					16	A-6b (VISUAL)	-
LONGITUDE = -84.06135	05.50-07.00	SS-4	29	100	3.75				SAME AS SS-2					23	A-6b (VISUAL)	-
B-047-0-22	01.00-02.50	SS-1	16	100	4	0	2	9	39	50	42	24	18	25	A-7-6 (12)	<100
STA. 531+11, 2' RT.	02.50-04.00	SS-2	10	100	2.75	2	2	8	33	55	51	29	22	26	A-7-6 (15)	-
LATITUDE = 41.41547	04.00-05.50	SS-3	18	100	4				SAME AS SS-2					25	A-7-6 (VISUAL)	-
LONGITUDE = -84.05877	05.50-07.00	SS-4	17	100	3.25				SAME AS SS-2					28	A-7-6 (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 24

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N_{60}	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-048-0-22	01.00-02.50	SS-1	10	56	3.75	0	0	3	34	63	57	27	30	24	A-7-6 (19)	<100
STA. 541+30, 53' LT.	02.50-04.00	SS-2	11	33	3.5	1	0	3	39	57	53	24	29	23	A-7-6 (18)	-
LATITUDE = 41.41568	04.00-05.50	SS-3	16	56	3.75				SAME AS SS-2					24	A-7-6 (VISUAL)	-
LONGITUDE = -84.05505	05.50-07.00	SS-4	18	100	4.25				SAME AS SS-2					25	A-7-6 (VISUAL)	-
B-049-0-22	01.00-02.50	SS-1	16	100	3	0	0	4	49	47	43	24	19	23	A-7-6 (12)	<100
STA. 545+02, 32' RT.	02.50-04.00	SS-2	13	100	2.75	0	1	8	43	48	42	24	18	21	A-7-6 (12)	-
LATITUDE = 41.41544	04.00-05.50	SS-3	13	100	3.5				SAME AS SS-2					22	A-7-6 (VISUAL)	-
LONGITUDE = -84.05369	05.50-07.00	SS-4	11	100	2.5				GRAY, SILT AND CLAY					26	A-6a (VISUAL)	-

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DESIGN AGENCY

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REVIEWER SM 09-03-25

PROJECT ID 110524

SUBSET 6 TOTAL 70

SHEET P.1044 TOTAL 1108

GEOTECHNICAL PROFILE - ROADWAY
SUMMARY OF SOIL TEST DATA

MODEL: Sheet PAPERSIZE: 11x17 (in.) DATE: 04-09-2025 TIME: 12:12:51 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shahed\22050022COL_ODOT\Mod_04.09.25\110524ID006.dgn

SUMMARY OF SOIL TEST DATA
US 24 WB

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N_{60}	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-043-0-22	01.00-02.50	SS-1	13	89	4.5	3	4	12	32	49	43	23	20	16	A-7-6 (13)	<100
STA. 1514+98.46, 4.97' RT. LATITUDE = 41.41683 LONGITUDE = -84.06441	02.50-04.00	SS-2	11	33	4.5	0	2	10	29	59	59	29	30	22	A-7-6 (20)	-
	04.00-05.50	SS-3	18	67	3	GRAY, SILTY CLAY								24	A-6b (VISUAL)	-
	05.50-07.00	SS-4	20	100	3.25	SAME AS SS-3								24	A-6b (VISUAL)	-
B-045-0-22	01.00-02.50	SS-1	10	44	3	1	2	11	29	57	50	25	25	23	A-7-6 (16)	<100
STA. 1522+59.31, 4.36' RT. LATITUDE = 41.41608 LONGITUDE = -84.06182	02.50-04.00	SS-2	8	100	4.5	2	4	10	31	53	41	23	18	25	A-7-6 (11)	-
	04.00-05.50	SS-3	12	100	4	GRAY, SILT AND CLAY								28	A-6a (VISUAL)	-
	05.50-07.00	SS-4	20	100	3.5	SAME AS SS-3								23	A-6a (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6 & 24 RAMP A

B-050-0-22	01.00-02.50	SS-1	12	100	4	2	5	14	33	46	35	20	15	20	A-6a (10)	<100
STA. 109+86.3, 19.22' LT. LATITUDE = 41.39472 LONGITUDE = -84.14879	02.50-04.00	SS-2	8	33	4.5	2	3	11	31	53	43	23	20	18	A-7-6 (13)	-
	04.00-05.50	SS-3	14	33	4.5	SAME AS SS-2								13	A-7-6 (VISUAL)	-
	05.50-07.00	SS-4	22	67	4.5	SAME AS SS-2								18	A-7-6 (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6 & 24 RAMP AB

B-051-0-22	01.00-02.50	SS-1	10	33	-	54	20	9	11	6	NP	NP	NP	7	A-1-b (0)	680
STA. 117+93.75, 19.46' LT. LATITUDE = 41.39528 LONGITUDE = -84.14632	02.50-04.00	SS-2	10	44	-	35	27	12	18	8	NP	NP	NP	8	A-2-4 (0)	-
	04.00-05.50	SS-3	13	100	3	GRAY, SILTY CLAY								18	A-6b (VISUAL)	-
	05.50-07.00	SS-4	28	100	3.5	SAME AS SS-3								25	A-6b (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6 & 24 RAMP B

B-052-0-22	01.00-02.50	SS-1	18	56	2	0	5	42	18	35	25	15	10	22	A-4a (4)	<100
STA. 216+77.82, 17.46' LT. LATITUDE = 41.39523 LONGITUDE = -84.1486	02.50-04.00	SS-2	7	100	3.5	1	3	14	29	53	44	24	20	21	A-7-6 (13)	-
	04.00-05.50	SS-3	20	100	3	GRAY, SILTY CLAY								24	A-6b (VISUAL)	-
	05.50-07.00	SS-4	28	100	3.25	SAME AS SS-3								26	A-6b (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6 & 24 RAMP C

B-054-0-22	01.00-02.50	SS-1	13	56	-	0	5	45	21	29	26	15	11	12	A-6a (3)	<100
STA. 308+54.1, 17.26' LT. LATITUDE = 41.39799 LONGITUDE = -84.14783	02.50-04.00	SS-2	8	100	4.25	0	2	11	34	53	47	24	23	20	A-7-6 (15)	-
	04.00-05.50	SS-3	16	100	4.5	SAME AS SS-2								16	A-7-6 (VISUAL)	-
	05.50-07.00	SS-4	19	100	4.25	SAME AS SS-2								24	A-7-6 (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6 & 24 RAMP D

B-055-0-22	01.00-02.50	SS-1	11	100	4.25	3	3	12	31	51	53	29	24	22	A-7-6 (16)	<100
STA. 1+34, 4' LT. LATITUDE = 41.39876 LONGITUDE = -84.15309	02.50-04.00	SS-2	13	67	4.5	8	5	13	27	47	49	25	24	22	A-7-6 (15)	-
	04.00-05.50	SS-3	12	100	3.75	SAME AS SS-2								24	A-7-6 (VISUAL)	-
	05.50-07.00	SS-4	16	100	4.5	SAME AS SS-2								24	A-7-6 (VISUAL)	-
B-056-0-22	01.00-02.50	SS-1	10	100	3.75	0	1	10	30	59	56	28	28	24	A-7-6 (18)	<100
STA. 10+55, 18' RT. LATITUDE = 41.3985 LONGITUDE = -84.1498	02.50-04.00	SS-2	8	100	4.5	0	2	10	28	60	53	25	28	21	A-7-6 (18)	-
	04.00-05.50	SS-3	16	100	4.25	SAME AS SS-2								22	A-7-6 (VISUAL)	-
	05.50-07.00	SS-4	13	100	4.25	SAME AS SS-2								19	A-7-6 (VISUAL)	-

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DESIGN AGENCY

GEOTECHNICAL PROFILE - ROADWAY

SUMMARY OF SOIL TEST DATA

SUMMARY OF SOIL TEST DATA
US 6 & 24 RAMP D CONT.

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N_{60}	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-058-0-22	01.00-02.50	SS-1	13	100	4.5	7	6	12	31	44	31	19	12	15	A-6a (9)	<100
STA. 24+55, 17' RT. LATITUDE = 41.39933 LONGITUDE = -84.14484	02.50-04.00	SS-2	12	100	4.5	3	6	13	34	44	31	19	12	15	A-6a (9)	-
	04.00-05.50	SS-3	28	100	4.5				SAME AS SS-2					15	A-6a (VISUAL)	-
	05.50-07.00	SS-4	37	100	4.5				SAME AS SS-2					12	A-6a (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6 & 24 RAMP E

B-053-0-22	01.00-02.50	SS-1	6	56	3.75	3	5	13	30	49	33	20	13	19	A-6a (9)	<100
STA. 501+75.77, 19.89' LT. LATITUDE = 41.39773 LONGITUDE = -84.14977	02.50-04.00	SS-2	7	56	2.75	3	5	12	30	50	38	20	18	18	A-6b (11)	-
	04.00-05.50	SS-3	8	89	4.5				SAME AS SS-2					20	A-6b (VISUAL)	-
	05.50-07.00	SS-4	11	100	4.25				SAME AS SS-2					15	A-6b (VISUAL)	-
B-057-0-22	01.00-02.50	SS-1	8	56	4.5	0	2	11	30	57	47	26	21	26	A-7-6 (14)	<100
STA. 509+53.37, 2.27' LT. LATITUDE = 41.39869 LONGITUDE = -84.14738	02.50-04.00	SS-2	8	100	3.75	1	1	5	21	72	65	30	35	28	A-7-5 (20)	-
	04.00-05.50	SS-3	8	89	3.25				SAME AS SS-2					28	A-7-5 (VISUAL)	-
	05.50-07.00	SS-4	19	100	4.5				BROWN, CLAY					23	A-7-6 (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6/24 & SR 108 RAMP A

B-059-0-22	01.00-02.50	SS-1	23	100	4.5	5	6	13	31	45	29	19	10	16	A-4a (8)	<100
STA. 108+1.56, 12.5' LT. LATITUDE = 41.40784 LONGITUDE = -84.12999	02.50-04.00	SS-2	18	100	4.5	8	6	13	33	40	30	19	11	14	A-6a (8)	-
	04.00-05.50	SS-3	31	100	4.5				SAME AS SS-2					13	A-6a (VISUAL)	-
	05.50-07.00	SS-4	37	100	4.5				SAME AS SS-2					14	A-6a (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6/24 & SR 108 RAMP AD

B-060-0-22	01.00-02.50	SS-1	17	100	4	3	7	13	34	43	30	19	11	15	A-6a (8)	<100
STA. 14+19, 5.72' LT. LATITUDE = 41.40686 LONGITUDE = -84.13131	02.50-04.00	SS-2	17	100	4.5	4	6	14	34	42	30	20	10	14	A-4a (8)	-
	04.00-05.50	SS-3	25	100	4.5				SAME AS SS-2					14	A-4a (VISUAL)	-
	05.50-07.00	SS-4	37	100	4.5				SAME AS SS-2					15	A-4a (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6/24 & SR 108 RAMP D

B-061-0-22	01.00-02.50	SS-1	17	100	4.5	5	6	13	32	44	31	16	15	14	A-6a (10)	600
STA. 22+66.26, 20.61' LT. LATITUDE = 41.40868 LONGITUDE = -84.12984	02.50-04.00	SS-2	26	100	4.5	5	6	13	34	42	31	19	12	14	A-6a (9)	-
	04.00-05.50	SS-3	36	100	4.5				SAME AS SS-2					15	A-6a (VISUAL)	-
	05.50-07.00	SS-4	41	100	4.5				SAME AS SS-2					15	A-6a (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6/24 & INDUSTRIAL DR. RAMP A

B-062-0-22	01.00-02.50	SS-1	18	100	-	14	11	8	33	34	39	24	15	21	A-6a (8)	1600
STA. 726+26, 17' LT. LATITUDE = 41.41321 LONGITUDE = -84.10745	02.50-04.00	SS-2	13	100	-	15	20	14	25	26	25	15	10	15	A-4a (3)	-
	04.00-05.50	SS-3	19	56	4.5				GRAY, SILT AND CLAY					15	A-6a (VISUAL)	-
	05.50-07.00	SS-4	18	22	4.5				SAME AS SS-3					13	A-6a (VISUAL)	-

ENGINEERING
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DESIGN AGENCY

DESIGNER N.K.S

REVIEWER SM 09-03-25

PROJECT ID 110524

SUBSET 8 TOTAL 70

SHEET P. 1046 TOTAL 1108

GEOTECHNICAL PROFILE - ROADWAY

SUMMARY OF SOIL TEST DATA

SUMMARY OF SOIL TEST DATA
US 6/24 & INDUSTRIAL DR. RAMP B

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N_{60}	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-063-0-22	01.00-02.50	SS-1	18	100	4.5	0	0	1	49	50	41	23	18	17	A-7-6 (11)	1700
STA. 727+93, 4' LT. LATITUDE = 41.41471 LONGITUDE = -84.10739	02.50-04.00	SS-2	14	33	4.5	4	4	2	38	52	38	22	16	16	A-6b (10)	-
	04.00-05.50	SS-3	20	67	4.5				SAME AS SS-2					20	A-6b (VISUAL)	-
	05.50-07.00	SS-4	36	44	4.5				SAME AS SS-2					18	A-6b (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6/24 & INDUSTRIAL DR. RAMP C

B-064-0-22	01.00-02.50	SS-1	18	67	4.5	4	7	12	36	41	30	19	11	12	A-6a (8)	2600
STA. 734+99, 15' RT. LATITUDE = 41.41526 LONGITUDE = -84.10461	02.50-04.00	SS-2	17	56	4.5	15	14	14	26	31	32	20	12	10	A-6a (5)	-
	04.00-05.50	SS-3	23	67	4.5				SAME AS SS-2					19	A-6a (VISUAL)	-
	05.50-07.00	SS-4	30	67	4.5				SAME AS SS-2					19	A-6a (VISUAL)	-
B-065-0-22	01.00-02.50	SS-1	17	89	4.5	0	2	4	49	45	45	25	20	17	A-7-6 (13)	620
STA. 741+14, 17' RT. LATITUDE = 41.41507 LONGITUDE = -84.10237	02.50-04.00	SS-2	32	22	4.5	15	18	10	34	23	31	22	9	16	A-4a (4)	-
	04.00-05.50	SS-3	31	44	4.5				SAME AS SS-2					17	A-4a (VISUAL)	-
	05.50-07.00	SS-4	32	44	4.5				SAME AS SS-2					25	A-4a (VISUAL)	-

SUMMARY OF SOIL TEST DATA
US 6/24 & INDUSTRIAL DR. RAMP D

B-066-0-22	01.00-02.50	SS-1	40	100	4.5	9	17	16	29	29	30	22	8	20	A-4a (5)	1300
STA. 734+20, 4' RT. LATITUDE = 41.41336 LONGITUDE = -84.10424	02.50-04.00	SS-2	19	100	4.5	5	8	13	32	42	28	16	12	12	A-6a (9)	-
	04.00-05.50	SS-3	31	100	4.5				SAME AS SS-2					12	A-6a (VISUAL)	-
	05.50-07.00	SS-4	29	100	4.5				SAME AS SS-2					13	A-6a (VISUAL)	-

SUMMARY OF SOIL TEST DATA
SR 424 RAMP A

B-067-0-22	01.00-02.50	SS-1	8	100	4.5	0	2	10	34	54	54	30	24	23	A-7-5 (16)	<100
STA. 853+90, 13' LT. LATITUDE = 41.41301 LONGITUDE = -84.06394	02.50-04.00	SS-2	8	100	3.75	0	1	10	33	56	55	28	27	24	A-7-6 (18)	-
	04.00-05.50	SS-3	18	100	3.75				SAME AS SS-2					26	A-7-6 (VISUAL)	-
	05.50-07.00	SS-4	17	100	4.25				SAME AS SS-2					22	A-7-6 (VISUAL)	-

SUMMARY OF SOIL TEST DATA
SR 424 RAMP C

B-068-0-22	01.00-02.50	SS-1	12	100	3	3	4	9	32	52	43	23	20	20	A-7-6 (13)	<100
STA. 856+22, 19' RT. LATITUDE = 41.41398 LONGITUDE = -84.06083	02.50-04.00	SS-2	11	89	4.5	2	6	14	33	45	34	20	14	18	A-6a (10)	-
	04.00-05.50	SS-3	16	67	4.25				SAME AS SS-2					18	A-6a (VISUAL)	-
	05.50-07.00	SS-4	25	100	4.5				SAME AS SS-2					15	A-6a (VISUAL)	-
B-069-0-22	01.00-02.50	SS-1	19	100	4.5	6	11	15	30	38	30	18	12	14	A-6a (7)	<100
STA. 849+06, 98' LT. LATITUDE = 41.4128 LONGITUDE = -84.05925	02.50-04.00	SS-2	12	44	4.5	2	6	14	39	39	34	20	14	4	A-6a (10)	-
	04.00-05.50	SS-3	16	89	4.5				SAME AS SS-2					15	A-6a (VISUAL)	-
	05.50-07.00	SS-4	23	100	4.5				SAME AS SS-2					14	A-6a (VISUAL)	-

MODEL: Sheet PAPERSIZE: 11x17 (in.) DATE: 05-09-2025 TIME: 11:46:39 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shahed\22050022COL_ODOT\Mod_04.09.25\110524ID009.dgn

SUMMARY OF SOIL TEST DATA
US 6/24 HISTORIC BORINGS

EXPLORATION NO., STATION & OFFSET	FROM TO	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)
H-001-0-65	00.90-06.00	0	1	1	41	57	49	25	24	22	A-7-6
STA. 244+00, CL	06.00-11.00	4	5	13	34	44	37	19	18	17	A-6b
LATITUDE=41.392658°	11.00-16.00	4	5	13	27	51	32	18	14	15	A-6a
LONGITUDE=-84.153154°											
H-002-0-65	00.90-06.00	0	3	7	30	60	44	24	20	26	A-7-6
STA. 248+00, CL	06.00-12.00	0	1	1	30	68	49	26	23	25	A-7-6
LATITUDE=41.393446°											
LONGITUDE=-84.152108°											
H-003-0-65	00.70-05.00	0	1	8	32	59	44	24	20	20	A-7-6
STA. 252+40, CL	05.00-10.00	4	6	13	28	49	30	18	12	19	A-6a
LATITUDE=41.394308°	10.00-15.00	0	7	13	28	52	27	16	11	16	A-6a
LONGITUDE=-84.150957°											
H-004-0-65	00.80-04.00	0	1	8	31	60	52	28	24	26	A-7-6
STA. 258+00, CL											
LATITUDE=41.395404°											
LONGITUDE=-84.149489°											
H-005-0-65	00.90-06.00	0	2	7	21	70	49	30	19	27	A-7-5
STA. 263+65, CL	06.00-11.00	2	7	14	22	55	30	18	12	16	A-6a
LATITUDE=41.396506°	11.00-15.00	6	6	13	26	49	30	17	13	15	A-6a
LONGITUDE=-84.148001°											
H-006-0-64	00.80-05.00	0	3	13	26	58	41	21	20	20	A-7-6
STA. 595+00, CL	05.00-09.00	0	6	4	37	53	35	18	17	16	A-6b
LATITUDE=41.396579°	09.00-12.00	0	3	13	34	50	29	17	12	15	A-6a
LONGITUDE=-84.147903°											
H-007-0-64	00.80-05.00	15	5	11	29	40	31	17	14	14	A-6a
STA. 600+50, CL	05.00-10.00	0	3	8	35	54	38	20	18	17	A-6b
LATITUDE=41.397647°	10.00-13.00	0	6	13	33	48	32	18	14	13	A-6a
LONGITUDE=-84.146464°	13.00-18.00	0	5	13	33	49	29	16	13	15	A-6a
	18.00-24.00	0	5	3	41	51	29	16	13	15	A-6a
	24.00-30.00	32	6	11	25	26	22	11	11	13	A-6a
H-008-0-64	01.00-05.00	0	4	21	28	47	38	19	19	20	A-6b
STA. 602+00, CL	05.00-08.00	20	4	11	38	27	36	19	17	14	A-6b
LATITUDE=41.397938°	08.00-13.00	0	6	7	39	48	29	17	12	17	A-6a
LONGITUDE=-84.146074°	13.00-18.00	0	3	9	31	57	45	18	27	17	A-7-6
	18.00-23.00	0	3	10	33	54	32	17	15	18	A-6a
	23.00-27.00	14	6	12	31	37	27	16	11	11	A-6a
H-009-0-64	00.60-05.00	0	3	12	30	55	39	20	19	20	A-6b
STA. 606+00, CL	05.00-10.00	0	5	11	32	52	34	18	16	16	A-6b
LATITUDE=41.398716°	10.00-12.00	0	4	11	34	51	29	17	12	14	A-6a
LONGITUDE=-84.145027°											
H-010-0-64	00.80-05.00	0	2	12	32	54	41	21	20	23	A-7-6
STA. 612+00, CL	05.00-10.00	0	5	10	37	48	34	19	15	22	A-6a
LATITUDE=41.399872°											
LONGITUDE=-84.143466°											
H-011-0-64	00.80-05.00	0	1	11	29	59	45	22	23	25	A-7-6
STA. 625+00, CL	05.00-10.00	32	3	2	27	36	35	17	18	16	A-6b
LATITUDE=41.402592°	10.00-12.00	0	5	11	41	43	31	17	14	15	A-6a
LONGITUDE=-84.139807°											
H-012-0-64	00.80-04.00	0	1	10	29	60	47	20	27	23	A-7-6
STA. 659+25, CL	04.00-09.00	0	4	12	38	46	33	17	16	12	A-6b
LATITUDE=41.408784°	09.00-12.00	22	4	3	33	38	32	18	14	15	A-6a
LONGITUDE=-84.130959°											

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DESIGNER N.K.S

REVIEWER SM 09-03-25

PROJECT ID 110524

SUBSET 10 TOTAL 70

SHEET P.1048 TOTAL 1108

GEOTECHNICAL PROFILE - ROADWAY

SUMMARY OF SOIL TEST DATA

MODEL: Sheet PAPERSIZE: 11x17 (in.) DATE: 05-09-2025 TIME: 11:49:30 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shahed\22050022COL_ODOT\Mod_04.09.25\110524ID010.dgn

SUMMARY OF SOIL TEST DATA
US 6/24 HISTORIC BORINGS CONT.

EXPLORATION NO., STATION & OFFSET	FROM TO	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)
H-013-0-64 STA. 662+50, CL LATITUDE=41.409256° LONGITUDE=-84.129958°	00.80-09.00	0	1	10	29	60	47	20	27	23	A-7-6
	04.00-09.00	0	4	11	35	50	35	18	17	14	A-6b
	09.00-14.00	0	5	8	34	53	34	18	16	14	A-6b
	14.00-17.00	0	5	13	41	41	28	16	12	16	A-6a
H-014-0-64 STA. 669+10, CL LATITUDE=41.410095° LONGITUDE=-84.127826°	00.30-05.00	0	6	14	21	59	48	24	24	23	A-7-6
	05.00-11.00	0	1	3	45	51	37	19	18	21	A-6b
	11.00-15.00	0	6	6	40	48	30	18	12	21	A-6a
	15.00-21.00	0	4	10	37	49	33	19	14	16	A-6a
H-015-0-64 STA. 673+50, CL LATITUDE=41.410554° LONGITUDE=-84.126327°	00.80-06.00	0	1	6	57	36	32	19	13	25	A-6a
	06.00-10.00	12	4	10	35	39	9	-3	12	17	A-6a
	10.00-14.00	12	5	4	40	39	28	16	12	12	A-6a
H-016-0-64 STA. 679+00, CL LATITUDE=41.410985° LONGITUDE=-84.12439°	00.80-06.00	0	1	10	55	34	40	20	20	23	A-6b
	06.00-10.00	8	5	12	32	43	31	18	13	17	A-6a
	10.00-14.00	0	10	11	34	45	26	15	11	14	A-6a
H-017-0-64 STA. 687+00, CL LATITUDE=41.411472° LONGITUDE=-84.121521°	00.80-06.00	0	0	15	32	53	40	20	20	23	A-6b
	06.00-10.00	0	4	14	32	50	32	19	13	18	A-6a
	10.00-12.00	11	5	2	41	41	29	17	12	15	A-6a
								0			
H-018-0-64 STA. 693+95, CL LATITUDE=41.411882° LONGITUDE=-84.11907°	00.00-03.00	26	10	15	24	25	29	18	11	22	A-6a
	03.00-08.00	21	1	6	27	45	43	21	22	23	A-7-6
	08.00-14.00	14	6	13	25	42	34	18	16	17	A-6b
	14.00-20.00	15	5	11	30	39	30	16	14	14	A-6a
H-019-0-64 STA. 725+00, CL LATITUDE=41.413755° LONGITUDE=-84.108088°	00.80-04.00	0	1	4	47	48	39	22	17	22	A-6b
	04.00-09.00	0	1	2	49	48	39	21	18	25	A-6b
	09.00-12.00	5	7	12	31	45	28	17	11	17	A-6a
H-020-0-64 STA. 738+00, CL LATITUDE=41.414551° LONGITUDE=-84.103445°	01.00-05.00	0	0	4	56	40	39	20	19	26	A-6b
	05.00-08.00	0	0	1	45	54	41	21	20	31	A-7-6
	08.00-12.00	0	0	1	25	74	45	21	24	30	A-7-6
H-021-0-64 STA. 744+80, CL LATITUDE=41.41497° LONGITUDE=-84.101001°	00.00-04.00	0	1	7	52	40	41	21	20	22	A-7-6
	04.00-09.00	0	0	0	40	60	37	21	16	31	A-6b
	09.00-14.00	0	0	1	21	78	43	23	20	28	A-7-6
	14.00-20.00	0	5	12	37	46	25	14	11	16	A-6a
	20.00-26.00	0	4	5	37	54	29	17	12	19	A-6a
	26.00-30.00	4	0	2	51	43	25	20	5	18	A-4b
H-022-0-64 STA. 750+00, CL LATITUDE=41.415286° LONGITUDE=-84.099144°	01.50-04.00	0	0	0	52	48	42	23	19	26	A-7-6
	04.00-08.00	0	0	1	45	54	47	23	24	32	A-7-6
	08.00-12.00	0	0	1	22	77	50	24	26	31	A-7-6
H-023-0-64 STA. 755+00, CL LATITUDE=41.415586° LONGITUDE=-84.097352°	00.80-06.00	0	0	2	54	44	35	22	13	26	A-6a
	06.00-11.00	0	1	2	20	77	44	24	20	30	A-7-6
H-024-0-64 STA. 759+30, CL LATITUDE=41.415838° LONGITUDE=-84.09584°	00.80-04.00	0	0	6	49	45	38	21	17	20	A-6b
	04.00-08.00	0	0	1	45	54	35	21	14	24	A-6a
	08.00-14.00	0	0	2	18	80	55	25	30	32	A-7-6
	14.00-20.00	16	4	2	50	28	28	17	11	16	A-6a

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DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 11 TOTAL 70
SHEET P.1049 TOTAL 1108

GEOTECHNICAL PROFILE - ROADWAY
SUMMARY OF SOIL TEST DATA

MODEL: Sheet PAPERSIZE: 11x17 (in.) DATE: 05-09-2025 TIME: 11:51:16 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shahed\22050022COL_ODOT\Mod_04.09.25\110524ID011.dgn

SUMMARY OF SOIL TEST DATA
US 6/24 HISTORIC BORINGS CONT.

EXPLORATION NO., STATION & OFFSET	FROM TO	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)
H-025-0-64	00.80-05.00	0	0	1	43	56	51	21	30	22	A-7-6
STA. 768+00, CL	05.00-10.00	0	1	3	40	56	44	22	22	21	A-7-6
LATITUDE=41.416351°	10.00-12.00	7	5	12	32	44	27	16	11	15	A-6a
LONGITUDE=-84.092763°											
H-026-0-64	00.80-04.00	12	4	4	30	50	36	18	18	17	A-6b
STA. 776+50, CL	04.00-09.00	0	1	4	28	67	45	21	24	21	A-7-6
LATITUDE=41.416712°	09.00-12.00	7	5	12	32	44	33	17	16	15	A-6b
LONGITUDE=-84.089706°											
H-027-0-64	00.70-05.00	0	4	2	39	55	41	20	21	30	A-7-6
STA. 783+00, CL	05.00-09.00	8	4	10	29	49	34	18	16	20	A-6b
LATITUDE=41.416881°	09.00-12.00	5	4	9	35	47	33	18	15	14	A-6a
LONGITUDE=-84.087325°											
H-028-0-64	00.70-05.00	0	1	1	37	61	40	22	18	27	A-6b
STA. 787+00, CL	05.00-10.00	10	4	10	31	45	35	18	17	23	A-6b
LATITUDE=41.416934°	10.00-12.00	8	3	9	27	53	33	18	15	18	A-6a
LONGITUDE=-84.085866°											
H-029-0-64	00.50-11.00	0	0	1	41	58	45	17	28	20	A-7-6
STA. 790+50, CL	05.00-11.00	0	2	6	30	62	41	20	21	18	A-7-6
LATITUDE=41.416951°	11.00-15.00	9	3	10	31	47	33	18	15	18	A-6a
LONGITUDE=-84.084583°	15.00-19.00	0	4	6	41	49	31	18	13	12	A-6a
	19.00-23.00	9	16	35	23	17	NP	NP	NP	16	A-4a
	23.00-27.00	11	37	35	9	8	NP	NP	NP	10	A-3a
	27.00-30.00	0	7	15	43	35	21	10	11	14	A-6a
H-030-0-64	00.80-05.00	5	2	6	25	62	55	25	30	24	A-7-6
STA. 805+00, CL	05.00-09.00	7	5	10	32	46	35	19	16	22	A-6b
LATITUDE=41.416964°	09.00-12.00	7	6	12	32	43	27	15	12	17	A-6a
LONGITUDE=-84.079302°											
H-031-0-64	01.00-05.00	0	2	5	31	62	47	22	25	21	A-7-6
STA. 812+00, CL	05.00-10.00	0	4	14	32	50	33	17	16	22	A-6b
LATITUDE=41.416977°	10.00-13.00	9	5	4	41	41	29	18	11	10	A-6a
LONGITUDE=-84.07675°	13.00-18.00	7	5	13	35	40	26	15	11	16	A-6a
H-032-0-65	00.60-05.00	19	1	3	29	48	60	28	32	26	A-7-6
STA. 817+00, CL	05.00-10.00	11	5	13	35	36	30	29	1	15	A-6a
LATITUDE=41.416978°	10.00-12.00	14	5	12	36	33	23	15	8	13	A-4a
LONGITUDE=-84.074929°											
H-033-0-64	00.80-03.00	0	1	6	28	65	53	27	26	24	A-7-6
STA. 818+00, CL	03.00-09.00	0	6	4	43	47	36	18	18	20	A-6b
LATITUDE=41.416981°	09.00-12.00	0	6	14	33	47	27	15	12	15	A-6a
LONGITUDE=-84.074558°											
H-034-0-65	00.40-05.00	18	1	4	35	42	53	25	28	24	A-7-6
STA. 822+00, CL	05.00-10.00	18	5	11	35	31	32	18	14	16	A-6a
LATITUDE=41.416982°	10.00-12.00	11	5	13	36	35	28	17	11	16	A-6a
LONGITUDE=-84.073088°											
H-035-0-65	00.40-05.00	0	1	3	41	55	50	25	25	23	A-7-6
STA. 826+00, CL	05.00-10.00	5	5	15	38	37	27	20	7	15	A-4a
LATITUDE=41.416985°	10.00-13.00	8	3	12	37	40	30	17	13	17	A-6a
LONGITUDE=-84.071618°											

SUMMARY OF SOIL TEST DATA
US 6 EB HISTORIC BORINGS

H-040-0-65	00.50-05.00	0	3	12	38	47	38	20	18	23	A-6b
STA. 850+00, CL	05.00-09.00	6	5	12	39	38	35	19	16	20	A-6b
LATITUDE=41.414417°	09.00-12.00	17	5	11	32	35	27	16	11	16	A-6a
LONGITUDE=-84.063648°											

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DESIGN AGENCY

DESIGNER N.K.S

REVIEWER SM 09-03-25

PROJECT ID 110524

SUBSET 12 TOTAL 70

SHEET P.1050 TOTAL 1108

GEOTECHNICAL PROFILE - ROADWAY
SUMMARY OF SOIL TEST DATA

MODEL: Sheet PAPERSIZE: 11x17 (in.) DATE: 05-09-2025 TIME: 11:53:00 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shahed\22050022COL_ODOT\Mod_04.09.25\110524ID012.dgn

SUMMARY OF SOIL TEST DATA
US 6 EB HISTORIC BORINGS CONT.

EXPLORATION NO., STATION & OFFSET	FROM TO	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)
H-042-0-64	00.50-05.00	0	3	12	38	47	38	20	18	23	A-6b
STA. 855+00, CL	05.00-10.00	6	5	12	39	38	35	19	16	20	A-6b
LATITUDE=41.413487°	10.00-12.00	5	5	13	43	34	27	18	9	15	A-4a
LONGITUDE=-84.062316°											

SUMMARY OF SOIL TEST DATA
US 6 WB HISTORIC BORINGS

H-036-0-64	00.60-04.00	0	3	8	29	60	57	26	31	15	A-7-6
STA. 1833+3.36, 10.37' LT.											
LATITUDE=41.41711°											
LONGITUDE=-84.069072°											
H-037-0-65	00.70-04.50	11	3	12	35	39	40	20	20	16	A-6b
STA. 1838+2.48, 7.1' LT.											
LATITUDE=41.417085°											
LONGITUDE=-84.067242°											
H-038-0-65	00.40-05.00	0	5	11	50	34	43	21	22	18	A-7-6
STA. 1846+50, 2.27' LT.	05.00-09.00	7	5	14	37	37	31	17	14	15	A-6a
LATITUDE=41.416258°	09.00-12.00	20	4	12	35	29	27	18	9	12	A-4a
LONGITUDE=-84.064372°											
H-041-0-64	00.40-05.00	0	4	8	38	50	51	23	28	22	A-7-6
STA. 1855+50, CL	05.00-10.00	9	5	12	35	39	37	20	17	16	A-6b
LATITUDE=41.414373°	10.00-12.00	17	5	11	32	35	27	16	11	16	A-6a
LONGITUDE=-84.062315°											

SUMMARY OF SOIL TEST DATA
US 24 WB HISTORIC BORINGS

H-039-0-64	00.80-05.00	0	6	11	43	40	35	17	18	16	A-6b
STA. 1518+1.26, 2' RT.	05.00-10.00	0	2	8	53	37	60	29	31	23	A-7-6
LATITUDE=41.416535°	10.00-14.00	8	6	13	39	34	28	15	13	16	A-6a
LONGITUDE=-84.063358°											
H-043-0-65	00.50-05.00	9	5	14	34	38	37	17	20	17	A-6b
STA. 1523+1.14, 3.5' RT.	05.00-10.00	27	4	10	33	26	34	17	17	17	A-6b
LATITUDE=41.416049°	10.00-12.00	12	6	12	35	35	28	16	12	29	A-6a
LONGITUDE=-84.061659°											

SUMMARY OF SOIL TEST DATA
US 24

H-044-0-64	00.50-05.00	4	1	2	66	27	55	25	30	30	A-7-6
STA. 533+00, CL	05.00-10.00	11	6	11	35	37	35	18	17	16	A-6b
LATITUDE=41.41557°	10.00-12.00	11	6	11	35	37	25	14	11	15	A-6a
LONGITUDE=-84.058047°											
H-045-0-65	00.00-05.00	0	1	13	53	33	39	19	20	22	A-6b
STA. 538+00, CL	05.00-09.00	3	3	13	46	35	35	17	18	24	A-6b
LATITUDE=41.415563°	09.00-11.00	13	6	11	27	43	27	16	11	17	A-6a
LONGITUDE=-84.056266°											
H-046-0-65	00.70-06.00	0	1	2	59	38	37	19	18	27	A-6b
STA. 544+00, CL	06.00-09.00	0	3	10	44	43	38	18	20	24	A-6b
LATITUDE=41.415552°	09.00-10.00	11	4	12	39	34	30	19	11	14	A-6a
LONGITUDE=-84.054135°											
H-047-0-65	00.60-04.00	0	1	6	52	41	43	20	23	26	A-7-6
STA. 547+00, CL	04.00-07.00	0	0	3	66	31	39	21	18	32	A-6b
LATITUDE=41.415543°	07.00-08.00	14	34	30	15	7	17	14	3	15	A-3a
LONGITUDE=-84.052959°	08.00-12.00	9	6	13	43	29	27	16	11	15	A-6a
H-048-0-65	00.80-04.00	0	7	47	30	16	30	14	16	20	A-6b
STA. 551+00, CL	04.00-07.00	0	1	3	55	41	42	23	19	27	A-7-6
LATITUDE=41.415533°	07.00-10.00	0	3	22	45	30	36	19	17	28	A-6b
LONGITUDE=-84.051503°	10.00-12.00	8	7	13	38	34	26	17	9	17	A-4a

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REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 13 TOTAL 70
SHEET P.1051 TOTAL 1108

GEOTECHNICAL PROFILE - ROADWAY
SUMMARY OF SOIL TEST DATA

SUMMARY OF SOIL TEST DATA
US 24 HISTORIC BORINGS CONT.

EXPLORATION NO., STATION & OFFSET	FROM TO	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)
H-049-0-65	00.90-04.00	0	3	70	12	15	22	19	3	17	A-3a
STA. 553+00, CL	04.00-07.50	0	1	1	49	49	34	20	14	27	A-6a
LATITUDE=41.415528°	07.50-10.00	0	1	77	10	12	NP	NP	NP	19	A-3a
LONGITUDE=-84.050779°	10.00-13.00	10	6	11	34	39	27	16	11	14	A-6a

SUMMARY OF SOIL TEST DATA
US 6/24 & SR 108 RAMP D HISTORIC BORINGS

H-054-0-64	00.60-05.00	0	2	5	11	82	53	23	30	24	A-7-6
STA. 22+50, 10' LT.	05.00-10.00	0	6	14	34	46	32	18	14	15	A-6a
LATITUDE=41.408538°	10.00-14.00	16	6	15	29	34	27	15	12	13	A-6a
LONGITUDE=-84.129837°	14.00-18.00	0	5	2	45	48	28	16	12	19	A-6a

SUMMARY OF SOIL TEST DATA
SR 424 RAMP A HISTORIC BORINGS

H-051-0-65	00.50-05.00	8	6	7	35	44	42	21	21	17	A-7-6
STA. 853+00, CL	05.00-10.00	11	6	12	32	39	36	19	17	17	A-6b
LATITUDE=41.413269°	10.00-12.00	12	6	12	33	37	34	20	14	16	A-6a
LONGITUDE=-84.063985°											

SUMMARY OF SOIL TEST DATA
SR 424 RAMP B HISTORIC BORINGS

H-050-0-65	00.50-05.00	20	1	5	30	44	58	25	33	23	A-7-6
STA. 852+50, CL	05.00-09.00	21	4	10	33	32	38	21	17	18	A-6b
LATITUDE=41.413571°	09.00-14.00	15	5	11	40	29	30	17	13	17	A-6a
LONGITUDE=-84.063263°											

SUMMARY OF SOIL TEST DATA
SR 424 RAMP AB HISTORIC BORINGS

H-053-0-65	00.50-05.00	16	5	12	33	34	26	15	11	15	A-6a
STA. 858+00, CL	05.00-10.00	10	5	13	35	37	35	18	17	14	A-6b
LATITUDE=41.411945°	10.00-12.00	8	4	10	34	44	44	20	24	18	A-7-6
LONGITUDE=-84.063584°											

SUMMARY OF SOIL TEST DATA
SR 424 RAMP C HISTORIC BORINGS

H-052-0-65	00.50-05.00	0	1	9	43	47	41	19	22	20	A-7-6
STA. 854+00, CL	05.00-10.00	15	5	12	34	34	32	17	15	19	A-6a
LATITUDE=41.413948°											
LONGITUDE=-84.060015°											

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DESIGN AGENCY

DESIGNER N.K.S

REVIEWER SM 09-03-25

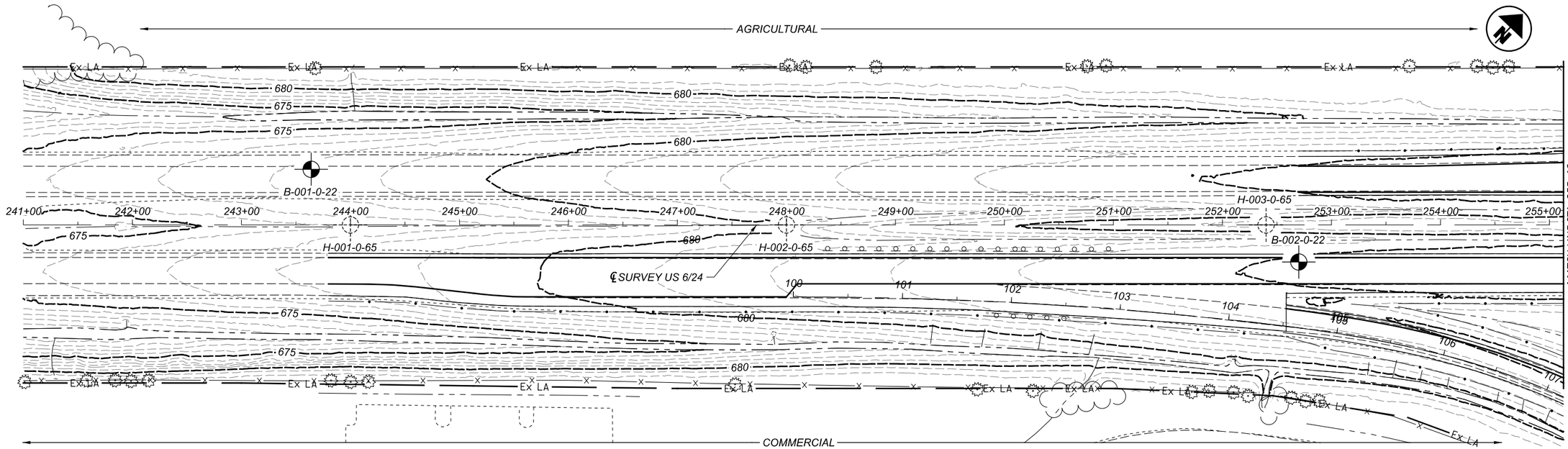
PROJECT ID 110524

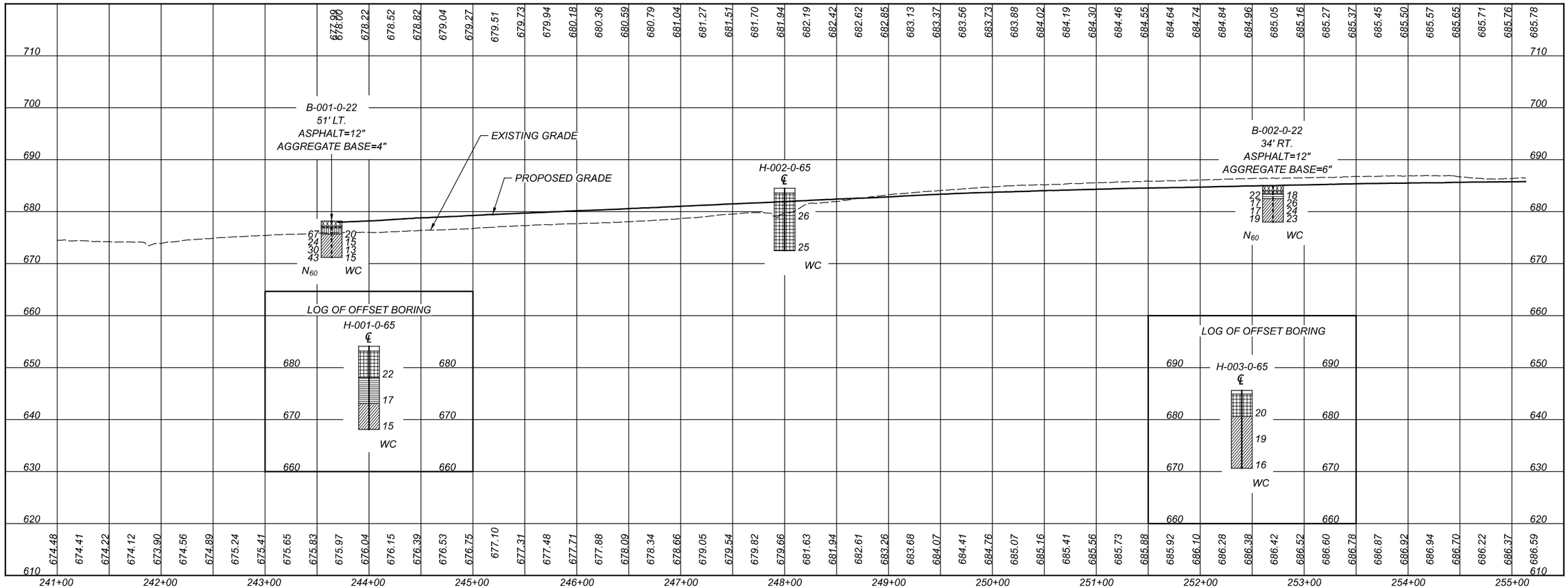
SUBSET 14 TOTAL 70

SHEET P.1052 TOTAL 1108

GEOTECHNICAL PROFILE - ROADWAY

SUMMARY OF SOIL TEST DATA





HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 1 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 11:57:09 USER: hp
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HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 241+00.00 TO STA. 255+13.00 - US 6/24

DESIGN AGENCY
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DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 15 TOTAL 70
SHEET P.1053 TOTAL 1108

HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 4 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 11:59:26 USER: hp
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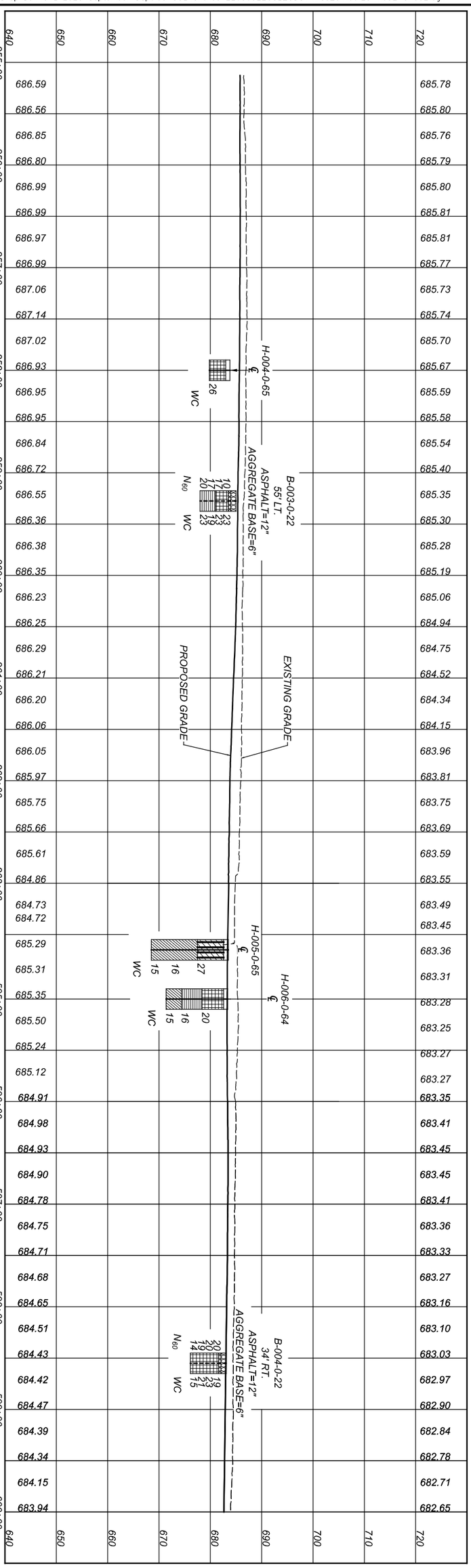

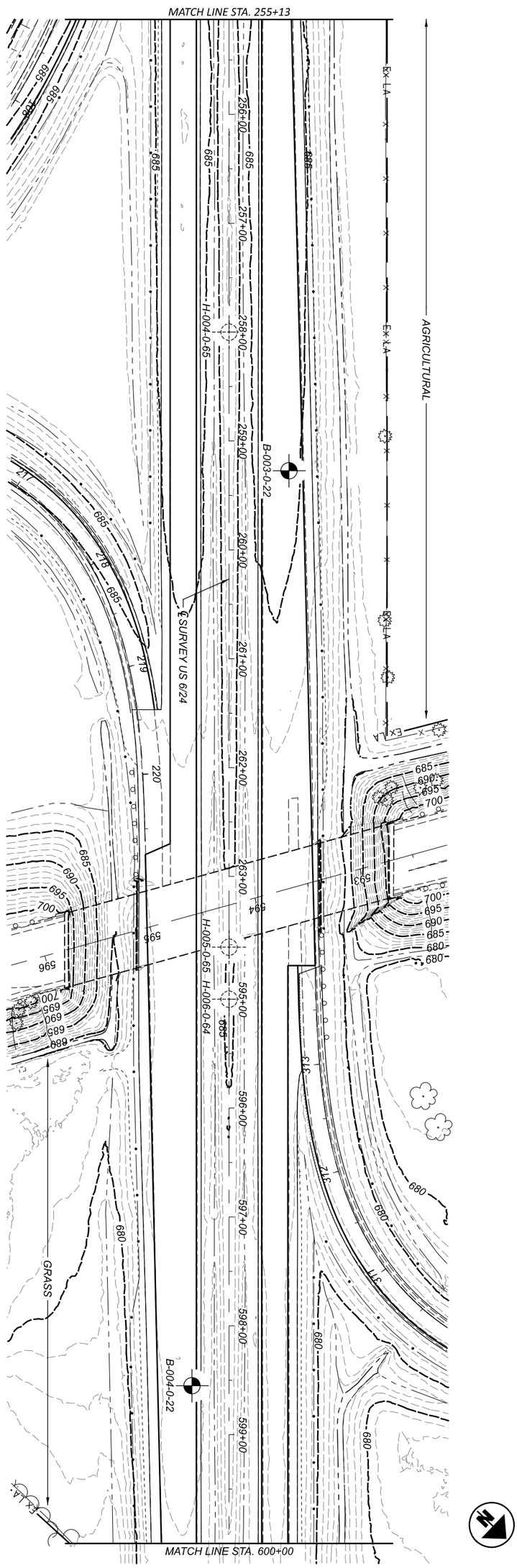

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FAX 614.276.6977

DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 16 TOTAL 70
SHEET P.1054 TOTAL 1108

GEOTECHNICAL PROFILE - ROADWAY
STA. 255+13.00 TO STA. 600+00.00 - US 6/24

HORIZONTAL SCALE IN FEET
0 50
25 100

MODEL: CLX_U006 - Plan 7 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 12:08:53 USER: hp
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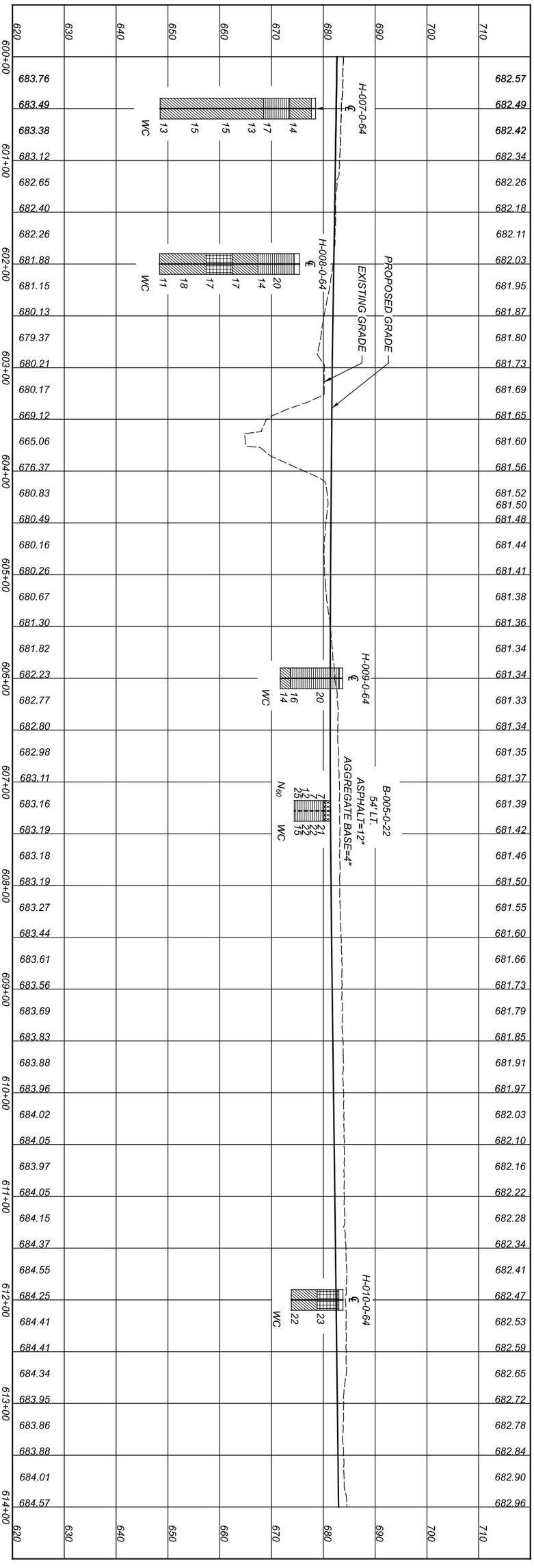

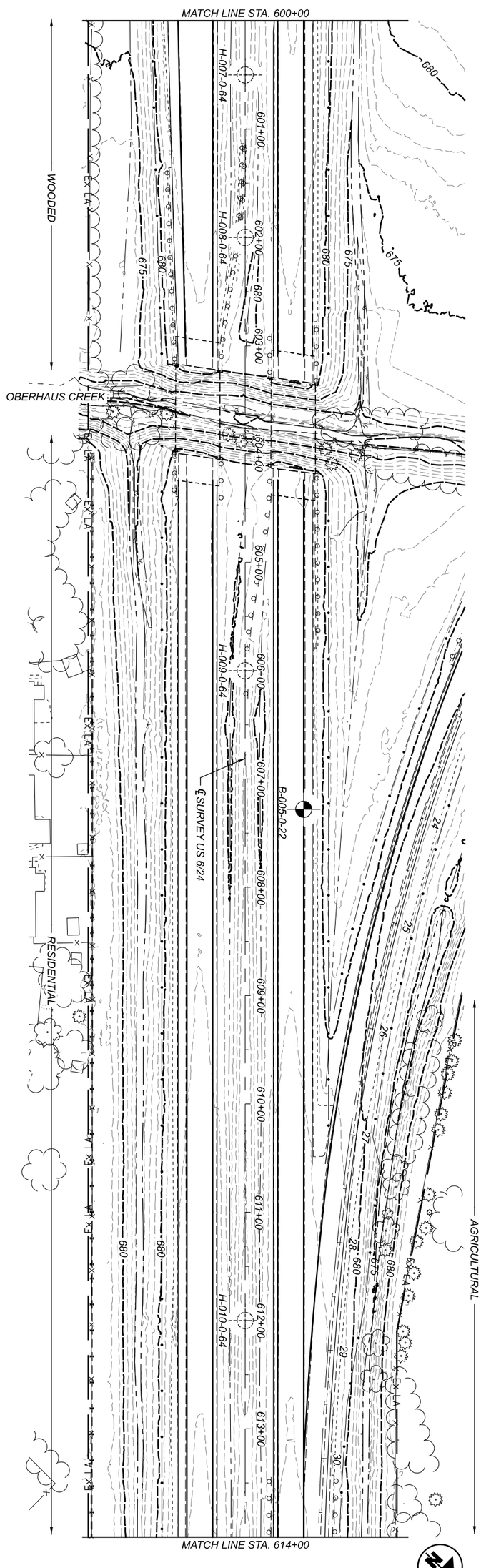

GEOTECHNICAL PROFILE - ROADWAY
STA. 600+00.00 TO STA. 614+00.00 - US 6/24

HORIZONTAL SCALE IN FEET
0 50
25 100

DESIGN AGENCY
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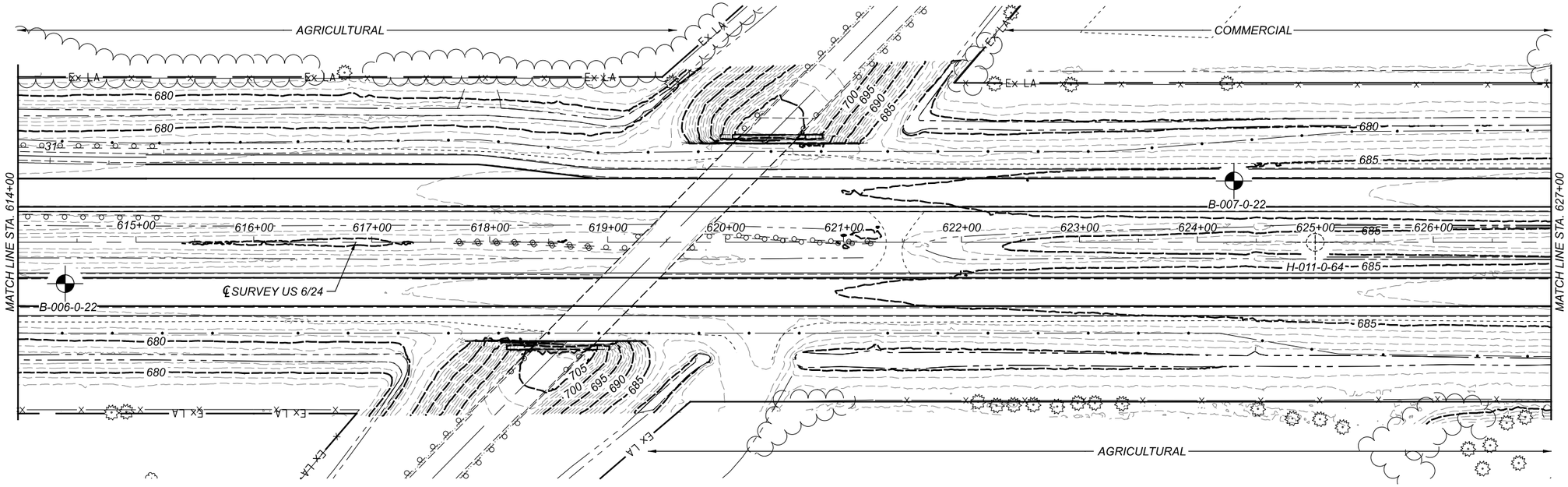
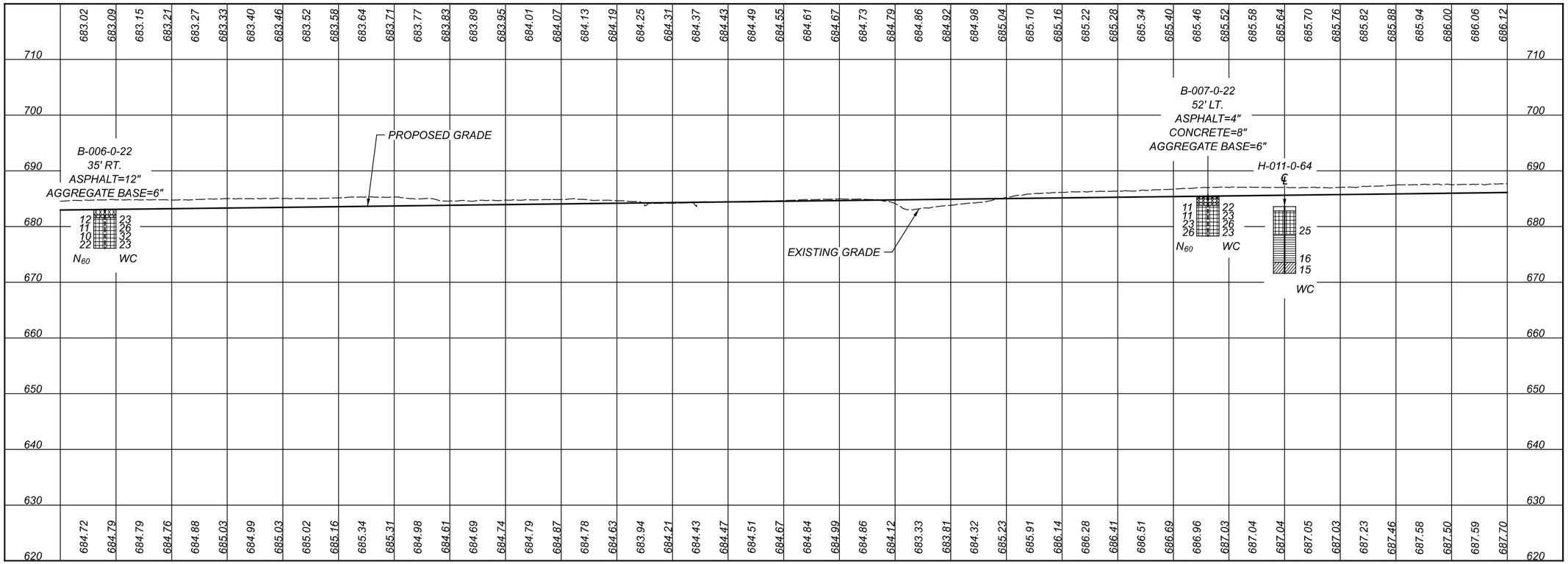
DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 17 TOTAL 70
SHEET P.1055 TOTAL 1108





HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 10 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 12:12:09 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\22050022COL_ODOT\Mod_04.09.25\110524GP004.dgn

HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 614+00.00 TO STA. 627+00.00 - US 6/24

DESIGN AGENCY
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FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	18
TOTAL	70
SHEET	P.1056
TOTAL	1108

MODEL: CLX_U006 - Plan 13 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 12:22:21 USER: hp
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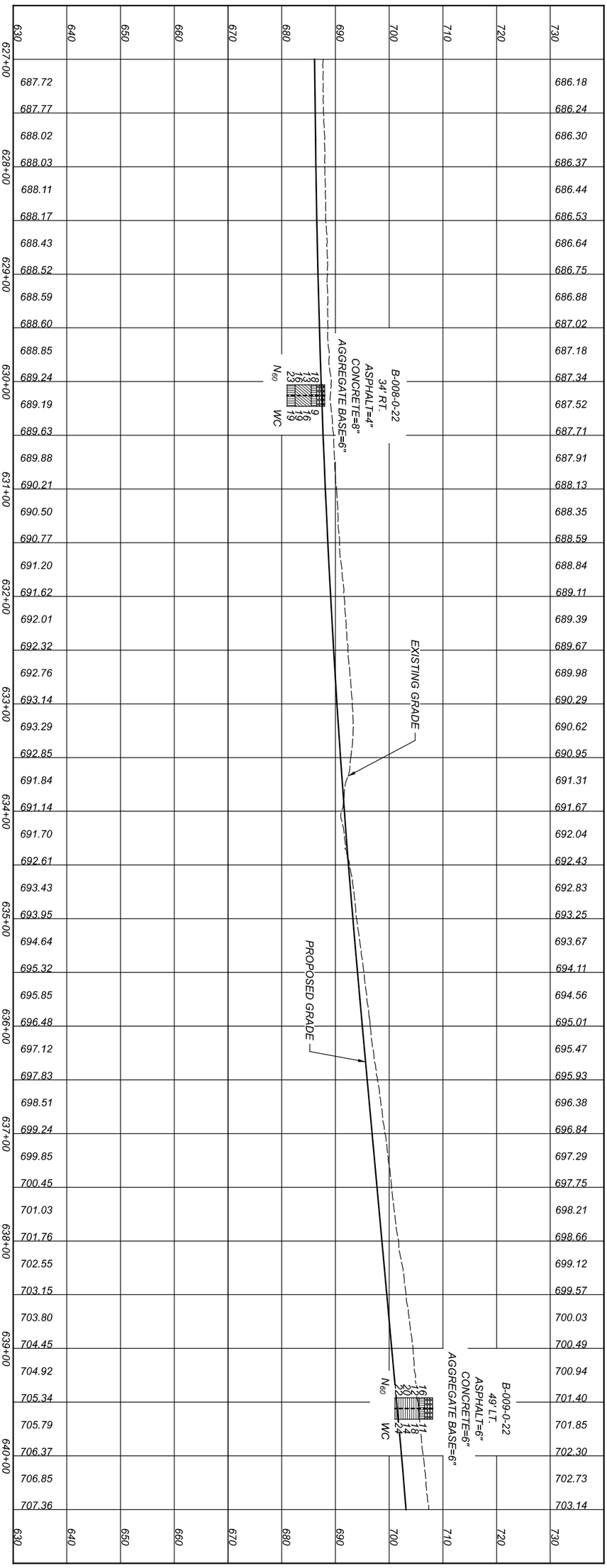

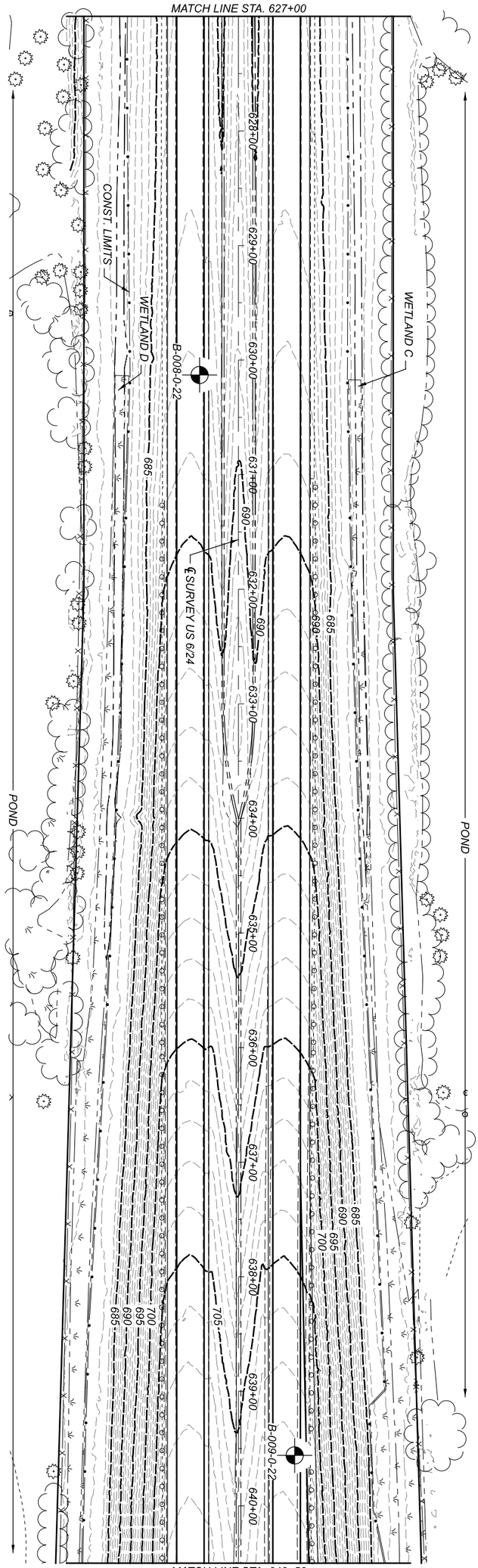

GEOTECHNICAL PROFILE - ROADWAY
STA. 627+00.00 TO STA. 640+50.00 - US 6/24

HORIZONTAL SCALE IN FEET
0 50
25 100

DESIGN AGENCY
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COLUMBUS, OHIO 43204
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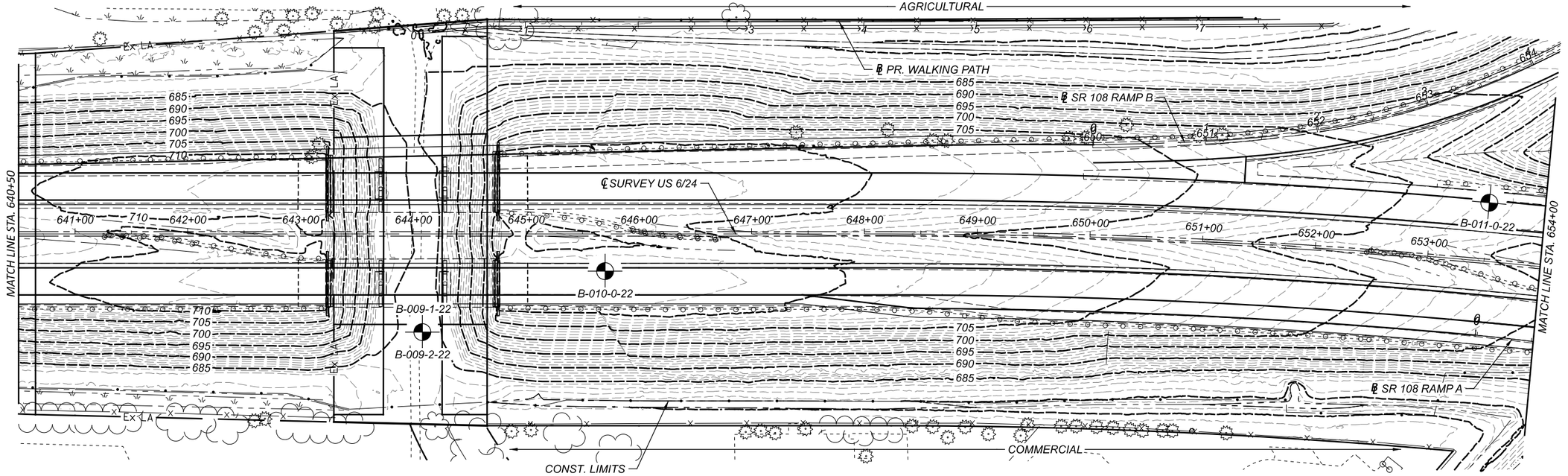
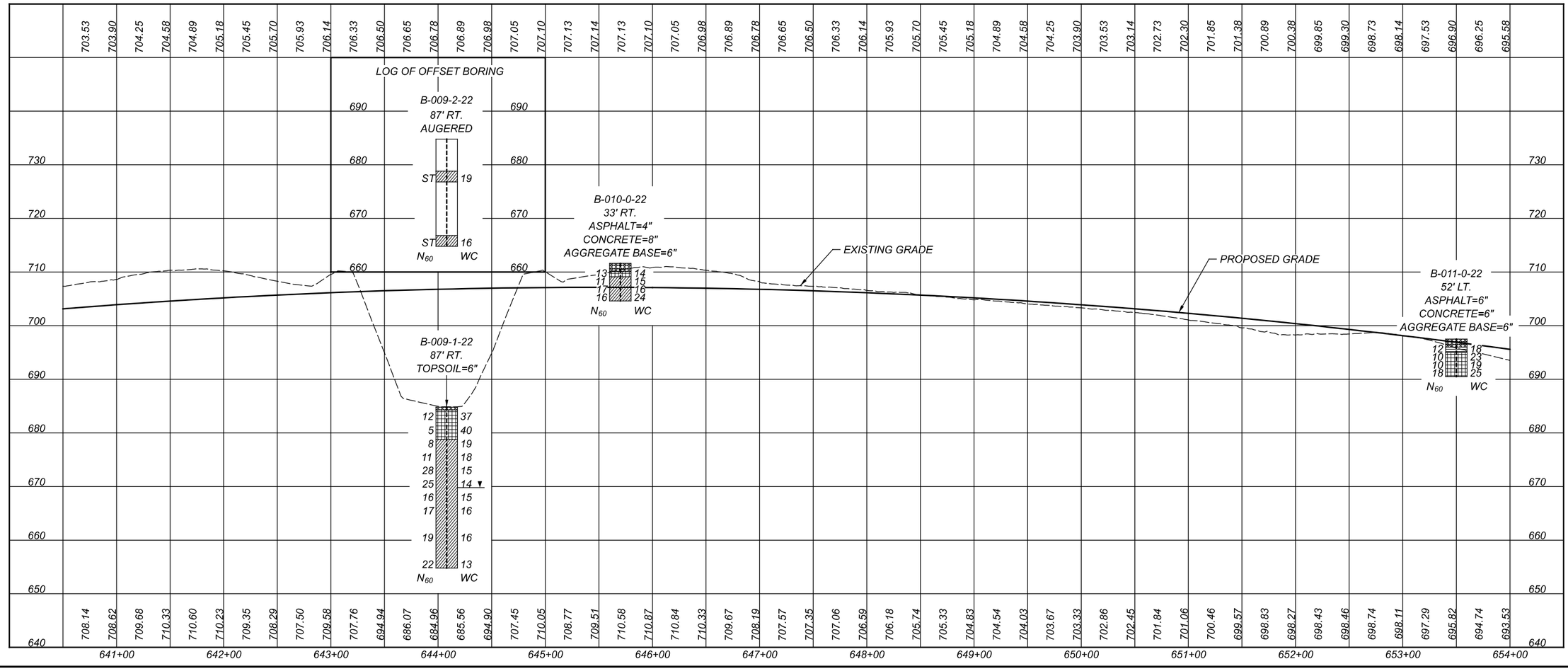
DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 19 TOTAL 70
SHEET P.1057 TOTAL 1108





HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 640+50.00 TO STA. 654+00.00 - US 6/24

DESIGN AGENCY
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DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 20 TOTAL 70
SHEET P.1058 TOTAL 1108

HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 15 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 12:24:39 USER: hp
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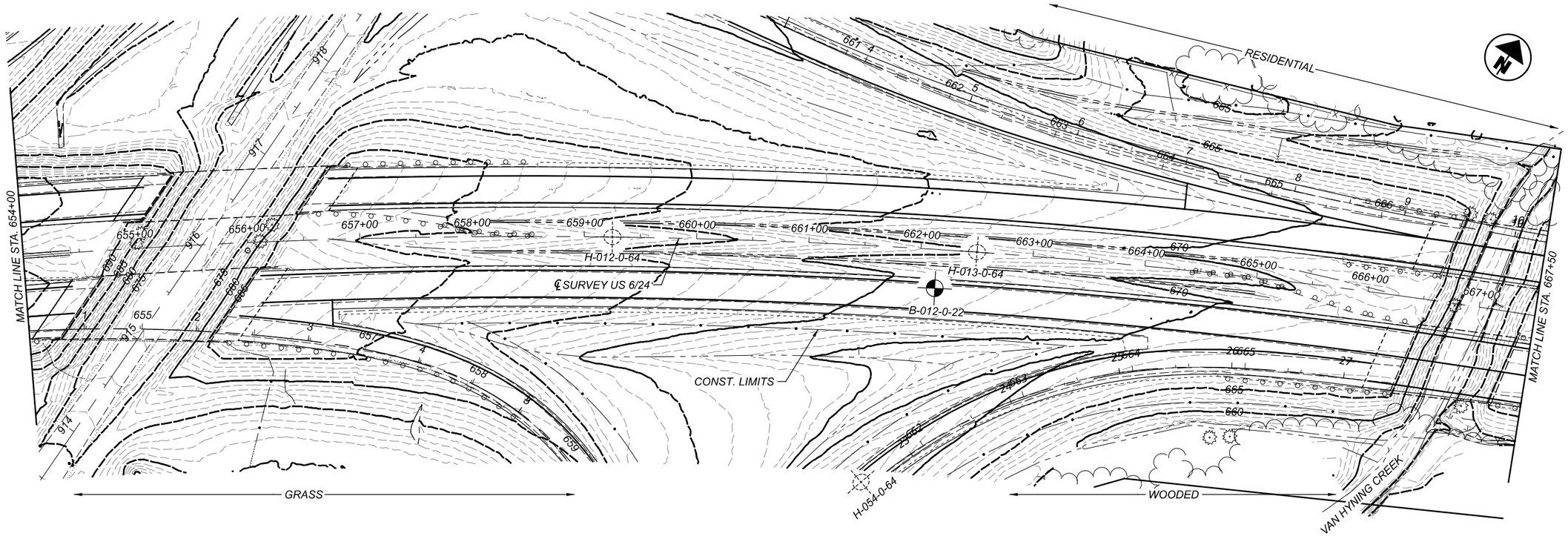
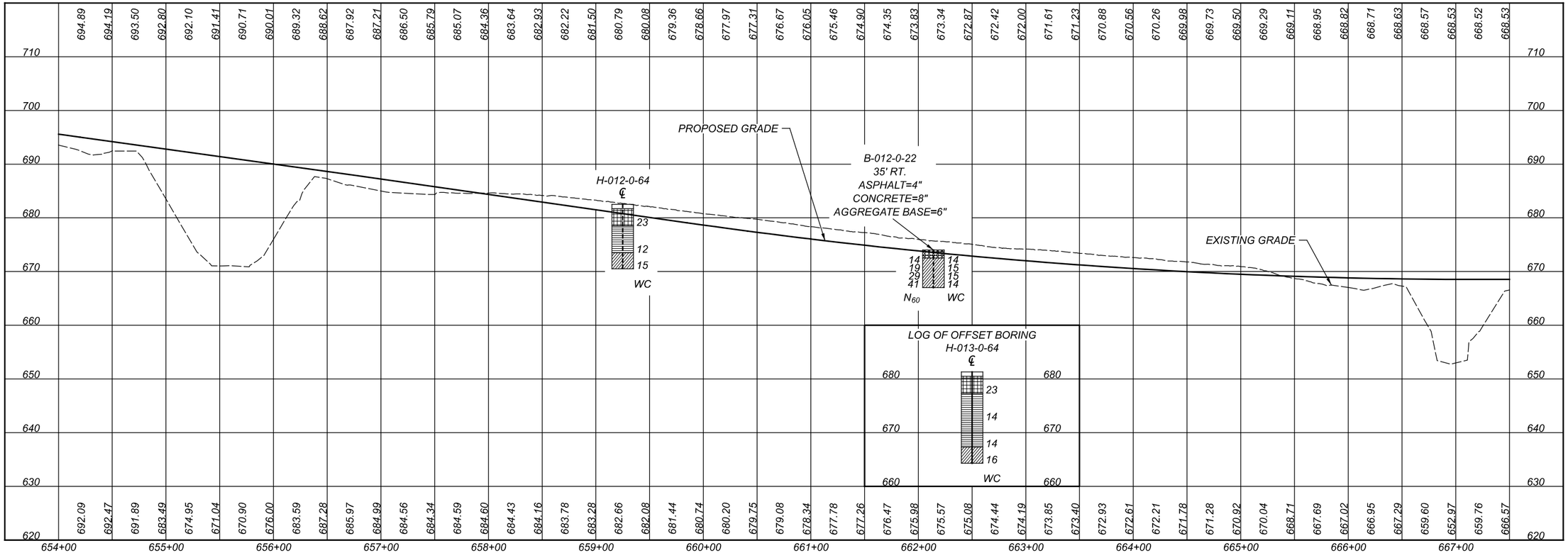


SEE SHEET 64 OF 70 FOR HISTORIC BORING H-054-0-64 SOIL PROFILE.



HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 654+00.00 TO STA. 667+50.00 - US 6/24

DESIGN AGENCY

GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	21
TOTAL	70
SHEET	P.1059
TOTAL	1108

HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 18 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 12:26:49 USER: hp
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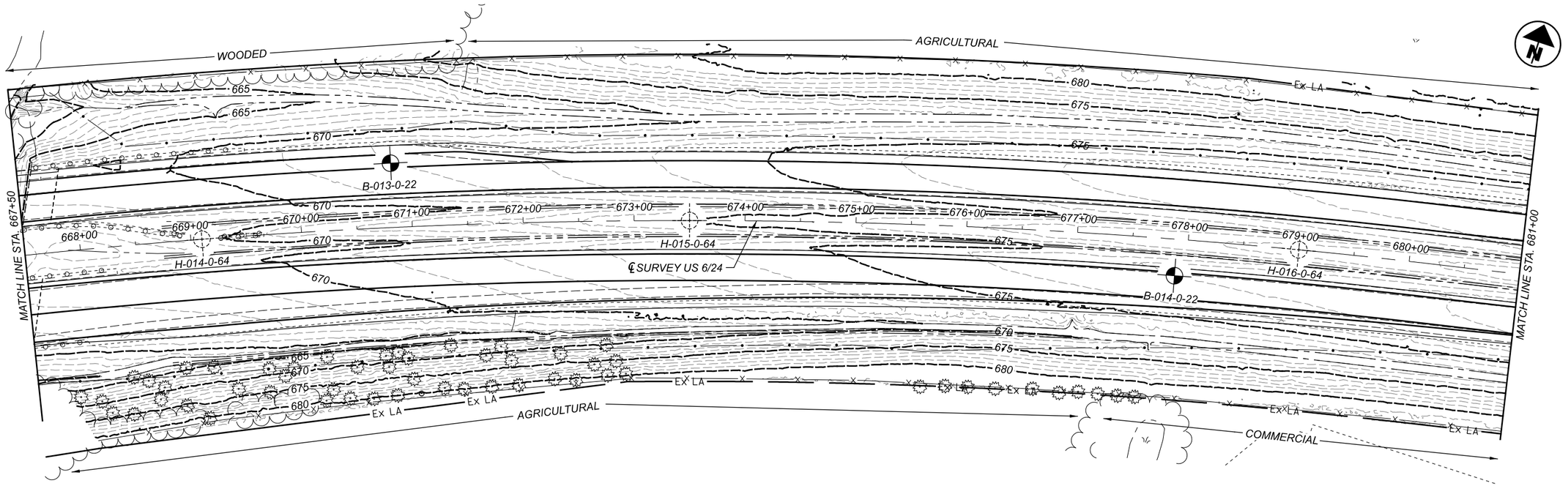

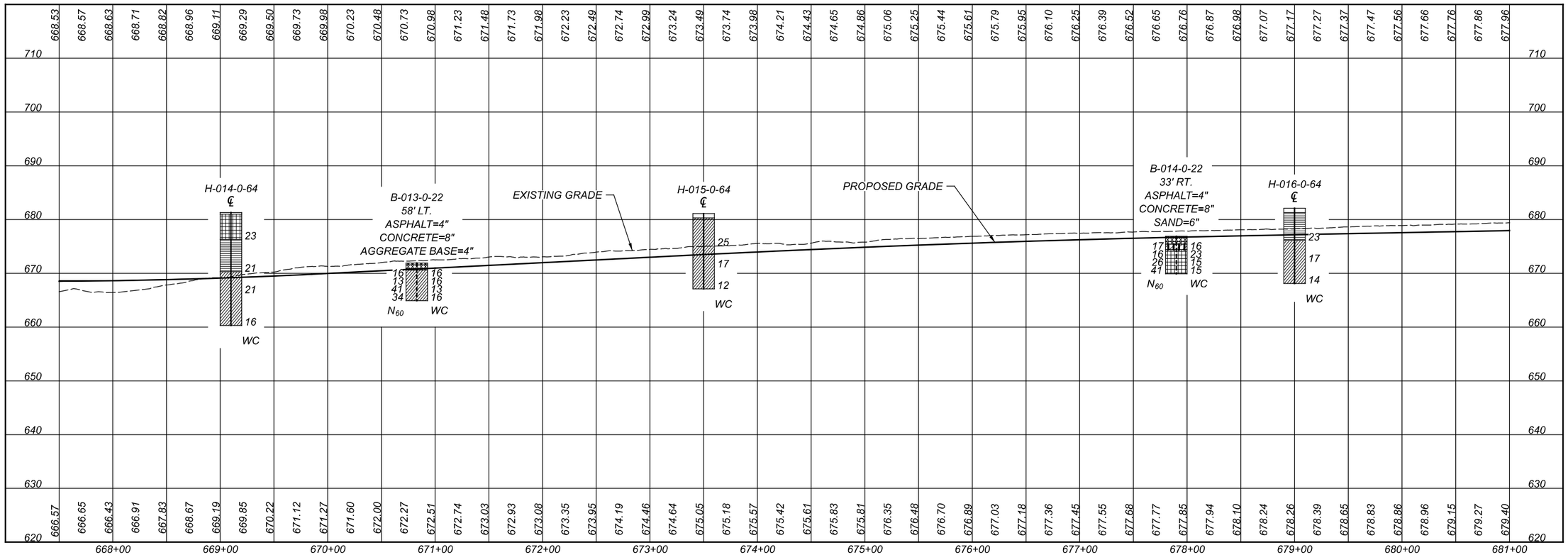

HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 21 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 12:29:09 USER: hp
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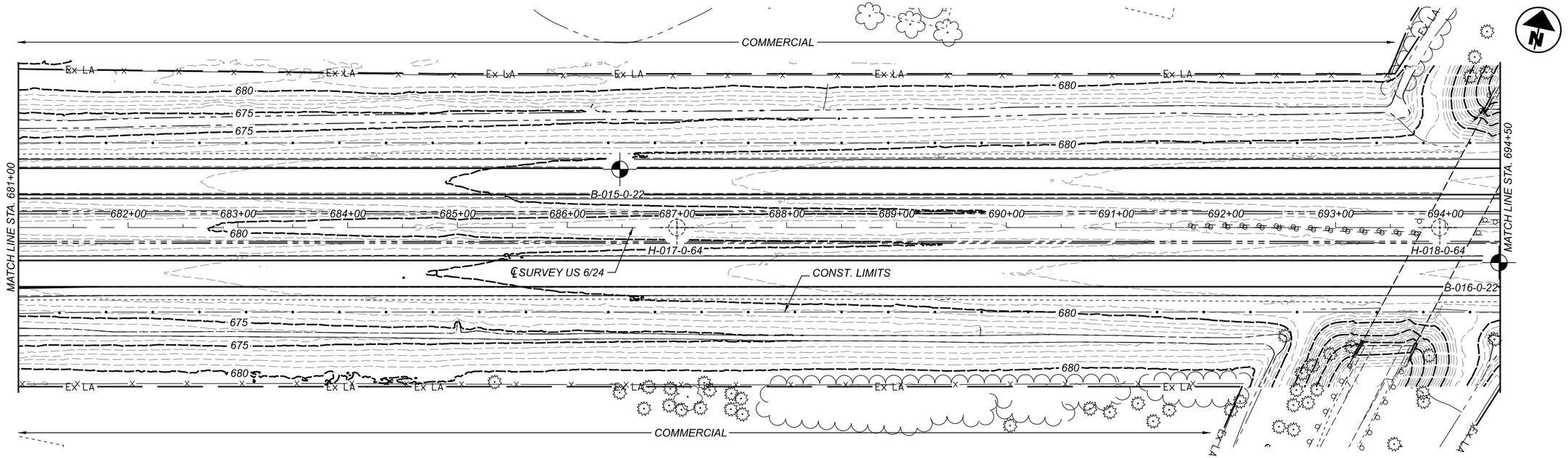
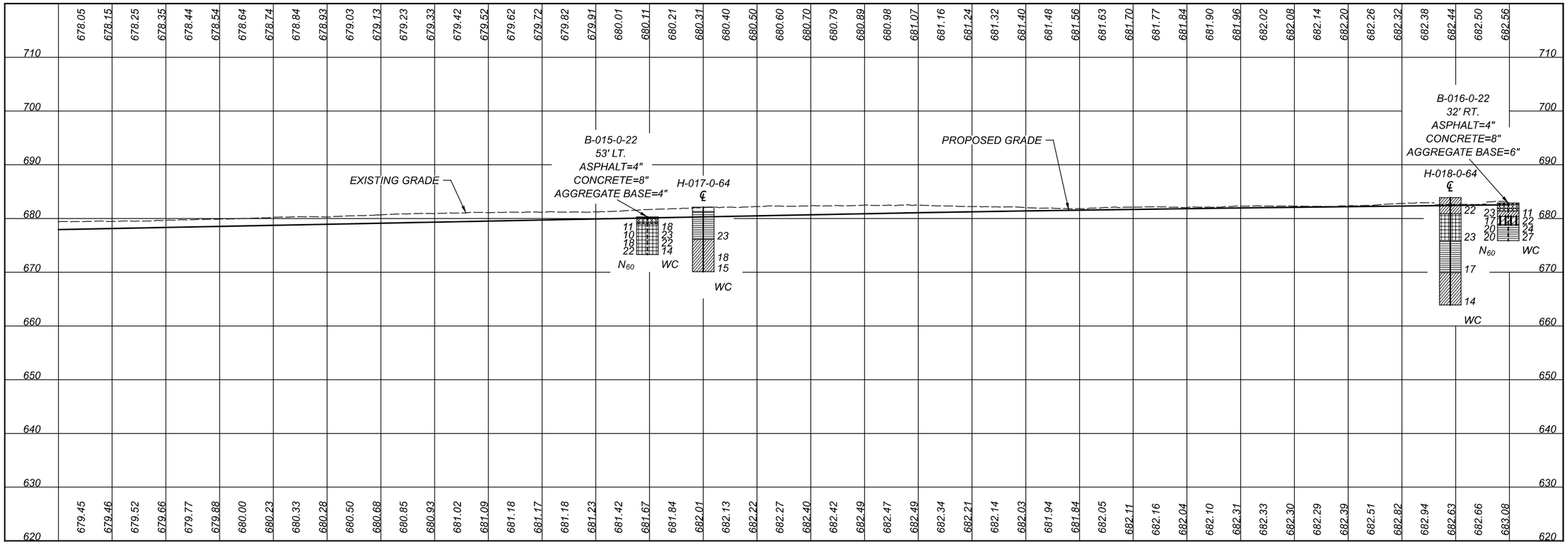
HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 667+50.00 TO STA. 681+00.00 - US 6/24

DESIGN AGENCY
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	22
TOTAL	70
SHEET	P.1060
TOTAL	1108





HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 23 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 12:31:15 USER: hp
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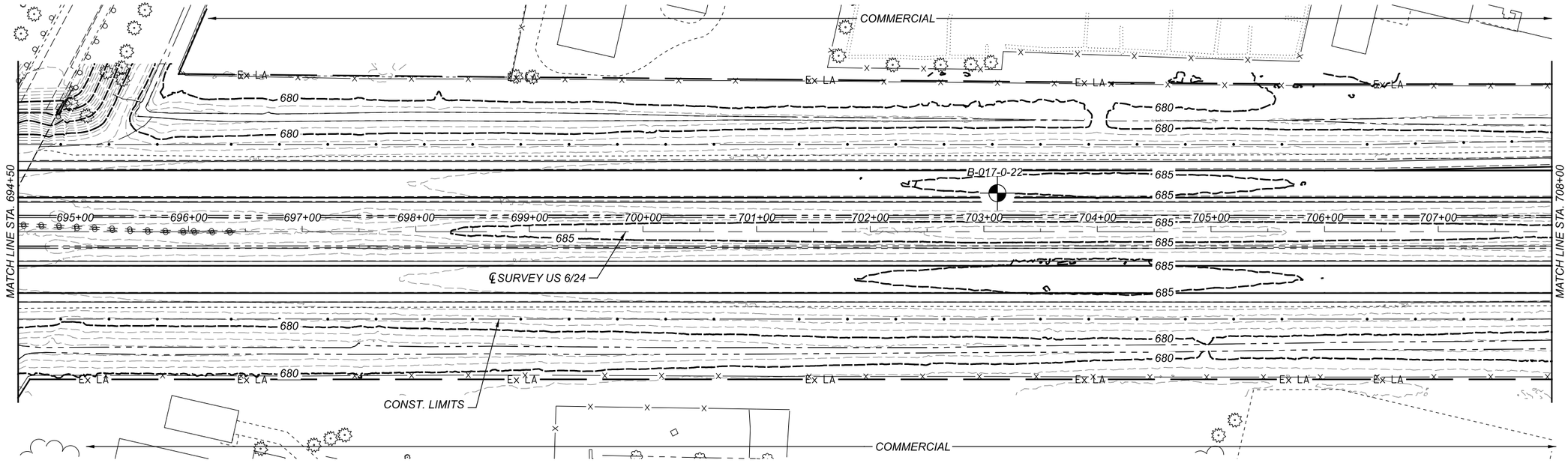
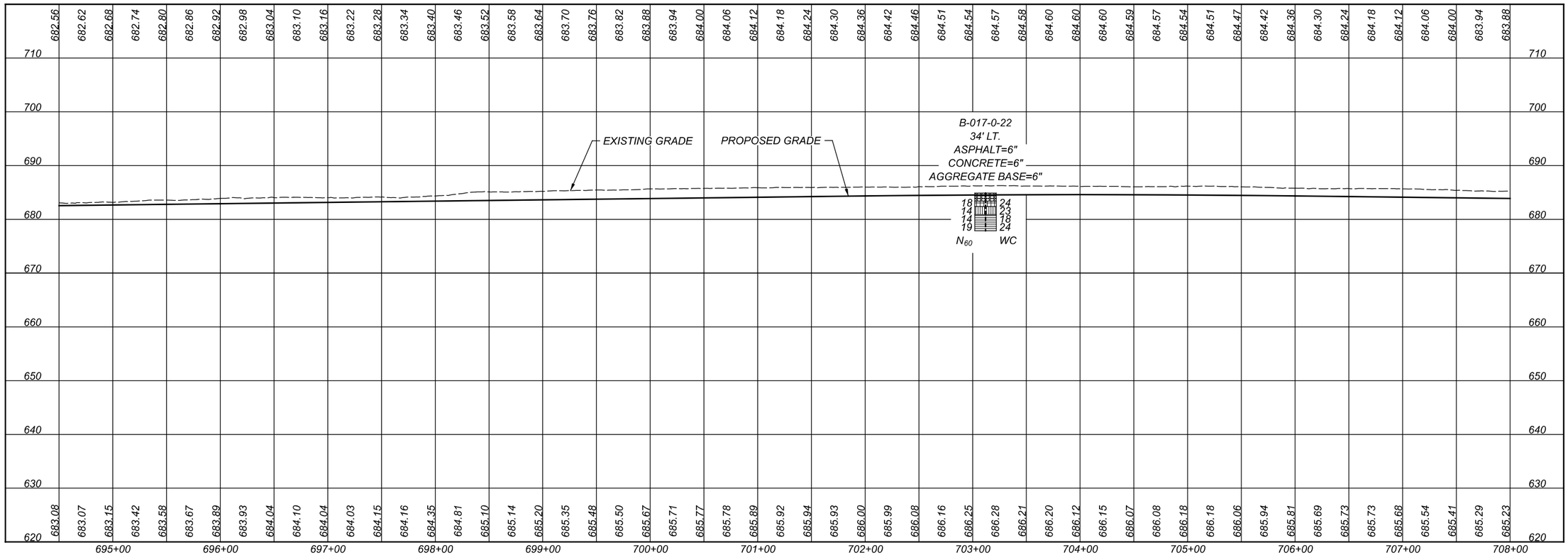
HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 681+00.00 TO STA. 694+50.00 - US 6/24

DESIGN AGENCY
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET / TOTAL	23 / 70
SHEET / TOTAL	P.1061 / 1108





HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 26 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 12:33:33 USER: hp
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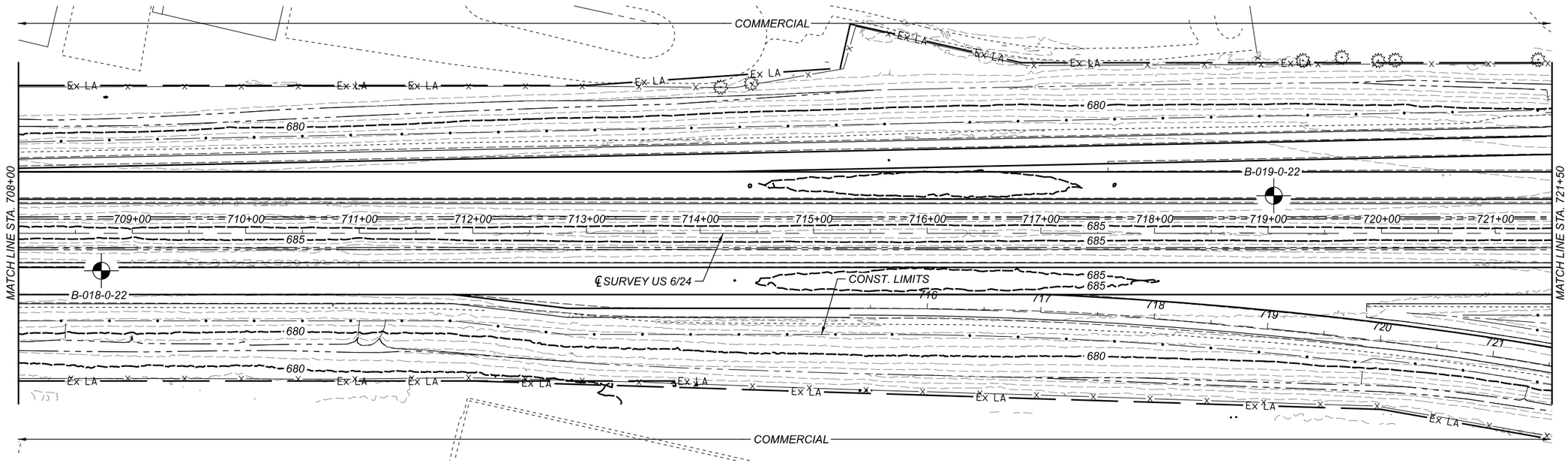
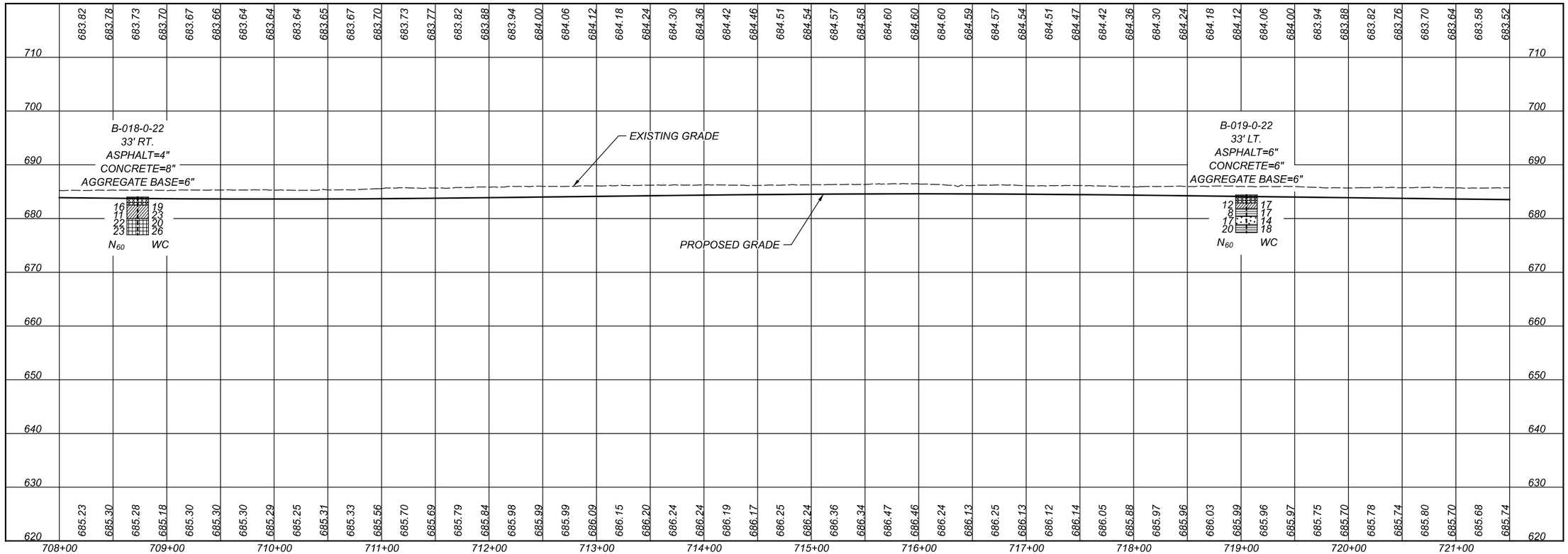
HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 694+50.00 TO STA. 708+00.00 - US 6/24

DESIGN AGENCY
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	24
TOTAL	70
SHEET	P.1062
TOTAL	1108





HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 708+00.00 TO STA. 721+50.00 - US 6/24

DESIGN AGENCY	GTL ENGINEERING INC. 2860 FISHER ROAD COLUMBUS, OHIO 43204 PHONE:(614)276-8123 FAX:(614)276-6377
DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	25
TOTAL	70
SHEET	P.1063
TOTAL	1108

HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 29 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 12:39:34 USER: hp
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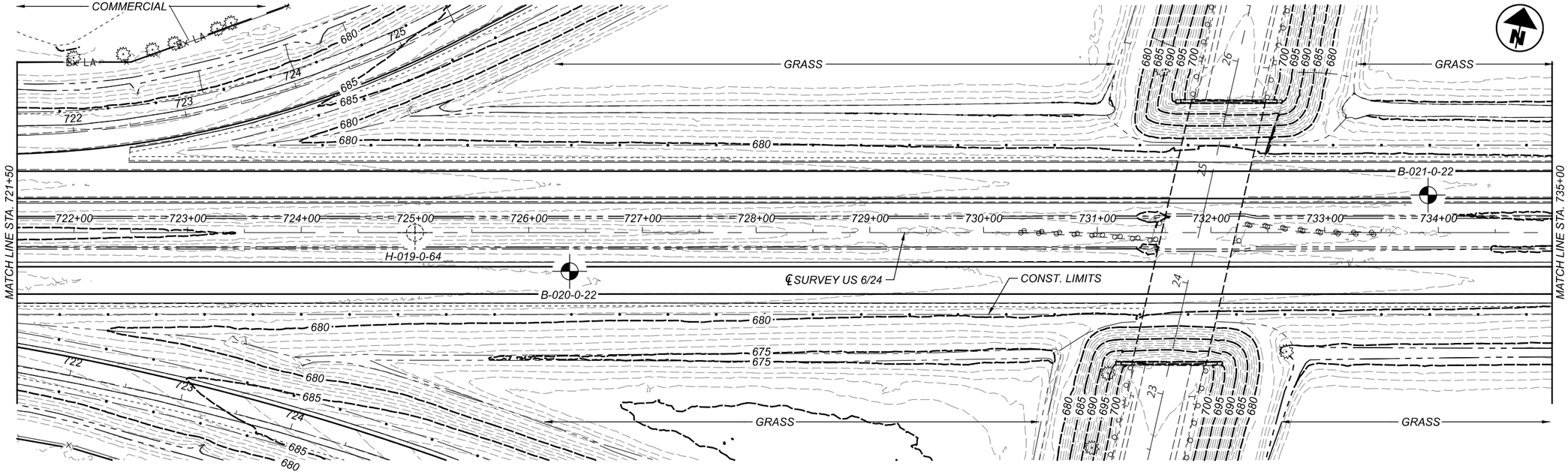

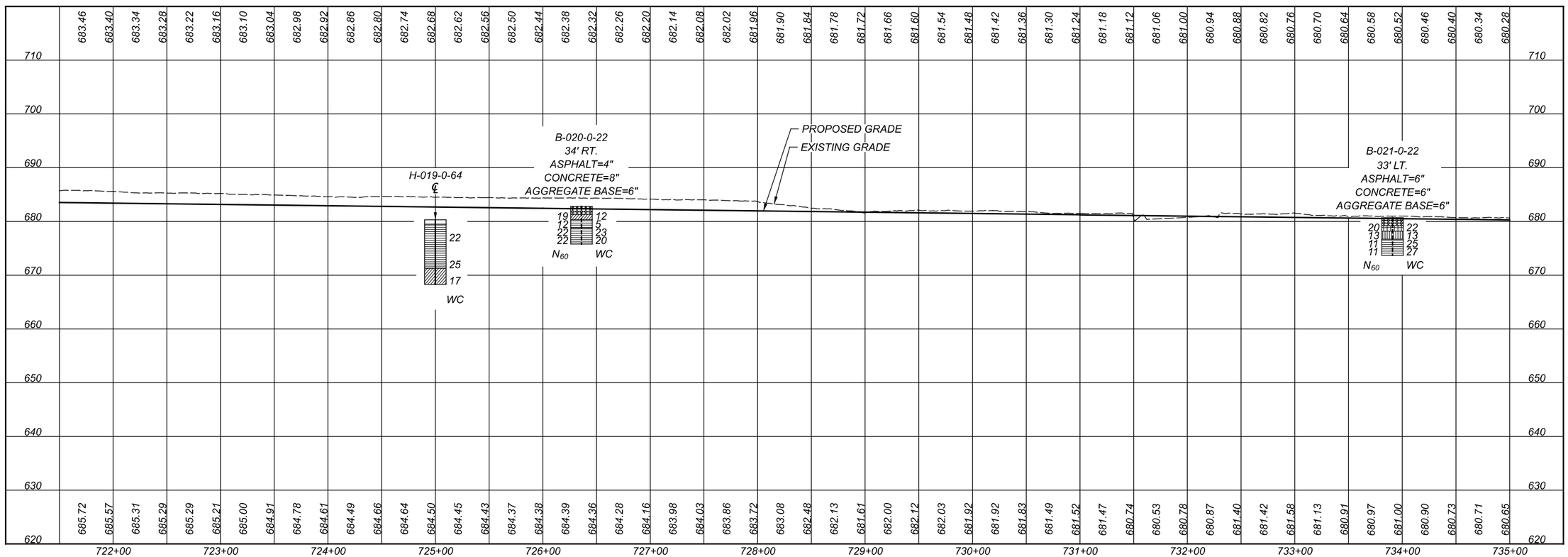

HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 721+50.00 TO STA. 735+00.00 - US 6/24

HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 32 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 12:42:45 USER: hp
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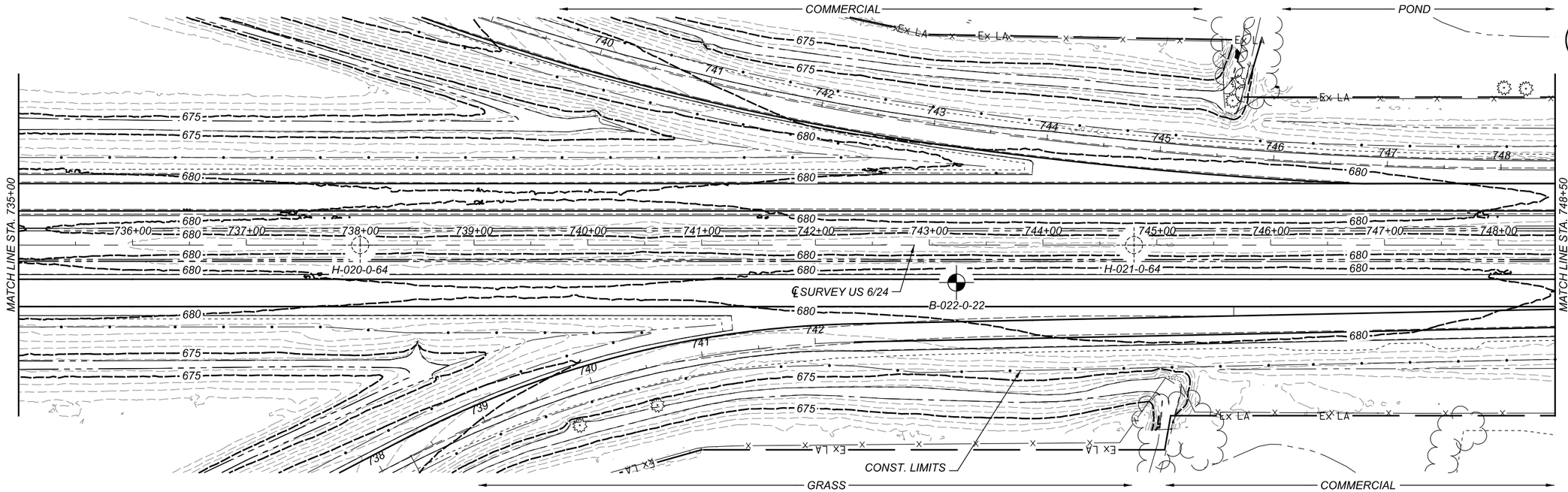
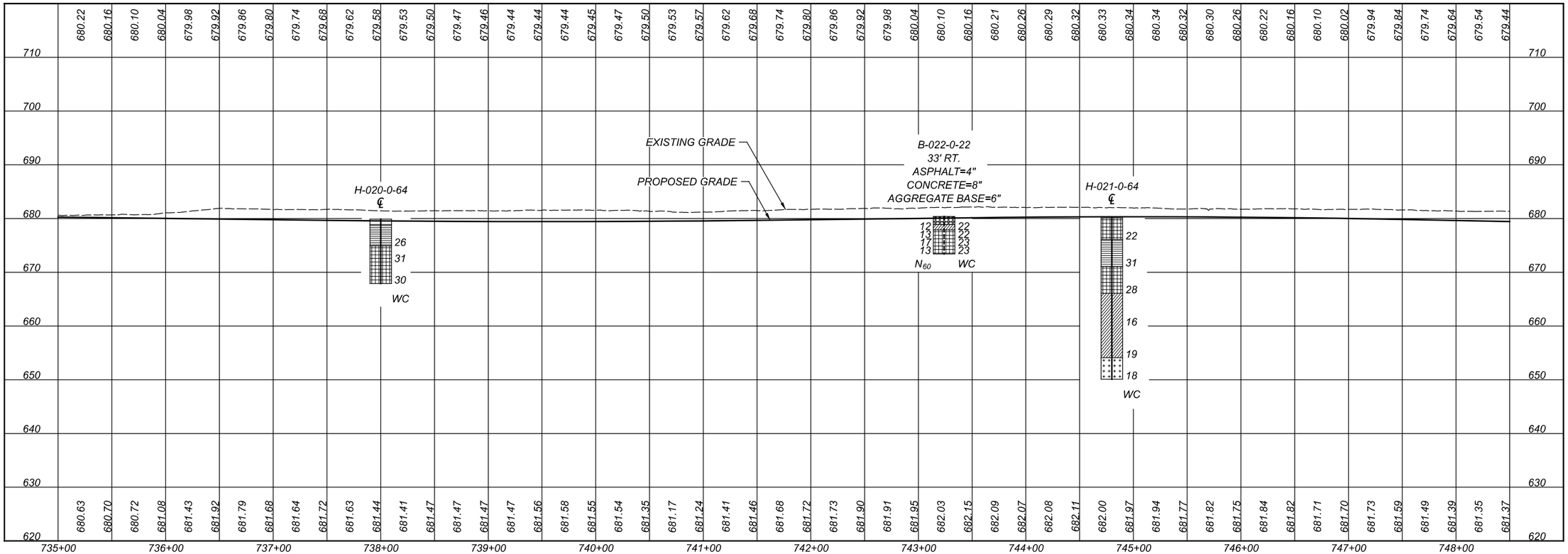
DESIGN AGENCY
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	26
TOTAL	70
SHEET	P.1064
TOTAL	1108





HORIZONTAL SCALE IN FEET
0 25 50 100

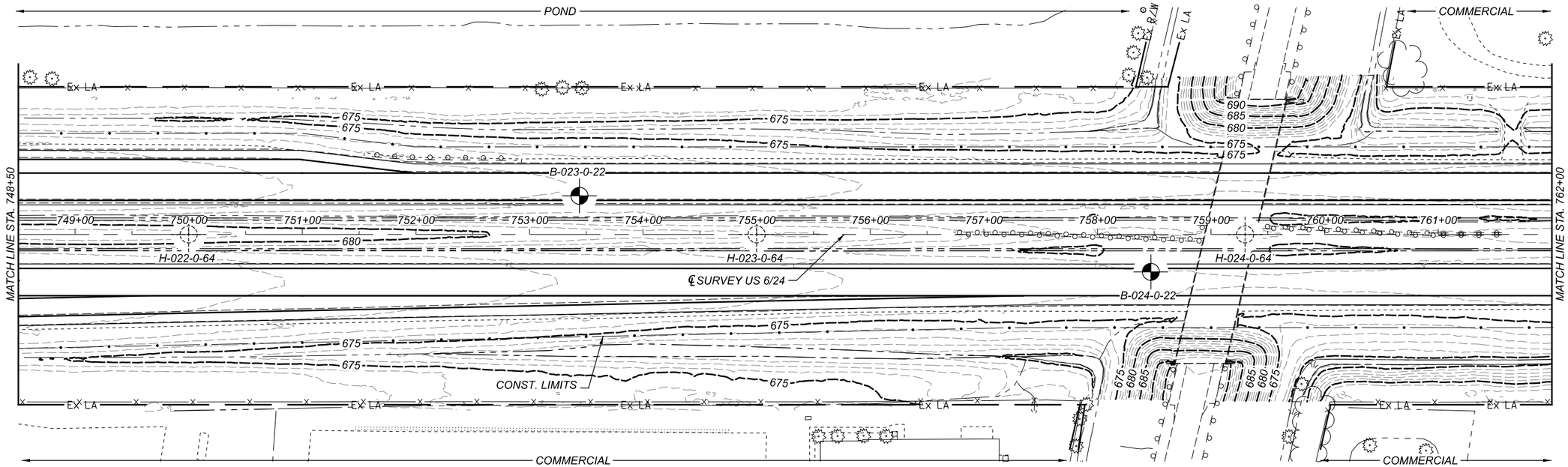
GEOTECHNICAL PROFILE - ROADWAY
STA. 735+00.00 TO STA. 748+50.00 - US 6/24

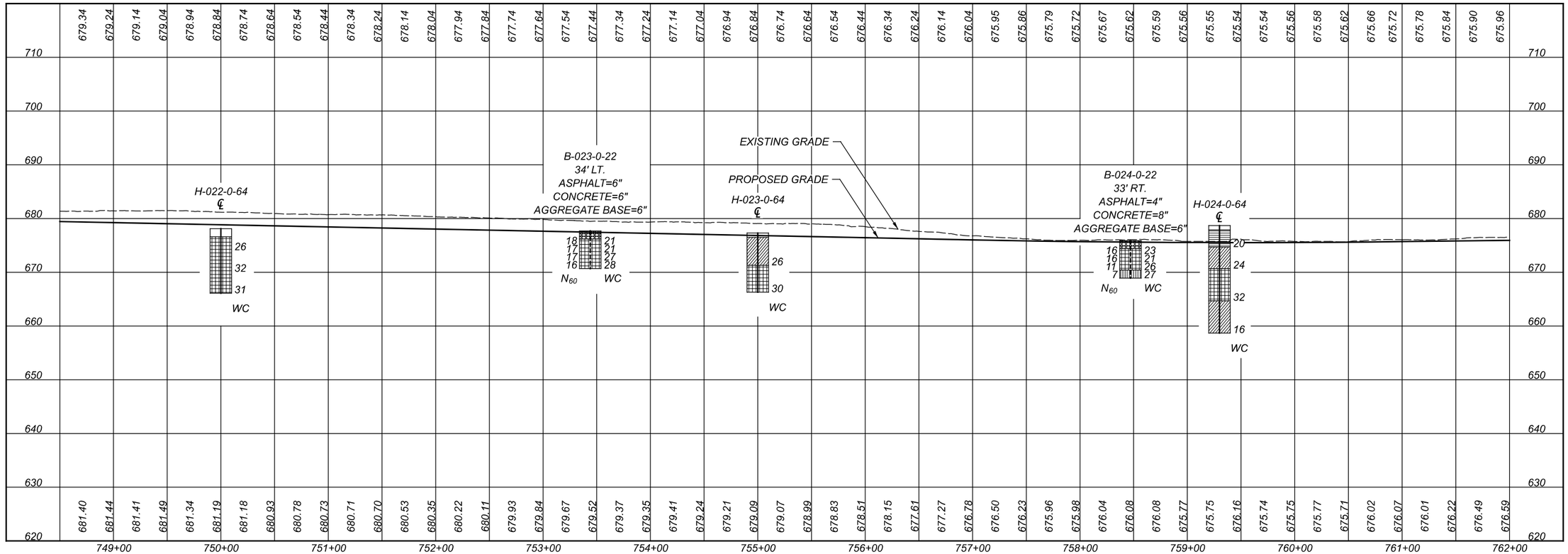
HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 34 PAPERSIZE:17x11 (in.) DATE: 05-09-2025 TIME: 12:44:54 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\22050022COL_ODOT\Mod_04.09.25\110524GP013.dgn

DESIGN AGENCY
GTL ENGINEERING Inc
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	27
TOTAL	70
SHEET	P.1065
TOTAL	1108





HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 748+50.00 TO STA. 762+00.00 - US 6/24

DESIGN AGENCY
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	28
TOTAL	70
SHEET	P.1066
TOTAL	1108

HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 37 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 12:47:12 USER: hp
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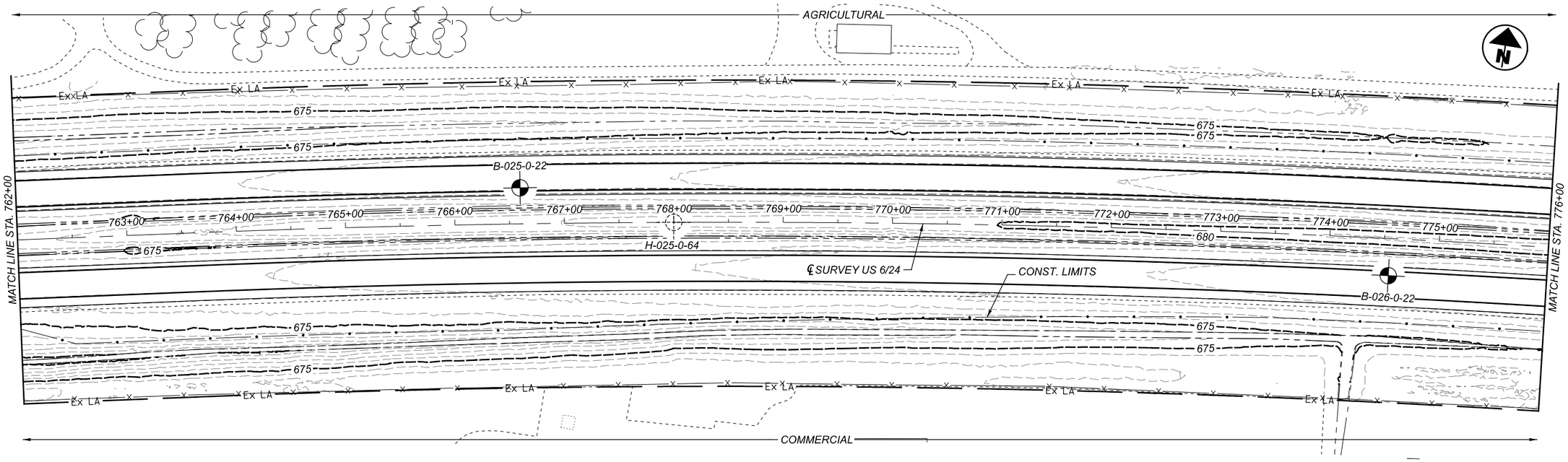

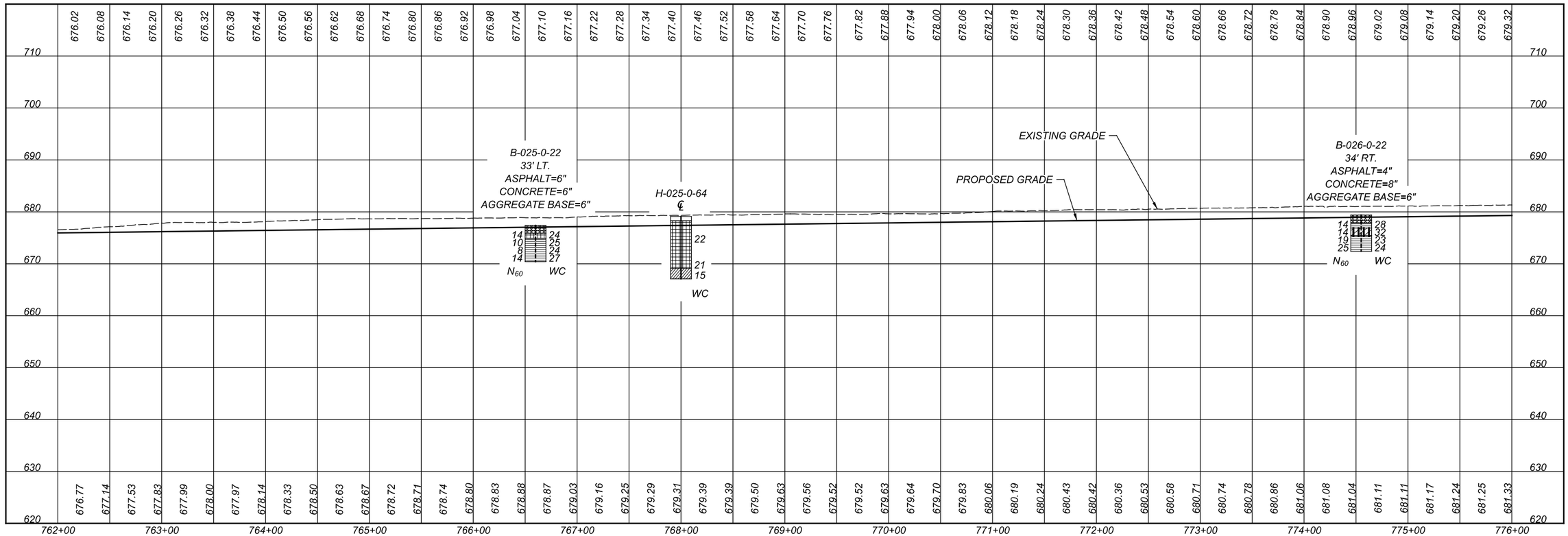

HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 762+00.00 TO STA. 776+00.00 - US 6/24

HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 40 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 12:59:41 USER: hp
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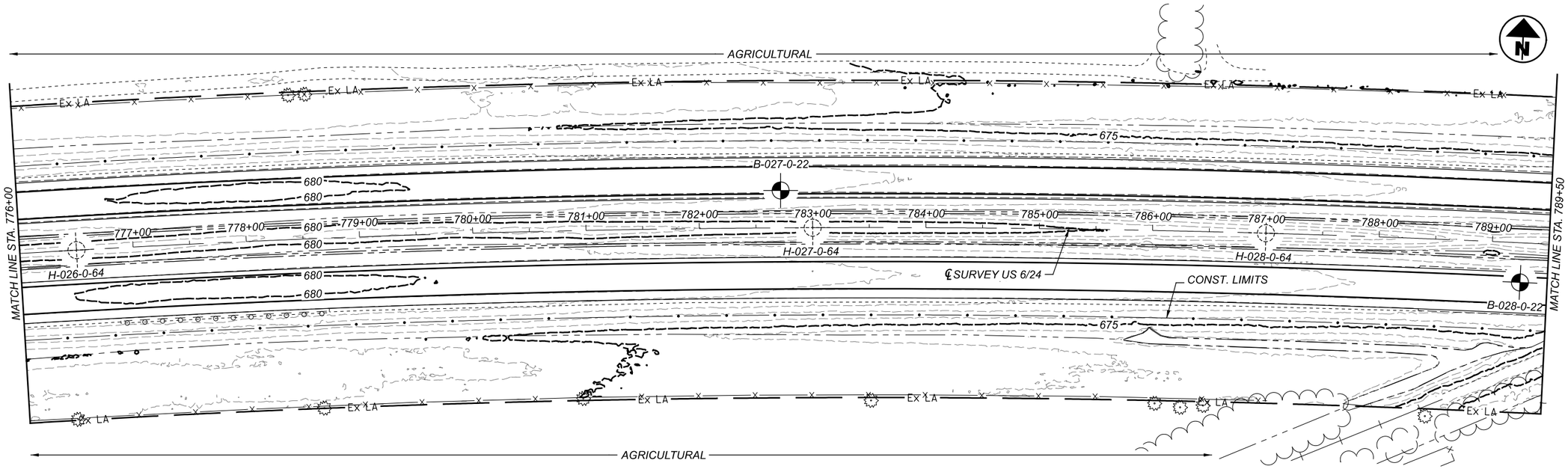
DESIGN AGENCY

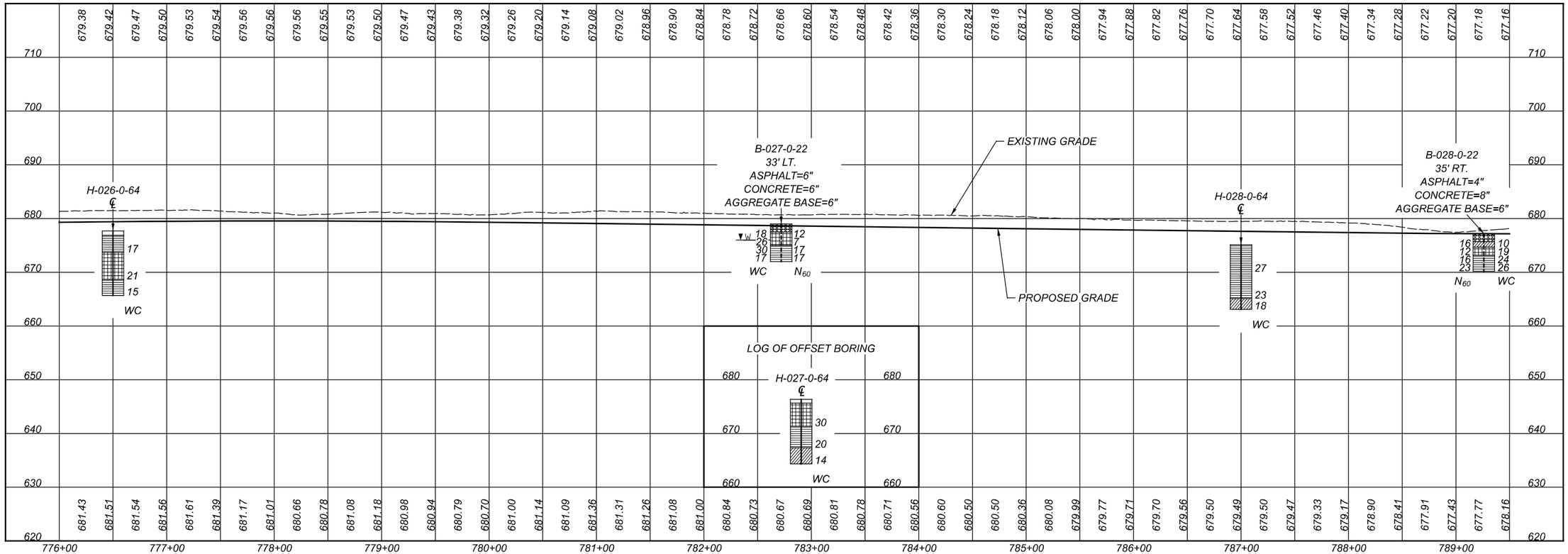
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	29
TOTAL	70
SHEET	P.1067
TOTAL	1108



HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 776+00.00 TO STA. 789+50.00 - US 6/24



DESIGN AGENCY

GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	30
TOTAL	70
SHEET	P.1068
TOTAL	1108

HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 43 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:01:41 USER: hp
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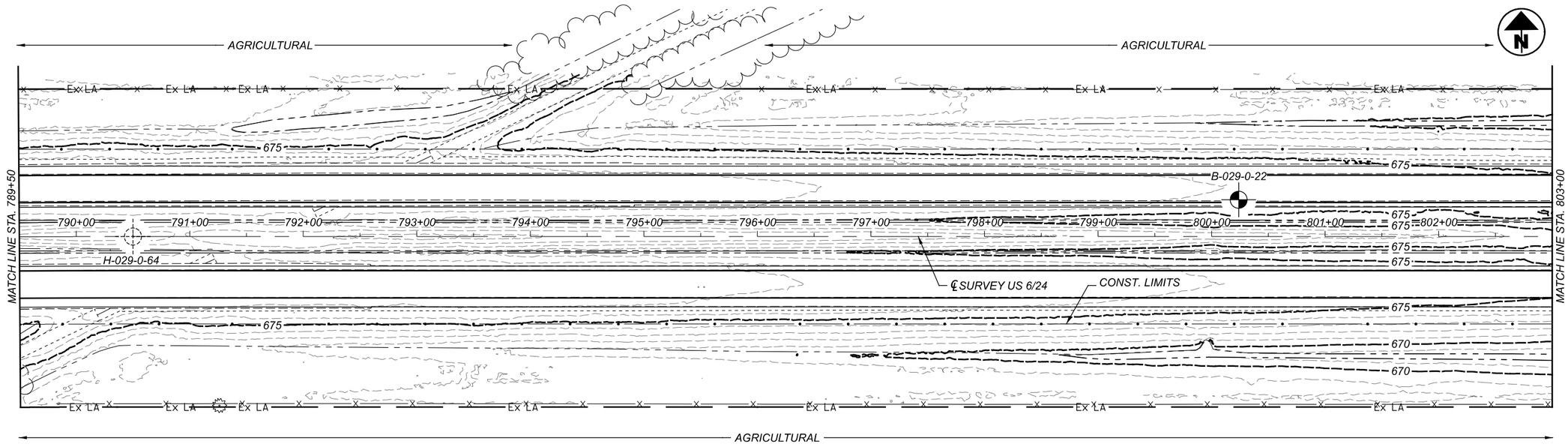
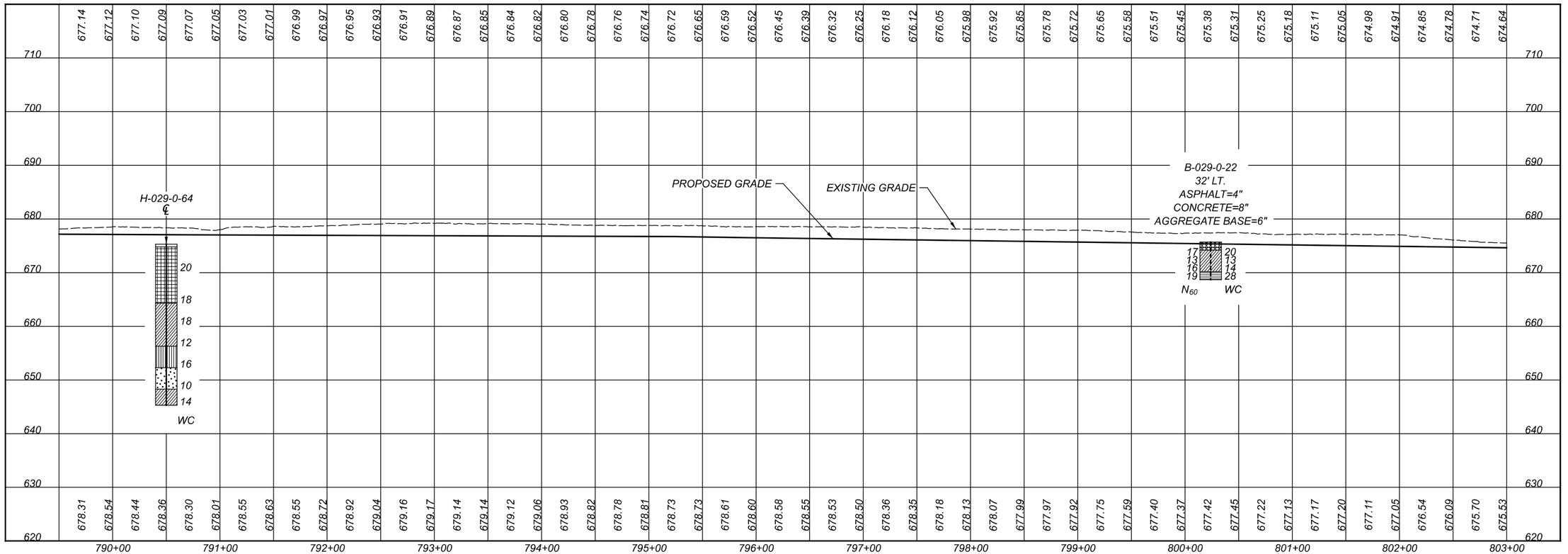




HORIZONTAL SCALE IN FEET
0 25 50 100

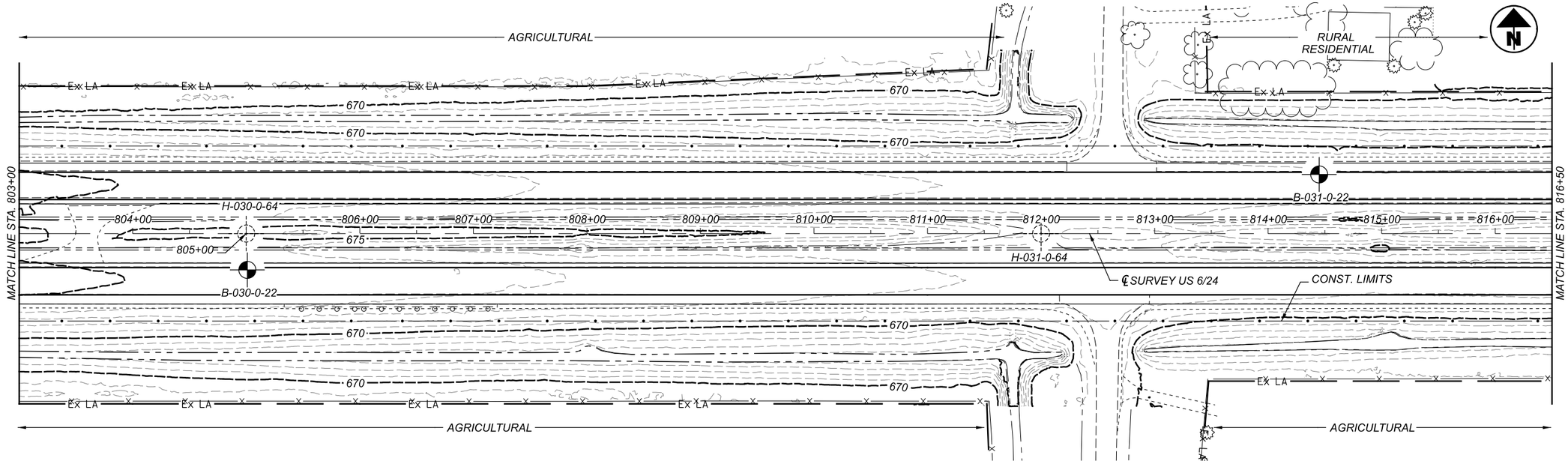
GEOTECHNICAL PROFILE - ROADWAY
STA. 789+50.00 TO STA. 803+00.00 - US 6/24

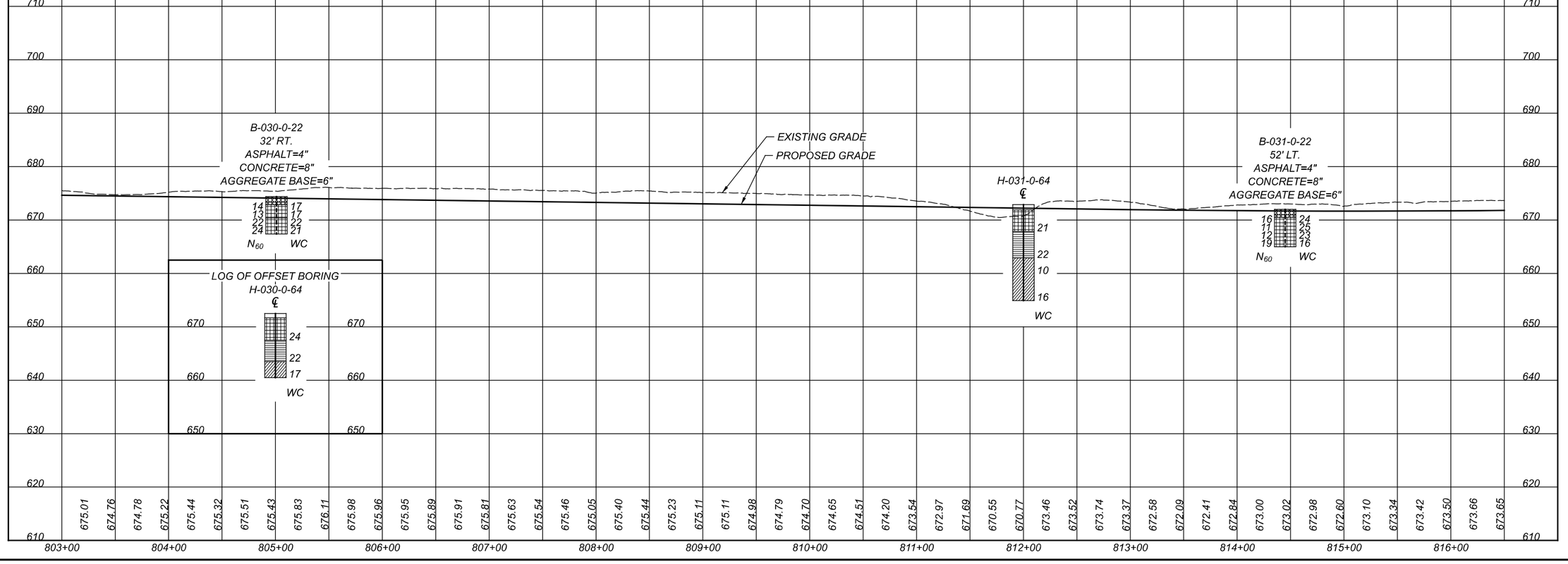
HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 45 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:03:54 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\220500022COL_ODOT\Mod_04.09.25\110524GP017.dgn

DESIGN AGENCY
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	31
TOTAL	70
SHEET	P.1069
TOTAL	1108





HEN-6/24-11.32/4.62

MODEL: CLX_U006 - Plan 48 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:06:06 USER: hp
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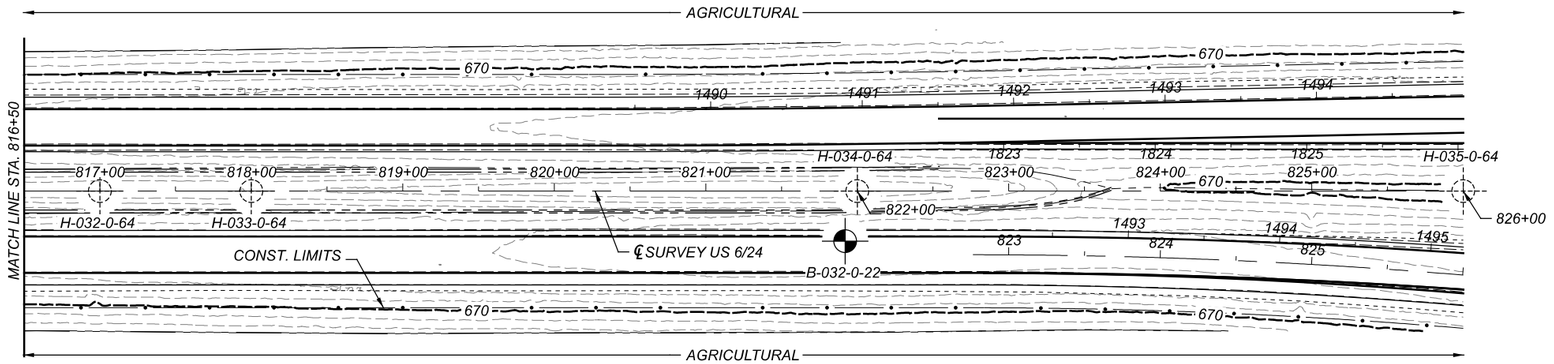
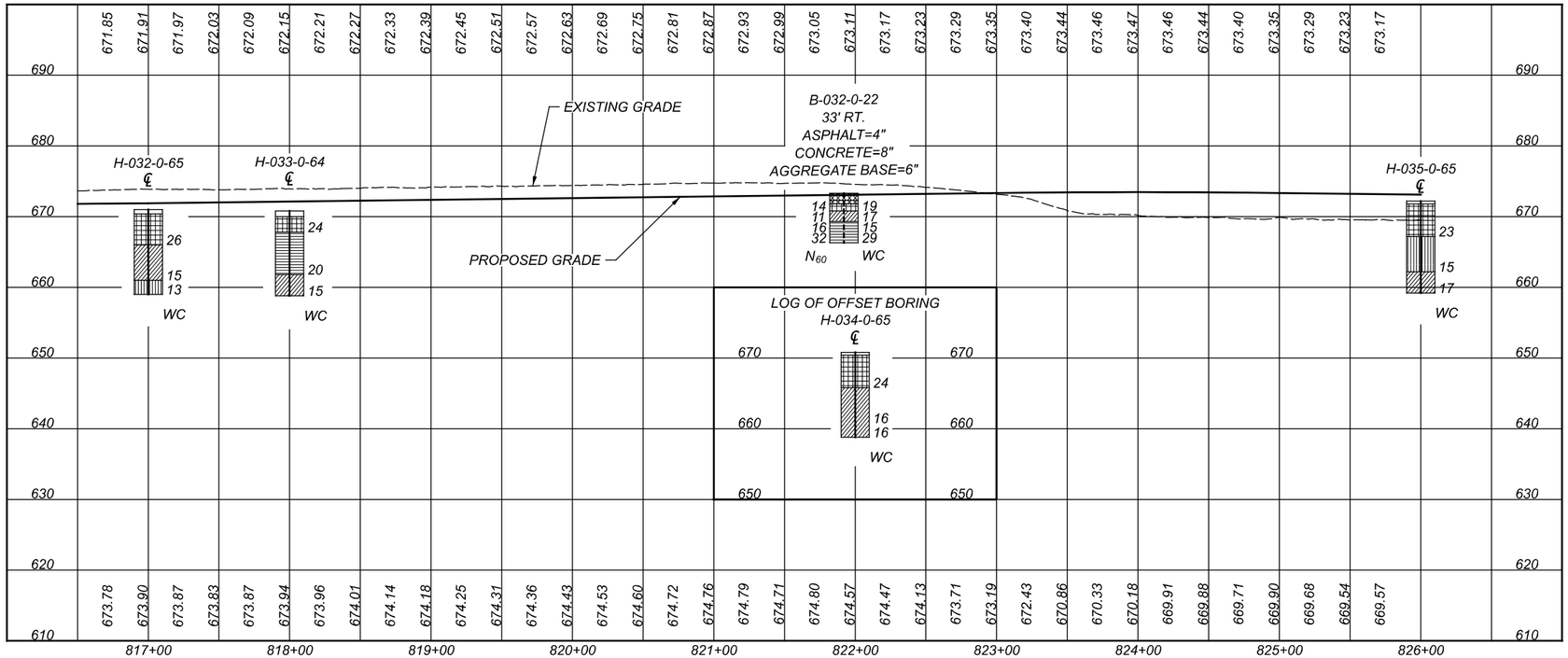
HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 803+00.00 TO STA. 816+50.00 - US 6/24

DESIGN AGENCY
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	32
TOTAL	70
SHEET	P.1070
TOTAL	1108





HORIZONTAL SCALE IN FEET
0 25 50 100

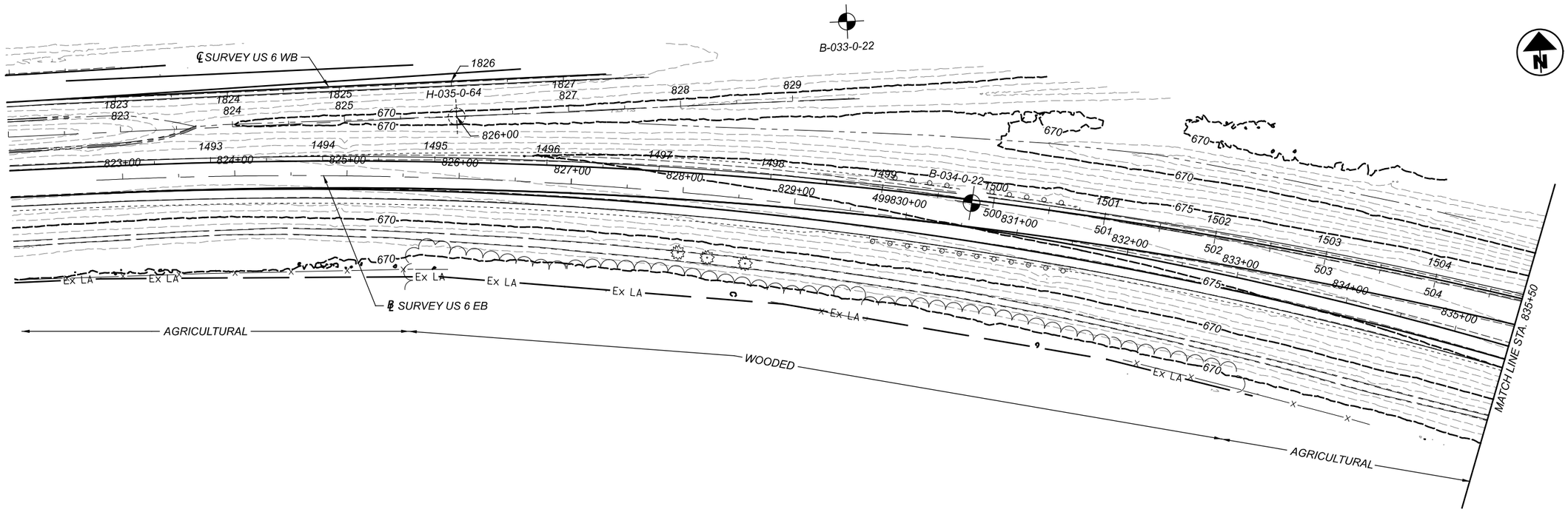
GEOTECHNICAL PROFILE - ROADWAY
STA. 816+50.00 TO STA. 826+00.00 - US 6/24

HEN-6/24-11.32/4.62

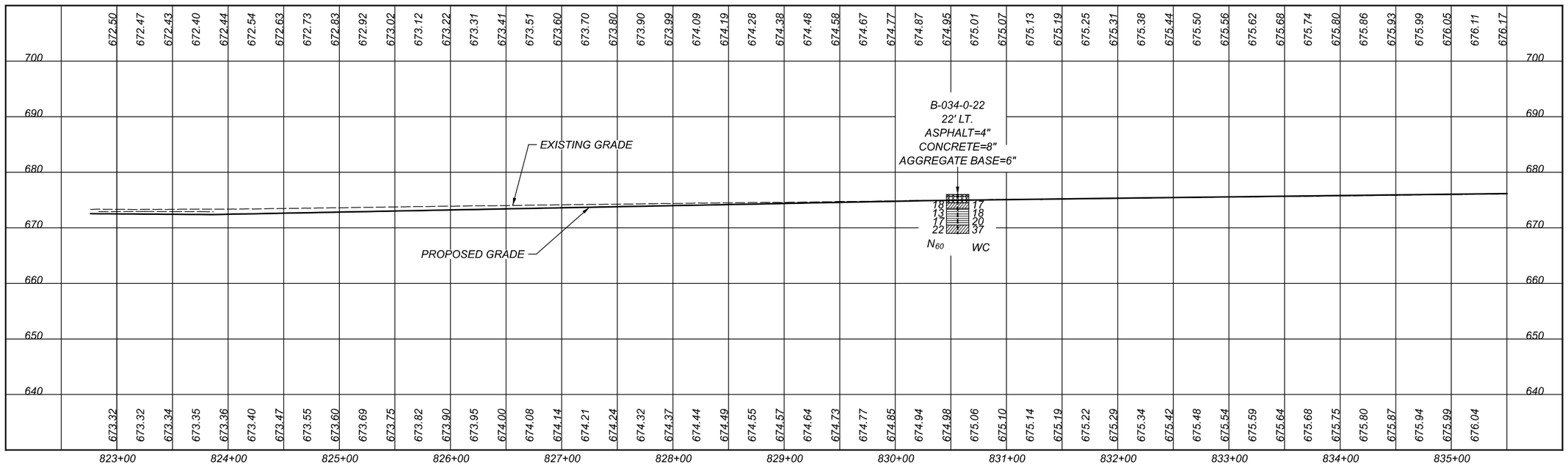
MODEL: CLX_U006 - Plan 51 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:09:49 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\22050022COL_ODOT\Mod_04.09.25\110524GP019.dgn

DESIGN AGENCY
ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET / TOTAL	33 / 70
SHEET / TOTAL	P.1071 / 1108



SEE SHEET 38 OF 70 AND 48 OF 70 FOR BORING B-033-0-22 SOIL PROFILE.



HEN-6/24-11.32/4.62

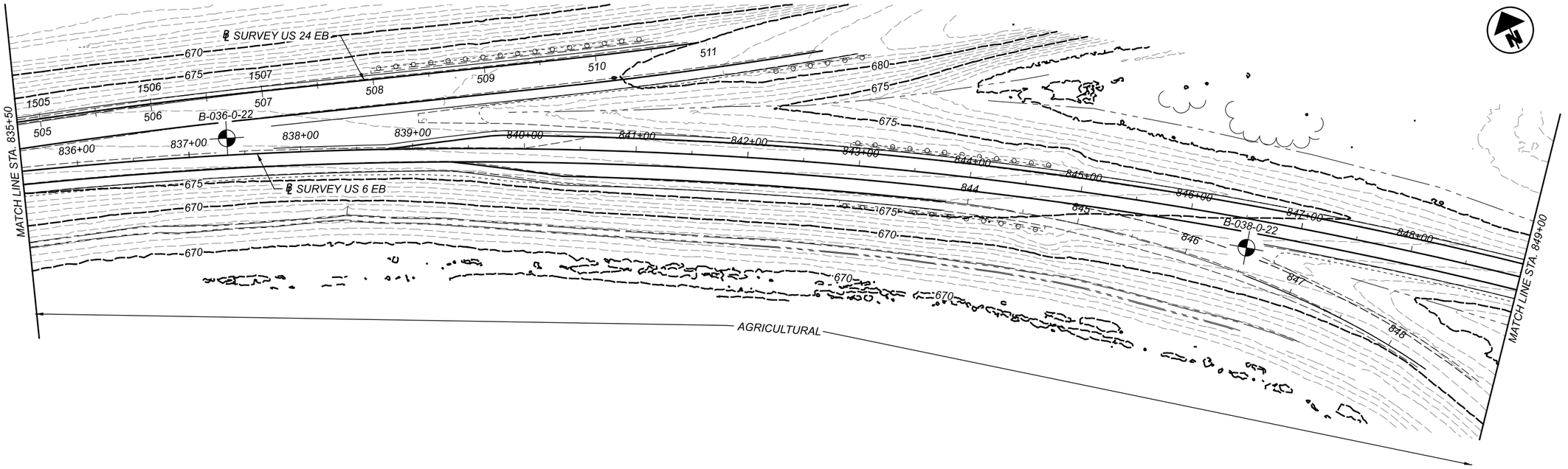
MODEL: CLX_U006EB - Plan 28 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:11:09 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\22050022COL_ODOT\Mod_04.09.25\110524GP020.dgn

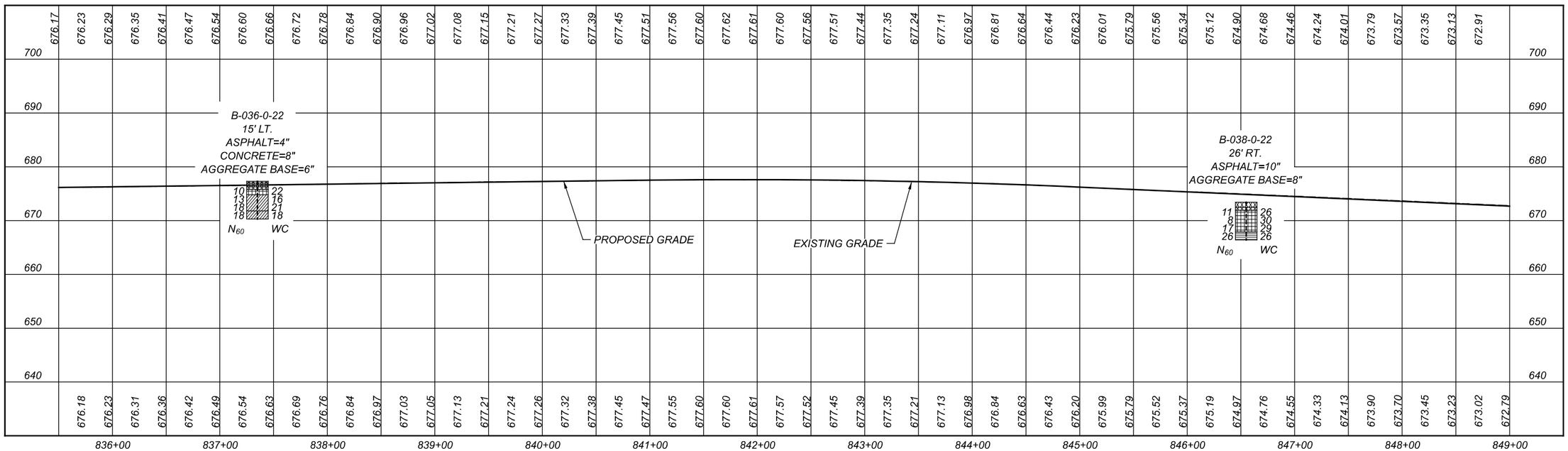
HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 822+00.00 TO STA. 835+50.00 - US 6 EB

DESIGN AGENCY
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	34
TOTAL	70
SHEET	P.1072
TOTAL	1108





HEN-6/24-11.32/4.62

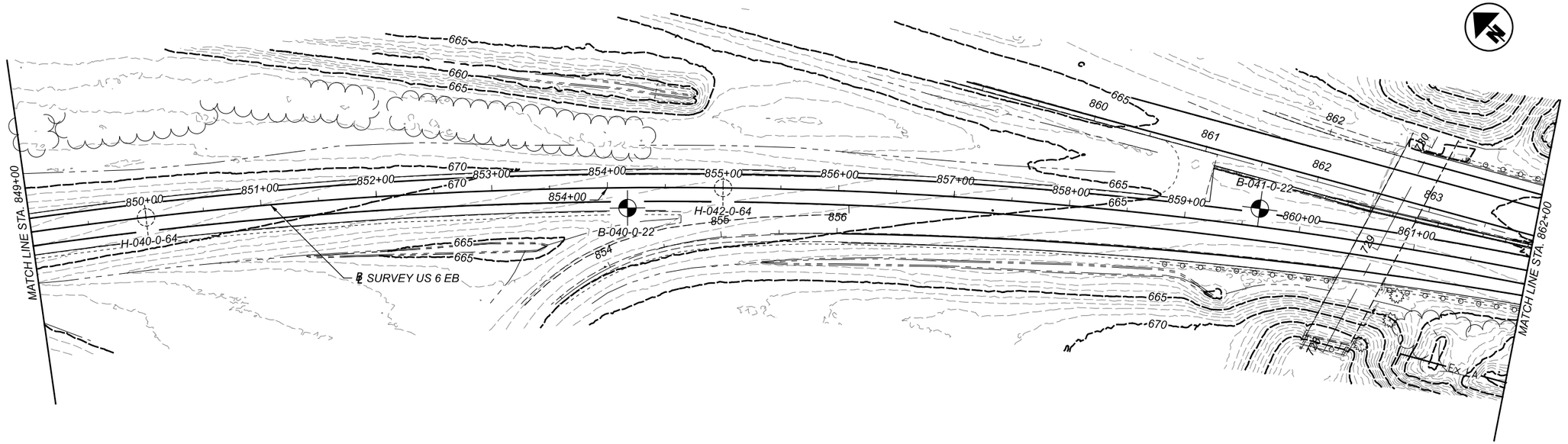
MODEL: CLX_U006EB - Plan 31 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:12:24 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\22050022COL_ODOT\Mod_04.09.25\110524GP021.dgn

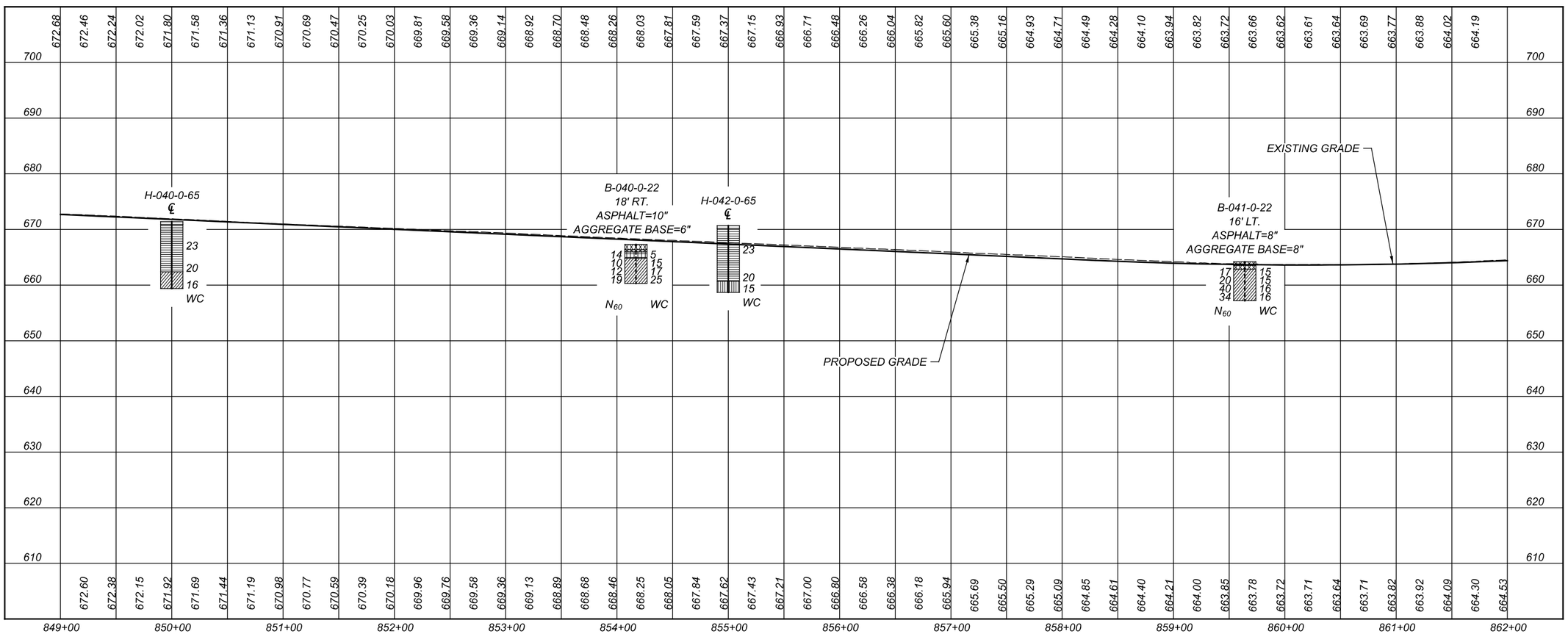
HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 835+50.00 TO STA. 849+00.00 - US 6 EB

DESIGN AGENCY
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	35
TOTAL	70
SHEET	P.1073
TOTAL	1108





HEN-6/24-11.32/4.62

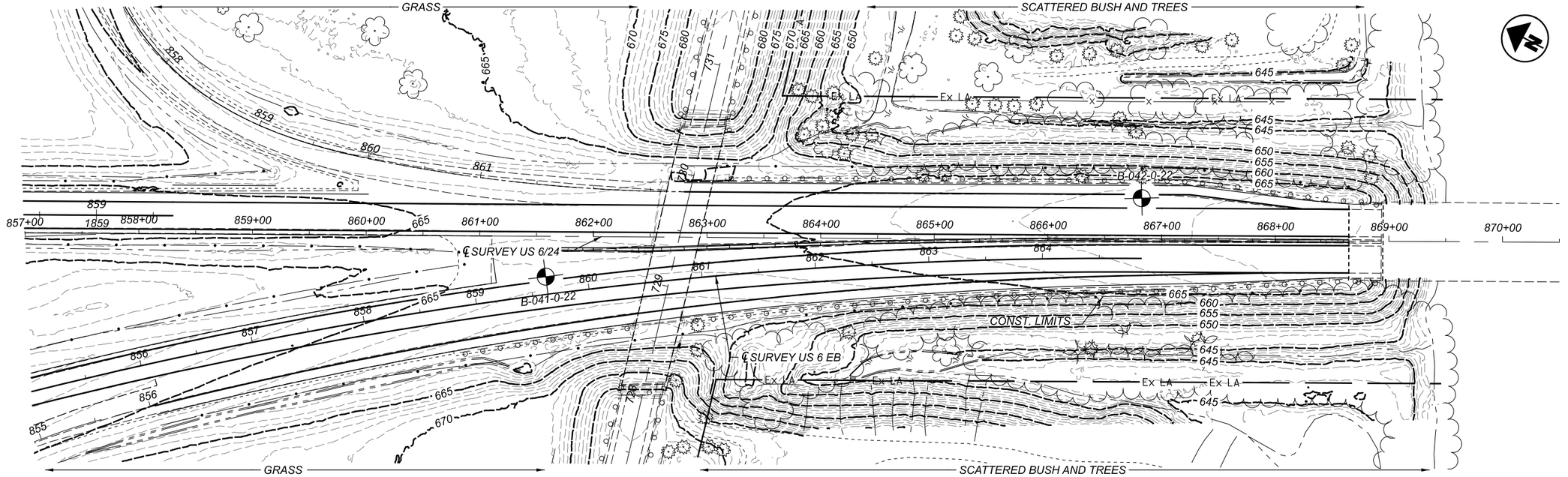
MODEL: CLX_U006EB - Plan 34 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:13:45 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\22050022COL_ODOT\Mod_04.09.25\110524GP022.dgn

HORIZONTAL SCALE IN FEET
0 25 50 100

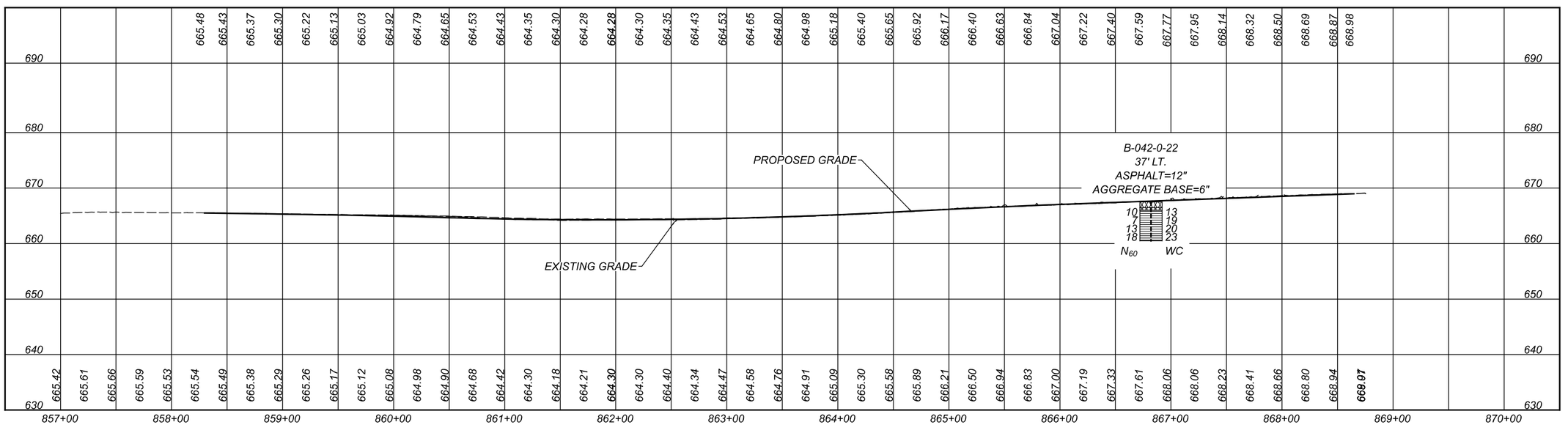
GEOTECHNICAL PROFILE - ROADWAY
STA. 849+00.00 TO STA. 862+00.00 - US 6 EB

DESIGN AGENCY
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	36
TOTAL	70
SHEET	P.1074
TOTAL	1108



SEE SHEET 36 OF 70 FOR BORING B-041-0-22 SOIL PROFILE.



HEN-6/24-11.32/4.62

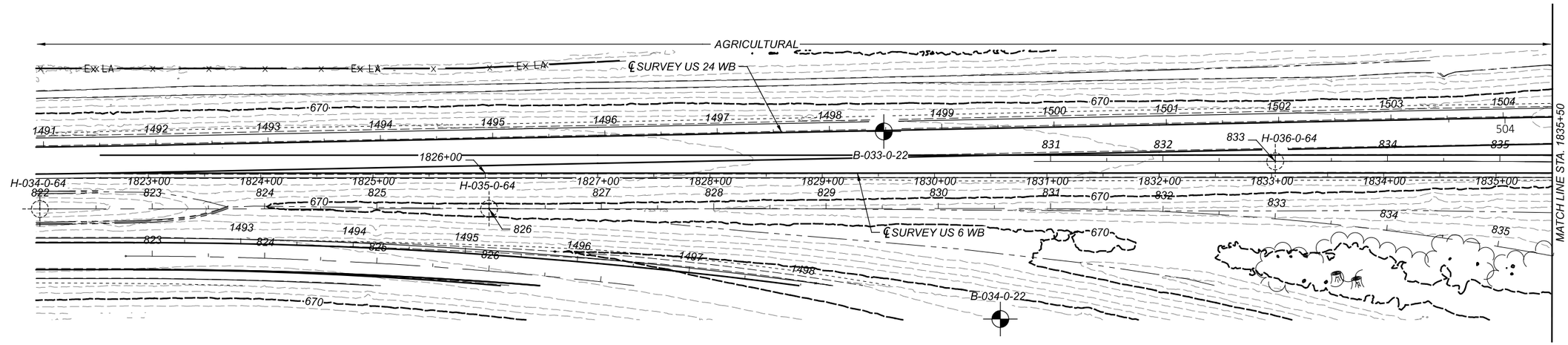
MODEL: CLX_U006-2 - Plan 52 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:15:35 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\220500022COL_ODOT\Mod_04.09.25\110524GP023.dgn

HORIZONTAL SCALE IN FEET
0 25 50 100

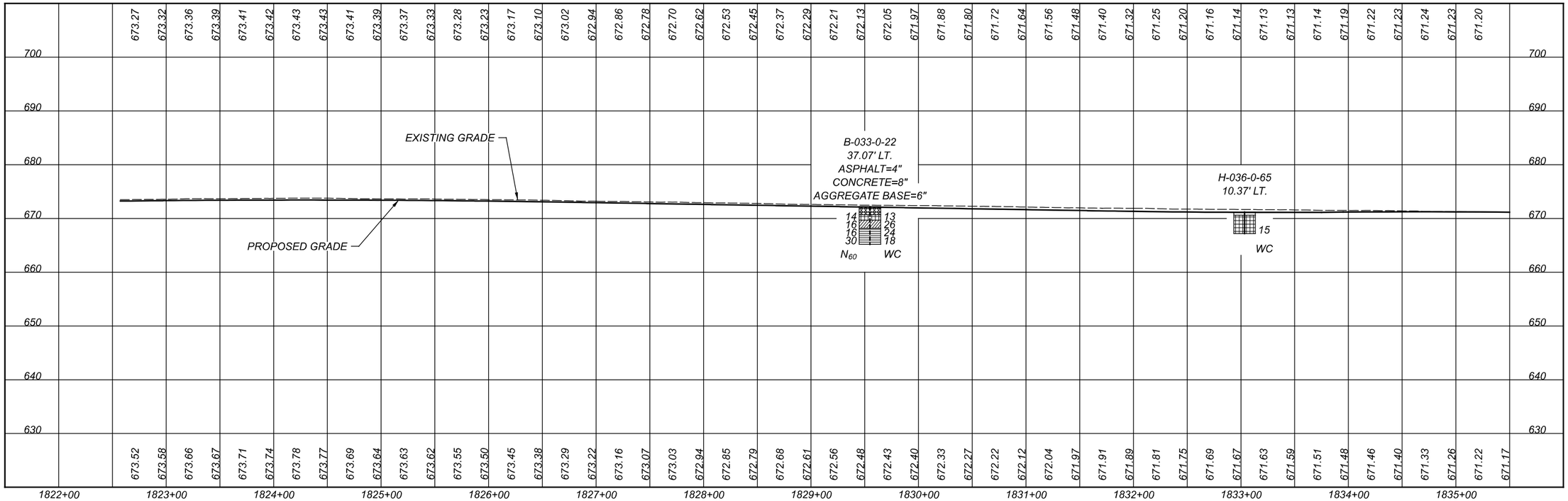
GEOTECHNICAL PROFILE - ROADWAY
STA. 857+00.00 TO STA. 870+50.00 - US 6

DESIGN AGENCY
CTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 37 TOTAL 70
SHEET P.1075 TOTAL 1108



SEE SHEET 33 OF 70 FOR HISTORIC BORINGS H-034-0-65 AND H-035-0-65 SOIL PROFILES.
SEE SHEET 34 OF 70 AND 41 OF 70 FOR BORING B-034-0-22 SOIL PROFILE.



HEN-6/24-11.32/4.62

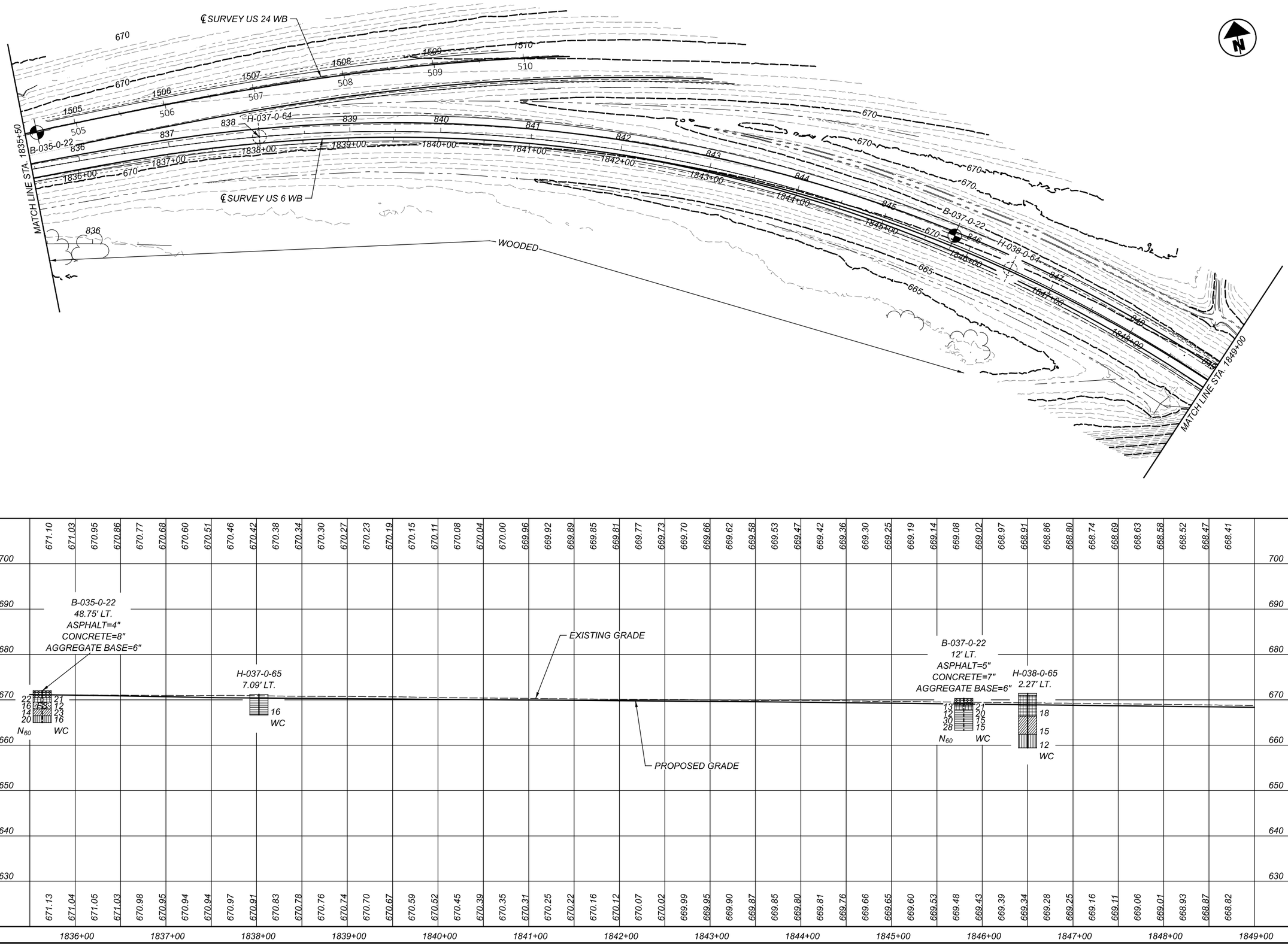
MODEL: CLP_U006WB - Plan 10 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:16:59 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\22050022COL_ODOT\Mod_04.09.25\110524GP024.dgn

HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 1822+00.00 TO STA. 1835+50.00 - US 6 WB

DESIGN AGENCY
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	38
TOTAL	70
SHEET	P.1076
TOTAL	1108



HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 1835+50.00 TO STA. 1849+00.00 - US 6 WB

DESIGN AGENCY
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	39
TOTAL	70
SHEET	P.1077
TOTAL	1108

HEN-6/24-11.32/4.62

MODEL: CLP_U006WB - Plan 13 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:18:30 USER: hp
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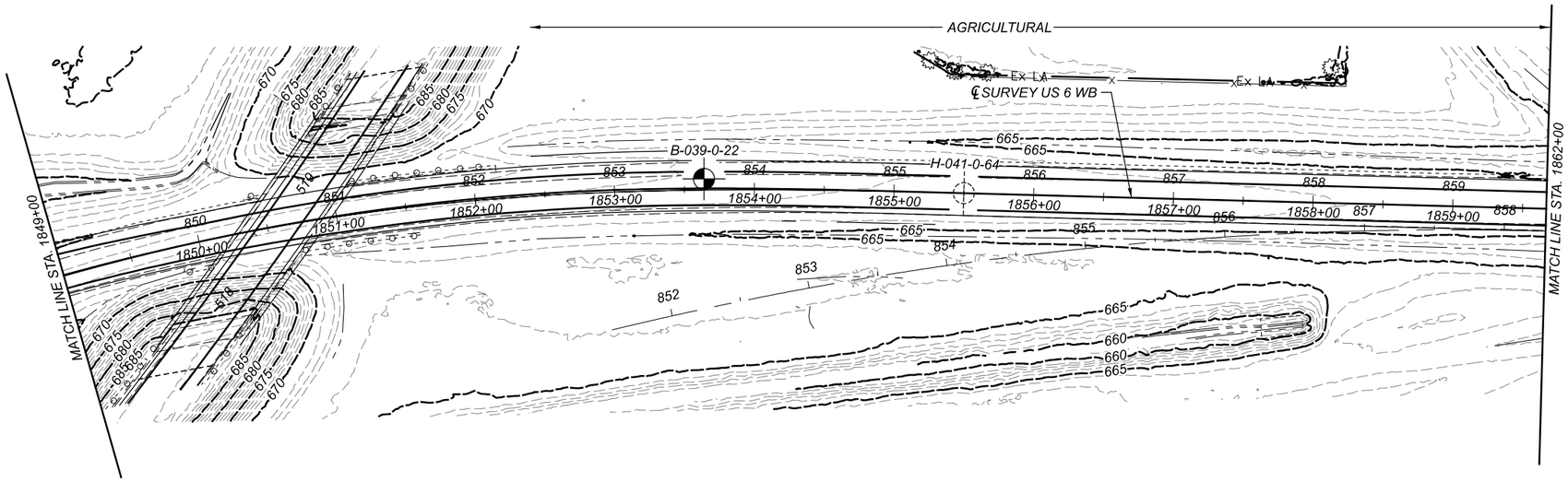
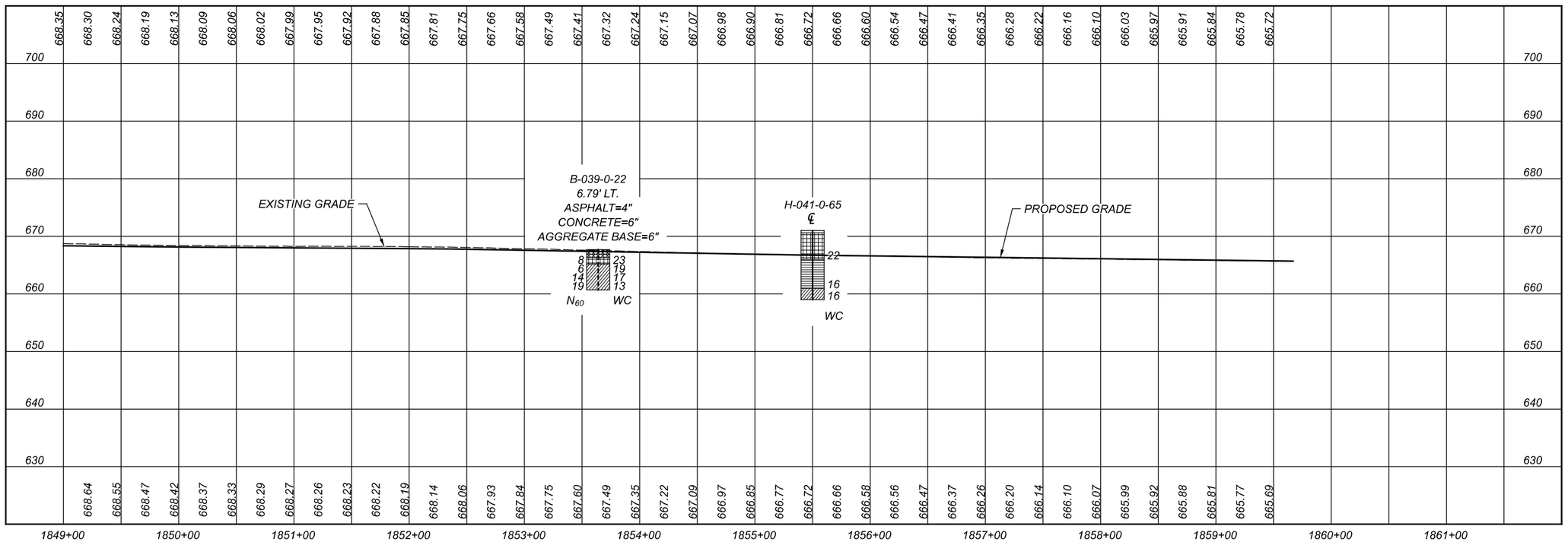




HORIZONTAL SCALE IN FEET
0 25 50 100

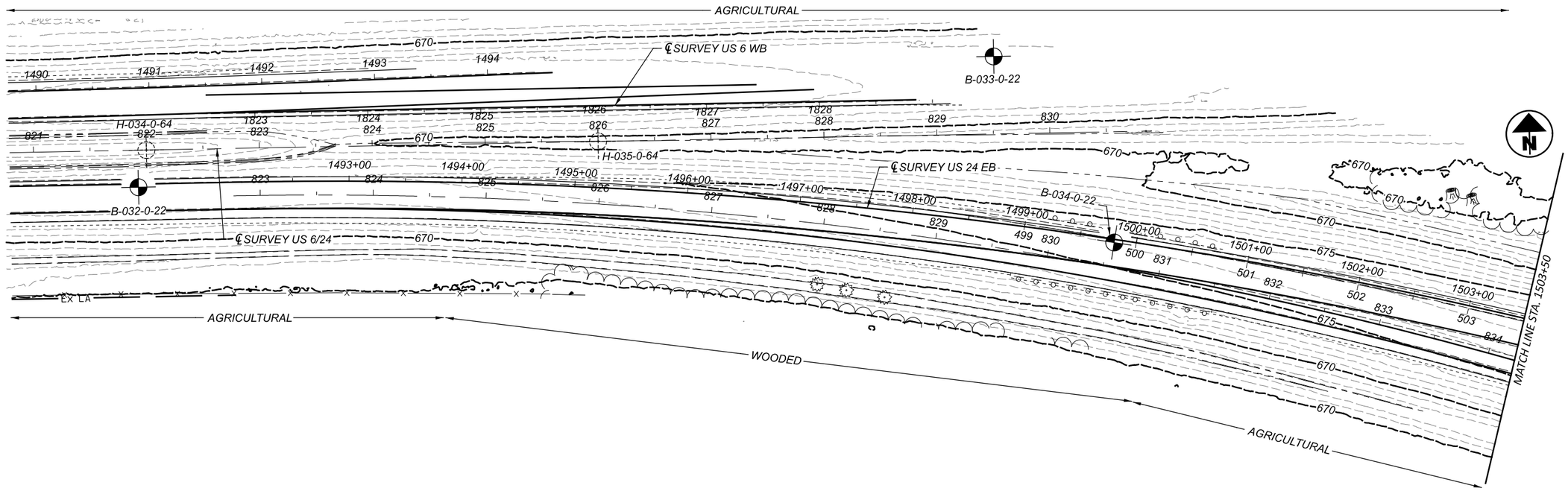
GEOTECHNICAL PROFILE - ROADWAY
STA. 1849+00.00 TO STA. 1862+00.00 - US 6 WB

HEN-6/24-11.32/4.62

MODEL: CLP_U006WB - Plan 16 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:19:35 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\22050022COL_ODOT\Mod_04.09.25\110524GP026.dgn

DESIGN AGENCY
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

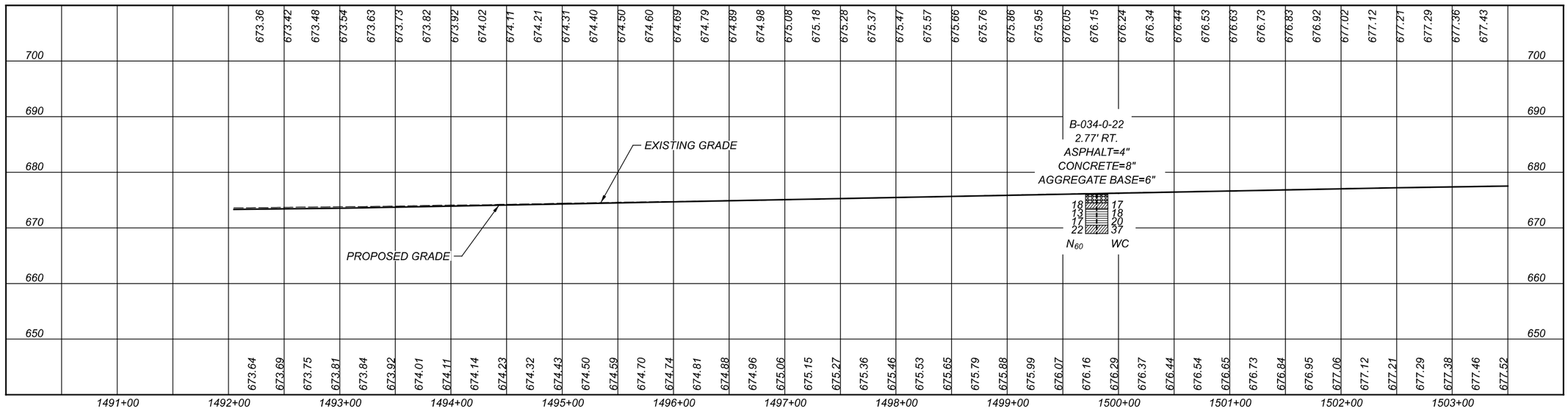
DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	40
TOTAL	70
SHEET	P.1078
TOTAL	1108



HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 1490+00.00 TO STA. 1503+50.00 - US 24 EB

SEE SHEET 33 OF 70 FOR BORING B-032-0-22 SOIL PROFILE.
SEE SHEET 33 OF 70 FOR HISTORIC BORINGS H-034-0-65 AND H-035-0-65 SOIL PROFILES.
SEE SHEET 38 OF 70 AND 48 OF 70 FOR BORING B-033-0-22 SOIL PROFILE.

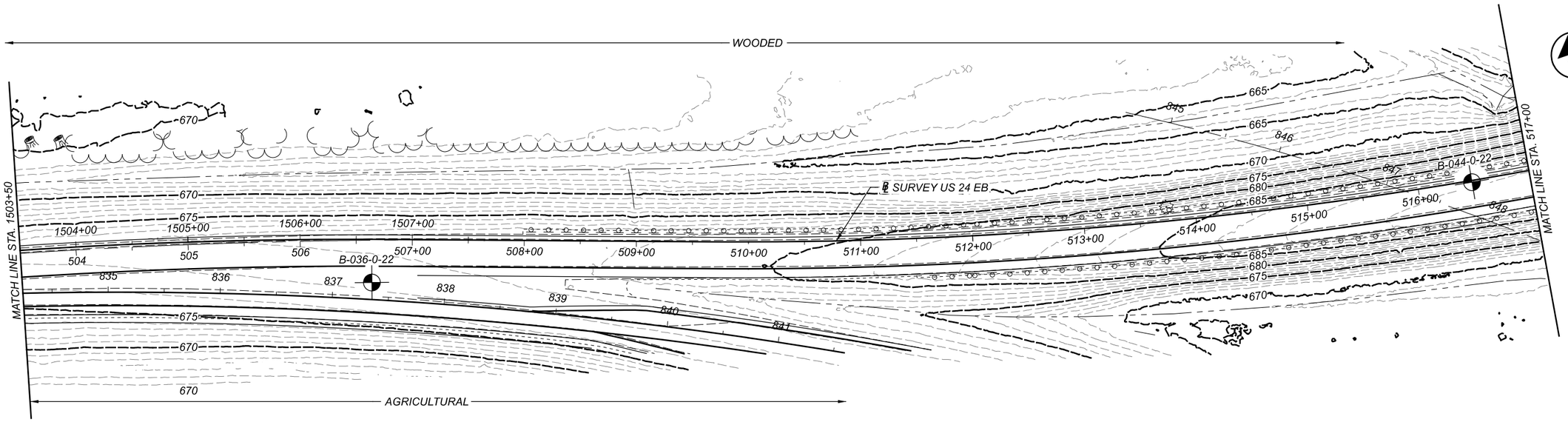


DESIGN AGENCY
CTL ENGINEERING INC
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

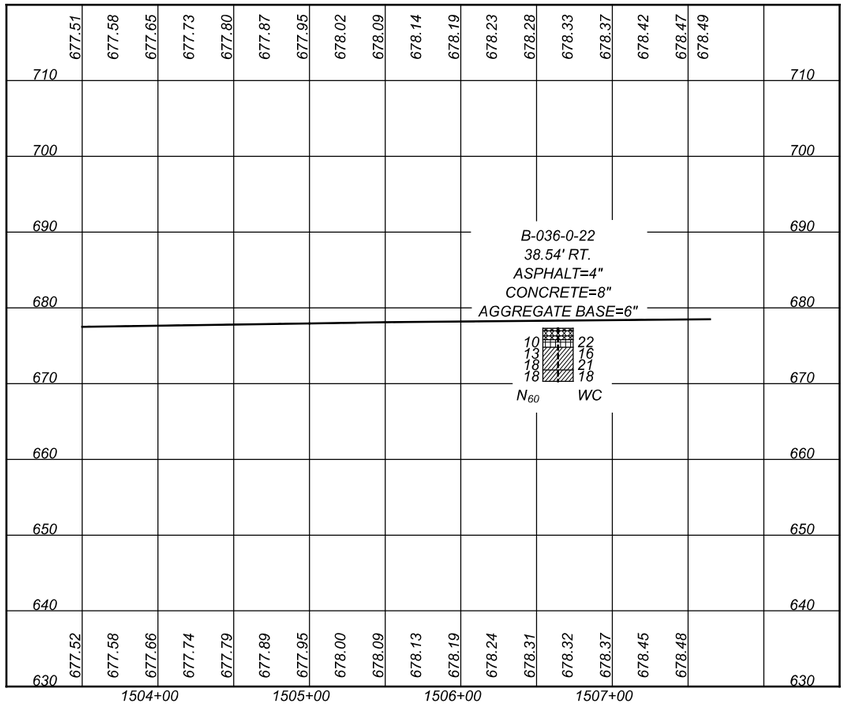
DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 41 TOTAL 70
SHEET P.1079 TOTAL 1108

HEN-6/24-11.32/4.62

MODEL: BLP_U024EB - Plan 18 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:21:33 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\220500222COL_ODOT\Mod_04.09.25\110524GP027.dgn



SEE SHEET 43 OF 70 FOR BORING B-044-0-22 SOIL PROFILE.



HEN-6/24-11.32/4.62

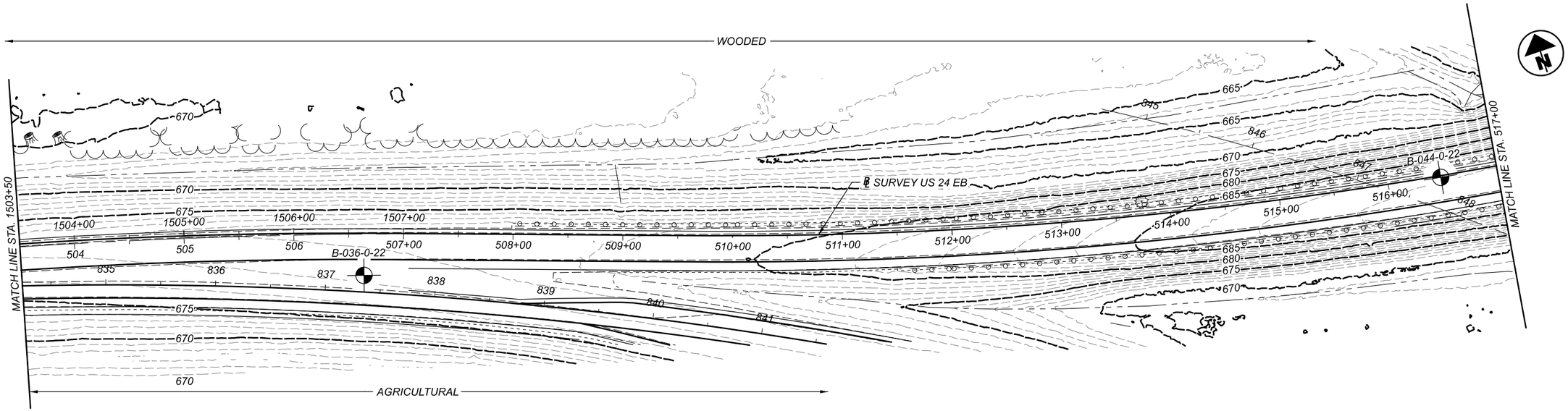
MODEL: BLP_U024EB - Plan 21 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:23:28 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\22050022COL_ODOT\Mod_04.09.25\110524GP028.dgn

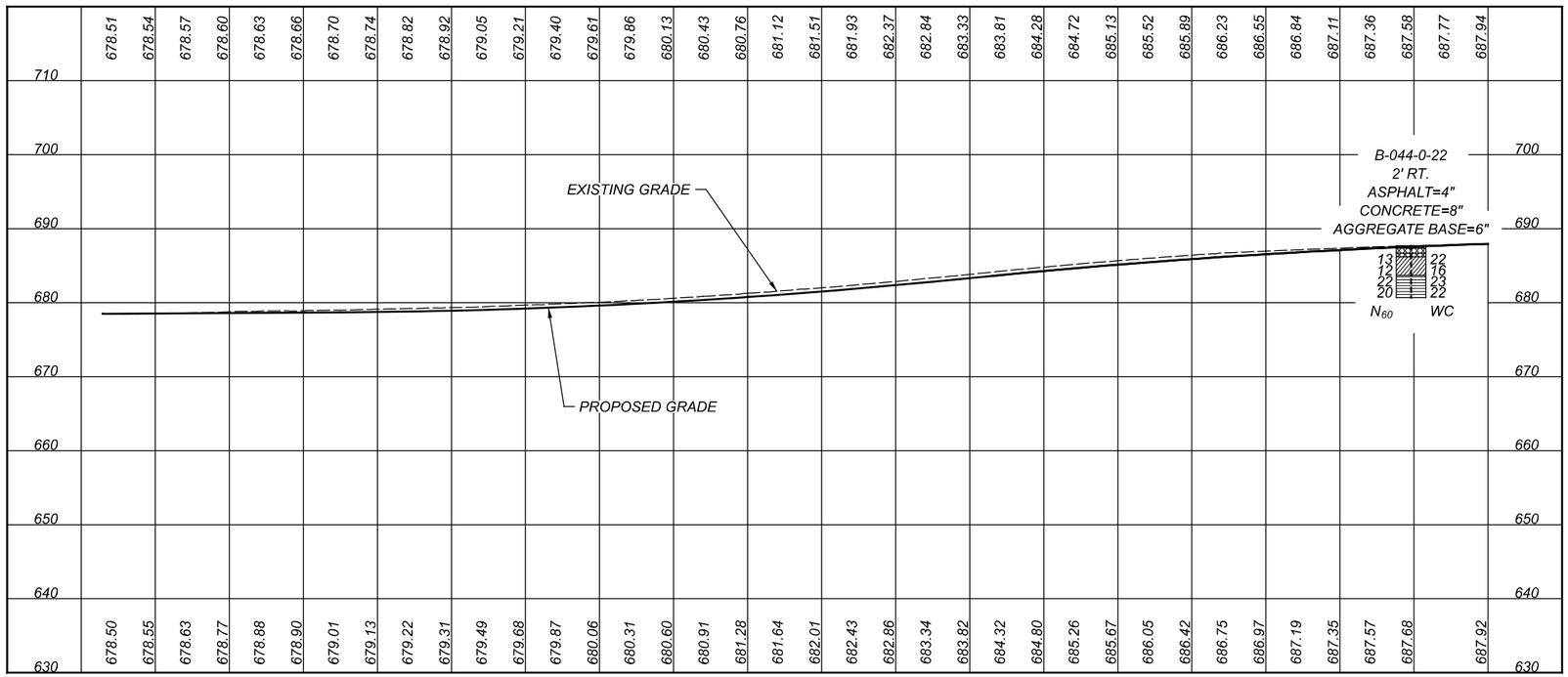
HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 1503+50.00 TO STA. 517+00.00 - US 24 EB

DESIGN AGENCY
GTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET / TOTAL	42 / 70
SHEET / TOTAL	P.1080 / 1108





HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 507+64.40 TO STA. 517+00.00 - US 24 EB

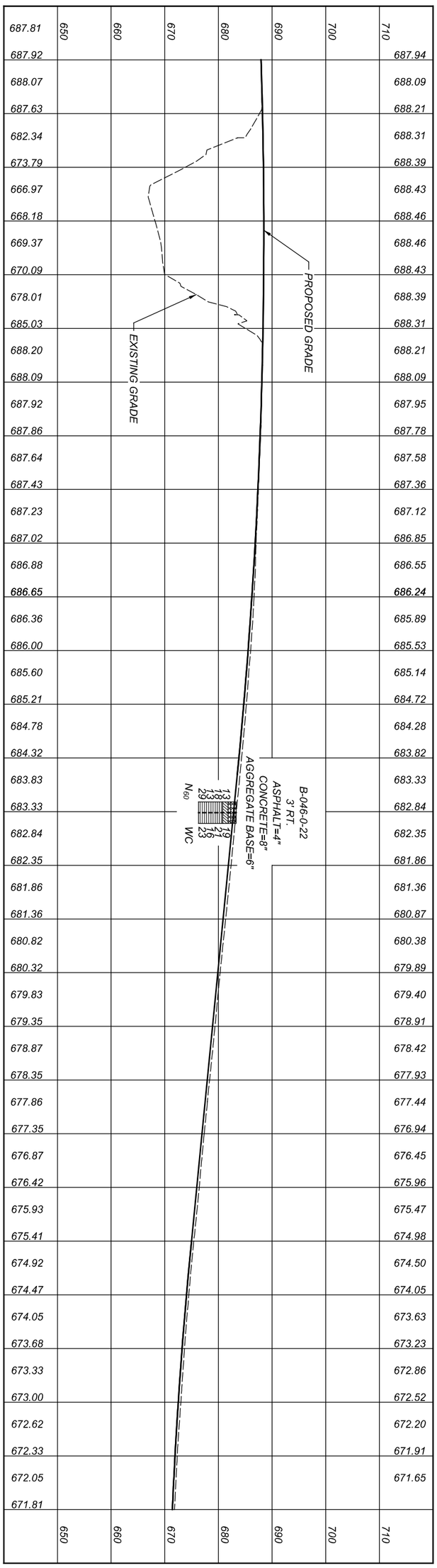
DESIGN AGENCY
CTL ENGINEERING INC
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

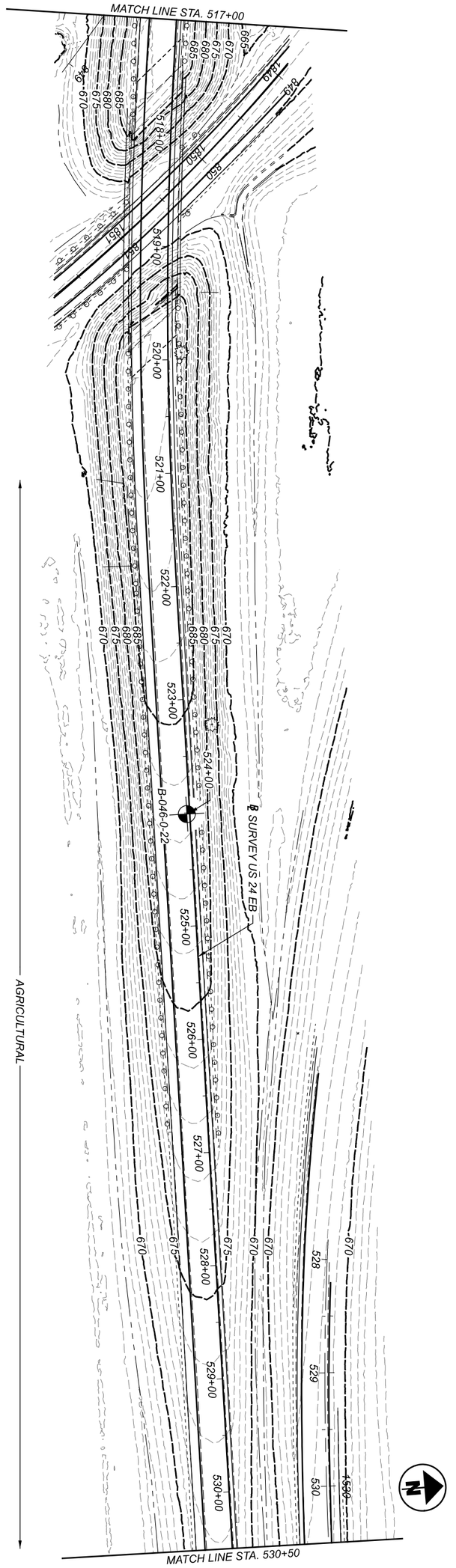
DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 43 TOTAL 70
SHEET P.1081 TOTAL 1108

HEN-6/24-11.32/4.62

MODEL: BLP_U024EB - Plan 21 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:24:39 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\220500222COL_ODOT\Mod_04.09.25\110524GP029.dgn

MODEL: BLX_U024EB - Plan 24 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:26:30 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shahed\22050022COL_ODOT\Mod_04.09.25\110524GP030.dgn

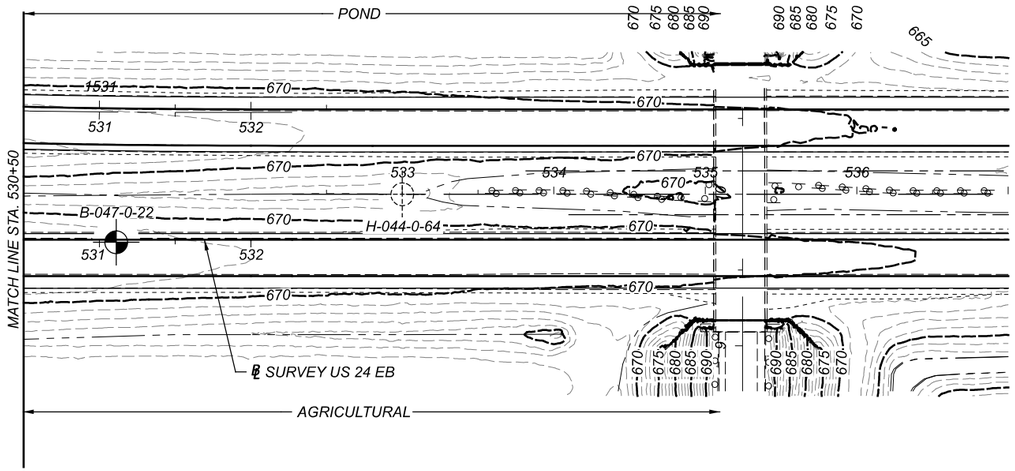


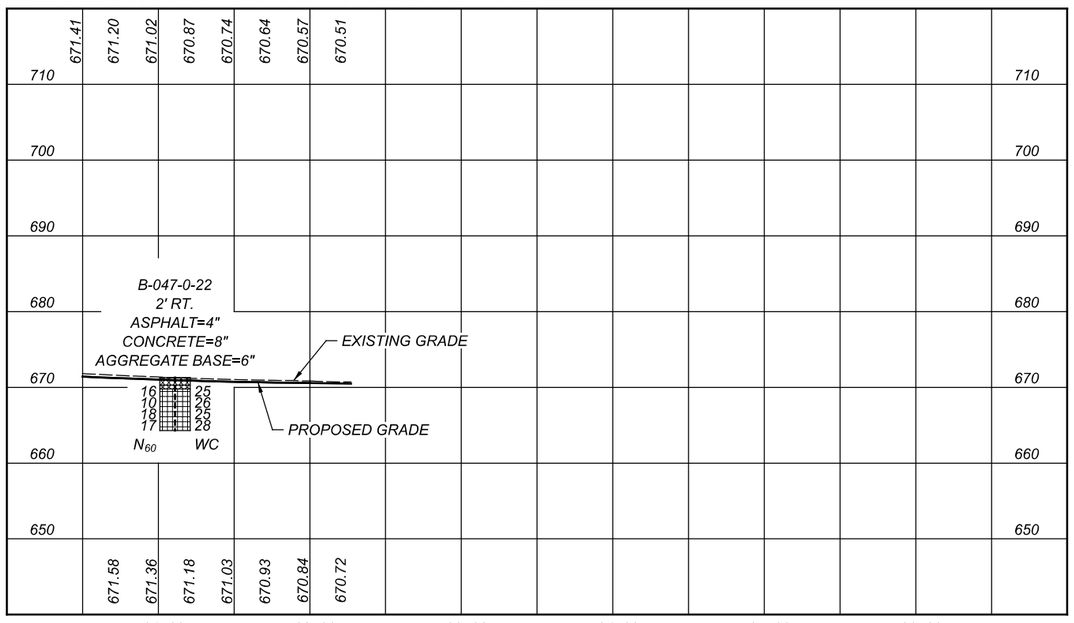


GEOTECHNICAL PROFILE - ROADWAY
STA. 517+00.00 TO STA. 530+50.00 - US 24 EB

HORIZONTAL SCALE IN FEET
0 50
25 100

DESIGN AGENCY
CTL ENGINEERING, INC.
DESIGNER N.K.S
REVIEWER SM
PROJECT ID 110524
SUBSET 44 TOTAL 70
SHEET P.1082 TOTAL 1108
09-03-25





HEN-6/24-11.32/4.62

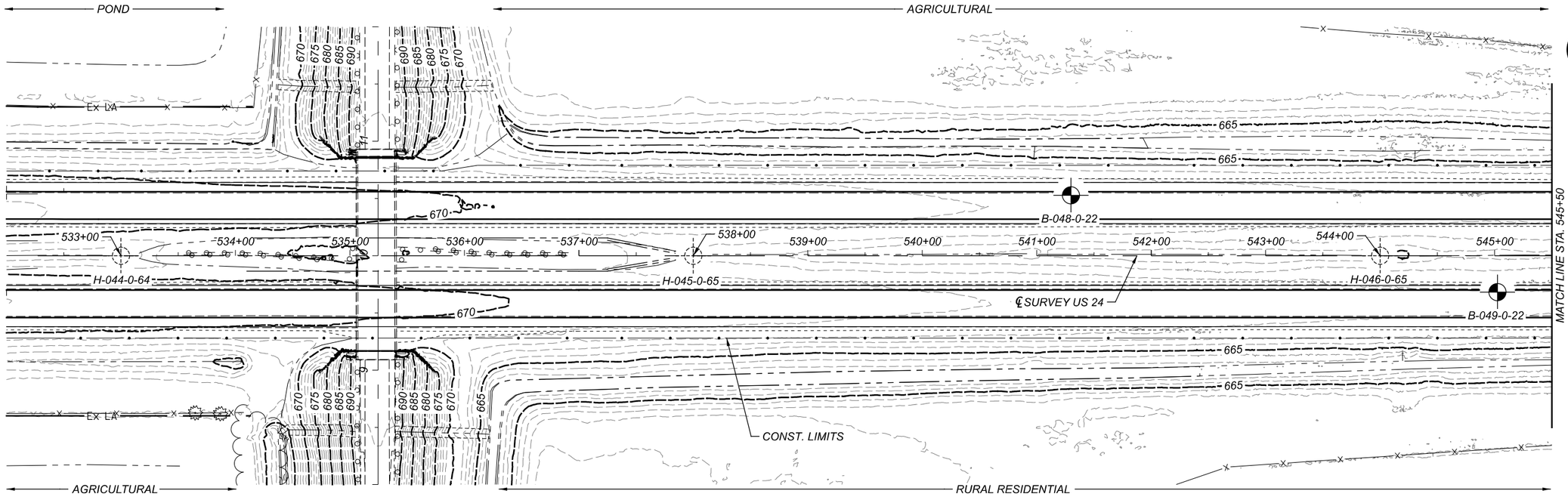
MODEL: BLX_U024EB - Plan 27 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:27:47 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\220500022COL_ODOT\Mod_04.09.25\110524GP031.dgn

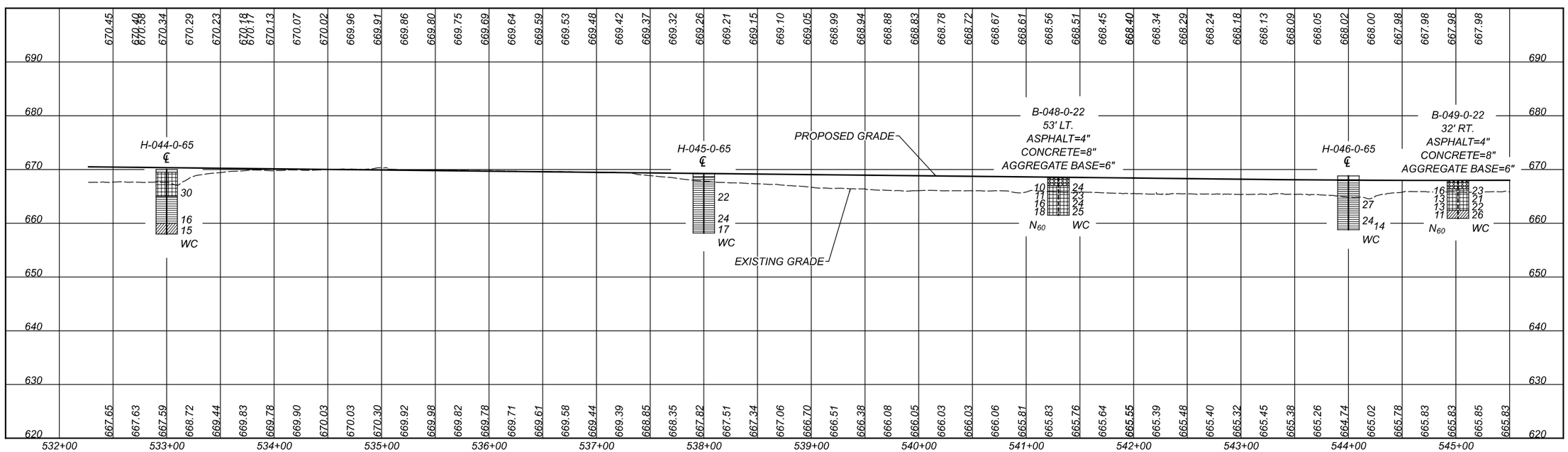
HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 530+50.00 TO STA. 537+00.00 - US 24 EB

DESIGN AGENCY
CTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET / TOTAL	45 / 70
SHEET / TOTAL	P.1083 / 1108





GEOTECHNICAL PROFILE - ROADWAY
STA. 532+00.00 TO STA. 545+50.00 - US 24

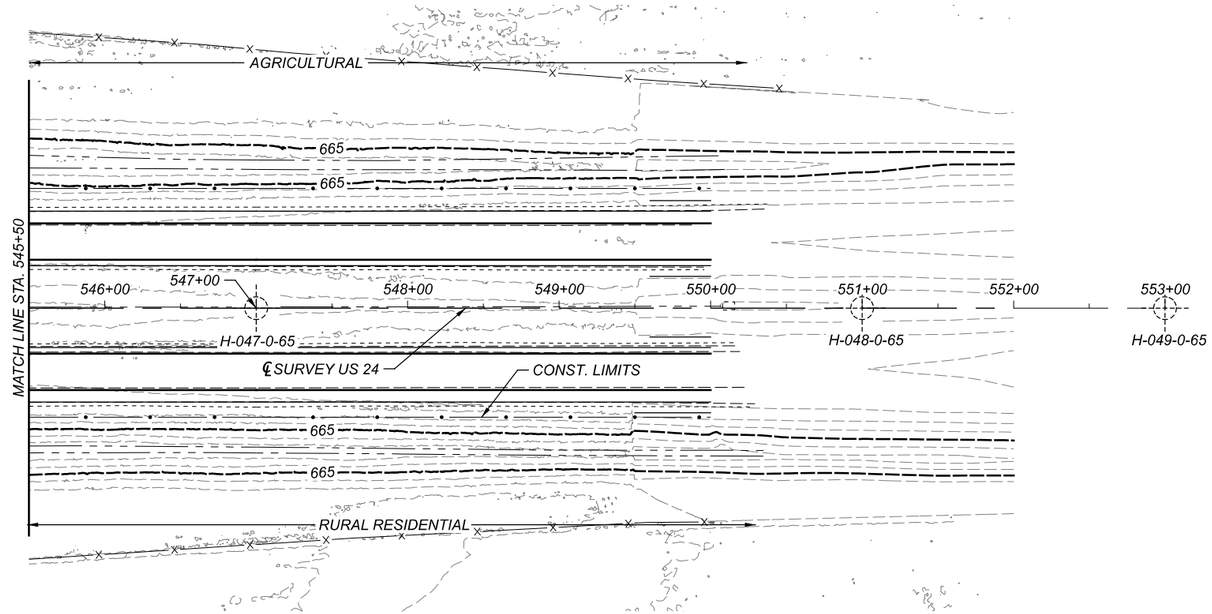
HORIZONTAL SCALE IN FEET
0 25 50 100

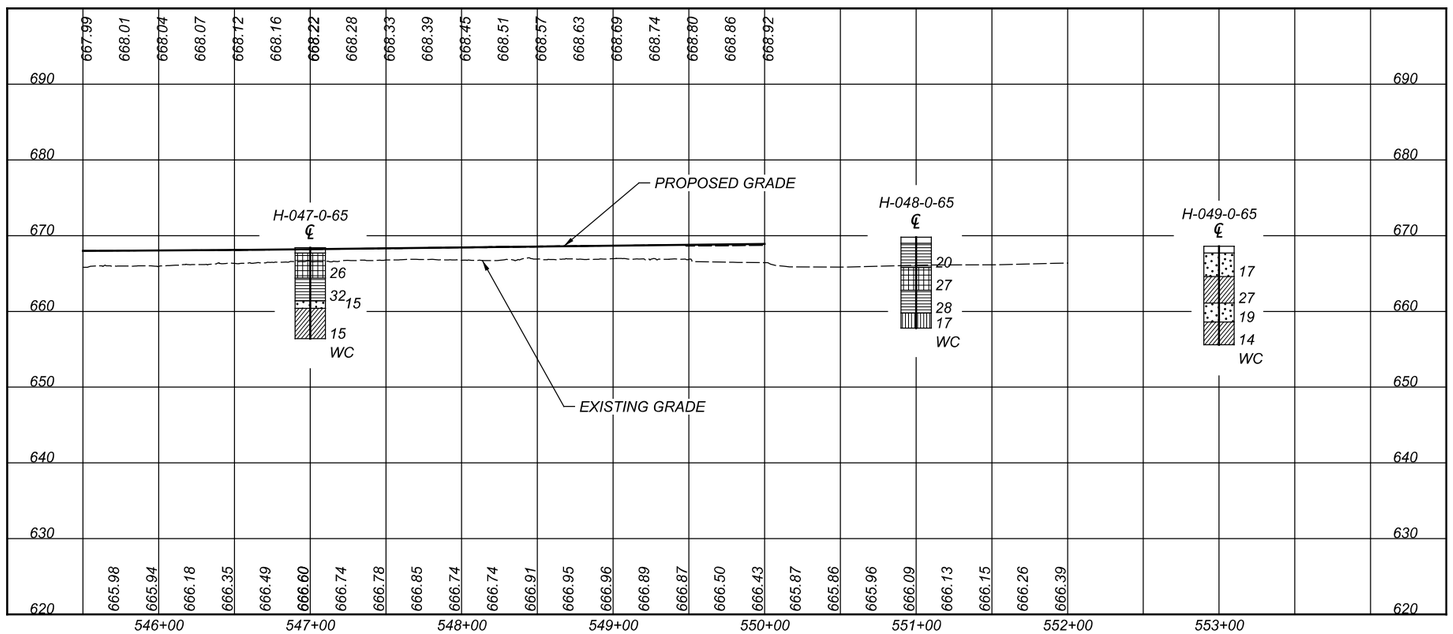
DESIGN AGENCY
CTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 46 TOTAL 70
SHEET P.1084 TOTAL 1108

HEN-6/24-11.32/4.62

MODEL: CLX_U024 - Plan 1 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:29:30 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\220500022COL_ODOT\Mod_04.09.25\110524GP032.dgn





HORIZONTAL SCALE IN FEET
0 25 50 100

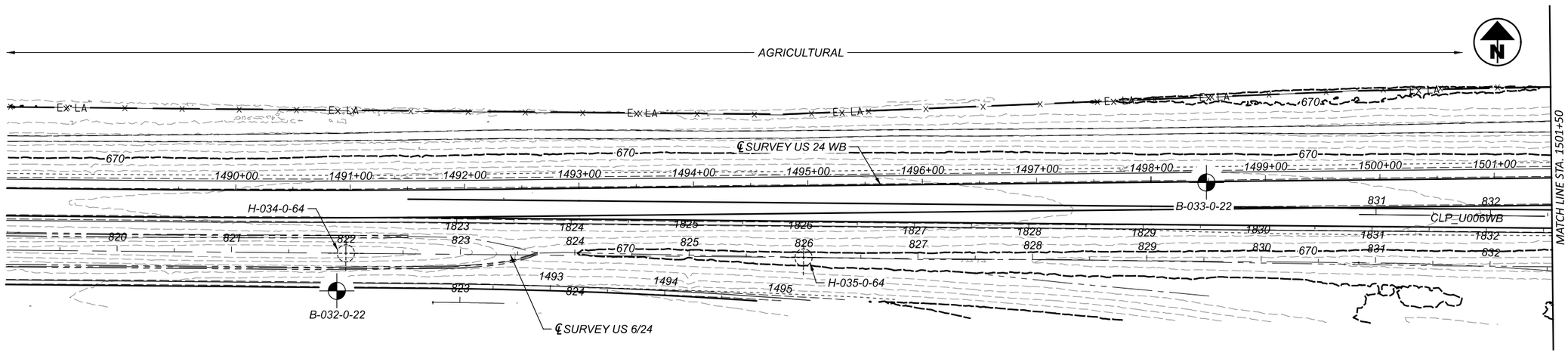
GEOTECHNICAL PROFILE - ROADWAY
STA. 545+50.00 TO STA. 552+00.00 - US 24

HEN-6/24-11.32/4.62

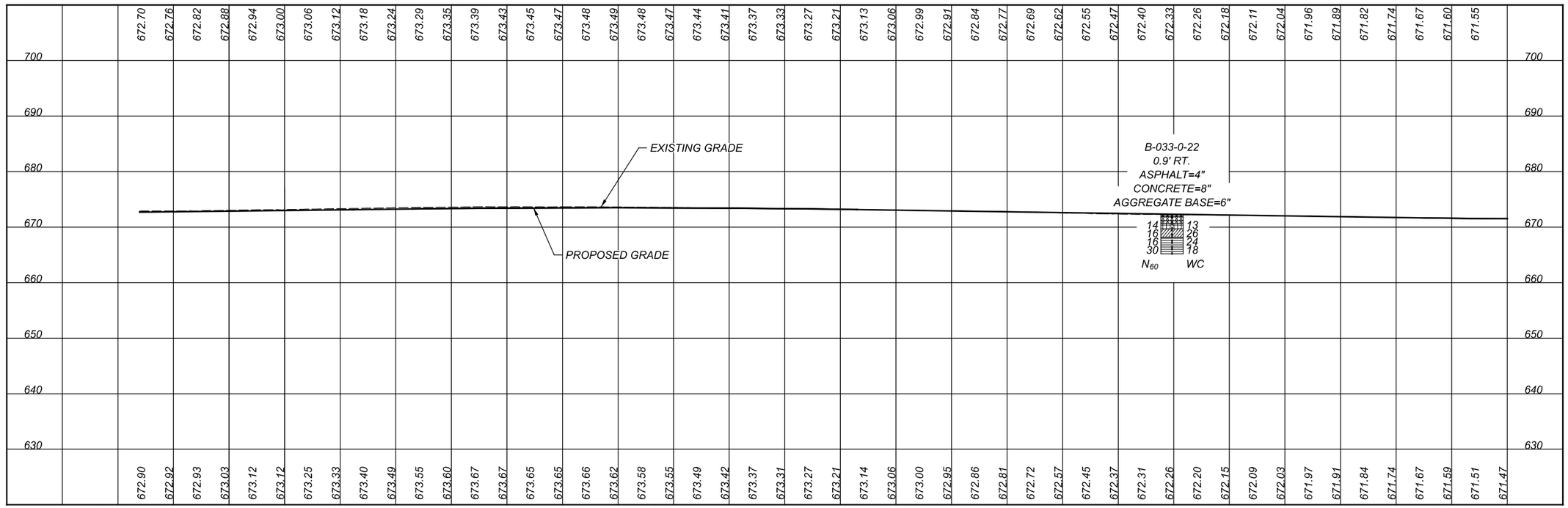
MODEL: CLX_U024 - Plan 4 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:30:49 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\22050022COL_ODOT\Mod_04.09.25\110524GP033.dgn

DESIGN AGENCY
CTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	47
TOTAL	70
SHEET	P.1085
TOTAL	1108



SEE SHEET 33 OF 70 FOR BORING B-032-0-22 SOIL PROFILE.
SEE SHEET 33 OF 70 FOR HISTORIC BORING H-034-0-65 AND H-035-0-65 SOIL PROFILES.



HORIZONTAL SCALE IN FEET
0 25 50 100

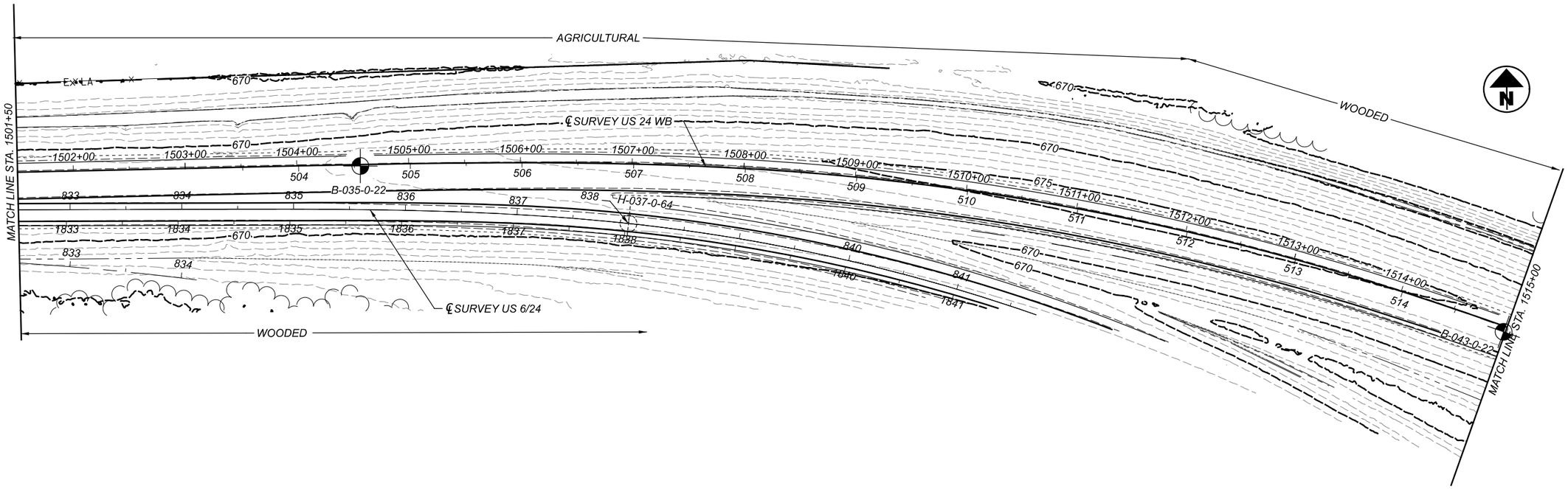
GEOTECHNICAL PROFILE - ROADWAY
STA. 1488+00.00 TO STA. 1501+50.00 - US 24 WB

DESIGN AGENCY
CTL ENGINEERING INC
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

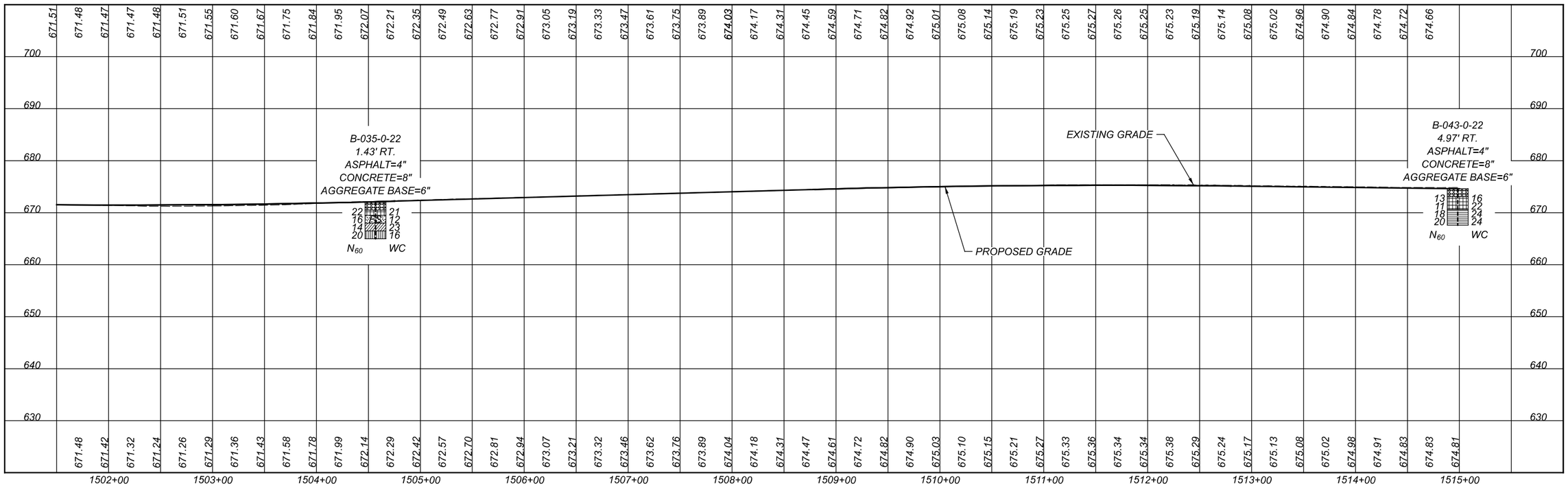
DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 48 TOTAL 70
SHEET P.1086 TOTAL 1108

HEN-6/24-11.32/4.62

MODEL: BLP_U024WB - Plan 1 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 13:32:25 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\220500222COL_ODOT\Mod_04.09.25\110524GP034.dgn



SEE SHEET 39 OF 70 FOR HISTORIC BORING H-037-0-65 SOIL PROFILE.



HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 1501+50.00 TO STA. 1515+00.00 - US 24 WB

DESIGN AGENCY

CTL ENGINEERING INC
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER N.K.S

REVIEWER SM 09-03-25

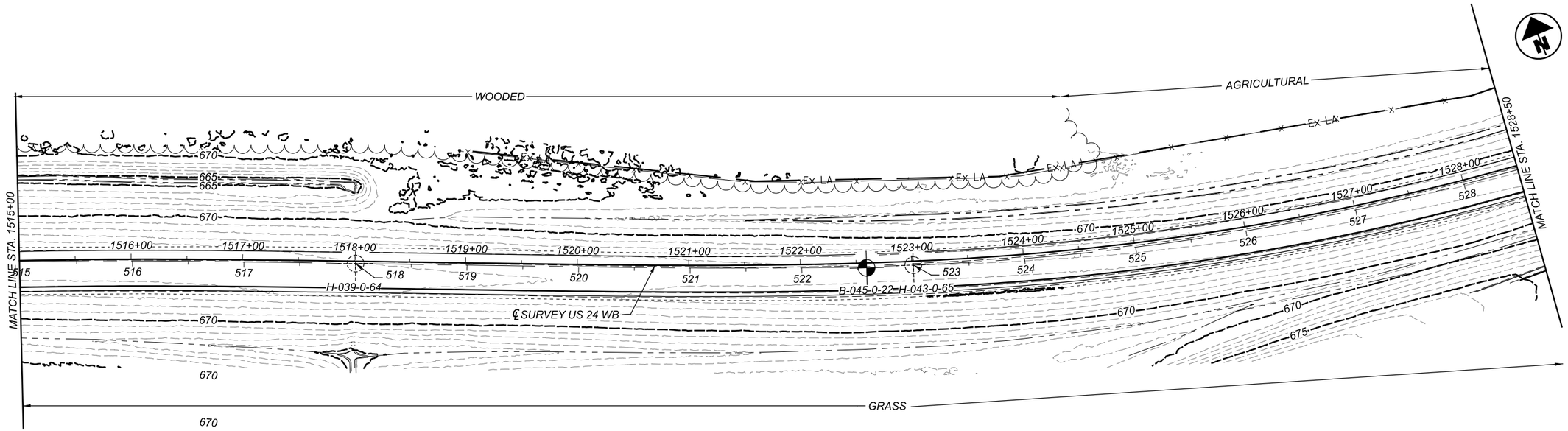
PROJECT ID 110524

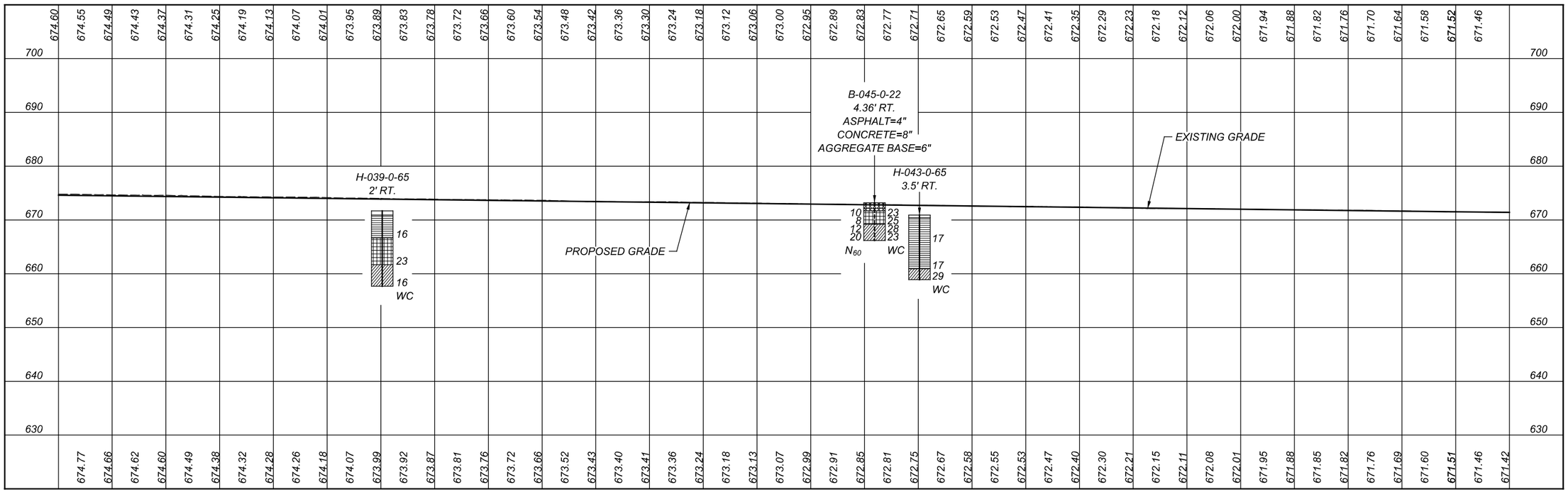
SUBSET 49 TOTAL 70

SHEET P.1087 TOTAL 1108

HEN-6/24-11.32/4.62

MODEL: BLP_U024WB - Plan 4 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:33:22 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shaded\220500222COL_ODOT\Mod_04.09.25\110524GP035.dgn





HORIZONTAL SCALE IN FEET
0 25 50 100

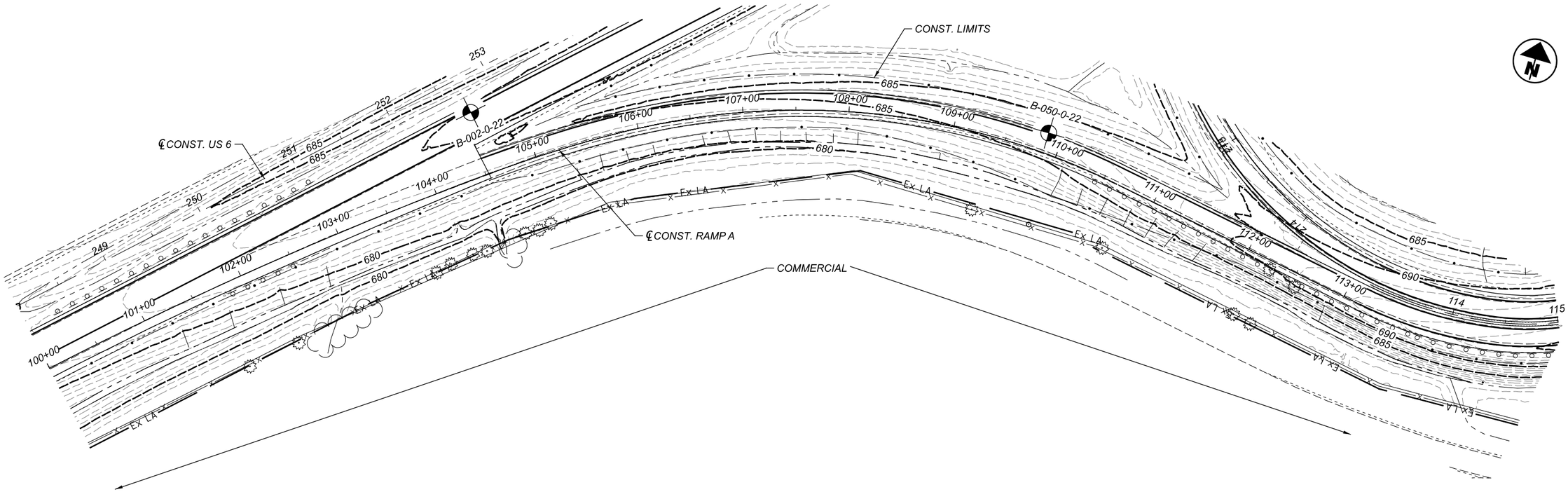
GEOTECHNICAL PROFILE - ROADWAY
STA. 1515+00.00 TO STA. 1528+50.00 - US 24 WB

DESIGN AGENCY
CTL ENGINEERING INC
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

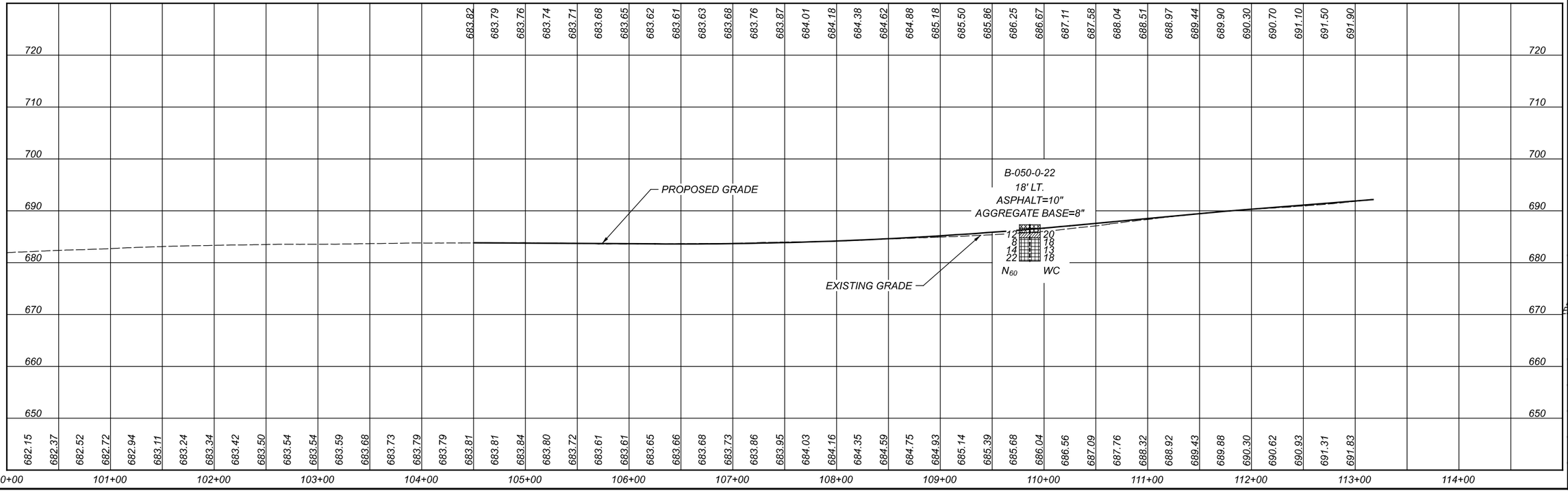
DESIGNER: N.K.S
REVIEWER: SM 09-03-25
PROJECT ID: 110524
SUBSET: 50 TOTAL: 70
SHEET: P.1088 TOTAL: 1108

HEN-6/24-11.32/4.62

MODEL: BLP_U024WB - Plan 7 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:35:03 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shaded\220500022COL_ODOT\Mod_04.09.25\110524GP036.dgn



SEE SHEET 15 OF 70 FOR BORING B-002-0-22 SOIL PROFILE.



HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 100+00.00 TO STA. 113+17.27 - US 6 & 24 RAMP A

HEN-6/24-11.32/4.62

MODEL: BLP_R006A - U006 and U024 Ramp A - Plan 2 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:37:29 USER: hp
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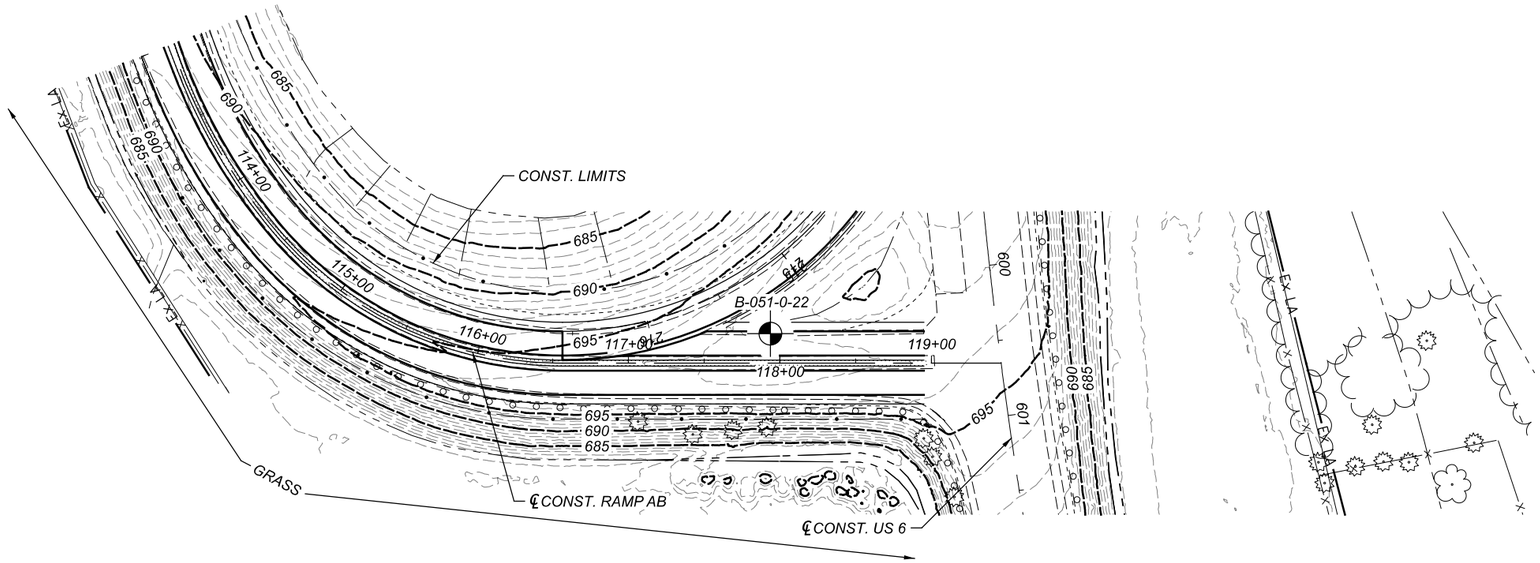
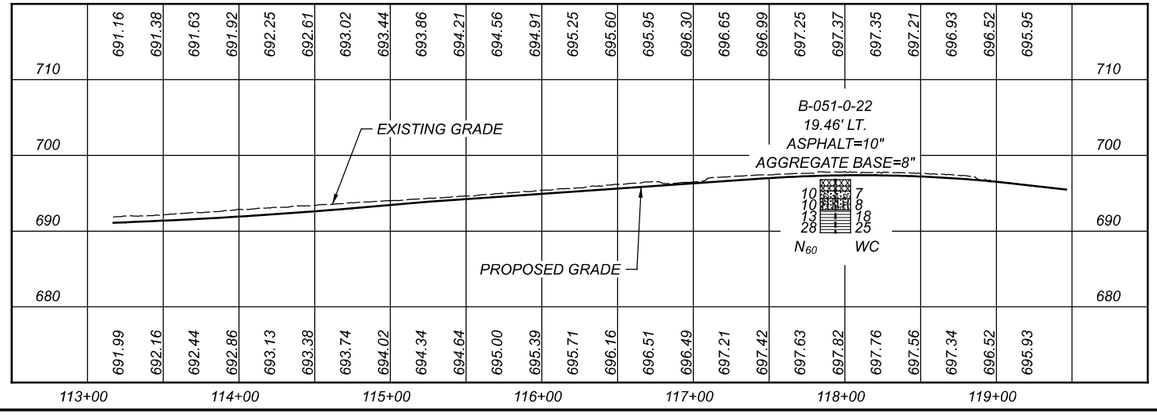
DESIGN AGENCY
CTL ENGINEERING Inc.
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	51
TOTAL	70
SHEET	P.1089
TOTAL	1108





HEN-6/24-11.32/4.62

MODEL: BLP_R006AB - U006 and U024 Ramp AB - Plan 2 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:38:28 USER: hp
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HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 113+00.00 TO STA. 119+46.00 - US 6 & 24 RAMP AB

DESIGN AGENCY
GTL ENGINEERING INC
2960 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET / TOTAL	52 / 70
SHEET / TOTAL	P.1090 / 1108

MODEL: BLP_R006B2 - U006 and U024 Ramp B - Plan 3 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:39:38 USER: hp
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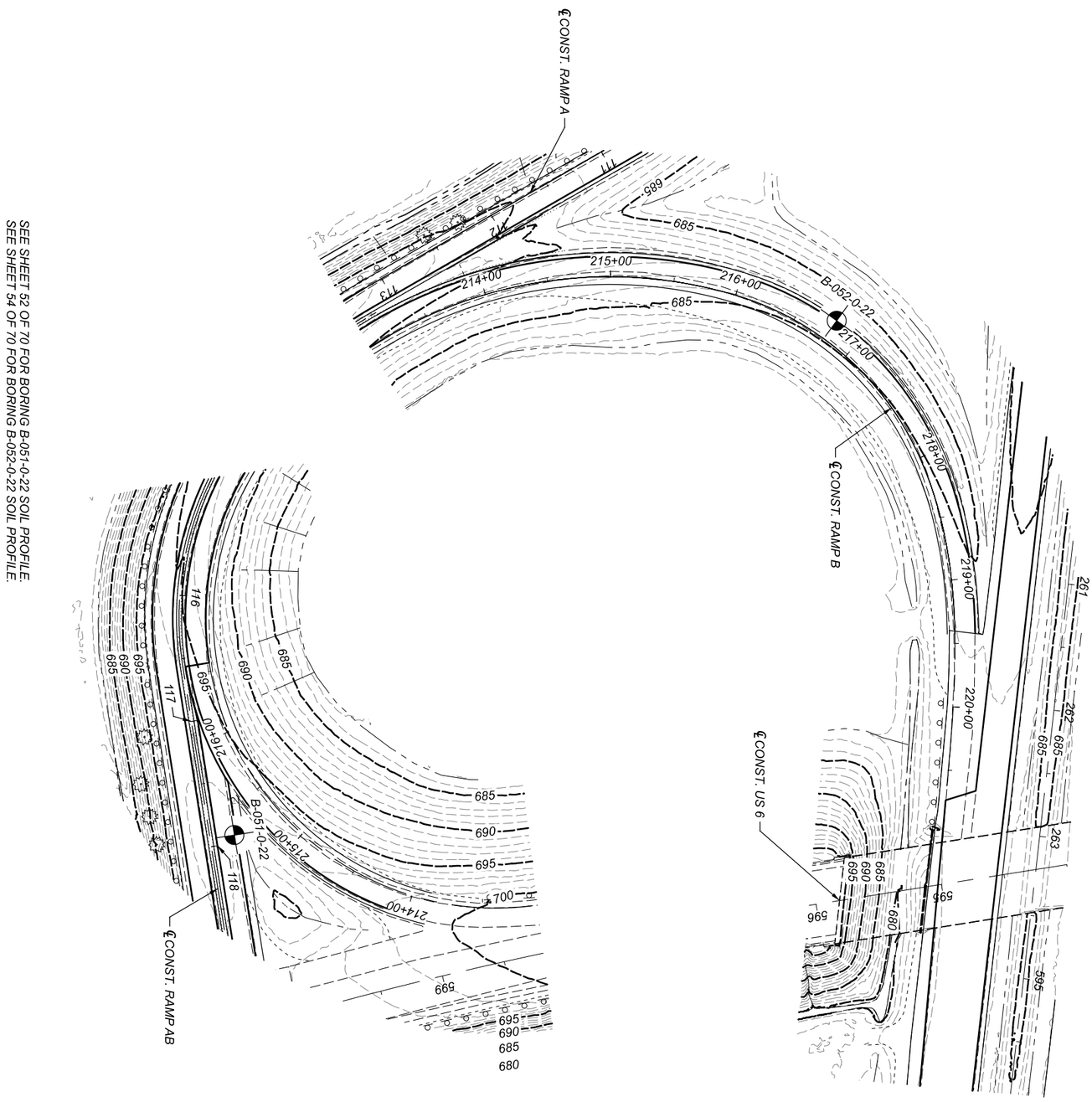

GEOTECHNICAL PROFILE - ROADWAY
STA. 213+00.00 TO STA. 220+73.84 - US 6 & 24 RAMP B

HORIZONTAL SCALE IN FEET
0 50
25 100

DESIGNER	DESIGN AGENCY
N.K.S	CTL ENGINEERING, INC.
REVIEWER	6121 HUNTLEY ROAD, SUITE J, COLUMBUS, OHIO 43229 PHONE 614-276-8123 FAX 614-276-6373
SM 09-03-25	
PROJECT ID	
110524	
SUBSET 53 TOTAL 70	
SHEET P.1091 TOTAL 1108	

MODEL: PGL_BLP_R006B1 - U006 and U024 Ramp B - Profile 1 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:40:35 USER: hp
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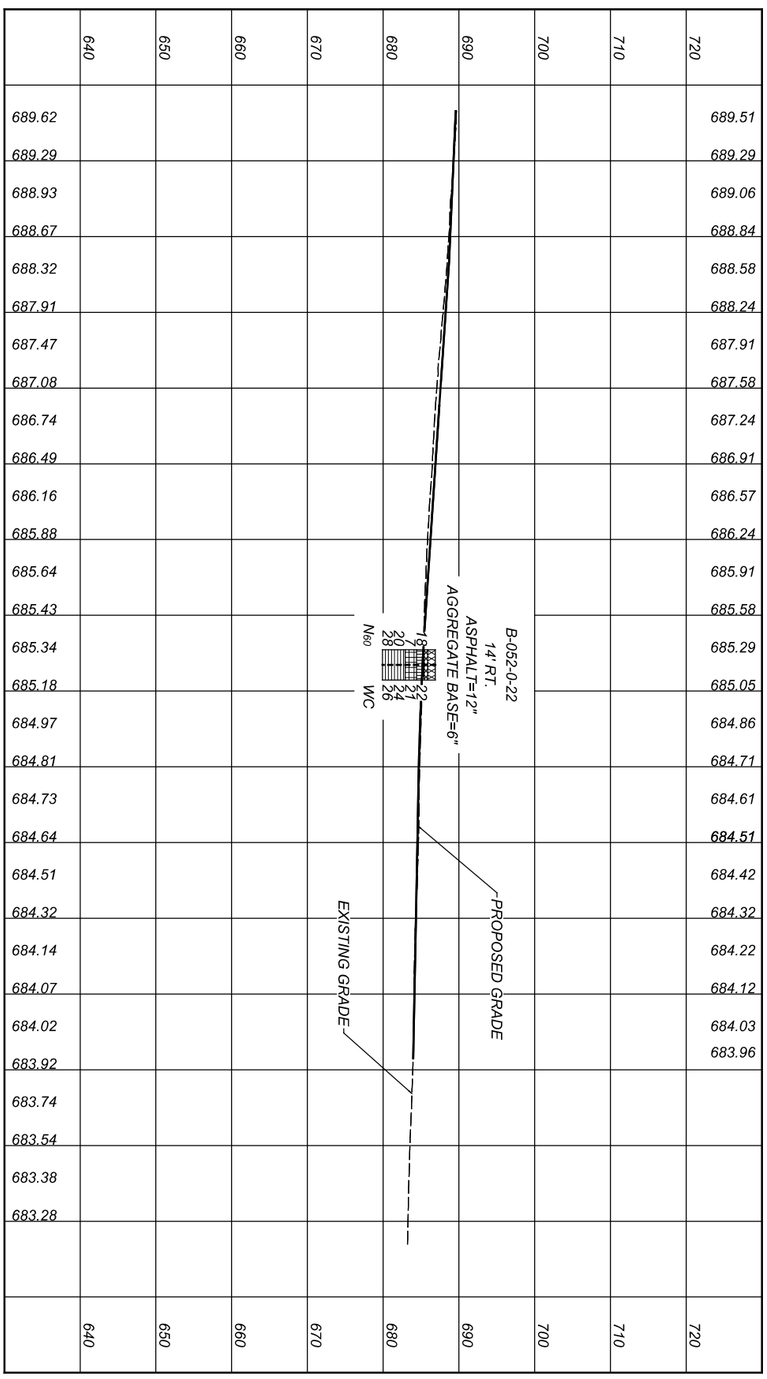
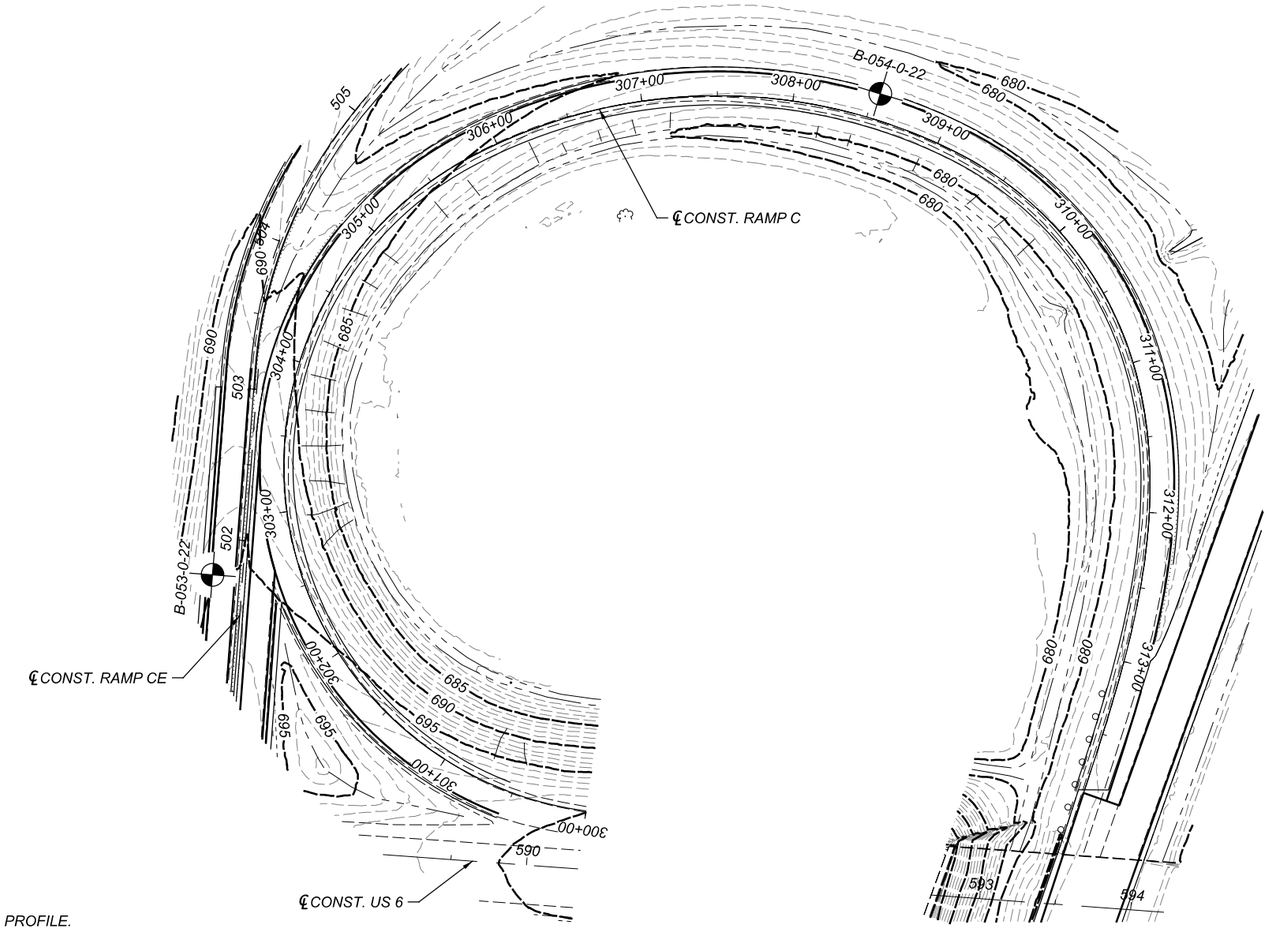


DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 54 TOTAL 70
SHEET P.1092 TOTAL 1108

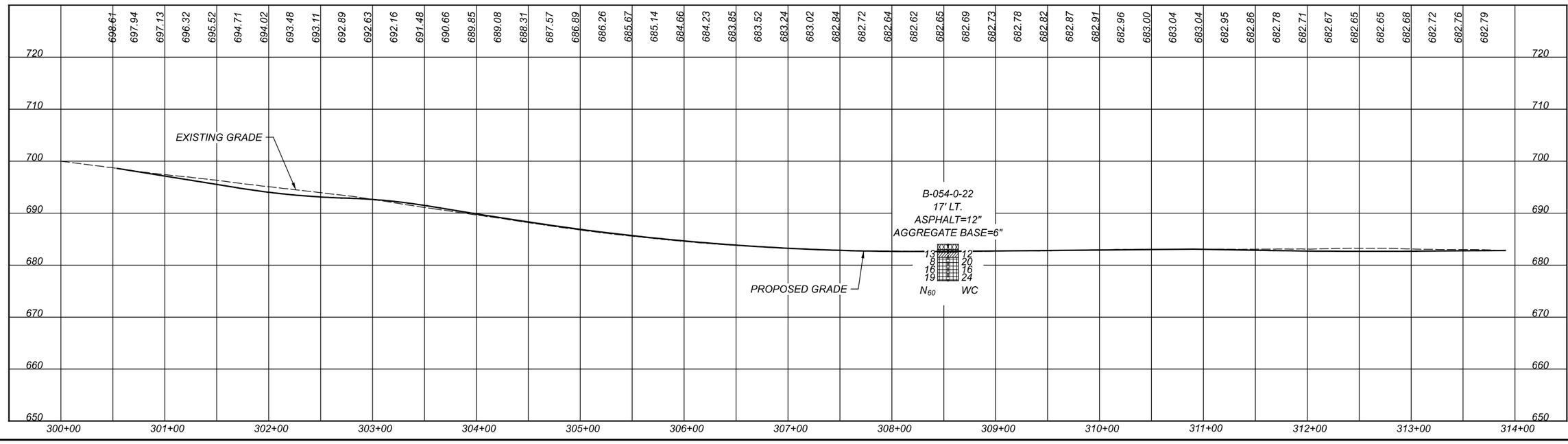
DESIGN AGENCY
CTL ENGINEERING, INC.
COLUMBUS, OHIO 43204
PHONE 614.276.8123
FAX 614.276.6977

GEOTECHNICAL PROFILE - ROADWAY
STA. 213+00.00 TO STA. 220+73.84 - US 6 & 24 RAMP B

HORIZONTAL SCALE IN FEET
0 50
25 100



SEE SHEET 59 OF 70 FOR BORING B-053-0-22 SOIL PROFILE.



HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 300+00.00 TO STA. 313+90.72 - US 6 & 24 RAMP C

DESIGN AGENCY
CTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 55 TOTAL 70
SHEET P.1093 TOTAL 1108

HEN-6/24-11.32/4.62

MODEL: BLP_R006C - U006 and U024 Ramp C - Plan 2 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:41:43 USER: hp
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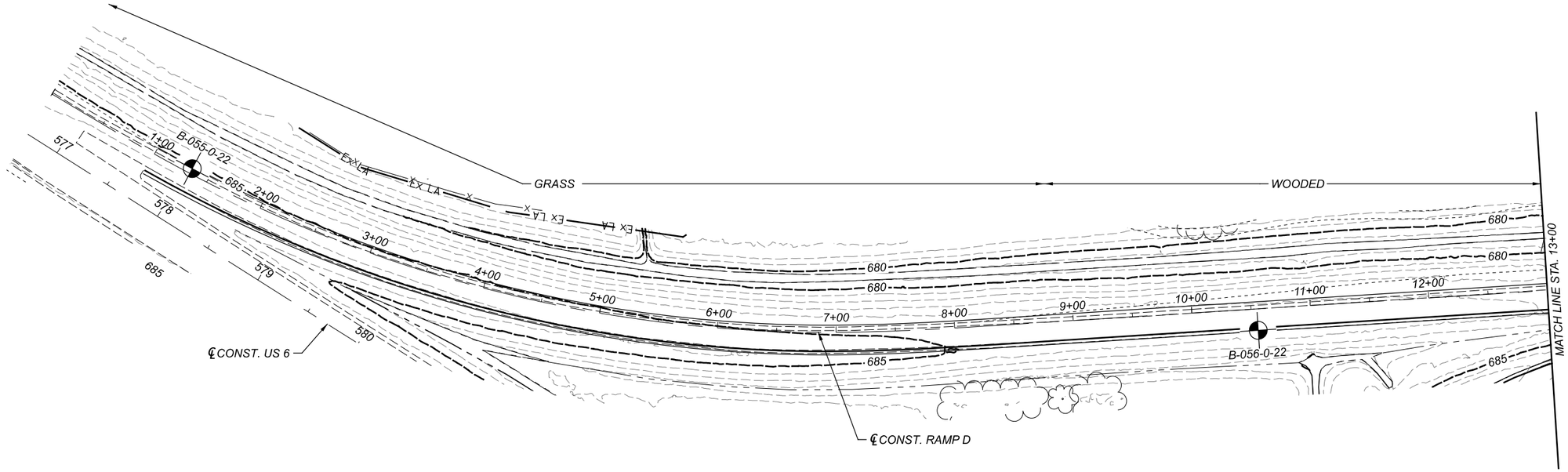

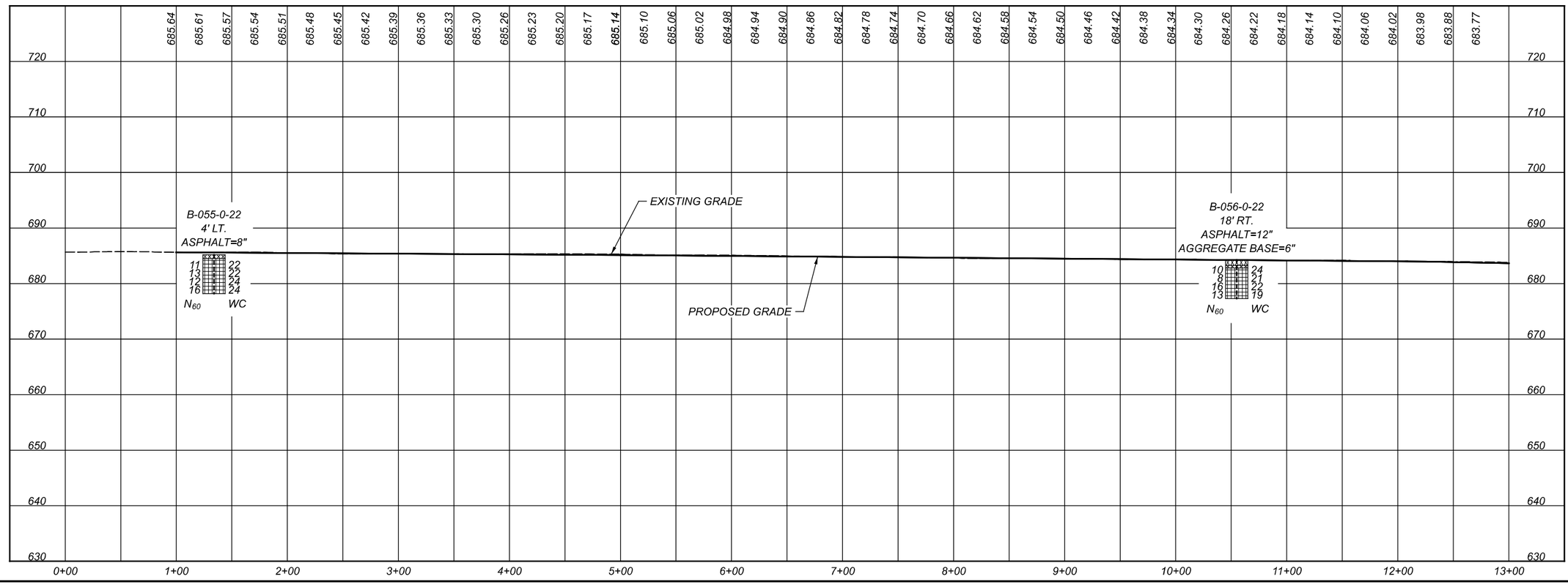

HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 0+00.00 TO STA. 13+00.00 - US 6 & 24 RAMP D

HEN-6/24-11.32/4.62

MODEL: BLX_R006D - U006 and U024 Ramp D - Plan 2 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:42:54 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shahed\220500222COL_ODOT\Mod_04.09.25\110524GP042.dgn

DESIGN AGENCY
GTL ENGINEERING INC
2960 FISHER ROAD
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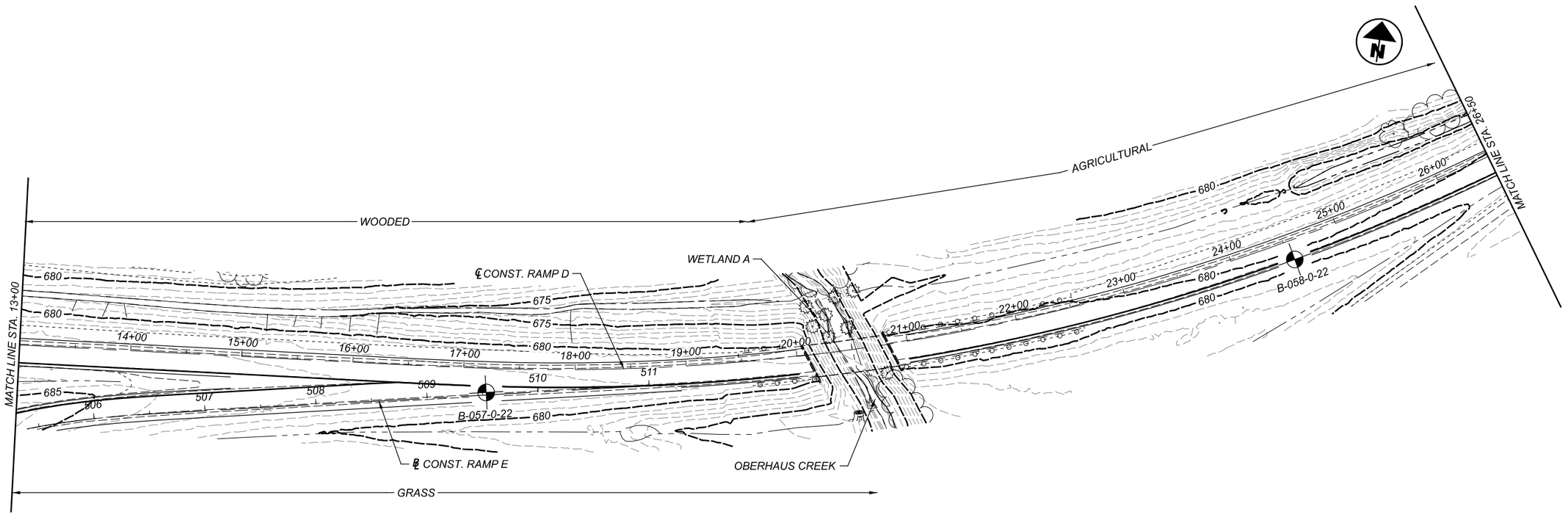
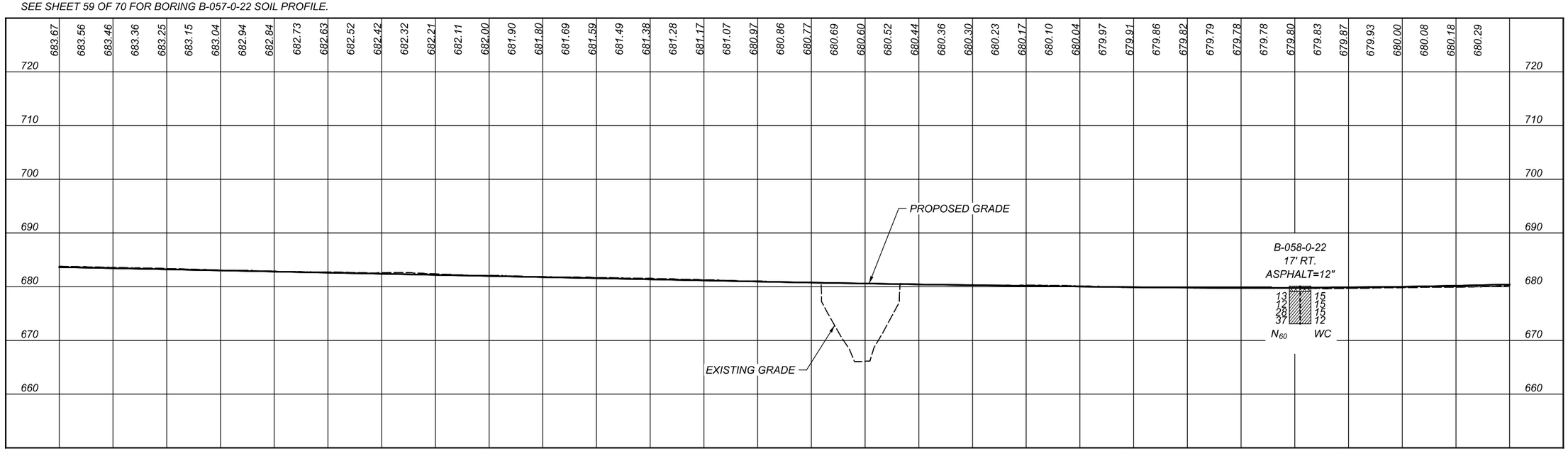
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET / TOTAL	56 / 70
SHEET / TOTAL	P.1094 / 1108



SEE SHEET 59 OF 70 FOR BORING B-057-0-22 SOIL PROFILE.



HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 13+00.00 TO STA. 26+50.00 - US 6 & 24 RAMP D

HEN-6/24-11.32/4.62

MODEL: BLX_R006D - U006 and U024 Ramp D - Plan 4 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:43:58 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\22050022COL_ODOT\Mod_04.09.25\110524GP043.dgn

DESIGN AGENCY
GTL ENGINEERING
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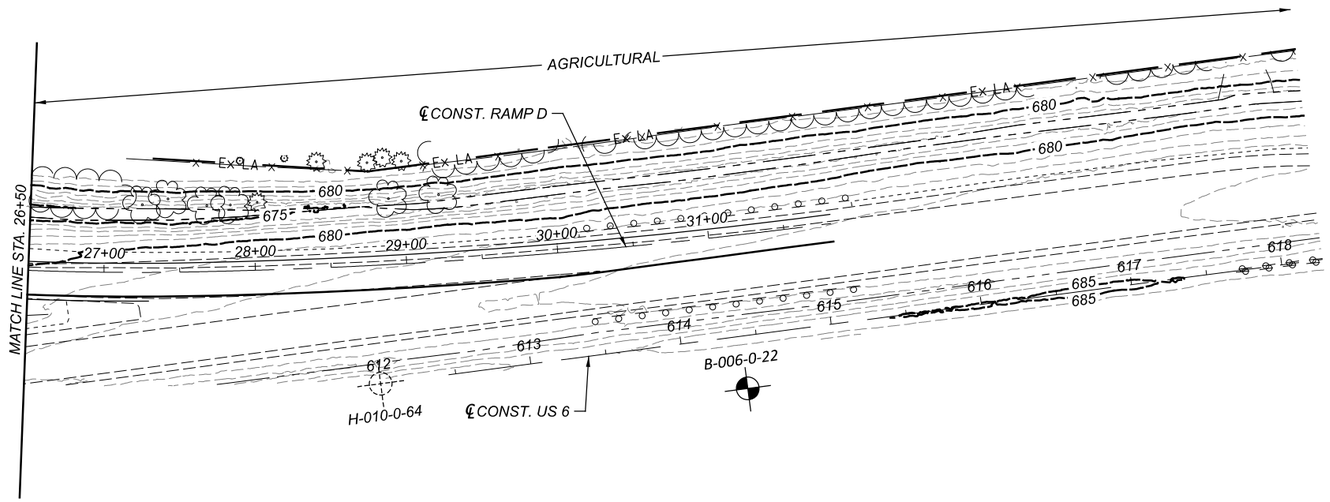
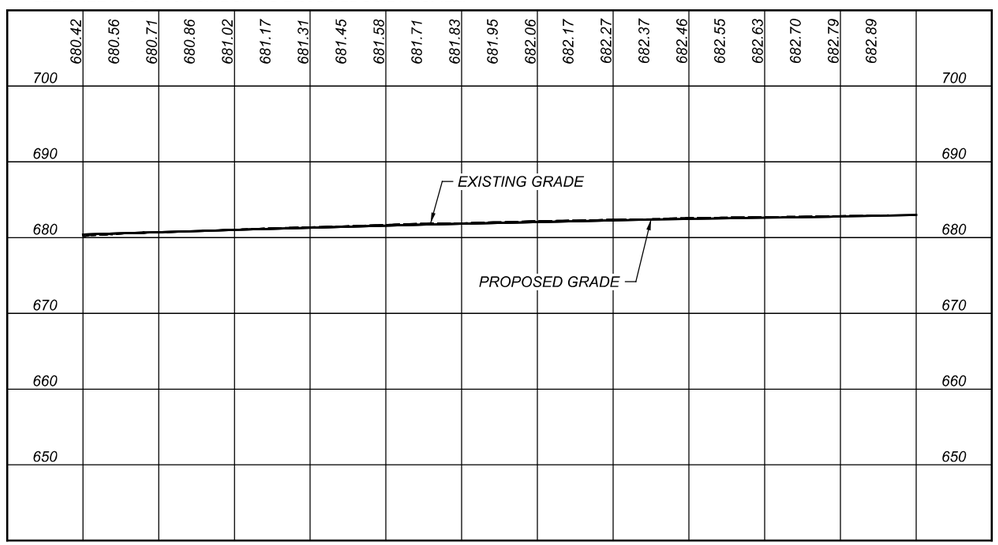
DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET / TOTAL	57 / 70
SHEET / TOTAL	P.1095 / 1108



SEE SHEET 17 OF 70 FOR HISTORIC BORING H-010-0-64 SOIL PROFILE.
SEE SHEET 18 OF 70 FOR BORING B-006-0-22 SOIL PROFILE.



HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 26+50.00 TO STA. 31+81.42 - US 6 & 24 RAMP D

DESIGN AGENCY
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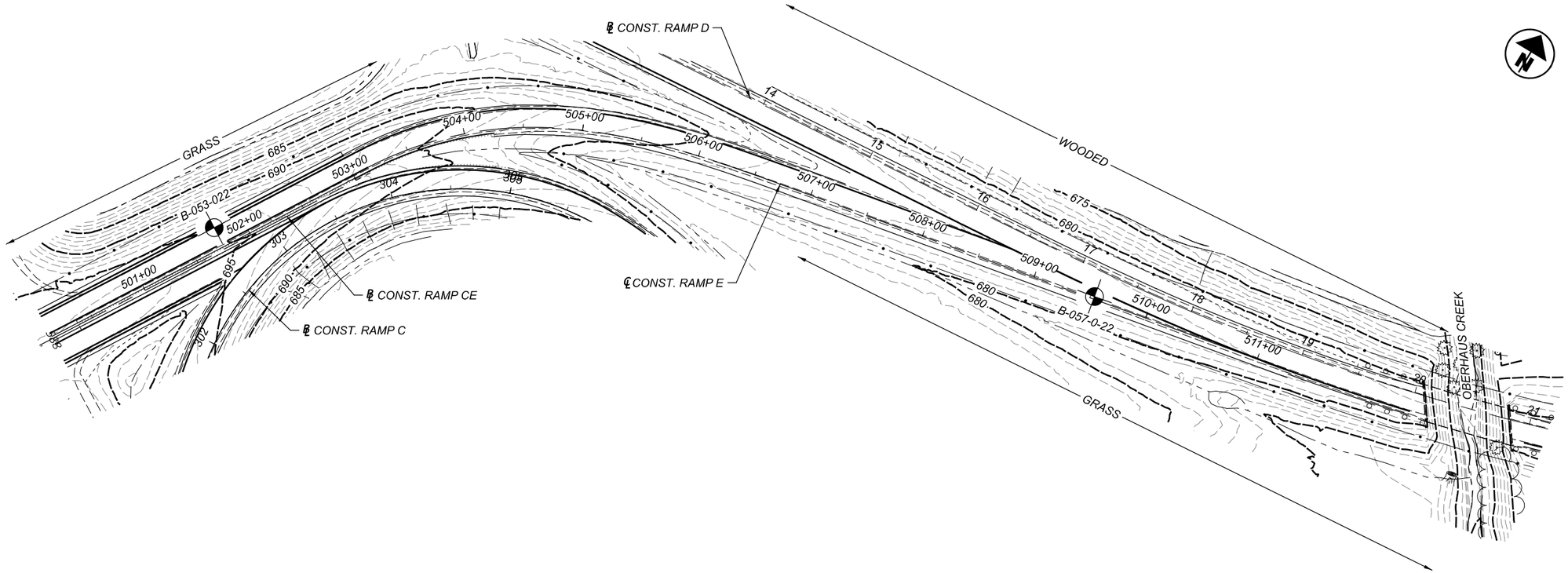
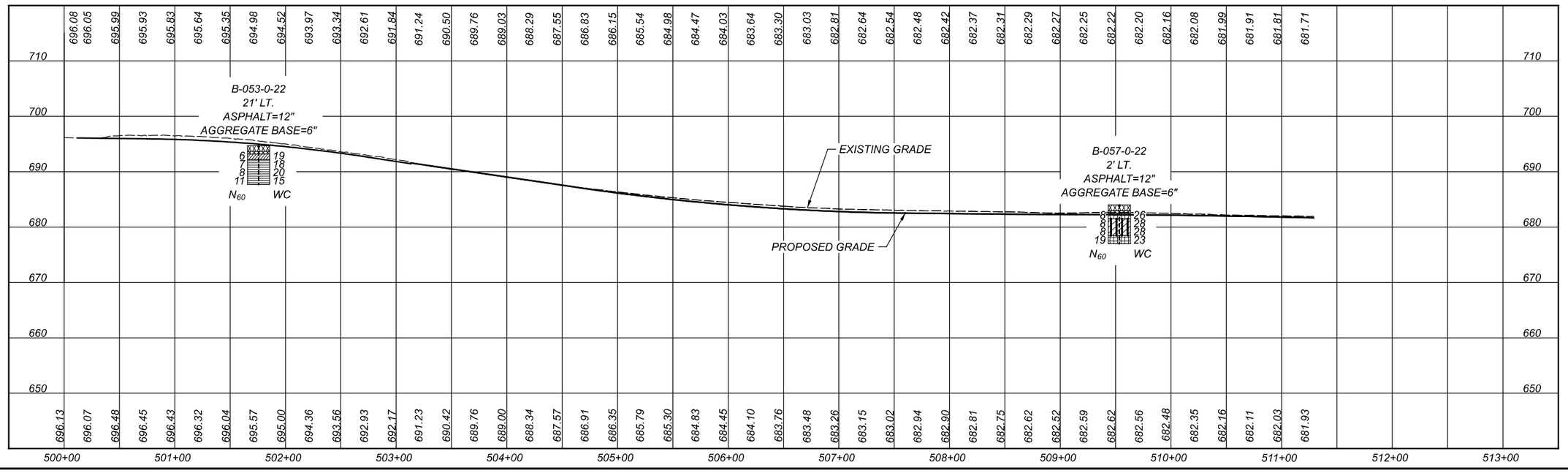
DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 58 TOTAL 70
SHEET P.1096 TOTAL 1108

HEN-6/24-11.32/4.62

MODEL: BLX_R006D - U006 and U024 Ramp D - Plan 6 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:45:17 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\220500022COL_ODOT\Mod_04.09.25\110524GP044.dgn





HEN-6/24-11.32/4.62

MODEL: BLP_R006E - U006 and U024 Ramp E - Plan 2 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:46:30 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shahed\22050022COL_ODOT\Mod_04.09.25\110524GP045.dgn

HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 500+00.00 TO STA. 511+28.84 - US 6 & 24 RAMP E

DESIGN AGENCY
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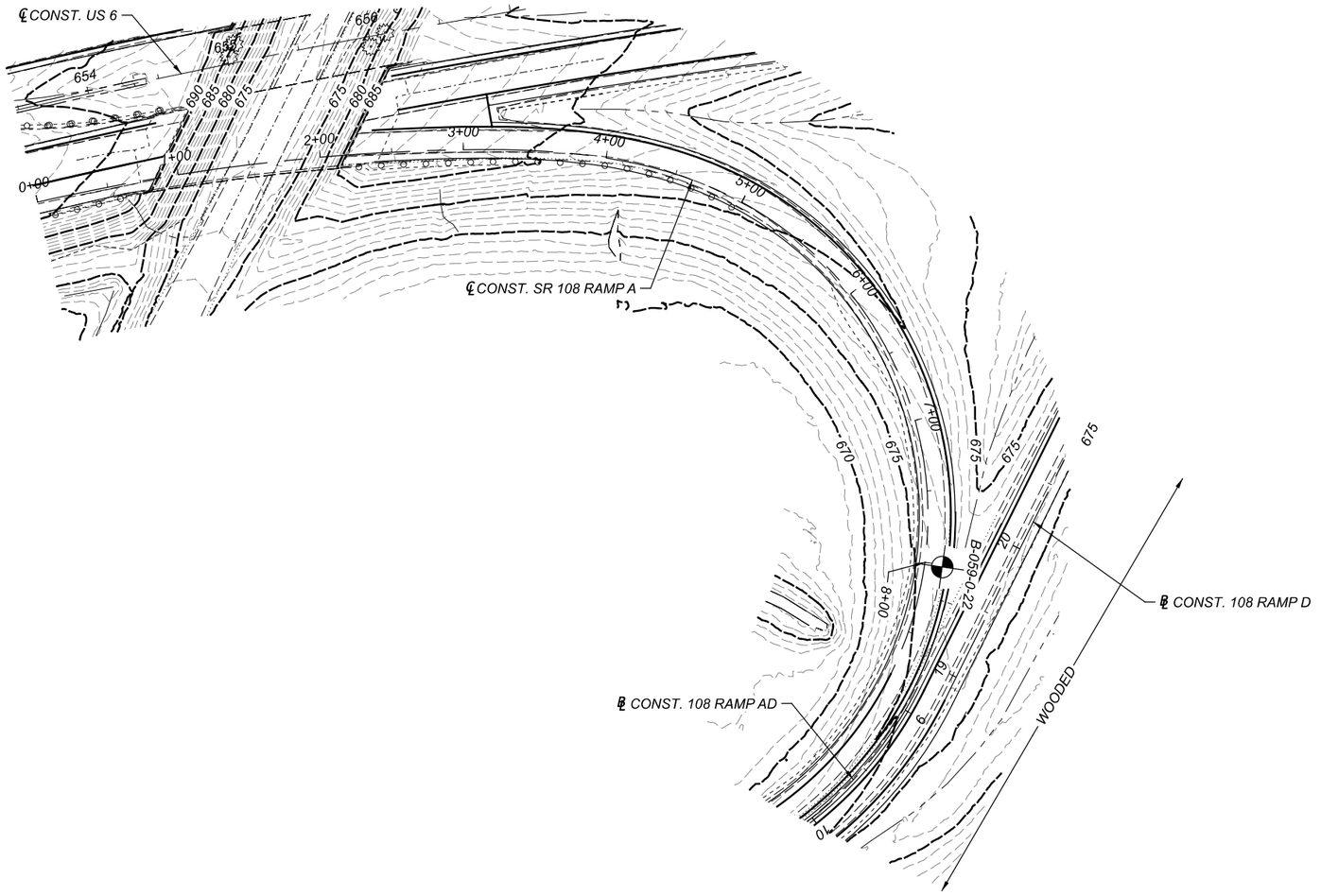
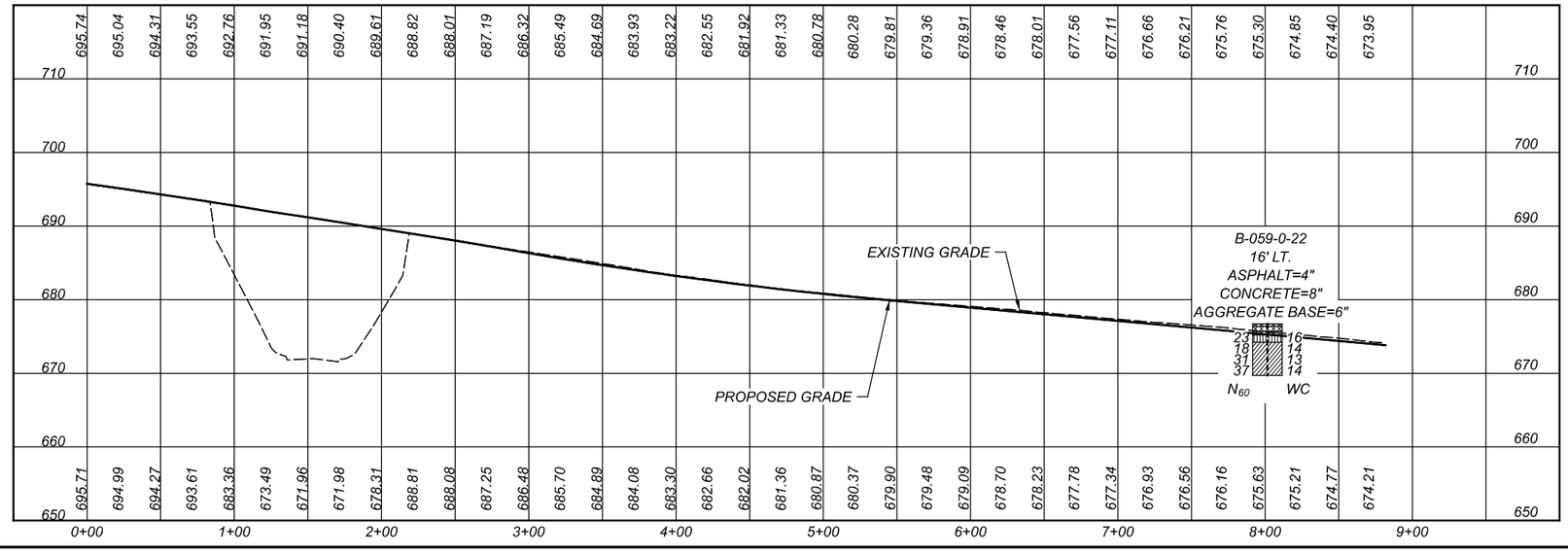
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-8377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	59
TOTAL	70
SHEET	P.1097
TOTAL	1108





HEN-6/24-11.32/4.62

MODEL: BLP_R108A - U006 and S108 Ramp A - Plan 1 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:47:45 USER: hp
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HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 0+00.00 TO STA. 8+81.79 - US 6/24 & 108 RAMP A

DESIGN AGENCY
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COLUMBUS, OHIO 43204
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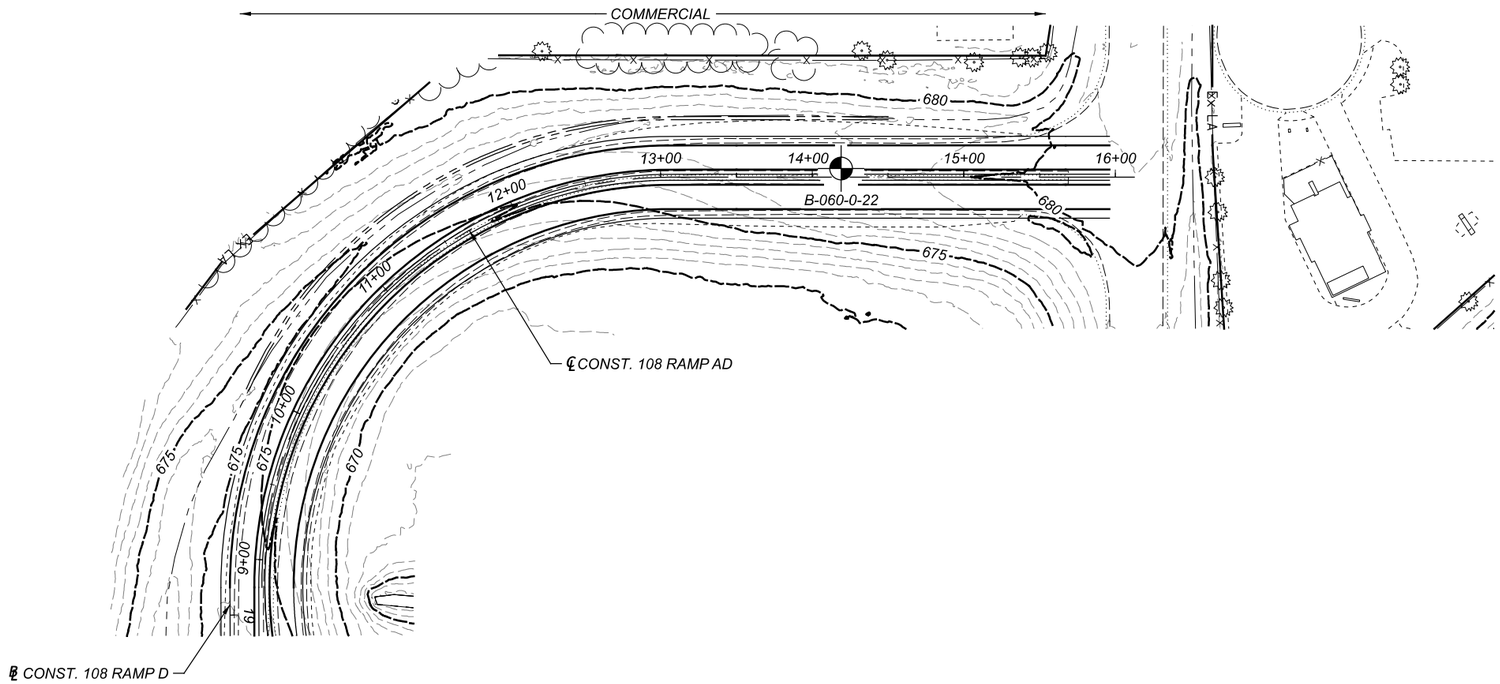
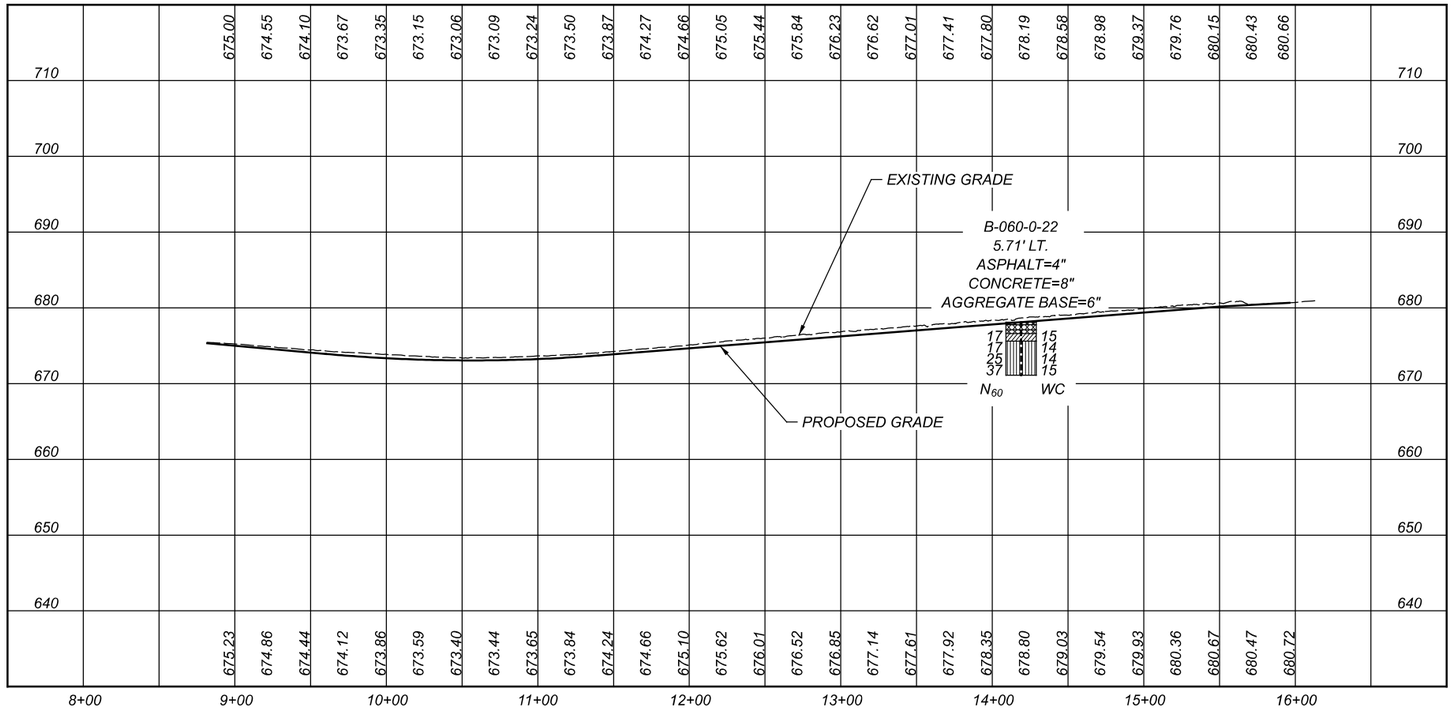
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET / TOTAL	60 / 70
SHEET / TOTAL	P.1098 / 1108





HEN-6/24-11.32/4.62

MODEL: BLP_R108AD - U006 and S108 Ramp AD - Plan 2 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:49:17 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\22050022COL_ODOT\Mod_04.09.25\110524GP047.dgn

HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 8+81.79 TO STA. 16+14.28 - US 6/24 & 108 RAMP AD

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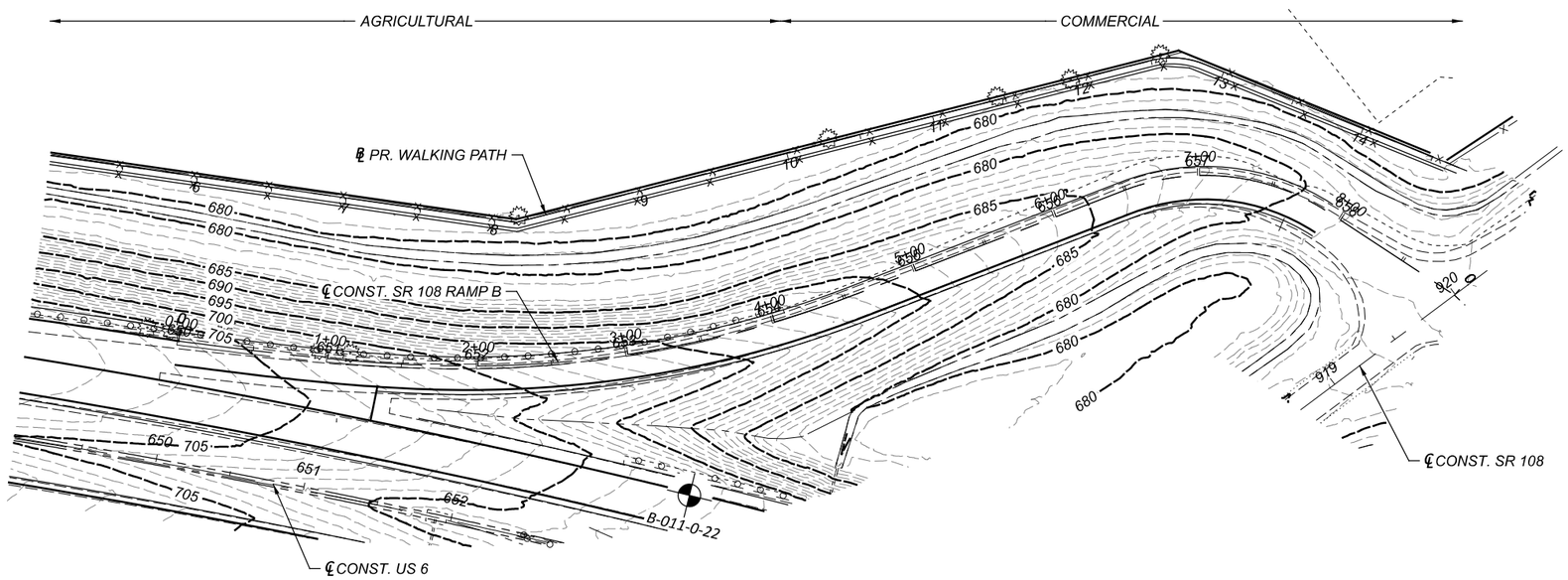
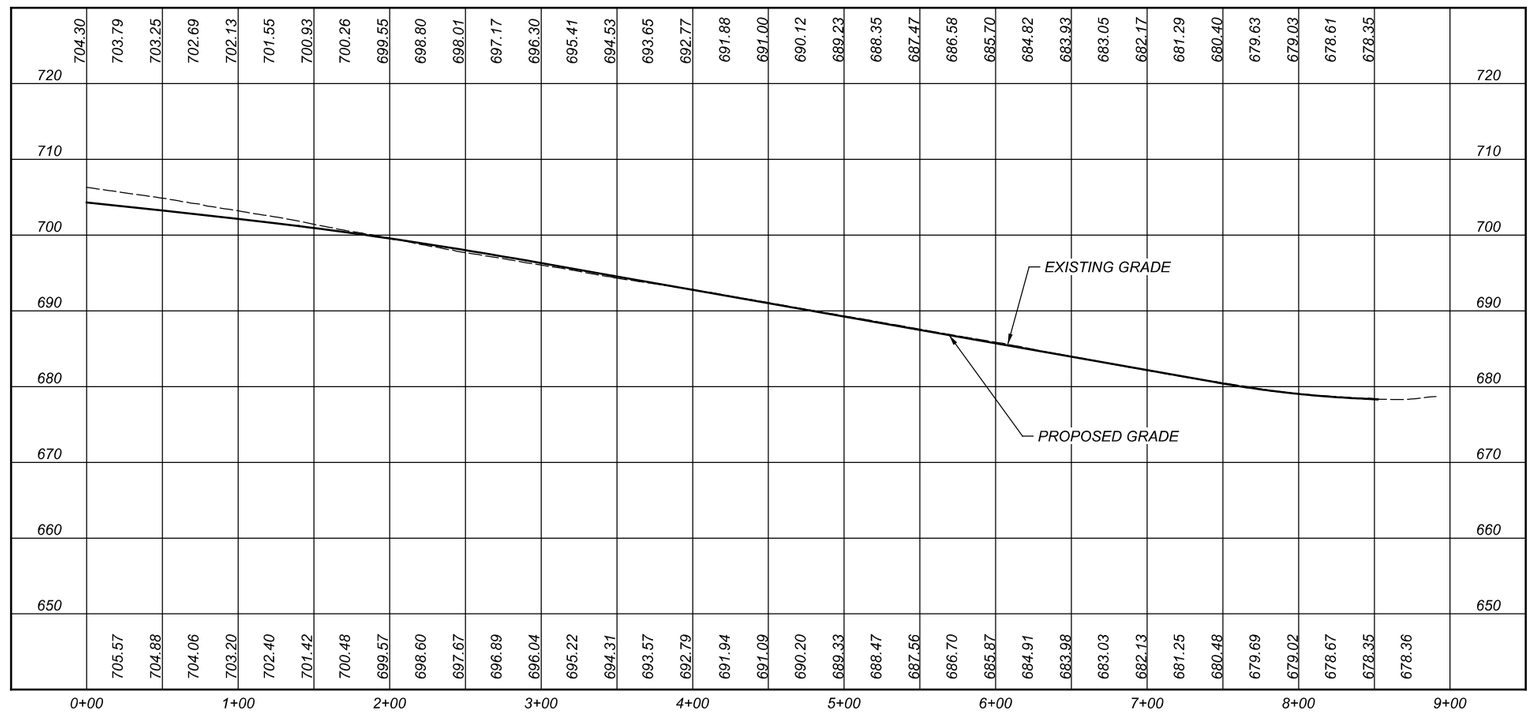
DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	61
TOTAL	70
SHEET	P.1099
TOTAL	1108



SEE SHEET 20 OF 70 FOR BORING B-011-0-22 SOIL PROFILE.



HEN-6/24-11.32/4.62

MODEL: BLP_R108B - Plan 1 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:50:43 USER: hp
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HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 0+00.00 TO STA. 8+90.67 - US 6/24 & 108 RAMP B

DESIGN AGENCY
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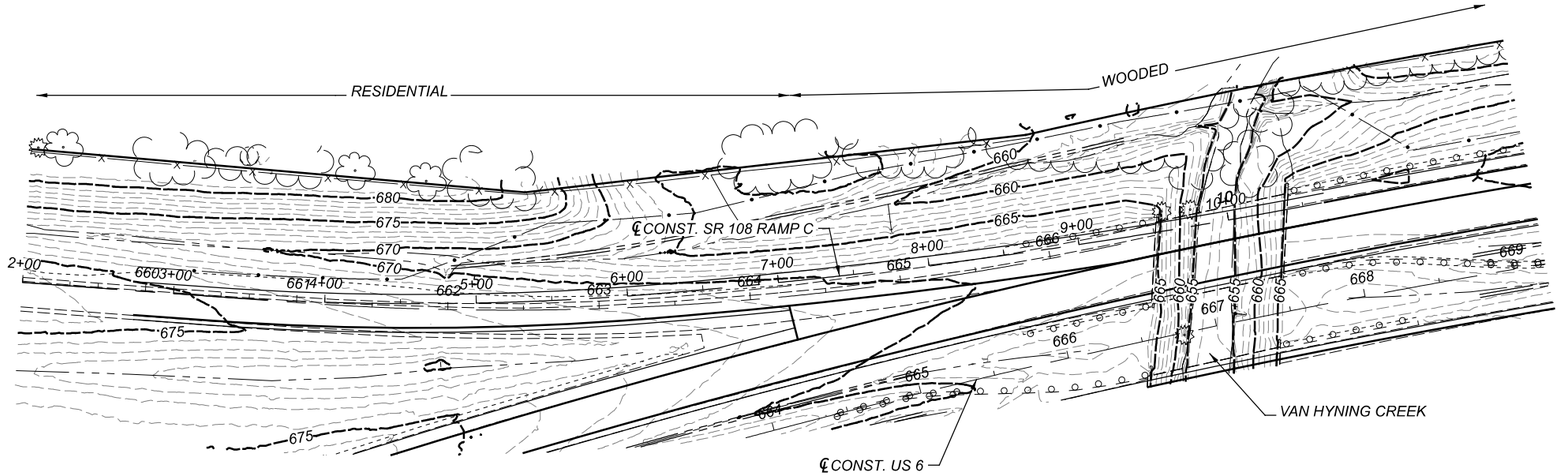
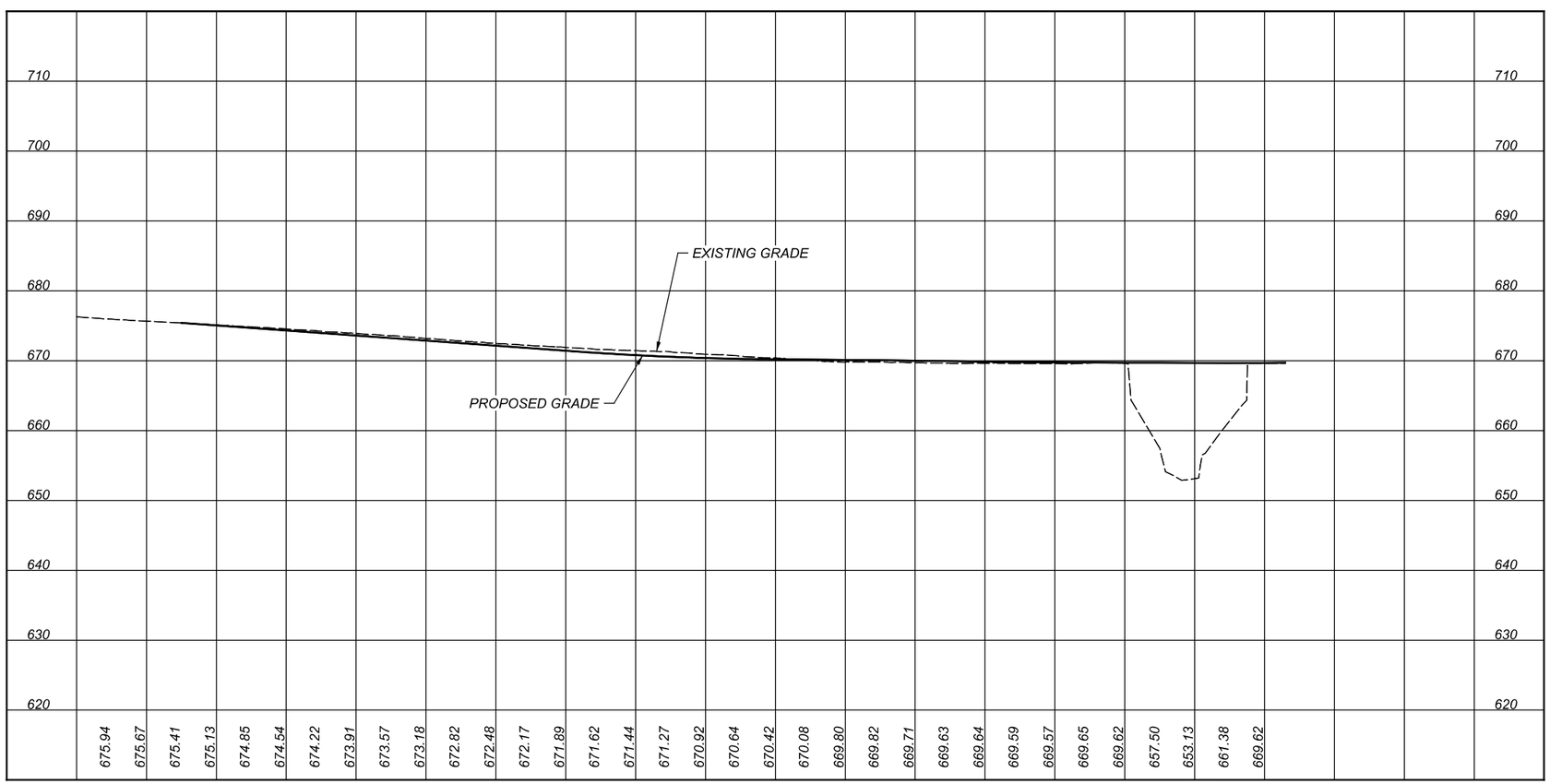
FAX:(614)276-6377

DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 62 TOTAL 70
SHEET P.1100 TOTAL 1108





HEN-6/24-11.32/4.62

MODEL: BLP_R108C - U006 and S108 Ramp C - Plan 1 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:51:45 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\220500022COL_ODOT\Mod_04.09.25\110524GP049.dgn

HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 2+00.00 TO STA. 10+64.75 - US 6/24 & 108 RAMP C

DESIGN AGENCY
GTL ENGINEERING
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PHONE:(614)276-8123
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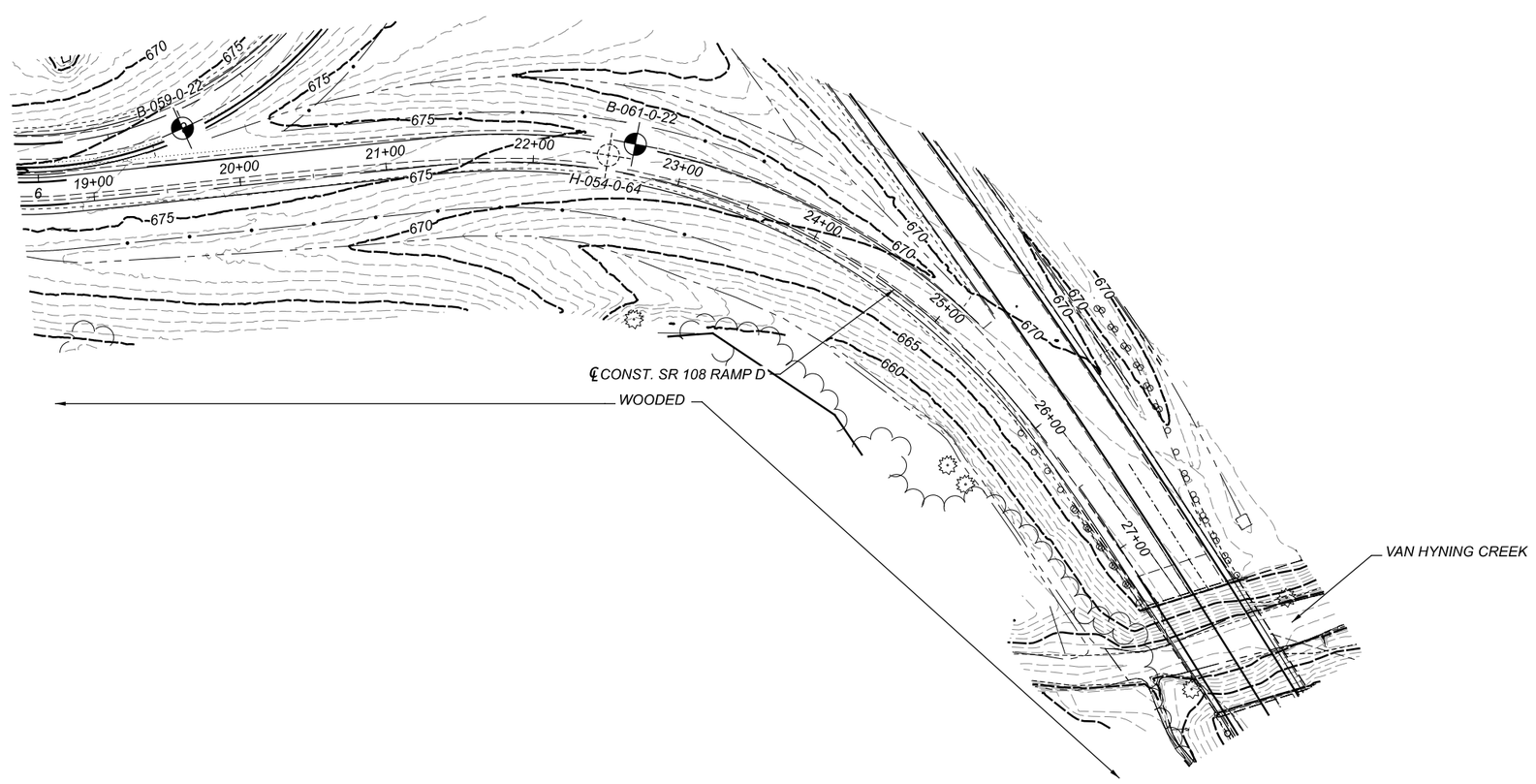
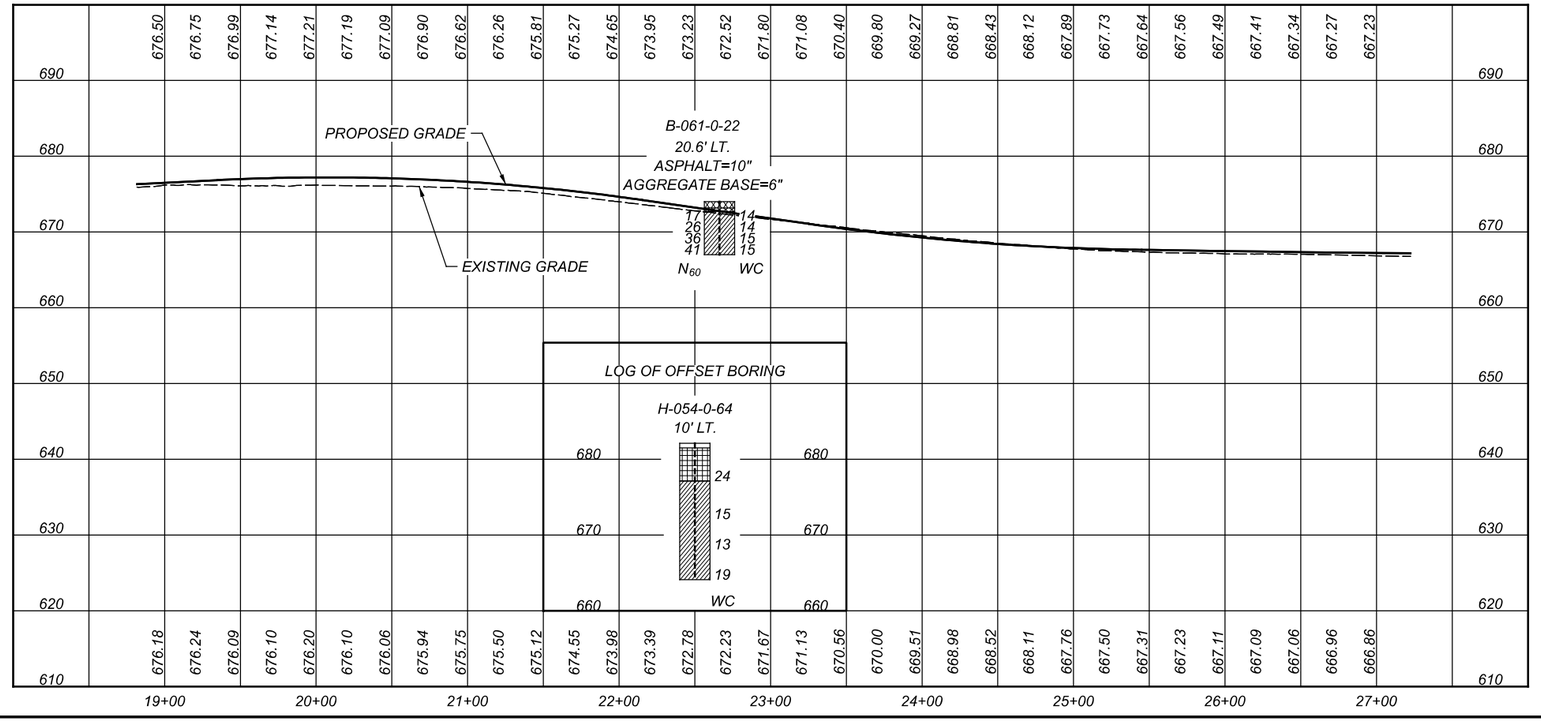
DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	63
TOTAL	70
SHEET	P.1101
TOTAL	1108



SEE SHEET 60 OF 70 FOR BORING B-059-0-22 SOIL PROFILE.



HEN-6/24-11.32/4.62

MODEL: BLP_R108D - U006 and S108 Ramp D - Plan 1 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:53:06 USER: hp
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HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 18+81.79 TO STA. 27+22.28 - US 6/24 & 108 RAMP D

DESIGN AGENCY
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COLUMBUS, OHIO 43204
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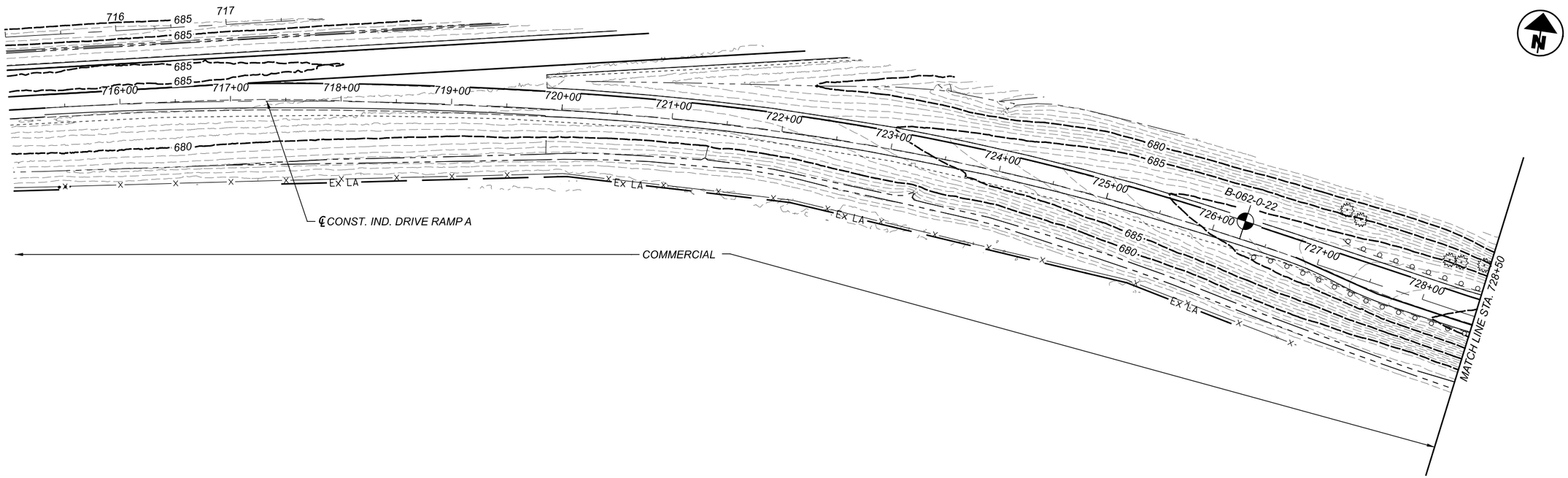
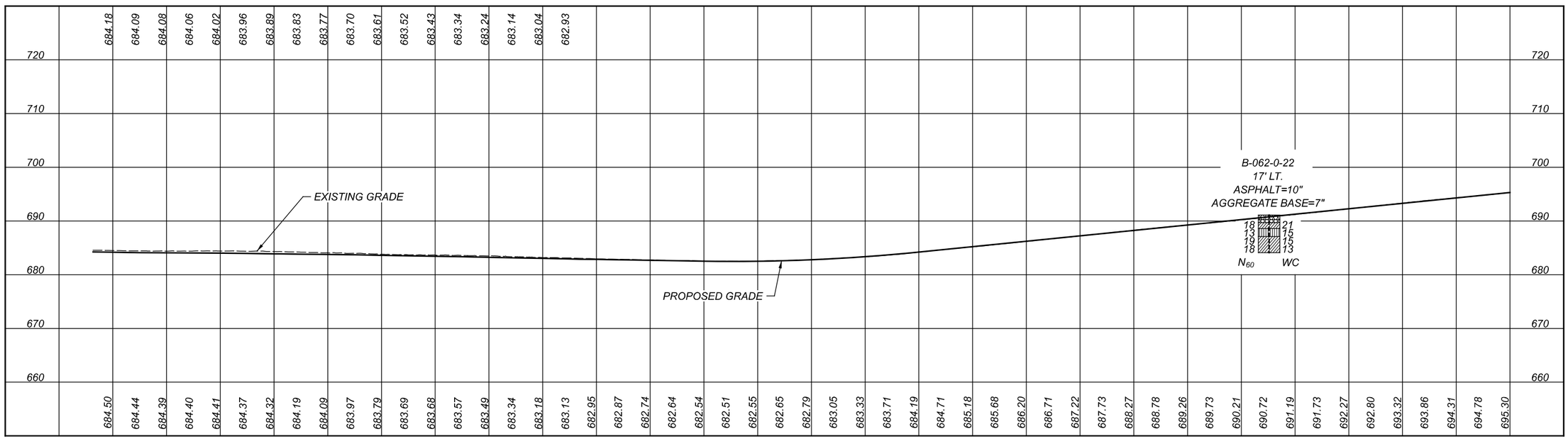
FAX:(614)276-6377

DESIGNER N.K.S
REVIEWER SM 09-03-25
PROJECT ID 110524
SUBSET 64 TOTAL 70
SHEET P.1102 TOTAL 1108





HORIZONTAL SCALE IN FEET
0 25 50 100

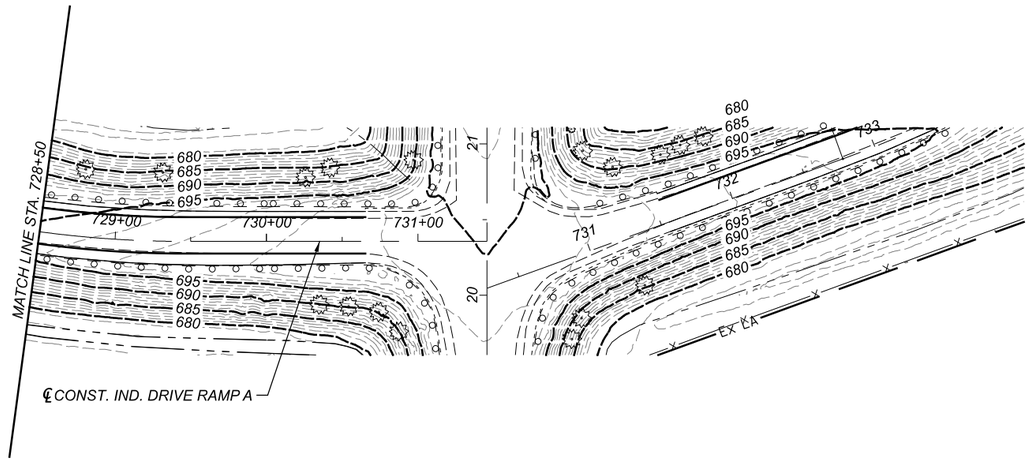
GEOTECHNICAL PROFILE - ROADWAY
STA. 715+31.62 TO STA. 728+50.00 - US 6/24 & IND. DR. RAMP A

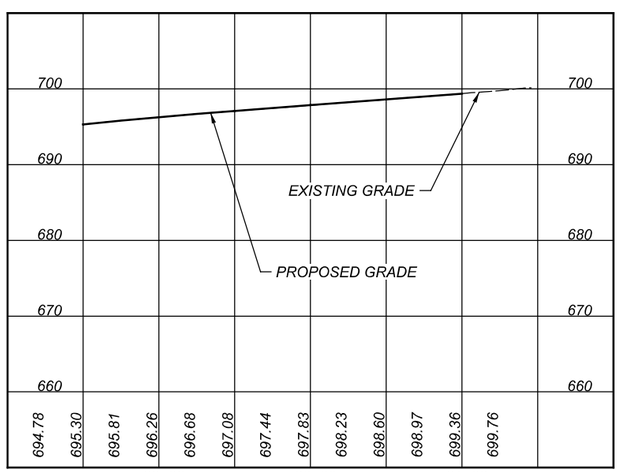
HEN-6/24-11.32/4.62

MODEL: BLX_RINDA - U006 and Industrial Ave Ramp A - Plan 1 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:56:16 USER: hp
D:\Drop Box\CTL 2025\September\Dept 05\COL\Shared\220500022COL_ODOT\Mod_04.09.25\110524GP051.dgn

DESIGN AGENCY
CTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	65
TOTAL	70
SHEET	P.1103
TOTAL	1108





HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 728+50.00 TO STA. 731+45.60 - US 6/24 & IND. DR. RAMP A

DESIGN AGENCY
CTL ENGINEERING INC
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COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER: N.K.S
REVIEWER: SM 09-03-25
PROJECT ID: 110524
SUBSET: 66 TOTAL: 70
SHEET: P.1104 TOTAL: 1108

HEN-6/24-11.32/4.62

MODEL: BLX_RINDA - U006 and Industrial Ave Ramp A - Plan 4 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:57:27 USER: hp
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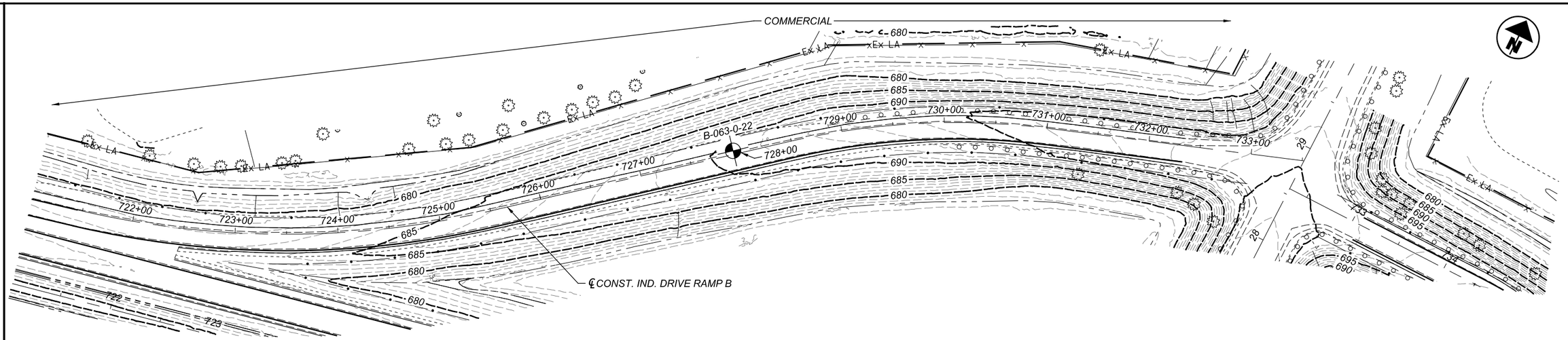

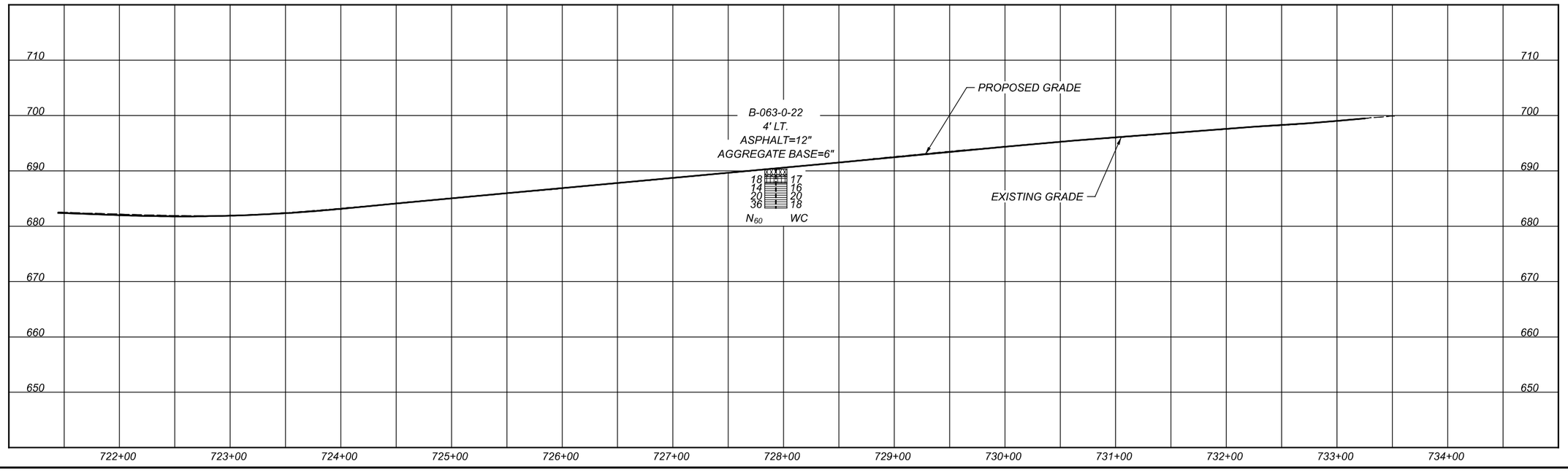

HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 721+44.62 TO STA. 733+51.76 - US 6/24 & IND. DR. RAMP B

HEN-6/24-11.32/4.62

MODEL: BLX_RINDB - U006 and Industrial Ave Ramp B - Plan 1 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:58:30 USER: hp
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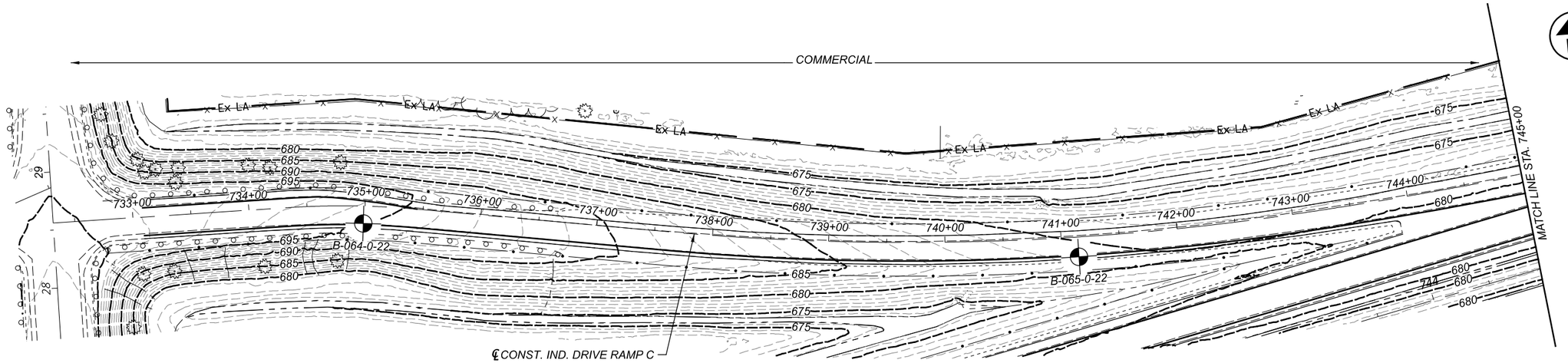
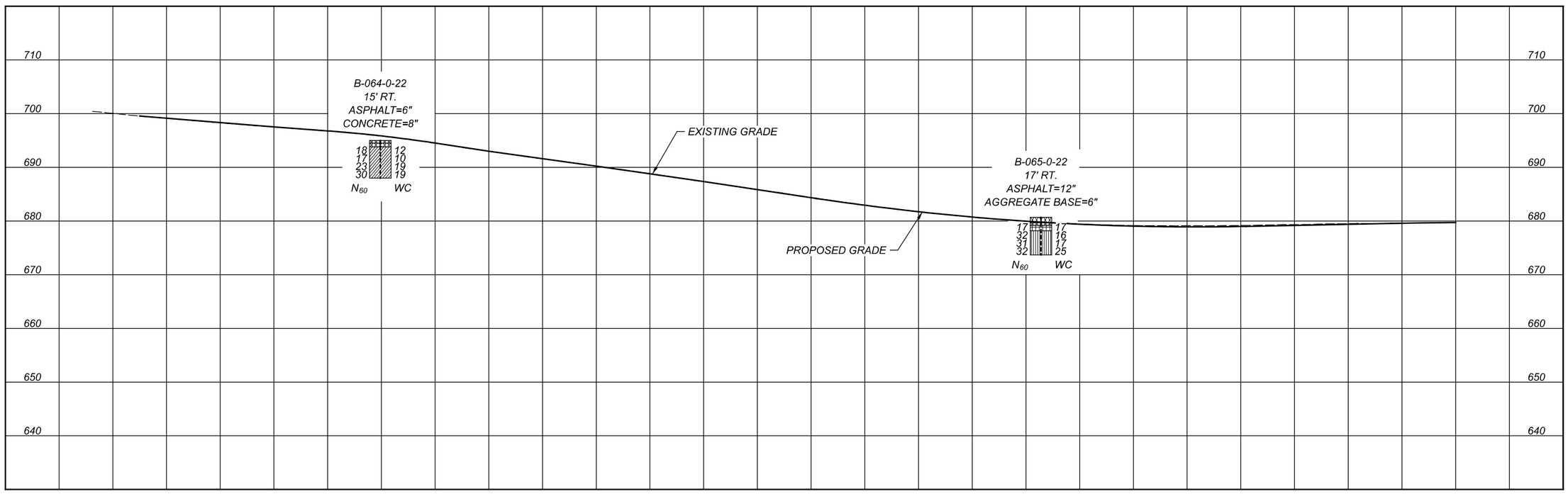
DESIGN AGENCY
GTL ENGINEERING INC
2960 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET / TOTAL	67 / 70
SHEET / TOTAL	P.1105 / 1108





HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 732+68.69 TO STA. 745+00.00 - US 6/24 & IND. DR. RAMP C

DESIGN AGENCY
CTL ENGINEERING
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	68
TOTAL	70
SHEET	P.1106
TOTAL	1108

HEN-6/24-11.32/4.62

MODEL: BLX_RINDC - U006 and Industrial Ave Ramp C - Plan 1 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 15:59:43 USER: hp
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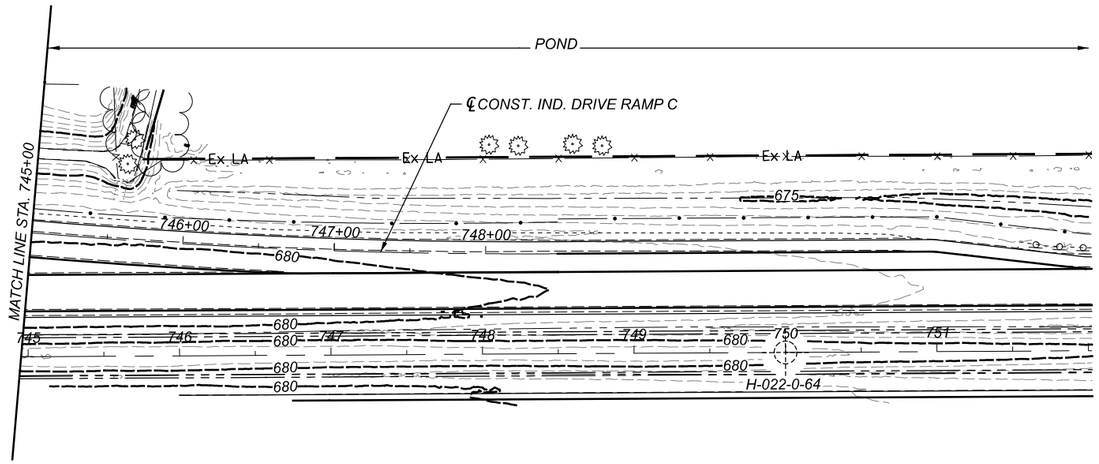
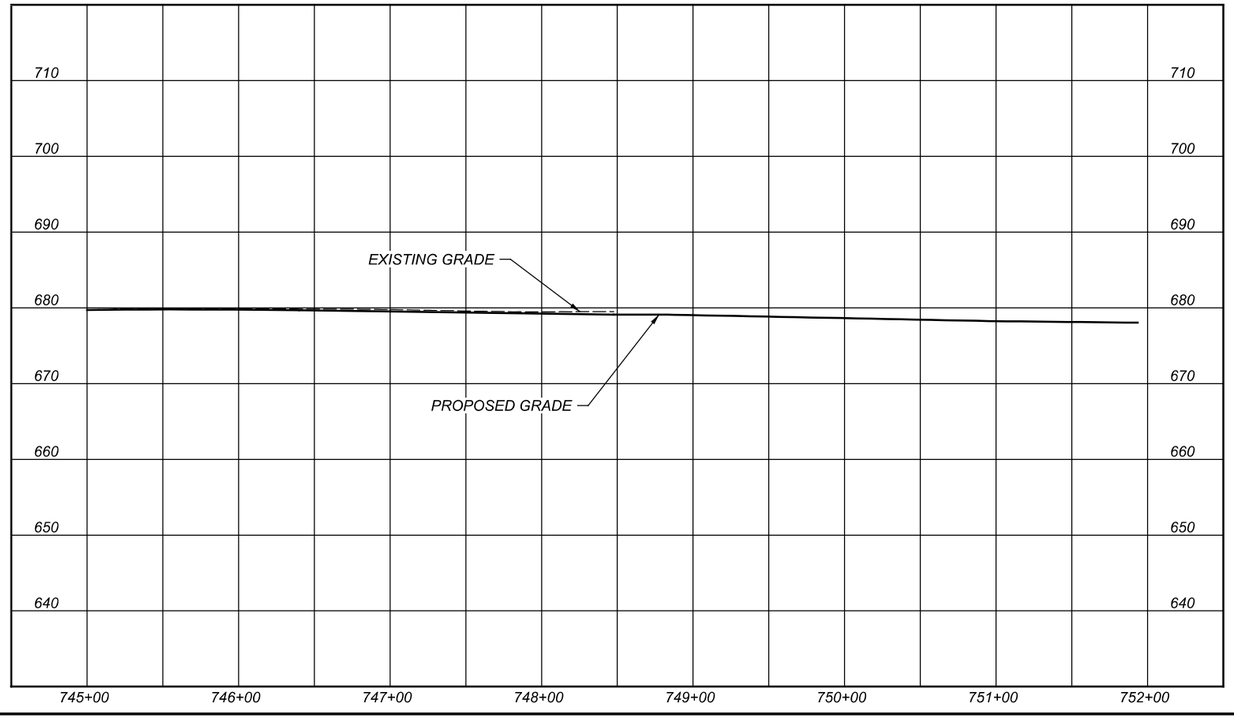


SEE SHEET 28 OF 70 FOR HISTORIC BORING H-022-0-64 SOIL PROFILE.



HEN-6/24-11.32/4.62

MODEL: BLX_RINDC - U006 and Industrial Ave Ramp C - Plan 4 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 16:00:45 USER: hp
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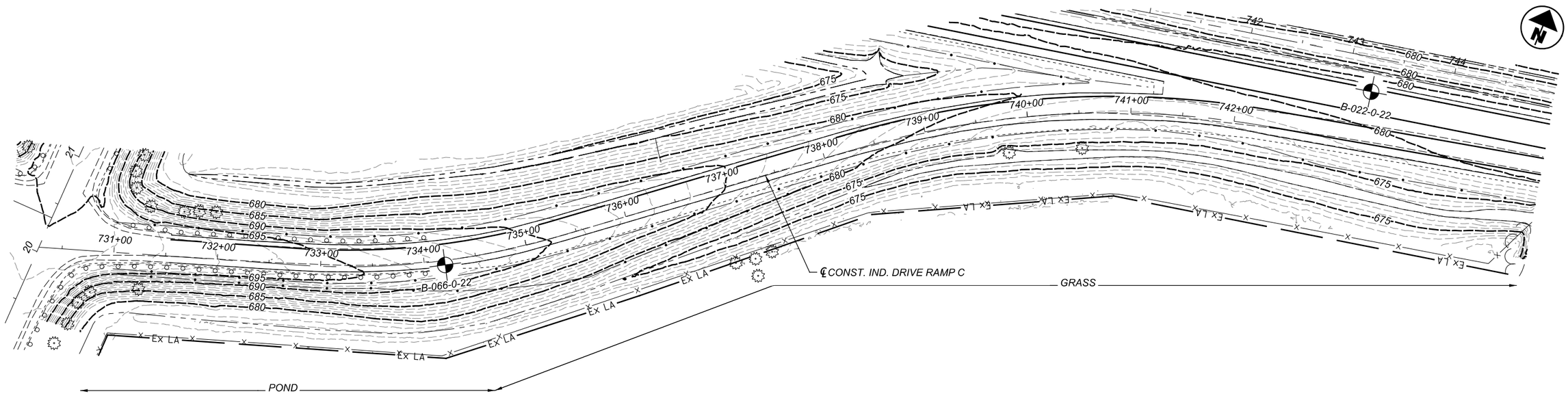
HORIZONTAL SCALE IN FEET
0 25 50 100

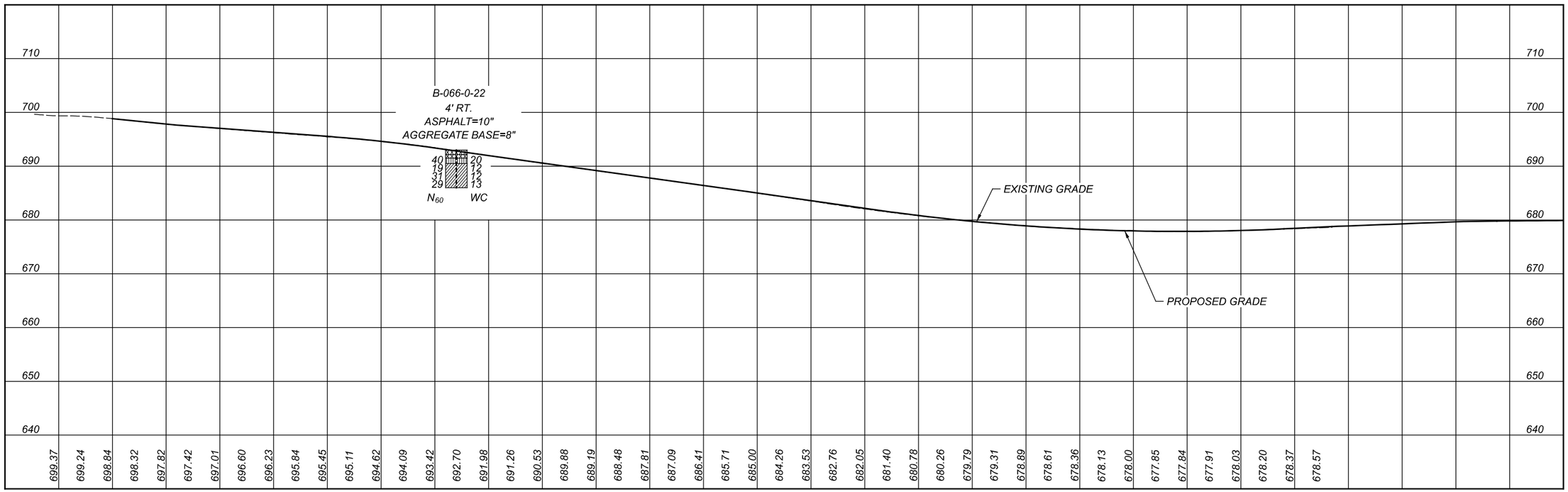
GEOTECHNICAL PROFILE - ROADWAY
STA. 745+00.00 TO STA. 748+47.62 - US 6/24 & IND. DR. RAMP C

DESIGN AGENCY
CTL ENGINEERING INC
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET / TOTAL	69 / 70
SHEET / TOTAL	P.1107 / 1108



SEE SHEET 27 OF 70 FOR BORING B-022-0-22 SOIL PROFILE.



HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - ROADWAY
STA. 730+27.48 TO STA. 742+34.62 - US 6/24 & IND. DR. RAMP D

DESIGN AGENCY

GTL ENGINEERING INC
2960 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123
FAX:(614)276-6377

DESIGNER	N.K.S
REVIEWER	SM 09-03-25
PROJECT ID	110524
SUBSET	70
TOTAL	70
SHEET	P.1108
TOTAL	1108

HEN-6/24-11.32/4.62

MODEL: BLX_RINDD - U006 and Industrial Ave Ramp D - Plan 1 PAPERSIZE: 17x11 (in.) DATE: 05-09-2025 TIME: 16:01:50 USER: hp
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APPENDIX B
TEST BORING RECORDS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 243+64, 51' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 678.2 (MSL) EOB: 7.0 ft.
START: 4/21/22 END: 4/21/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.392740, -84.153270

EXPLORATION ID B-001-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
	678.2																		
ASPHALT, (12")	677.2																		
AGGREGATE BASE, (4")	676.9																		
HARD, LIGHT BROWN, **SANDY SILT**, SOME CLAY, TRACE GRAVEL, DAMP	675.7	1	17 35 21	67	100	SS-1	4.50	3	19	20	37	21	38	31	7	20	A-4a (5)	3000	
HARD, BROWN, **SILT AND CLAY**, SOME SAND, TRACE GRAVEL, DAMP		2																	
		3	9 10 10	24	100	SS-2	4.50	5	7	14	33	41	31	19	12	15	A-6a (9)	-	
		4																	
		5	8 10 15	30	100	SS-3	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	-	
		6																	
	671.2	EOB 7	12 16 20	43	100	SS-4	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 252+70, 34' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 685.0 (MSL) EOB: 7.0 ft.
START: 4/11/22 END: 4/11/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.394320, -84.150700

EXPLORATION ID B-002-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 685.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (12")	684.0																		
AGGREGATE BASE, (6")	683.5																		
HARD, GRAY, **SILTY CLAY**, LITTLE SAND, DAMP	682.5	1	8 8 10	22	100	SS-1	4.50	0	4	10	29	57	40	23	17	18	A-6b (11)	<100	
VERY STIFF, GRAY, **SILT AND CLAY**, "AND" SAND, MOIST		2																	
		3	3 6 8	17	67	SS-2	2.50	0	6	34	24	36	35	20	15	26	A-6a (7)	-	
		4	4 5 9	17	100	SS-3	3.50	-	-	-	-	-	-	-	-	24	A-6a (V)	-	
@5.5'; LITTLE SAND		5																	
	678.0	6	5 6 10	19	100	SS-4	3.50	-	-	-	-	-	-	-	-	23	A-6a (V)	-	
		EOB 7																	

NOTES: CAVED AT 6'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 259+27, 55' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 685.0 (MSL) EOB: 7.0 ft.
START: 4/21/22 END: 4/21/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.396000, -84.148989

EXPLORATION ID B-003-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
	685.0																		
ASPHALT, (12")	684.0																		
AGGREGATE BASE, (6")	683.5																		
HARD, GRAY, **CLAY**, SOME SILT, LITTLE SAND, DAMP @2.5'; VERY STIFF	681.0	1 2 3 4	5 4 4	10	56	SS-1	4.50	0	2	12	31	55	51	28	23	23	A-7-6 (15)	<100	
			6 7 7	17	67	SS-2	3.75	0	2	11	30	57	54	26	28	23	A-7-6 (18)	-	
VERY STIFF, BROWN AND GRAY MOTTLED, **SILTY CLAY**, TRACE SAND, DAMP	678.0	5 6 EOB 7	3 4 10	17	100	SS-3	3.25	-	-	-	-	-	-	-	-	19	A-6b (V)	-	
			5 8 9	20	100	SS-4	3.50	-	-	-	-	-	-	-	-	23	A-6b (V)	-	

NOTES: CAVED AT 5.4'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 598+55, 34' RT.	EXPLORATION ID B-004-0-22
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24	
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 683.1 (MSL) EOB: 7.0 ft.	PAGE 1 OF 1
START: 4/11/22 END: 4/11/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.397220, -84.146820	

MATERIAL DESCRIPTION AND NOTES	ELEV. 683.1	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (12")	682.1																		
AGGREGATE BASE, (6")	681.6																		
HARD, GRAY, **CLAY**, SOME SILT, LITTLE SAND, DAMP		1	7 8 9	20	100	SS-1	4.50	0	3	16	32	49	41	23	18	19	A-7-6 (11)	320	
@2.5'; BROWN, LITLE SILT, TRACE SAND		2																	
		3	3 7 10	20	100	SS-2	4.50	0	1	2	15	82	56	29	27	23	A-7-6 (18)	-	
		4																	
		5	5 5 11	19	100	SS-3	4.50	-	-	-	-	-	-	-	-	21	A-7-6 (V)	-	
		6																	
	676.1	EOB 7	7 3 9	14	100	SS-4	4.50	-	-	-	-	-	-	-	-	15	A-7-6 (V)	-	

NOTES: CAVED AT 6.2'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 607+28, 54' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 681.4 (MSL) EOB: 7.0 ft.
START: 4/21/22 END: 4/21/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.399070, -84.144790

EXPLORATION ID B-005-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (12")	681.4																		
AGGREGATE BASE, (4")	680.4																		
VERY STIFF, GRAY, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP	680.1	1	2 2 4	7	100	SS-1	3.75	4	3	13	33	47	39	21	18	21	A-6b (11)	<100	
		2																	
@4.0'; STIFF		3	2 3 3	7	100	SS-2	2.75	3	4	13	35	45	38	22	16	22	A-6b (10)	-	
		4																	
		5	1 4 6	12	100	SS-3	1.25	-	-	-	-	-	-	-	-	22	A-6b (V)	-	
@5.5'; HARD, TRACE GRAVEL, DAMP		6	8 11 10	25	100	SS-4	4.50	-	-	-	-	-	-	-	-	15	A-6b (V)	-	
	674.4	EOB 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 614+40, 35' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 683.1 (MSL) EOB: 7.0 ft.
START: 4/11/22 END: 4/11/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.400270, -84.142720

EXPLORATION ID B-006-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (12")	683.1																		
AGGREGATE BASE, (6")	682.1																		
VERY STIFF, GRAY, **CLAY**, SOME SILT, LITTLE SAND, DAMP	681.6	1	2 5 5	12	100	SS-1	3.00	0	1	12	32	55	52	26	26	23	A-7-6 (17)	<100	
@2.5'; BROWN, TRACE GRAVEL, MOIST		2	2 3 6	11	100	SS-2	3.50	1	2	9	29	59	48	24	24	26	A-7-6 (15)	-	
@4.0'; STIFF		3	2 3 5	10	100	SS-3	2.00	-	-	-	-	-	-	-	-	32	A-7-6 (V)	-	
@5.5'; VERY STIFF, DAMP		4	2 8 10	22	100	SS-4	3.00	-	-	-	-	-	-	-	-	23	A-7-6 (V)	-	
	676.1	5 EOB																	
		6																	
		7																	

NOTES: CAVED AT 6'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 624+31, 52' LT.	EXPLORATION ID B-007-0-22
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24	
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 685.3 (MSL) EOB: 7.0 ft.	PAGE 1 OF 1
START: 4/21/22 END: 4/21/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.402360, -84.140370	

MATERIAL DESCRIPTION AND NOTES	ELEV. 685.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	685.0																		
CONCRETE, (8")	684.3																		
AGGREGATE BASE, (6")	683.8																		
HARD, BROWNISH GRAY, **CLAY**, SOME SILT, LITTLE SAND, DAMP			2 4 5	11	100	SS-1	4.50	0	2	14	31	53	46	23	23	22	A-7-6 (14)	<100	
@2.5'; TRACE GRAVEL			3 4 5	11	100	SS-2	4.50	1	3	13	32	51	44	24	20	23	A-7-6 (13)	-	
@4.0'; MOIST			4 7 12	23	100	SS-3	4.50	-	-	-	-	-	-	-	-	26	A-7-6 (V)	-	
@5.5'; VERY STIFF, DAMP			5 10 12	26	100	SS-4	3.75	-	-	-	-	-	-	-	-	23	A-7-6 (V)	-	
	678.3	EOB																	

NOTES: CAVED AT 4'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 630+13, 34' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 688.0 (MSL) EOB: 7.0 ft.
START: 4/11/22 END: 4/11/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.403310, -84.138640

EXPLORATION ID B-008-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	688.0																		
CONCRETE, (8")	687.7																		
AGGREGATE BASE, (6")	687.0																		
HARD, GRAY, **SANDY SILT**, "AND" CLAY, TRACE GRAVEL, FILL, DAMP	686.5																		
HARD, GRAY, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	685.5	1	5 5 10	18	100	SS-1	4.50	5	6	15	36	38	25	15	10	9	A-4a (8)	700	
		2																	
		3	5 5 6	13	100	SS-2	4.50	5	5	13	32	45	36	21	15	16	A-6a (10)	-	
	682.5	4																	
HARD, GRAY, **SANDY SILT**, SOME CLAY, TRACE GRAVEL, DAMP		5	4 4 9	16	100	SS-3	4.50	-	-	-	-	-	-	-	-	19	A-6a (V)	-	
	681.0	6																	
EOB		7	6 7 12	23	100	SS-4	4.50	-	-	-	-	-	-	-	-	19	A-4a (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 639+56, 49' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 708.1 (MSL) EOB: 7.0 ft.
START: 4/21/22 END: 4/21/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.405290, -84.136410

EXPLORATION ID B-009-0-22

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MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
	708.1																		
ASPHALT, (6")	707.6																		
CONCRETE, (6")	707.1																		
AGGREGATE BASE, (6")	706.6																		
VERY STIFF, GRAY, **SANDY SILT**, SOME CLAY, TRACE GRAVEL, FILL, DAMP	705.6	1	6 7 6	16	100	SS-1	3.25	4	5	20	39	32	22	14	8	11	A-4a (7)	500	
HARD, GRAY, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP		2	4 5 5	12	44	SS-2	4.50	4	4	13	28	51	36	20	16	18	A-6b (10)	-	
		3																	
		4	2 7 10	20	89	SS-3	4.50	-	-	-	-	-	-	-	-	14	A-6b (V)	-	
@5.5'; MOIST		5																	
		6	7 9 9	22	100	SS-4	4.50	-	-	-	-	-	-	-	-	24	A-6b (V)	-	
	701.1	EOB 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 644+08, 87' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 684.8 (MSL) EOB: 30.0 ft.
START: 4/18/22 END: 4/18/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.405900, -84.134890

EXPLORATION ID B-009-1-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 684.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	HOLE SEALED
TOPSOIL, (6")	684.3																		
VERY STIFF, GRAY, **CLAY**, SOME SAND, SOME SILT, MOIST		1	6 6 4	12	100	SS-1	2.75	0	2	31	23	44	45	24	21	37	A-7-6 (12)	-	
@3.5'; STIFF, LITTLE SAND		4	0 2 2	5	67	SS-2	1.75	0	1	11	25	63	61	29	32	40	A-7-6 (20)	-	
	678.8	6	3 3 4	8	56	SS-3	4.25	-	-	-	-	-	-	-	-	19	A-6a (10)	-	
HARD, GRAY AND BROWN MOTTLED, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP		9	6 4 5	11	100	SS-4	4.25	2	6	13	34	45	33	20	13	18	A-6a (9)	-	
@11.0'; CONTAINS SAND SEAMS		12	8 10 13	28	100	SS-5	4.50	4	7	13	33	43	31	19	12	15	A-6a (9)	-	
		14	8 6 15	25	100	SS-6	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	-	
@16.0'; GRAY		17	5 5 8	16	100	SS-7	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	-	
@18.5'; VERY STIFF		19	4 5 9	17	100	SS-8	3.75	-	-	-	-	-	-	-	-	16	A-6a (9)	-	
@23.5'; HARD		24	4 5 11	19	100	SS-9	4.50	4	5	11	34	46	30	17	13	16	A-6a (9)	-	
	654.8	EOB 29	6 6 12	22	100	SS-10	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	-	

NOTES: CAVED AT 20'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH AUGER CUTTINGS

STANDARD ODOT LOG W/ SULFATES (8.5 X 11) - OH DOT.GDT - 11/21/24 13:08 - O:\PROJECT\2022\COL-05\22050022COL\REPORTS\LOGS\22050022COL_HEN6-11.36.GPJ

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 644+08, 87' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 684.8 (MSL) EOB: 20.0 ft.
START: 4/18/22 END: 4/18/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.405900, -84.134890

EXPLORATION ID B-009-2-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 684.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	HOLE SEALED
AUGERED	678.8	1 2 3 4 5 6																	
HARD, GRAY AND BROWN MOTTLED, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP	676.8	7 8			60	ST-1	-	8	5	13	32	42	36	21	15	19	A-6a (10)	-	
AUGERED	666.8	9 10 11 12 13 14 15 16 17 18																	
VERY STIFF, GRAY, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP	664.8	19 EOB 20			75	ST-2	-	5	6	13	34	42	29	17	12	16	A-6a (9)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH AUGER CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 645+70, 33' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 711.6 (MSL) EOB: 7.0 ft.
START: 4/11/22 END: 4/11/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.406320, -84.134610

EXPLORATION ID B-010-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 711.6	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	711.2																		
CONCRETE, (8")	710.6																		
AGGREGATE BASE, (6")	710.1																		
VERY STIFF, GRAY, **CLAY**, SOME SILT, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	709.1		3 4 7	13	100	SS-1	3.75	1	4	13	29	53	42	23	19	14	A-7-6 (12)	<100	
HARD, GRAY, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP			2 4 5	11	100	SS-2	4.50	3	6	13	31	47	33	20	13	15	A-6a (9)	-	
			3 5 9	17	100	SS-3	4.50	-	-	-	-	-	-	-	-	16	A-6a (V)	-	
@5.5'; MOIST			11 5 8	16	100	SS-4	4.50	-	-	-	-	-	-	-	-	24	A-6a (V)	-	
	704.6	EOB																	

NOTES: CAVED AT 5.8'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

STANDARD ODOT LOG W/ SULFATES (8.5 X 11) - OH DOT.GDT - 11/21/24 13:08 - O:\PROJECT\2022\COL-05\22050022COL\REPORTS\LOGS\22050022COL_HEN6-11.36.GPJ

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 653+50, 52' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 697.5 (MSL) EOB: 7.0 ft.
START: 4/21/22 END: 4/21/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.407950, -84.132730

EXPLORATION ID B-011-0-22

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MATERIAL DESCRIPTION AND NOTES	ELEV. 697.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (6")	697.0																		
CONCRETE, (6")	696.5																		
AGGREGATE BASE, (6")	696.0																		
HARD, BROWN AND GRAY, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	695.0		6 5 5	12	100	SS-1	4.50	7	4	12	31	46	36	20	16	18	A-6b (10)	880	
HARD, BROWN AND GRAY, **CLAY**, "AND" SILT, LITTLE SAND, FILL, MOIST			3 3 5	10	100	SS-2	4.50	0	1	11	37	51	44	22	22	23	A-7-6 (14)	-	
@4.0'; VERY STIFF, DAMP			1 2 6	10	100	SS-3	2.75	-	-	-	-	-	-	-	-	19	A-7-6 (V)	-	
@5.5'; HARD, MOIST	690.5	EOB	6 5 10	18	100	SS-4	4.50	-	-	-	-	-	-	-	-	25	A-7-6 (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 662+14, 35' RT.	EXPLORATION ID B-012-0-22
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24	
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 674.0 (MSL) EOB: 7.0 ft.	PAGE 1 OF 1
START: 4/11/22 END: 4/11/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.409120, -84.129970	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	674.0																		
CONCRETE, (8")	673.6																		
AGGREGATE BASE, (6")	673.0																		
HARD, BROWN, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP @2.5'; SOME SAND	672.5	1	4 5 7	14	100	SS-1	4.50	4	6	14	33	43	30	18	12	14	A-6a (9)	<100	
		2																	
		3	3 8 8	19	100	SS-2	4.50	4	9	14	34	39	31	19	12	15	A-6a (8)	-	
		4																	
		5	5 10 14	29	100	SS-3	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	-	
		6																	
	667.0	EOB 7	10 15 19	41	100	SS-4	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 670+83, 58' LT.	EXPLORATION ID B-013-0-22
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24	
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 671.9 (MSL) EOB: 7.0 ft.	PAGE 1 OF 1
START: 4/21/22 END: 4/21/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.410410, -84.127290	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
	671.9																		
ASPHALT, (4")	671.6																		
CONCRETE, (8")	670.9																		
AGGREGATE BASE, (4")	670.6																		
HARD, BROWN, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP		1	3 5 8	16	56	SS-1	4.50	4	7	13	33	43	29	18	11	16	A-6a (8)	220	
		2																	
		3	6 5 6	13	100	SS-2	4.50	7	6	13	32	42	31	19	12	16	A-6a (9)	-	
		4																	
		5	7 13 21	41	100	SS-3	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	-	
		6																	
	664.9	EOB 7	5 13 15	34	100	SS-4	4.50	-	-	-	-	-	-	-	-	16	A-6a (V)	-	

NOTES: CAVED AT 5'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 677+90, 33' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 676.9 (MSL) EOB: 7.0 ft.
START: 4/12/22 END: 4/12/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.410790, -84.124730

EXPLORATION ID B-014-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	676.6																		
CONCRETE, (8")	675.9																		
SAND, (6")	675.4																		
HARD, BROWN, **ELASTIC CLAY**, LITTLE SILT, TRACE SAND, TRACE GRAVEL, DAMP	674.4	1	3 5 9	17	100	SS-1	4.50	1	0	1	19	79	53	31	22	16	A-7-5 (15)	<100	
		2																	
		3	5 7 6	16	100	SS-2	4.50	1	2	5	24	68	48	27	21	23	A-7-6 (14)	-	
HARD, BROWN, **CLAY**, SOME SILT, TRACE SAND, TRACE GRAVEL, DAMP @4.0'; SOME ORANGE AND BLACK COLORING		4																	
		5	2 5 17	26	100	SS-3	4.50	-	-	-	-	-	-	-	-	15	A-7-6 (V)	-	
		6																	
	669.9	EOB 7	9 15 19	41	100	SS-4	4.50	-	-	-	-	-	-	-	-	15	A-7-6 (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 686+48, 53' LT.	EXPLORATION ID B-015-0-22
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24	
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 680.3 (MSL) EOB: 7.0 ft.	PAGE 1 OF 1
START: 4/21/22 END: 4/21/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.411560, -84.121760	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	680.3																		
CONCRETE, (8")	680.0																		
AGGREGATE BASE, (4")	679.3																		
HARD, BROWN, **CLAY**, SOME SILT, LITTLE SAND, TRACE GRAVEL, DAMP @2.5'; LITTLE SILT, TRACE SAND	679.0	1	3 3 6	11	89	SS-1	4.50	1	1	12	29	57	46	24	22	18	A-7-6 (14)	<100	
		2	2 3 5	10	100	SS-2	4.50	2	3	2	19	74	51	27	24	23	A-7-6 (16)	-	
		3	2 3 12	18	100	SS-3	4.50	-	-	-	-	-	-	-	-	22	A-7-6 (V)	-	
		4	4 8 10	22	100	SS-4	4.50	-	-	-	-	-	-	-	-	14	A-7-6 (V)	-	
	673.3	EOB 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

STANDARD ODOT LOG W/ SULFATES (8.5 X 11) - OH DOT.GDT - 11/21/24 13:09 - O:\PROJECT\2022\COL-05\22050022COL\REPORTS\LOGS\22050022COL_HEN6-11.36.GPJ

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 694+49, 32' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 682.9 (MSL) EOB: 7.0 ft.
START: 4/12/22 END: 4/12/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.411820, -84.118840

EXPLORATION ID B-016-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 682.9	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	682.6																		
CONCRETE, (8")	681.9																		
AGGREGATE BASE, (6")	681.4																		
HARD, GRAY, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	680.4	1	7 9 10	23	44	SS-1	4.50	5	6	13	33	43	29	18	11	11	A-6a (8)	<100	
HARD, GRAY, **ELASTIC CLAY**, SOME SILT, LITTLE SAND, DAMP	678.9	2 3	6 6 8	17	33	SS-2	4.50	0	2	9	31	58	55	31	24	22	A-7-5 (17)	-	
HARD, BROWN AND GRAY, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, MOIST		4 5	4 5 12	20	100	SS-3	4.50	-	-	-	-	-	-	-	-	24	A-6b (V)	-	
	675.9	EOB 6 7	5 7 10	20	100	SS-4	4.50	-	-	-	-	-	-	-	-	27	A-6b (V)	-	

NOTES: CAVED AT 5'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 703+12, 34' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 684.9 (MSL) EOB: 7.0 ft.
START: 4/19/22 END: 4/19/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.412520, -84.115830

EXPLORATION ID B-017-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 684.9	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (6")	684.4																		
CONCRETE, (6")	683.9																		
AGGREGATE BASE, (6")	683.4																		
HARD, GRAY, **CLAY**, SOME SILT, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	682.4		4 6 9	18	100	SS-1	4.50	1	2	9	31	57	47	24	23	24	A-7-6 (15)	<100	
STIFF, BROWN, **SANDY SILT**, SOME CLAY, FILL, MOIST	680.9		7 4 8	14	100	SS-2	-	0	6	47	15	32	24	14	10	23	A-4a (2)	-	
HARD, GRAY, **SILTY CLAY**, TRACE SAND, TRACE GRAVEL, DAMP			6 4 8	14	100	SS-3	4.50	-	-	-	-	-	-	-	-	18	A-6b (V)	-	
	677.9	EOB	4 7 9	19	100	SS-4	4.50	-	-	-	-	-	-	-	-	24	A-6b (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 708+73, 33' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 684.0 (MSL) EOB: 7.0 ft.
START: 4/12/22 END: 4/12/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.412680, -84.113780

EXPLORATION ID B-018-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 684.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	683.7																		
CONCRETE, (8")	683.0																		
AGGREGATE BASE, (6")	682.5																		
HARD, BROWNISH GRAY, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP @2.5'; CONTAINS ROCK FRAGMENTS, MOIST	680.0		6 6 7	16	56	SS-1	4.50	1	2	9	42	46	37	22	15	19	A-6a (10)	<100	
			3 4 5	11	22	SS-2	4.50	-	-	-	-	-	-	-	-	23	A-6a (V)	-	
HARD, GRAY, **CLAY**, "AND" SILT, TRACE SAND, CONTAINS ORGANICS, DAMP @5.5'; MOIST			5 6 12	22	100	SS-3	4.50	0	1	8	46	45	46	24	22	20	A-7-6 (14)	-	
	677.0	EOB	5 10 9	23	100	SS-4	4.50	-	-	-	-	-	-	-	-	26	A-7-6 (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 719+05, 33' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 684.4 (MSL) EOB: 7.0 ft.
START: 4/19/22 END: 4/19/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.413490, -84.110170

EXPLORATION ID B-019-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 684.4	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (6")	683.9																		
CONCRETE, (6")	683.4																		
AGGREGATE BASE, (6")	682.9																		
HARD, BROWN, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	681.9		3 4 6	12	67	SS-1	4.50	4	6	12	30	48	31	20	11	17	A-6a (8)	<100	
VERY STIFF, BROWN, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	680.4		1 3 4	8	100	SS-2	4.00	2	4	14	30	50	38	21	17	17	A-6b (11)	-	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, SOME SILT, SOME CLAY, TRACE GRAVEL, FILL, WET	678.9		1 6 8	17	100	SS-3	-	-	-	-	-	-	-	-	-	14	A-3a (V)	-	
HARD, GRAY, **SILTY CLAY**, TRACE SAND, TRACE GRAVEL, DAMP	677.4	EOB	5 7 10	20	100	SS-4	4.50	-	-	-	-	-	-	-	-	18	A-6b (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

STANDARD ODOT LOG W/ SULFATES (8.5 X 11) - OH DOT.GDT - 11/21/24 13:09 - O:\PROJECT\2022\COL-05\22050022COL\REPORTS\LOGS\22050022COL_HEN6-11.36.GPJ

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 726+36, 34' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 682.8 (MSL) EOB: 7.0 ft.
START: 4/12/22 END: 4/12/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.413750, -84.107520

EXPLORATION ID B-020-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 682.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	682.5																		
CONCRETE, (8")	681.8																		
AGGREGATE BASE, (6")	681.3																		
HARD, GRAY, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	680.3		3 8 8	19	56	SS-1	4.50	2	3	15	41	39	32	19	13	12	A-6a (9)	<100	
HARD, GRAY, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	678.8		7 5 5	12	44	SS-2	4.50	2	2	14	42	40	36	20	16	5	A-6b (10)	-	
HARD, GRAY, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, MOIST @5.5'; DAMP			5 6 12	22	100	SS-3	4.50	-	-	-	-	-	-	-	-	23	A-6b (V)	-	
	675.8	EOB	8 9 9	22	100	SS-4	4.50	-	-	-	-	-	-	-	-	20	A-6b (V)	-	

NOTES: CAVED AT 4'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 733+91, 33' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 680.7 (MSL) EOB: 7.0 ft.
START: 4/19/22 END: 4/19/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.414390, -84.104890

EXPLORATION ID B-021-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
	680.7																		
ASPHALT, (6")	680.2																		
CONCRETE, (6")	679.7																		
AGGREGATE BASE, (6")	679.2																		
HARD, GRAY, **CLAY**, "AND" SILT, TRACE SAND, FILL, DAMP	678.2	1	3 7 10	20	100	SS-1	4.50	0	1	4	52	43	42	27	15	22	A-7-6 (10)	<100	
HARD, BROWN, **SANDY SILT**, LITTLE CLAY, DAMP	676.7	2																	
HARD, GRAY, **SILTY CLAY**, TRACE SAND, MOIST		3	3 6 5	13	100	SS-2	4.50	0	4	55	22	19	21	15	6	13	A-4a (1)	-	
@5.5'; STIFF, BROWN AND GRAY		4	2 2 7	11	100	SS-3	4.50	-	-	-	-	-	-	-	-	25	A-6b (V)	-	
	673.7	5	2 3 6	11	100	SS-4	2.50	-	-	-	-	-	-	-	-	27	A-6b (V)	-	
		EOB 6 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 743+24, 33' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 680.4 (MSL) EOB: 7.0 ft.
START: 4/12/22 END: 4/12/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.414780, -84.101510

EXPLORATION ID B-022-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
	680.4																		
ASPHALT, (4")	680.1																		
CONCRETE, (8")	679.4																		
AGGREGATE BASE, (6")	678.9																		
HARD, BROWNISH GRAY, **SILT AND CLAY**, TRACE SAND, FILL, DAMP	677.9		4 4 6	12	100	SS-1	4.50	0	0	4	59	37	40	25	15	22	A-6a (10)	<100	
HARD, GRAY, **CLAY**, "AND" SILT, TRACE SAND, DAMP @4.0'; BROWN AND GRAY MOTTLED			3 5 6	13	33	SS-2	4.50	0	0	5	58	37	41	24	17	22	A-7-6 (11)	-	
			4 5 9	17	67	SS-3	4.50	-	-	-	-	-	-	-	-	23	A-7-6 (V)	-	
	673.4	EOB	6 6 5	13	67	SS-4	4.50	-	-	-	-	-	-	-	-	23	A-7-6 (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 753+44, 34' LT.	EXPLORATION ID B-023-0-22
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24	
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 677.7 (MSL) EOB: 7.0 ft.	PAGE 1 OF 1
START: 4/19/22 END: 4/19/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.415580, -84.097940	

MATERIAL DESCRIPTION AND NOTES	ELEV. 677.7	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (6")	677.2																		
CONCRETE, (6")	676.7																		
AGGREGATE BASE, (6")	676.2																		
HARD, GRAY, **CLAY**, "AND" SILT, TRACE SAND, DAMP		1	4 6 9	18	100	SS-1	4.50	0	0	5	46	49	49	25	24	21	A-7-6 (15)	-	
		2																	
		3	4 9 5	17	67	SS-2	4.50	0	1	6	42	51	47	25	22	21	A-7-6 (14)	-	
@4.0'; VERY STIFF, BROWN AND GRAY, MOIST		4	4 4 10	17	67	SS-3	3.50	-	-	-	-	-	-	-	-	27	A-7-6 (V)	-	
		5																	
		6	3 5 8	16	100	SS-4	3.50	-	-	-	-	-	-	-	-	28	A-7-6 (V)	-	
	670.7	EOB 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 758+47, 33' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 675.9 (MSL) EOB: 7.0 ft.
START: 4/12/22 END: 4/12/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.415710, -84.096100

EXPLORATION ID B-024-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 675.9	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	675.6																		
CONCRETE, (8")	674.9																		
AGGREGATE BASE, (6")	674.4																		
HARD, BROWN, **CLAY**, "AND" SILT, TRACE SAND, TRACE GRAVEL, DAMP		1	6 5 8	16	89	SS-1	4.50	1	0	2	47	50	45	25	20	23	A-7-6 (13)	<100	
@2.5'; NO GRAVEL		2																	
		3	4 6 7	16	33	SS-2	4.50	0	0	2	51	47	43	24	19	21	A-7-6 (12)	-	
@4.0'; VERY STIFF, MOIST		4																	
	670.4	5	6 4 5	11	100	SS-3	3.25	-	-	-	-	-	-	-	-	26	A-7-6 (V)	-	
MEDIUM STIFF, BROWN, **SANDY SILT**, TRACE CLAY, MOIST		6																	
	668.9	EOB 7	4 4 2	7	100	SS-4	-	-	-	-	-	-	-	-	-	27	A-4a (V)	-	

NOTES: CAVED AT 5.3'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 766+60, 33' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 677.4 (MSL) EOB: 7.0 ft.
START: 4/19/22 END: 4/19/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.416370, -84.093260

EXPLORATION ID B-025-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 677.4	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (6")	676.9																		
CONCRETE, (6")	676.4																		
AGGREGATE BASE, (6")	675.9																		
VERY STIFF, GRAY, **CLAY**, "AND" SILT, TRACE SAND, MOIST	674.9																		
HARD, GRAY, **SILTY CLAY**, TRACE SAND, MOIST @4.0'; VERY STIFF, BROWN		1 2 3 4	4 4 8	14	100	SS-1	3.75	0	1	6	47	46	41	22	19	24	A-7-6 (12)	1300	
			3 3 5	10	33	SS-2	4.50	0	1	3	44	52	39	23	16	25	A-6b (10)	-	
@5.5'; STIFF, WITH WET SAND SEAMS		5	1 3 4	8	100	SS-3	3.75	-	-	-	-	-	-	-	-	24	A-6b (V)	-	
	670.4	EOB 6 7	4 5 7	14	100	SS-4	-	-	-	-	-	-	-	-	-	27	A-6b (V)	-	

NOTES: CAVED AT 5.5'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 774+55, 34' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 679.4 (MSL) EOB: 7.0 ft.
START: 4/12/22 END: 4/12/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.416550, -84.090360

EXPLORATION ID B-026-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 679.4	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	679.0																		
CONCRETE, (8")	678.4																		
AGGREGATE BASE, (6")	677.9																		
HARD, BROWN, **SILTY CLAY**, LITTLE SAND, LITTLE GRAVEL, FILL, DAMP	676.9		4 6 6	14	100	SS-1	4.50	13	4	8	29	46	39	23	16	28	A-6b (10)	<100	
HARD, DARK GRAY, **ELASTIC CLAY**, "AND" SILT, TRACE SAND, DAMP	675.4		4 5 7	14	44	SS-2	4.50	0	1	3	46	50	57	36	21	32	A-7-5 (16)	-	
HARD, GRAY WITH BROWN MOTTLED, **SILTY CLAY**, TRACE SAND, DAMP @5.5'; VERY STIFF, MOIST	672.4	EOB 7	5 6 10	19	44	SS-3	4.50	-	-	-	-	-	-	-	-	23	A-6b (V)	-	
			7 10 11	25	100	SS-4	3.75	-	-	-	-	-	-	-	-	24	A-6b (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 782+72, 33' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 679.0 (MSL) EOB: 7.0 ft.
START: 4/19/22 END: 4/19/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.416960, -84.087420

EXPLORATION ID B-027-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 679.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (6")	678.5																		
CONCRETE, (6")	678.0																		
AGGREGATE BASE, (6")	677.5																		
HARD, GRAY, **CLAY**, "AND" SILT, TRACE SAND, FILL, DAMP		676.0	3 4 6	12	100	SS-1	4.50	0	0	4	52	44	41	23	18	18	A-7-6 (11)	<100	
	675.0		5 4 2	7	44	SS-2	4.50	0	1	5	44	50	45	26	19	26	A-7-6 (13)	-	
VERY STIFF, GRAY, **SILTY CLAY**, TRACE SAND, MOIST			2 3 11	17	56	SS-3	2.50	-	-	-	-	-	-	-	-	30	A-6b (V)	-	
@5.5'; DAMP			6 5 9	17	100	SS-4	3.00	-	-	-	-	-	-	-	-	17	A-6b (V)	-	
	672.0	EOB																	

NOTES: CAVED AT 2.5'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 789+26, 35' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 677.2 (MSL) EOB: 7.0 ft.
START: 4/12/22 END: 4/12/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.416840, -84.085030

EXPLORATION ID B-028-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 677.2	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	676.9																		
CONCRETE, (8")	676.2																		
AGGREGATE BASE, (6")	675.7																		
HARD, BROWN AND GRAY, **SILT AND CLAY**, TRACE SAND, FILL, DAMP	674.7		6 7 6	16	100	SS-1	4.50	0	1	8	14	77	35	21	14	10	A-6a (10)	<100	
VERY STIFF, BROWN AND GRAY, **CLAY**, "AND" SILT, TRACE SAND, FILL, DAMP	673.2		3 4 6	12	100	SS-2	3.75	0	0	5	47	48	45	25	20	19	A-7-6 (13)	-	
HARD, DARK GRAY, **SILTY CLAY**, TRACE TO LITTLE SAND, MOIST			2 4 9	16	100	SS-3	4.50	-	-	-	-	-	-	-	-	24	A-6b (V)	-	
	670.2	EOB	6 8 11	23	100	SS-4	4.00	-	-	-	-	-	-	-	-	26	A-6b (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

STANDARD ODOT LOG W/ SULFATES (8.5 X 11) - OH DOT.GDT - 11/21/24 13:09 - O:\PROJECT\2022\COL-05\22050022COL\REPORTS\LOGS\22050022COL_HEN6-11.36.GPJ

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 800+24, 32' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 675.7 (MSL) EOB: 7.0 ft.
START: 4/19/22 END: 4/19/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.417050, -84.081030

EXPLORATION ID B-029-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 675.7	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	675.4																		
CONCRETE, (8")	674.7																		
AGGREGATE BASE, (6")	674.2																		
HARD, BROWN, **SILT AND CLAY**, SOME SAND, FILL, MOIST @2.5'; DAMP		1	5 6 8	17	67	SS-1	4.50	0	2	19	41	38	33	18	15	20	A-6a (10)	<100	
		2																	
		3	5 5 6	13	22	SS-2	4.50	0	3	24	37	36	30	17	13	13	A-6a (9)	-	
		4	4 5 8	16	56	SS-3	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	-	
	670.2	5																	
HARD, GRAY, **SILTY CLAY**, TRACE SAND, MOIST		6	5 6 10	19	100	SS-4	4.50	-	-	-	-	-	-	-	-	28	A-6b (V)	-	
	668.7 EOB	7																	

NOTES: CAVED AT 6'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 805+01, 32' RT.	EXPLORATION ID B-030-0-22
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24	
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 674.4 (MSL) EOB: 7.0 ft.	PAGE 1 OF 1
START: 4/14/22 END: 4/14/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.416880, -84.079290	

MATERIAL DESCRIPTION AND NOTES	ELEV. 674.4	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	674.1																		
CONCRETE, (8")	673.4																		
AGGREGATE BASE, (6")	672.9																		
VERY STIFF, BROWN, **CLAY**, "AND" SILT, TRACE SAND, FILL, DAMP @2.5'; STIFF, SOME SILT, LITTLE SAND, CONTAINS ROCK FRAGMENTS	670.4	1 2 3 4	3 4 8	14	100	SS-1	3.50	0	1	7	39	53	45	23	22	17	A-7-6 (14)	<100	
			3 5 6	13	33	SS-2	-	0	3	16	30	51	46	25	21	17	A-7-6 (14)	-	
VERY STIFF, GRAY, **CLAY**, SOME SILT, LITTLE SAND, TRACE GRAVEL, DAMP @5.5'; HARD	667.4	5	4 8 10	22	33	SS-3	-	-	-	-	-	-	-	-	-	22	A-7-6 (V)	-	
		EOB 6 7	6 9 11	24	33	SS-4	4.25	-	-	-	-	-	-	-	-	21	A-7-6 (V)	-	

NOTES: CAVED AT 3'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 814+45, 52' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 672.0 (MSL) EOB: 7.0 ft.
START: 4/15/22 END: 4/15/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.417120, -84.075850

EXPLORATION ID B-031-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
	672.0																		
ASPHALT, (4")	671.7																		
CONCRETE, (8")	671.0																		
AGGREGATE BASE, (6")	670.5																		
VERY STIFF, GRAY, **CLAY**, SOME SILT, TRACE SAND, DAMP		1	3 6 7	16	100	SS-1	4.00	0	2	8	33	57	52	29	23	24	A-7-6 (16)	<100	
@2.5'; BROWNISH GRAY		2 3 4	4 4 5	11	100	SS-2	3.75	0	1	5	32	62	58	28	30	25	A-7-6 (20)	-	
		5	2 3 7	12	100	SS-3	3.75	-	-	-	-	-	-	-	-	23	A-7-6 (V)	-	
@5.5'; HARD, TRACE GRAVEL		6	6 6 10	19	100	SS-4	4.50	-	-	-	-	-	-	-	-	16	A-7-6 (V)	-	
	665.0	EOB 7																	

NOTES: CAVED AT 5.2'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 821+92, 33' RT.	EXPLORATION ID B-032-0-22
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24	
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 673.3 (MSL) EOB: 7.0 ft.	PAGE 1 OF 1
START: 4/14/22 END: 4/14/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.416900, -84.073120	

MATERIAL DESCRIPTION AND NOTES	ELEV. 673.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	672.9																		
CONCRETE, (8")	672.3																		
AGGREGATE BASE, (6")	671.8																		
VERY STIFF, BROWN, **CLAY**, "AND" SILT, LITTLE SAND, FILL, DAMP	670.8	1	4 5 7	14	89	SS-1	3.00	0	1	10	43	46	56	29	27	19	A-7-6 (18)	<100	
VERY STIFF, BROWN, **SILT AND CLAY**, SOME SAND, FILL, DAMP	669.3	2	4 5 4	11	100	SS-2	3.50	0	2	31	31	36	28	16	12	17	A-6a (7)	-	
VERY STIFF, GRAY, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP @5.5'; MOIST		3	5 5 8	16	100	SS-3	3.75	-	-	-	-	-	-	-	-	15	A-6b (V)	-	
		4	6 10 17	32	100	SS-4	3.00	-	-	-	-	-	-	-	-	29	A-6b (V)	-	
	666.3	5																	
		6																	
		EOB 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 1829+55, 37' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 WB
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 672.2 (MSL) EOB: 7.0 ft.
START: 4/15/22 END: 4/15/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.417190, -84.070360

EXPLORATION ID B-033-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
	672.2																		
ASPHALT, (4")	671.9																		
CONCRETE, (8")	671.2																		
AGGREGATE BASE, (6")	670.7																		
VERY STIFF, BROWN, **CLAY**, SOME SILT, SOME SAND, TRACE GRAVEL, FILL, DAMP	669.7		4 5 7	14	89	SS-1	4.00	1	3	18	32	46	44	25	19	13	A-7-6 (12)	<100	
VERY STIFF, GRAY, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, MOIST	668.2		3 7 6	16	100	SS-2	3.75	1	2	9	30	58	37	22	15	26	A-6a (10)	-	
VERY STIFF, GRAY AND BROWN MOTTLED, **SILTY CLAY**, SOME SAND, TRACE GRAVEL, DAMP			5 2 11	16	100	SS-3	3.50	-	-	-	-	-	-	-	-	24	A-6b (V)	-	
	665.2	EOB	4 7 18	30	100	SS-4	3.75	-	-	-	-	-	-	-	-	18	A-6b (V)	-	

NOTES: CAVED AT 4'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 1499+80, 3' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 24 EB
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 676.0 (MSL) EOB: 7.0 ft.
START: 4/14/22 END: 4/14/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.416730, -84.069980

EXPLORATION ID B-034-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
	676.0																		
ASPHALT, (4")	675.7																		
CONCRETE, (8")	675.0																		
AGGREGATE BASE, (6")	674.5																		
HARD, BROWN, **SILT AND CLAY**, LITTLE SAND, FILL, DAMP	673.5		2 6 9	18	100	SS-1	4.50	0	2	16	47	35	30	18	12	17	A-6a (9)	<100	
HARD, GRAY, **SILTY CLAY**, TRACE SAND, FILL, DAMP			2 5 6	13	100	SS-2	4.50	0	1	5	44	50	38	22	16	18	A-6b (10)	-	
	670.5		4 5 9	17	100	SS-3	4.50	-	-	-	-	-	-	-	-	20	A-6b (V)	-	
VERY STIFF, DARK GRAY, **SILT AND CLAY**, LITTLE SAND, CONTAINS ORGANICS, MOIST	669.0	EOB	6 9 9	22	100	SS-4	2.50	-	-	-	-	-	-	-	-	37	A-6a (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 1835+63, 49' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 WB
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 672.0 (MSL) EOB: 7.0 ft.
START: 4/15/22 END: 4/15/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.417230, -84.068140

EXPLORATION ID B-035-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 672.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	671.7																		
CONCRETE, (8")	671.0																		
AGGREGATE BASE, (6")	670.5																		
HARD, GRAY, **CLAY**, SOME SILT, LITTLE SAND, DAMP	669.5		5 8 10	22	100	SS-1	4.50	0	3	13	35	49	45	25	20	21	A-7-6 (13)	<100	
MEDIUM DENSE, BROWN, **FINE SAND**, TRACE SILT, TRACE CLAY, DAMP	668.0		4 6 7	16	100	SS-2	-	0	4	87	6	3	NP	NP	NP	12	A-3 (0)	-	
HARD, GRAY, **SILT AND CLAY**, SOME SAND, TRACE GRAVEL, DAMP	666.5		3 4 8	14	100	SS-3	4.50	-	-	-	-	-	-	-	-	23	A-6a (V)	-	
HARD, BROWN, **SANDY SILT**, SOME CLAY, TRACE GRAVEL, DAMP	665.0	EOB	4 6 11	20	100	SS-4	4.50	-	-	-	-	-	-	-	-	16	A-4a (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

STANDARD ODOT LOG W/ SULFATES (8.5 X 11) - OH DOT.GDT - 11/21/24 13:09 - O:\PROJECT\2022\COL-05\22050022COL\REPORTS\LOGS\22050022COL_HEN6-11.36.GPJ

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 1506+64, 39' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 24 EB
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 677.3 (MSL) EOB: 7.0 ft.
START: 4/14/22 END: 4/14/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.416190, -84.067600

EXPLORATION ID B-036-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 677.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	677.0																		
CONCRETE, (8")	676.3																		
AGGREGATE BASE, (6")	675.8																		
STIFF, BROWN, **CLAY**, SOME SILT, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	674.8		2 3 5	10	67	SS-1	-	1	4	9	32	54	43	23	20	22	A-7-6 (13)	<100	
VERY STIFF, BROWN, **SILT AND CLAY**, LITTLE SAND, FILL, DAMP @4.0'; MOIST	671.8		2 5 6	13	44	SS-2	3.75	0	2	16	44	38	35	20	15	16	A-6a (10)	-	
			4 5 10	18	100	SS-3	3.75	-	-	-	-	-	-	-	-	21	A-6a (V)	-	
VERY STIFF, GRAY, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP	670.3	EOB	5 6 9	18	100	SS-4	3.75	-	-	-	-	-	-	-	-	18	A-6a (V)	-	

NOTES: CAVED AT 5.2'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 1845+80, 12' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 WB
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 670.3 (MSL) EOB: 7.0 ft.
START: 4/15/22 END: 4/15/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.416400, -84.064590

EXPLORATION ID B-037-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
	670.3																		
ASPHALT, (5")	669.9																		
CONCRETE, (7")	669.3																		
AGGREGATE BASE, (6")	668.8																		
HARD, BROWN, **CLAY**, SOME SILT, LITTLE SAND, DAMP	667.8	1	3 4 7	13	67	SS-1	4.50	0	4	13	29	54	50	24	26	21	A-7-6 (16)	<100	
		2																	
		3	3 4 6	12	44	SS-2	4.50	1	5	14	32	48	38	21	17	20	A-6b (11)	-	
HARD, BROWN AND GRAY, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP		4	2 7 18	30	67	SS-3	4.50	-	-	-	-	-	-	-	-	15	A-6b (V)	-	
		5																	
		6	4 6 17	28	100	SS-4	4.50	-	-	-	-	-	-	-	-	15	A-6b (V)	-	
	663.3	EOB 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 846+55, 26' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 EB
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 673.4 (MSL) EOB: 7.0 ft.
START: 4/20/22 END: 4/20/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.414920, -84.064710

EXPLORATION ID B-038-0-22

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MATERIAL DESCRIPTION AND NOTES	ELEV. 673.4	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (10")	672.5																		
AGGREGATE BASE, (8")	671.9																		
VERY STIFF, GRAY, **CLAY**, SOME SILT, LITTLE SAND, FILL, DAMP @2.5'; MOIST @4.0'; STIFF	667.9	1 2 3 4 5	2 3 6 2 4 3 4 4 10	11 8 17	100 100 100	SS-1 SS-2 SS-3	3.00 3.00 1.75	0 0 -	2 2 -	9 11 -	29 28 -	60 59 -	55 60 -	28 28 -	27 32 -	26 30 29	A-7-6 (18) A-7-6 (20) A-7-6 (V)	<100 - -	
VERY STIFF, GRAY, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP	666.4	EOB 6 7	8 10 12	26	100	SS-4	3.25	-	-	-	-	-	-	-	-	26	A-6b (V)	-	

NOTES: CAVED AT 4'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 1853+64, 7' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 WB
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 667.7 (MSL) EOB: 7.0 ft.
START: 4/20/22 END: 4/20/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.414830, -84.062650

EXPLORATION ID B-039-0-22

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MATERIAL DESCRIPTION AND NOTES	ELEV. 667.7	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	667.4																		
CONCRETE, (6")	667.1																		
AGGREGATE BASE, (6")	666.4																		
VERY STIFF, GRAY, **CLAY**, "AND" SILT, TRACE SAND, TRACE GRAVEL, DAMP	665.2		2 2 5	8	67	SS-1	2.25	1	3	7	47	42	47	25	22	23	A-7-6 (14)	<100	
MEDIUM STIFF, BROWN, **SILT AND CLAY**, SOME SAND, TRACE GRAVEL, MOIST			2 2 3	6	11	SS-2	-	2	6	28	25	39	30	17	13	19	A-6a (7)	-	
@4.0'; VERY STIFF, DAMP			2 4 8	14	100	SS-3	4.00	-	-	-	-	-	-	-	-	17	A-6a (V)	-	
	660.7	EOB	1 5 11	19	100	SS-4	3.00	-	-	-	-	-	-	-	-	13	A-6a (V)	-	

NOTES: CAVED AT 4.5'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 854+17, 18' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 EB
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 667.3 (MSL) EOB: 7.0 ft.
START: 4/22/22 END: 4/22/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.413600, -84.062580

EXPLORATION ID B-040-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 667.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (10")	666.4																		
AGGREGATE BASE, (6")	665.9																		
HARD, BROWN, **CLAY**, SOME SILT, LITTLE SAND, TRACE GRAVEL, DAMP	664.8	1	4 6 6	14	100	SS-1	4.50	4	5	8	24	59	41	24	17	5	A-7-6 (11)	<100	
HARD, BROWN, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP		2																	
		3	3 4 4	10	100	SS-2	4.50	5	6	14	32	43	32	19	13	15	A-6a (9)	-	
		4	4 2 8	12	100	SS-3	4.50	-	-	-	-	-	-	-	-	17	A-6a (V)	-	
@5.5'; MOIST		5																	
	660.3	6	7 6 10	19	100	SS-4	4.50	-	-	-	-	-	-	-	-	25	A-6a (V)	-	
		EOB 7																	

NOTES: CAVED AT 5.8'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 859+64, 16' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 EB
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 664.2 (MSL) EOB: 7.0 ft.
START: 4/22/22 END: 4/22/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.412510, -84.061210

EXPLORATION ID B-041-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 664.2	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (8")	663.5																		
AGGREGATE BASE, (8")	662.8																		
HARD, BROWN, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP		1	6 5 9	17	100	SS-1	4.50	5	6	13	35	41	30	18	12	15	A-6a (9)	<100	
		2																	
		3	4 8 9	20	100	SS-2	4.50	5	6	13	44	32	31	19	12	15	A-6a (9)	-	
		4	5 11 22	40	100	SS-3	4.50	-	-	-	-	-	-	-	-	16	A-6a (V)	-	
		5																	
		6	7 11 17	34	100	SS-4	4.50	-	-	-	-	-	-	-	-	16	A-6a (V)	-	
	657.2	EOB 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 866+82, 37' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 667.5 (MSL) EOB: 7.0 ft.
START: 4/22/22 END: 4/22/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.411340, -84.060060

EXPLORATION ID B-042-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 667.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (12")	666.5																		
AGGREGATE BASE, (6")	666.0																		
HARD, GRAY, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP			3 4 4	10	56	SS-1	4.50	9	6	12	30	43	40	21	19	13	A-6b (11)	<100	
@2.5'; SOME SAND			3 2 4	7	100	SS-2	4.50	4	3	28	24	41	36	19	17	19	A-6b (9)	-	
@4.0'; MOIST			1 3 8	13	89	SS-3	4.50	-	-	-	-	-	-	-	-	20	A-6b (V)	-	
	660.5	EOB	4 5 10	18	89	SS-4	4.50	-	-	-	-	-	-	-	-	23	A-6b (V)	-	

NOTES: CAVED AT 6'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 1514+98, 5' RT.	EXPLORATION ID B-043-0-22
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 24 WB	
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 674.6 (MSL) EOB: 7.0 ft.	PAGE 1 OF 1
START: 4/15/22 END: 4/15/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.416830, -84.064410	

MATERIAL DESCRIPTION AND NOTES	ELEV. 674.6	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	674.2																		
CONCRETE, (8")	673.6																		
AGGREGATE BASE, (6")	673.1																		
HARD, GRAY, **CLAY**, SOME SILT, LITTLE SAND, TRACE GRAVEL, FILL, DAMP @2.5'; NO GRAVEL	670.6		3 5 6	13	89	SS-1	4.50	3	4	12	32	49	43	23	20	16	A-7-6 (13)	<100	
			4 4 5	11	33	SS-2	4.50	0	2	10	29	59	59	29	30	22	A-7-6 (20)	-	
VERY STIFF, GRAY, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP			4 7 8	18	67	SS-3	3.00	-	-	-	-	-	-	-	-	24	A-6b (V)	-	
	667.6	EOB	3 8 9	20	100	SS-4	3.25	-	-	-	-	-	-	-	-	24	A-6b (V)	-	

NOTES: CAVED AT 5.9'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

STANDARD ODOT LOG W/ SULFATES (8.5 X 11) - OH DOT.GDT - 11/21/24 13:10 - O:\PROJECT\2022\COL-05\22050022COL\REPORTS\LOGS\22050022COL_HEN6-11.36.GPJ

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 516+48, 2' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 24 EB
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 687.7 (MSL) EOB: 7.0 ft.
START: 4/14/22 END: 4/14/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.415600, -84.064090

EXPLORATION ID B-044-0-22

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MATERIAL DESCRIPTION AND NOTES	ELEV. 687.7	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	687.4																		
CONCRETE, (8")	686.7																		
AGGREGATE BASE, (6")	686.2																		
HARD, BROWN, **SILT AND CLAY**, TRACE SAND, FILL, DAMP @2.5'; LITTLE SAND, TRACE GRAVEL	683.7	1 2 3 4	3 3 8	13	56	SS-1	4.50	0	1	5	41	53	37	23	14	22	A-6a (10)	<100	
			4 5 5	12	67	SS-2	4.50	4	11	8	45	32	30	18	12	16	A-6a (9)	-	
VERY STIFF, BROWN, **SILTY CLAY**, SOME SAND, TRACE GRAVEL, FILL, DAMP		5	4 7 11	22	67	SS-3	3.00	-	-	-	-	-	-	-	-	23	A-6b (V)	-	
	680.7	EOB 6 7	6 7 10	20	100	SS-4	3.50	-	-	-	-	-	-	-	-	22	A-6b (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 1522+59, 4' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 24 WB
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 673.2 (MSL) EOB: 7.0 ft.
START: 4/15/22 END: 4/15/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.416080, -84.061820

EXPLORATION ID B-045-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 673.2	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	672.8																		
CONCRETE, (8")	672.2																		
AGGREGATE BASE, (6")	671.7																		
VERY STIFF, GRAY, **CLAY**, SOME SILT, LITTLE SAND, TRACE GRAVEL, FILL, DAMP @2.5'; HARD, MOIST	669.2		2 3 5	10	44	SS-1	3.00	1	2	11	29	57	50	25	25	23	A-7-6 (16)	<100	
			6 3 4	8	100	SS-2	4.50	2	4	10	31	53	41	23	18	25	A-7-6 (11)	-	
VERY STIFF, GRAY, **SILT AND CLAY**, SOME SAND, TRACE GRAVEL, MOIST			4 4 6	12	100	SS-3	4.00	-	-	-	-	-	-	-	-	28	A-6a (V)	-	
	666.2	EOB	5 6 11	20	100	SS-4	3.50	-	-	-	-	-	-	-	-	23	A-6a (V)	-	

NOTES: CAVED AT 5'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 524+01, 3' RT.	EXPLORATION ID B-046-0-22
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 24 EB	
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 683.3 (MSL) EOB: 7.0 ft.	PAGE 1 OF 1
START: 4/14/22 END: 4/14/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.415490, -84.061350	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	683.3																		
CONCRETE, (8")	682.9																		
AGGREGATE BASE, (6")	682.3																		
VERY STIFF, BROWN, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	681.8		5 6 5	13	67	SS-1	4.00	2	5	12	40	41	31	19	12	19	A-6a (9)	<100	
	680.8		2 4 11	18	100	SS-2	-	4	5	13	30	48	37	21	16	21	A-6b (10)	-	
VERY STIFF, BROWN, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP @4.0'; HARD			2 2 9	13	100	SS-3	4.25	-	-	-	-	-	-	-	-	16	A-6b (V)	-	
@5.5'; VERY STIFF, MOIST			6 8 16	29	100	SS-4	3.75	-	-	-	-	-	-	-	-	23	A-6b (V)	-	
	676.3	EOB																	

NOTES: CAVED AT 5'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 531+11, 2' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 24 EB
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 671.3 (MSL) EOB: 7.0 ft.
START: 4/14/22 END: 4/14/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.415470, -84.058770

EXPLORATION ID B-047-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 671.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	671.0																		
CONCRETE, (8")	670.3																		
AGGREGATE BASE, (6")	669.8																		
VERY STIFF, GRAY, **CLAY**, "AND" SILT, LITTLE SAND, MOIST		1	4 6 7	16	100	SS-1	4.00	0	2	9	39	50	42	24	18	25	A-7-6 (12)	<100	
@2.5'; SOME SILT, TRACE SAND, TRACE GRAVEL, DAMP		2 3 4	3 3 5	10	100	SS-2	2.75	2	2	8	33	55	51	29	22	26	A-7-6 (15)	-	
@5.5'; BROWN		5	3 5 10	18	100	SS-3	4.00	-	-	-	-	-	-	-	-	25	A-7-6 (V)	-	
	664.3	6 EOB 7	6 5 9	17	100	SS-4	3.25	-	-	-	-	-	-	-	-	28	A-7-6 (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 541+30, 53' LT.	EXPLORATION ID B-048-0-22
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 24	
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 668.5 (MSL) EOB: 7.0 ft.	PAGE 1 OF 1
START: 4/15/22 END: 4/15/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.415680, -84.055050	

MATERIAL DESCRIPTION AND NOTES	ELEV. 668.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	668.2																		
CONCRETE, (8")	667.5																		
AGGREGATE BASE, (6")	667.0																		
VERY STIFF, GRAY, **CLAY**, SOME SILT, TRACE SAND, DAMP		1	2 2 6	10	56	SS-1	3.75	0	0	3	34	63	57	27	30	24	A-7-6 (19)	<100	
@2.5'; BROWN, "AND SILT", TRACE GRAVEL		2																	
@4.0'; SOME SAND, LITTLE GRAVEL		3	2 4 5	11	33	SS-2	3.50	1	0	3	39	57	53	24	29	23	A-7-6 (18)	-	
		4																	
@5.5'; HARD, MOIST		5	4 5 8	16	56	SS-3	3.75	-	-	-	-	-	-	-	-	24	A-7-6 (V)	-	
	661.5	EOB 6 7	5 6 9	18	100	SS-4	4.25	-	-	-	-	-	-	-	-	25	A-7-6 (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 545+02, 32' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 24
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 667.9 (MSL) EOB: 7.0 ft.
START: 4/14/22 END: 4/14/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.415440, -84.053690

EXPLORATION ID B-049-0-22

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MATERIAL DESCRIPTION AND NOTES	ELEV. 667.9	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	667.6																		
CONCRETE, (8")	666.9																		
AGGREGATE BASE, (6")	666.4																		
VERY STIFF, GRAY, **CLAY**, "AND" SILT, TRACE SAND, DAMP		1	4 5 8	16	100	SS-1	3.00	0	0	4	49	47	43	24	19	23	A-7-6 (12)	<100	
		2																	
		3	3 4 7	13	100	SS-2	2.75	0	1	8	43	48	42	24	18	21	A-7-6 (12)	-	
		4																	
	662.4	5	2 4 7	13	100	SS-3	3.50	-	-	-	-	-	-	-	-	22	A-7-6 (V)	-	
VERY STIFF, GRAY, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, MOIST	660.9	6	3 3 6	11	100	SS-4	2.50	-	-	-	-	-	-	-	-	26	A-6a (V)	-	
		EOB 7																	

NOTES: CAVED AT 5.5'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 109+86, 19' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 & 24 RAMP A
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 687.3 (MSL) EOB: 7.0 ft.
START: 4/20/22 END: 4/20/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.394720, -84.148790

EXPLORATION ID B-050-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (10")	687.3																		
AGGREGATE BASE, (8")	686.6																		
HARD, GRAY, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	685.8		4 5 5	12	100	SS-1	4.00	2	5	14	33	46	35	20	15	20	A-6a (10)	<100	
HARD, GRAY, **CLAY**, SOME SILT, LITTLE SAND, TRACE GRAVEL, FILL, DAMP @4.0'; BROWN	684.8		1 3 4	8	33	SS-2	4.50	2	3	11	31	53	43	23	20	18	A-7-6 (13)	-	
			1 1 11	14	33	SS-3	4.50	-	-	-	-	-	-	-	-	13	A-7-6 (V)	-	
	680.3	EOB	7 8 10	22	67	SS-4	4.50	-	-	-	-	-	-	-	-	18	A-7-6 (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 117+94, 19' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 & 24 RAMP AB
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 696.8 (MSL) EOB: 7.0 ft.
START: 4/20/22 END: 4/20/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.395280, -84.146320

EXPLORATION ID B-051-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 696.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (10")	696.0																		
AGGREGATE BASE, (8")	695.3																		
LOOSE, GRAY, **GRAVEL AND/OR STONE FRAGMENTS WITH SAND**, LITTLE SILT, TRACE CLAY, FILL, DAMP	694.3		6 5 3	10	33	SS-1	-	54	20	9	11	6	NP	NP	NP	7	A-1-b (0)	680	
LOOSE, GRAY, **GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT**, TRACE CLAY, FILL, DAMP	692.8		2 2 6	10	44	SS-2	-	35	27	12	18	8	NP	NP	NP	8	A-2-4 (0)	-	
VERY STIFF, GRAY, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP @5.5'; MOIST			4 5 6	13	100	SS-3	3.00	-	-	-	-	-	-	-	-	18	A-6b (V)	-	
	689.8	EOB	8 10 13	28	100	SS-4	3.50	-	-	-	-	-	-	-	-	25	A-6b (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 216+78, 17' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 & 24 RAMP B
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 686.9 (MSL) EOB: 7.0 ft.
START: 4/20/22 END: 4/20/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.395230, -84.148600

EXPLORATION ID B-052-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (12")	685.9																		
AGGREGATE BASE, (6")	685.4																		
VERY STIFF, BROWN, **SANDY SILT**, SOME CLAY, FILL, MOIST	684.4	1	19 6 9	18	56	SS-1	2.00	0	5	42	18	35	25	15	10	22	A-4a (4)	<100	
VERY STIFF, GRAY, **CLAY**, SOME SILT, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	682.9	2	3 2 4	7	100	SS-2	3.50	1	3	14	29	53	44	24	20	21	A-7-6 (13)	-	
VERY STIFF, GRAY, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP		3	3 6 11	20	100	SS-3	3.00	-	-	-	-	-	-	-	-	24	A-6b (V)	-	
		4	4 8 15	28	100	SS-4	3.25	-	-	-	-	-	-	-	-	26	A-6b (V)	-	
	679.9	5 EOB																	
		6																	
		7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 501+76, 20' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 & 24 RAMP E
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 694.7 (MSL) EOB: 7.0 ft.
START: 4/21/22 END: 4/21/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.397730, -84.149770

EXPLORATION ID B-053-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 694.7	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (12")	693.7																		
AGGREGATE BASE, (6")	693.2																		
VERY STIFF, BROWN, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	692.2		3 2 3	6	56	SS-1	3.75	3	5	13	30	49	33	20	13	19	A-6a (9)	<100	
VERY STIFF, BROWN, **SILTY CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP @4.0'; HARD			2 2 4	7	56	SS-2	2.75	3	5	12	30	50	38	20	18	18	A-6b (11)	-	
			1 2 5	8	89	SS-3	4.50	-	-	-	-	-	-	-	-	20	A-6b (V)	-	
	687.7	EOB	5 4 5	11	100	SS-4	4.25	-	-	-	-	-	-	-	-	15	A-6b (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 308+54, 17' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 & 24 RAMP C
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 684.0 (MSL) EOB: 7.0 ft.
START: 4/21/22 END: 4/21/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.397990, -84.147830

EXPLORATION ID B-054-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 684.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (12")	683.0																		
AGGREGATE BASE, (6")	682.5																		
STIFF, BROWN, **SILT AND CLAY**, "AND" SAND, FILL, DAMP	681.5	1	12 7 4	13	56	SS-1	-	0	5	45	21	29	26	15	11	12	A-6a (3)	<100	
HARD, BROWN AND GRAY, **CLAY**, SOME SILT, LITTLE SAND, DAMP		2	2 3 4	8	100	SS-2	4.25	0	2	11	34	53	47	24	23	20	A-7-6 (15)	-	
		3	3 3 10	16	100	SS-3	4.50	-	-	-	-	-	-	-	-	16	A-7-6 (V)	-	
		4	9 6 10	19	100	SS-4	4.25	-	-	-	-	-	-	-	-	24	A-7-6 (V)	-	
	677.0	5 EOB																	
		6																	
		7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 1+34, 4' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 & 24 RAMP D
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 685.2 (MSL) EOB: 7.0 ft.
START: 4/21/22 END: 4/21/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.398760, -84.153090

EXPLORATION ID B-055-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (8")	684.6																		
HARD, GRAY, **CLAY**, SOME SILT, LITTLE SAND, TRACE GRAVEL, DAMP		1	6 5 4	11	100	SS-1	4.25	3	3	12	31	51	53	29	24	22	A-7-6 (16)	<100	
		2																	
		3	6 9 2	13	67	SS-2	4.50	8	5	13	27	47	49	25	24	22	A-7-6 (15)	-	
@4.0'; VERY STIFF, BROWN AND GRAY		4	4 3 7	12	100	SS-3	3.75	-	-	-	-	-	-	-	-	24	A-7-6 (V)	-	
@5.5'; HARD		5																	
		6	3 6 7	16	100	SS-4	4.50	-	-	-	-	-	-	-	-	24	A-7-6 (V)	-	
	678.2	EOB 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 10+55, 18' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 & 24 RAMP D
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 684.3 (MSL) EOB: 7.0 ft.
START: 4/21/22 END: 4/21/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.398500, -84.149800

EXPLORATION ID B-056-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (12")	684.3																		
	683.3																		
AGGREGATE BASE, (6")	682.8																		
VERY STIFF, GRAY, **CLAY**, SOME SILT, LITTLE SAND, DAMP		1	3 3 5	10	100	SS-1	3.75	0	1	10	30	59	56	28	28	24	A-7-6 (18)	<100	
@2.5'; HARD, BROWN AND GRAY		2 3	2 2 5	8	100	SS-2	4.50	0	2	10	28	60	53	25	28	21	A-7-6 (18)	-	
		4	4 6 7	16	100	SS-3	4.25	-	-	-	-	-	-	-	-	22	A-7-6 (V)	-	
		5 6	5 6 5	13	100	SS-4	4.25	-	-	-	-	-	-	-	-	19	A-7-6 (V)	-	
	677.3	EOB 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 509+53, 2' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 & 24 RAMP E
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 682.5 (MSL) EOB: 7.0 ft.
START: 4/21/22 END: 4/21/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.398690, -84.147380

EXPLORATION ID B-057-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (12")	682.5																		
	681.5																		
AGGREGATE BASE, (6")	681.0																		
HARD, GRAY, **CLAY**, SOME SILT, LITTLE SAND, DAMP	680.0	1	9 4 3	8	56	SS-1	4.50	0	2	11	30	57	47	26	21	26	A-7-6 (14)	<100	
VERY STIFF, GRAY, **ELASTIC CLAY**, SOME SILT, TRACE SAND, TRACE GRAVEL, DAMP		2																	
		3	5 4 3	8	100	SS-2	3.75	1	1	5	21	72	65	30	35	28	A-7-5 (20)	-	
	677.0	4																	
		5	2 2 5	8	89	SS-3	3.25	-	-	-	-	-	-	-	-	28	A-7-5 (V)	-	
HARD, BROWN, **CLAY**, SOME SILT, LITTLE SAND, TRACE GRAVEL, DAMP	675.5	6	5 6 10	19	100	SS-4	4.50	-	-	-	-	-	-	-	-	23	A-7-6 (V)	-	
		EOB 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 24+55, 17' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6 & 24 RAMP D
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 680.1 (MSL) EOB: 7.0 ft.
START: 4/21/22 END: 4/21/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.399330, -84.144840

EXPLORATION ID B-058-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (12")	680.1 679.1																		
HARD, BROWN, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP		1 2 3 4 5 6	5 5 6 4 5 5 1 7 16 8 12 19	13	100	SS-1	4.50	7	6	12	31	44	31	19	12	15	A-6a (9)	<100	
				12	100	SS-2	4.50	3	6	13	34	44	31	19	12	15	A-6a (9)	-	
				28	100	SS-3	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	-	
	673.1	EOB 7		37	100	SS-4	4.50	-	-	-	-	-	-	-	-	12	A-6a (V)	-	

NOTES: CAVED AT 5'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 108+02, 13' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24 & SR 108 RAMP A
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 676.7 (MSL) EOB: 7.0 ft.
START: 4/20/22 END: 4/20/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.407840, -84.129990

EXPLORATION ID B-059-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
	676.7																		
ASPHALT, (4")	676.3																		
CONCRETE, (8")	675.7																		
AGGREGATE BASE, (6")	675.2																		
HARD, BROWN, **SANDY SILT**, "AND" CLAY, TRACE GRAVEL, DAMP	674.2	1	4 8 11	23	100	SS-1	4.50	5	6	13	31	45	29	19	10	16	A-4a (8)	<100	
		2																	
		3	8 8 7	18	100	SS-2	4.50	8	6	13	33	40	30	19	11	14	A-6a (8)	-	
HARD, BROWN, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP		4																	
		5	8 10 16	31	100	SS-3	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	-	
		6	11 13 18	37	100	SS-4	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	-	
	669.7	EOB 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 14+19, 6' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24 & SR 108 RAMP AD
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 678.1 (MSL) EOB: 7.0 ft.
START: 4/20/22 END: 4/20/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.406860, -84.131310

EXPLORATION ID B-060-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
	678.1																		
ASPHALT, (4")	677.8																		
CONCRETE, (8")	677.1																		
AGGREGATE BASE, (6")	676.6																		
HARD, BROWN, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP	675.6		5 6 8	17	100	SS-1	4.00	3	7	13	34	43	30	19	11	15	A-6a (8)	<100	
HARD, BROWN, **SANDY SILT**, "AND" CLAY, TRACE GRAVEL, DAMP			2 8 6	17	100	SS-2	4.50	4	6	14	34	42	30	20	10	14	A-4a (8)	-	
			5 7 14	25	100	SS-3	4.50	-	-	-	-	-	-	-	-	14	A-4a (V)	-	
@5.5'; ORANGE STAINING			10 14 17	37	100	SS-4	4.50	-	-	-	-	-	-	-	-	15	A-4a (V)	-	
	671.1	EOB																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

STANDARD ODOT LOG W/ SULFATES (8.5 X 11) - OH DOT.GDT - 11/21/24 13:10 - O:\PROJECT\2022\COL-05\22050022COL\REPORTS\LOGS\22050022COL_HEN6-11.36.GPJ

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 22+66, 21' LT.	EXPLORATION ID B-061-0-22
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24 & SR 108 RAMP D	
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 674.0 (MSL) EOB: 7.0 ft.	PAGE 1 OF 1
START: 4/20/22 END: 4/20/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.408680, -84.129840	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (10")	674.0																		
AGGREGATE BASE, (6")	673.2																		
HARD, BROWN, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP	672.7	1	2 6 8	17	100	SS-1	4.50	5	6	13	32	44	31	16	15	14	A-6a (10)	600	
		2	6 10 12	26	100	SS-2	4.50	5	6	13	34	42	31	19	12	14	A-6a (9)	-	
		3	6 13 17	36	100	SS-3	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	-	
		4	12 18 16	41	100	SS-4	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	-	
	667.0	5 EOB																	
		6																	
		7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 726+26, 17' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24 & IND. DR. RAMP A
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 691.1 (MSL) EOB: 7.0 ft.
START: 4/19/22 END: 4/19/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.413210, -84.107450

EXPLORATION ID B-062-0-22

MATERIAL DESCRIPTION AND NOTES	ELEV. 691.1	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (10")	690.3																		
AGGREGATE BASE, (7")	689.7																		
VERY STIFF, GRAY, **SILT AND CLAY**, LITTLE SAND, LITTLE GRAVEL, FILL, DAMP	688.6	1	4 7 8	18	100	SS-1	-	14	11	8	33	34	39	24	15	21	A-6a (8)	1600	
STIFF, GRAY, **SANDY SILT**, SOME CLAY, LITTLE GRAVEL, FILL, DAMP	687.1	2	3 7 4	13	100	SS-2	-	15	20	14	25	26	25	15	10	15	A-4a (3)	-	
HARD, GRAY, **SILT AND CLAY**, SOME SAND, LITTLE GRAVEL, FILL, DAMP		3	3 6 10	19	56	SS-3	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	-	
		4	3 4 11	18	22	SS-4	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	-	
	684.1	EOB 5 6 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 727+93, 4' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24 & IND. DR. RAMP B
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 690.3 (MSL) EOB: 7.0 ft.
START: 4/19/22 END: 4/19/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.414710, -84.107390

EXPLORATION ID B-063-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (12")	690.3																		
AGGREGATE BASE, (6")	689.3																		
HARD, GRAY, **CLAY**, "AND" SILT, TRACE SAND, FILL, DAMP	689.0																		
HARD, GRAY, **SILTY CLAY**, TRACE SAND, TRACE GRAVEL, DAMP	687.8	1	5 6 9	18	100	SS-1	4.50	0	0	1	49	50	41	23	18	17	A-7-6 (11)	1700	
		2																	
		3	5 6 6	14	33	SS-2	4.50	4	4	2	38	52	38	22	16	16	A-6b (10)	-	
		4																	
		5	5 8 9	20	67	SS-3	4.50	-	-	-	-	-	-	-	-	20	A-6b (V)	-	
		6																	
	683.3	EOB 7	8 10 20	36	44	SS-4	4.50	-	-	-	-	-	-	-	-	18	A-6b (V)	-	

NOTES: CAVED AT 5.2'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 734+99, 15' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24 & IND. DR. RAMP C
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 695.0 (MSL) EOB: 7.0 ft.
START: 4/19/22 END: 4/19/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.415260, -84.104610

EXPLORATION ID B-064-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (6")	695.0																		
CONCRETE, (8")	694.5																		
HARD, GRAY, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, FILL, DAMP	693.8	1	5 6 9	18	67	SS-1	4.50	4	7	12	36	41	30	19	11	12	A-6a (8)	2600	
@2.5'; SOME SAND, LITTLE GRAVEL, CONTAINS CRUSHED ROCK FRAGMENTS		2	7 9 5	17	56	SS-2	4.50	15	14	14	26	31	32	20	12	10	A-6a (5)	-	
		3	7 8 11	23	67	SS-3	4.50	-	-	-	-	-	-	-	-	19	A-6a (V)	-	
		4	5 11 14	30	67	SS-4	4.50	-	-	-	-	-	-	-	-	19	A-6a (V)	-	
	688.0	EOB 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 741+14, 17' RT.	EXPLORATION ID B-065-0-22
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24 & IND. DR. RAMP C	
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 680.7 (MSL) EOB: 7.0 ft.	PAGE 1 OF 1
START: 4/19/22 END: 4/19/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.415070, -84.102370	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (12")	680.7																		
	679.7																		
AGGREGATE BASE, (6")	679.2																		
HARD, GRAY, **CLAY**, "AND" SILT, TRACE SAND, FILL, DAMP	678.2	1	4 5 9	17	89	SS-1	4.50	0	2	4	49	45	45	25	20	17	A-7-6 (13)	620	
HARD, GRAY, **SANDY SILT**, SOME CLAY, LITTLE GRAVEL, DAMP		2	7 16 11	32	22	SS-2	4.50	15	18	10	34	23	31	22	9	16	A-4a (4)	-	
		3																	
		4	10 11 15	31	44	SS-3	4.50	-	-	-	-	-	-	-	-	17	A-4a (V)	-	
@5.5'; MOIST		5																	
	673.7	6	10 14 13	32	44	SS-4	4.50	-	-	-	-	-	-	-	-	25	A-4a (V)	-	
		EOB 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 734+20, 4' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: US 6/24 & IND. DR. RAMP D
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 693.0 (MSL) EOB: 7.0 ft.
START: 4/19/22 END: 4/19/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.413360, -84.104240

EXPLORATION ID B-066-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 693.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (10")	692.2																		
AGGREGATE BASE, (8")	691.5																		
HARD, GRAY, **SANDY SILT**, SOME CLAY, TRACE GRAVEL, FILL, DAMP	690.5	1	5 18 15	40	100	SS-1	4.50	9	17	16	29	29	30	22	8	20	A-4a (5)	1300	
HARD, GRAY, **SILT AND CLAY**, SOME SAND, TRACE GRAVEL, FILL, DAMP		2																	
		3	6 9 7	19	100	SS-2	4.50	5	8	13	32	42	28	16	12	12	A-6a (9)	-	
		4																	
		5	8 10 16	31	100	SS-3	4.50	-	-	-	-	-	-	-	-	12	A-6a (V)	-	
		6																	
	686.0	EOB 7	8 11 13	29	100	SS-4	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	-	

NOTES: CAVED AT 4'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

STANDARD ODOT LOG W/ SULFATES (8.5 X 11) - OH DOT.GDT - 11/21/24 13:11 - O:\PROJECT\2022\COL-05\22050022COL\REPORTS\LOGS\22050022COL_HEN6-11.36.GPJ

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 853+90, 13' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 424 RAMP A
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 671.9 (MSL) EOB: 7.0 ft.
START: 4/20/22 END: 4/20/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.413010, -84.063940

EXPLORATION ID B-067-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 671.9	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (4")	671.6																		
CONCRETE, (8")	670.9																		
AGGREGATE BASE, (4")	670.6																		
HARD, GRAY, **ELASTIC CLAY**, SOME SILT, LITTLE SAND, DAMP	669.4		3 4 3	8	100	SS-1	4.50	0	2	10	34	54	54	30	24	23	A-7-5 (16)	<100	
VERY STIFF, GRAY, **CLAY**, SOME SILT, LITTLE SAND, DAMP			6 2 5	8	100	SS-2	3.75	0	1	10	33	56	55	28	27	24	A-7-6 (18)	-	
@5.5'; HARD			5 6 9	18	100	SS-3	3.75	-	-	-	-	-	-	-	-	26	A-7-6 (V)	-	
	664.9	EOB	5 7 7	17	100	SS-4	4.25	-	-	-	-	-	-	-	-	22	A-7-6 (V)	-	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 856+22, 19' RT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 424 RAMP C
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 667.3 (MSL) EOB: 7.0 ft.
START: 4/22/22 END: 4/22/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.413980, -84.060830

EXPLORATION ID B-068-0-22

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 667.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (10")	666.3																		
AGGREGATE BASE, (8")	665.8																		
VERY STIFF, BROWNISH GRAY, **CLAY**, SOME SILT, LITTLE SAND, TRACE GRAVEL, DAMP	664.8	1	3 4 6	12	100	SS-1	3.00	3	4	9	32	52	43	23	20	20	A-7-6 (13)	<100	
HARD, GRAY, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, DAMP		2	2 4 5	11	89	SS-2	4.50	2	6	14	33	45	34	20	14	18	A-6a (10)	-	
		3	3 4 9	16	67	SS-3	4.25	-	-	-	-	-	-	-	-	18	A-6a (V)	-	
	660.3	4 EOB	4 8 13	25	100	SS-4	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	-	
		5																	
		6																	
		7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

STANDARD ODOT LOG W/ SULFATES (8.5 X 11) - OH DOT.GDT - 11/21/24 13:11 - O:\PROJECT\2022\COL-05\22050022COL\REPORTS\LOGS\22050022COL_HEN6-11.36.GPJ

PROJECT: HEN-6/24-11.32/4.62	DRILLING FIRM / OPERATOR: CTL / B.VOGEL	DRILL RIG: CME 75	STATION / OFFSET: 849+06, 98' LT.	EXPLORATION ID B-069-0-22
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / B.VOGEL	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 424 RAMP C	
PID: 110524 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/21	ELEVATION: 676.8 (MSL) EOB: 7.0 ft.	PAGE 1 OF 1
START: 4/22/22 END: 4/22/22	SAMPLING METHOD: SPT	ENERGY RATIO (%): 72	LAT / LONG: 41.412800, -84.059250	

MATERIAL DESCRIPTION AND NOTES	ELEV. 676.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	SO4 ppm	BACK FILL
ASPHALT, (6")	676.3																		
CONCRETE, (6")	675.8																		
AGGREGATE BASE, (6")	675.3																		
HARD, BROWN, **SILT AND CLAY**, SOME SAND, TRACE GRAVEL, DAMP @2.5'; LITTLE SAND		1	3 6 10	19	100	SS-1	4.50	6	11	15	30	38	30	18	12	14	A-6a (7)	<100	
		2	4 4 6	12	44	SS-2	4.50	2	6	14	39	39	34	20	14	4	A-6a (10)	-	
		3	2 4 9	16	89	SS-3	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	-	
		4	5 8 11	23	100	SS-4	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	-	
	669.8	EOB 7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH SOIL CUTTINGS

APPENDIX C
LABORATORY TEST RESULTS

OHIO DEPARTMENT OF TRANSPORTATION

DETERMINING SULFATE CONTENT IN SOILS
SUPPLEMENT 1122

Project C-R-S: HEN-6/24-11.32/4.62

PID No: 110524

Report Date: 11/12/2024

Consultant: CTL Engineering, Inc.

Technician: RV and JT

Sample or Boring ID	Station	Offset	Latitude & Longitude or State Plane Coordinates		Elevation	Soaking Time (hr)	Replicate Sample Readings						Sulfate Content (ppm)
							1		2		3		
							Dilution	Reading	Dilution	Reading	Dilution	Reading	
B-001-0-22	243+64	51	41.39274	-84.15327	678.16	24	20	148	20	148	20	148	2960
B-002-0-22	252+70	34	41.39432	-84.1507	684.98	24	20	< 5	20	< 5	20	< 5	< 100
B-003-0-22	252+88	54	41.396	-84.148989	684.95	24	20	< 5	20	< 5	20	< 5	< 100
B-004-0-22	598+55	34	41.39722	-84.14682	683.13	24	20	16	20	16	20	16	320
B-005-0-22	607+28	54	41.39907	-84.14479	681.45	24	20	< 5	20	< 5	20	< 5	< 100
B-006-0-22	614+40	35	41.40027	-84.14272	683.13	24	20	< 5	20	< 5	20	< 5	< 100
B-007-0-22	624+31	52	41.40236	-84.14037	685.32	24	20	<5	20	<5	20	<5	<100
B-008-0-22	630+13	34	41.40331	-84.13864	688.00	24	20	35	20	35	20	35	700
B-009-0-22	639+56	49	41.40529	-84.13641	708.10	24	20	25	20	25	20	25	500
B-010-0-22	645+70	33	41.40632	-84.13461	711.58	24	20	< 5	20	< 5	20	< 5	< 100
B-011-0-22	653+50	52	41.40795	-84.13273	697.53	24	20	44	20	44	20	44	880
B-012-0-22	662+14	35	41.40912	-84.12997	673.95	24	20	< 5	20	< 5	20	< 5	< 100
B-013-0-22	670+83	58	41.41041	-84.12729	671.92	24	20	11	20	11	20	11	220
B-014-0-22	677+90	33	41.41079	-84.12473	676.90	24	20	< 5	20	< 5	20	< 5	< 100
B-015-0-22	686+48	53	41.41156	-84.12176	680.34	24	20	< 5	20	< 5	20	< 5	< 100
B-016-0-22	694+49	32	41.41182	-84.11884	682.92	24	20	< 5	20	< 5	20	< 5	< 100
B-017-0-22	703+12	34	41.41252	-84.11583	684.90	24	20	< 5	20	< 5	20	< 5	< 100
B-018-0-22	708+73	33	41.41268	-84.11378	684.03	24	20	< 5	20	< 5	20	< 5	< 100

Sample or Boring ID	Station	Offset	Latitude & Longitude or State Plane Coordinates		Elevation	Soaking Time (hr)	Replicate Sample Readings						Sulfate Content (ppm)
							1		2		3		
							Dilution	Reading	Dilution	Reading	Dilution	Reading	
B-019-0-22	719+05	33	41.41349	-84.11017	684.41	24	20	< 5	20	< 5	20	< 5	< 100
B-020-0-22	726+36	34	41.41375	-84.10752	682.81	24	20	< 5	20	< 5	20	< 5	< 100
B-021-0-22	733+91	33	41.41439	-84.10489	680.72	24	20	< 5	20	< 5	20	< 5	< 100
B-022-0-22	743+24	33	41.41478	-84.10151	680.43	24	20	< 5	20	< 5	20	< 5	< 100
B-024-0-22	758+47	33	41.41571	-84.0961	675.90	24	20	< 5	20	< 5	20	< 5	< 100
B-025-0-22	766+60	33	41.41637	-84.09326	677.36	24	20	63	20	63	20	63	1260
B-026-0-22	774+55	34	41.41655	-84.09036	679.36	24	20	< 5	20	< 5	20	< 5	< 100
B-027-0-22	782+72	33	41.41696	-84.08742	678.98	24	20	< 5	20	<5	20	<5	<100
B-028-0-22	789+26	35	41.41684	-84.08503	677.24	24	20	< 5	20	< 5	20	< 5	< 100
B-029-0-22	800+24	32	41.41705	-84.08103	675.69	24	20	< 5	20	< 5	20	< 5	< 100
B-030-0-22	805+01	32	41.41688	-84.07929	674.40	24	20	< 5	20	< 5	20	< 5	< 100
B-031-0-22	814+45	52	41.41712	-84.07585	672.04	24	20	< 5	20	< 5	20	< 5	< 100
B-032-0-22	821+92	33	41.4169	-84.07312	673.27	24	20	< 5	20	< 5	20	< 5	< 100
B-033-0-22	1829+55	37	41.41719	-84.07036	672.20	24	20	< 5	20	< 5	20	< 5	< 100
B-034-0-22	1499+80	3	41.41673	-84.06998	675.98	24	20	< 5	20	< 5	20	< 5	< 100
B-035-0-22	1835+63	49	41.41723	-84.06814	672.03	24	20	< 5	20	< 5	20	< 5	< 100
B-036-0-22	1506+64	39	41.41619	-84.0676	677.29	24	20	< 5	20	< 5	20	< 5	< 100
B-037-0-22	1845+80	12	41.4164	-84.06459	670.27	24	20	< 5	20	< 5	20	< 5	< 100
B-038-0-22	846+55	26	41.41492	-84.06471	673.42	24	20	< 5	20	< 5	20	< 5	< 100
B-039-0-22	1853+64	7	41.41483	-84.06265	667.70	24	20	< 5	20	< 5	20	< 5	< 100
B-040-0-22	854+17	18	41.4136	-84.06258	667.27	24	20	< 5	20	< 5	20	< 5	< 100
B-041-0-22	859+64	16	41.41251	-84.06121	664.17	24	20	< 5	20	< 5	20	< 5	< 100
B-042-0-22	866+82	37	41.41134	-84.06006	667.49	24	20	< 5	20	< 5	20	< 5	< 100
B-043-0-22	1514+98	5	41.41683	-84.06441	674.57	24	20	< 5	20	< 5	20	< 5	< 100
B-044-0-22	516+48	2	41.4156	-84.06409	687.69	24	20	< 5	20	< 5	20	< 5	< 100
B-045-0-22	1522+59	4	41.41608	-84.06182	673.16	24	20	< 5	20	< 5	20	< 5	< 100
B-046-0-22	524+01	3	41.41549	-84.06135	683.25	24	20	< 5	20	< 5	20	< 5	< 100
B-047-0-22	531+11	2	41.41547	-84.05877	671.28	24	20	< 5	20	< 5	20	< 5	< 100
B-048-0-22	541+30	53	41.41568	-84.05505	668.49	24	20	< 5	20	< 5	20	< 5	< 100
B-049-0-22	545+02	32	41.41544	-84.05369	667.91	24	20	< 5	20	< 5	20	< 5	< 100

Sample or Boring ID	Station	Offset	Latitude & Longitude or State Plane Coordinates		Elevation	Soaking Time (hr)	Replicate Sample Readings						Sulfate Content (ppm)
							1		2		3		
							Dilution	Reading	Dilution	Reading	Dilution	Reading	
B-050-0-22	109+86	19	41.39472	-84.14879	687.25	24	20	< 5	20	< 5	20	< 5	< 100
B-051-0-22	117+94	19	41.39528	-84.14632	696.81	24	20	34	20	34	20	34	680
B-052-0-22	216+78	17	41.39523	-84.1486	686.93	24	20	< 5	20	< 5	20	< 5	< 100
B-053-0-22	501+76	20	41.39773	-84.14977	694.70	24	20	< 5	20	< 5	20	< 5	< 100
B-054-0-22	308+54	17	41.39799	-84.14783	684.04	24	20	< 5	20	< 5	20	< 5	< 100
B-055-0-22	1+34	4	41.39876	-84.15309	685.22	24	20	< 5	20	< 5	20	< 5	< 100
B-056-0-22	10+55	18	41.3985	-84.1498	684.29	24	20	< 5	20	< 5	20	< 5	< 100
B-057-0-22	509+53	2	41.39869	-84.14738	682.55	24	20	< 5	20	< 5	20	< 5	< 100
B-058-0-22	24+55	17	41.39933	-84.14484	680.13	24	20	< 5	20	< 5	20	< 5	< 100
B-059-0-22	108+02	13	41.40784	-84.12999	676.67	24	20	< 5	20	< 5	20	< 5	< 100
B-060-0-22	14+19	6	41.40686	-84.13131	678.13	24	20	< 5	20	< 5	20	< 5	< 100
B-061-0-22	22+66	21	41.40868	-84.12984	674.01	24	20	30	20	30	20	30	600
B-062-0-22	726+26	17	41.41321	-84.10745	691.11	24	20	78	20	78	20	78	1560
B-063-0-22	727+93	4	41.41471	-84.10739	690.33	24	20	83	20	83	20	83	1660
B-064-0-22	734+99	15	41.41526	-84.10461	694.96	24	20	130	20	130	20	130	2600
B-065-0-22	741+14	17	41.41507	-84.10237	680.66	24	20	31	20	31	20	31	620
B-066-0-22	734+20	4	41.41336	-84.10424	692.99	24	20	65	20	65	20	65	1300
B-067-0-22	853+90	13	41.41301	-84.06394	671.91	24	20	< 5	20	< 5	20	< 5	< 100
B-068-0-22	856+22	19	41.41398	-84.06083	667.25	24	20	< 5	20	< 5	20	< 5	< 100
B-069-0-22	849+06	98	41.4128	-84.05925	676.82	24	20	< 5	20	< 5	20	< 5	< 100

One Dimensional Consolidation and Swell Properties of Soil - ASTM D 2435

CTL ENGINEERING, INC.
2860 Fisher Road
Columbus, OH 43204

Project No.:	22050022COL		
Project:	HEN-6-11.36	Sample Type:	Undisturbed Specimen
Client:	ODOT	Test Date:	5/6/2022
Boring No.:	B-009-1-22	Checked By:	SM
Sample No.:	ST-1_6'-8'	Tested By:	MW
Soil Description:	Brown, Silt and Clay (A-6a)	LL:	36
Specific Gravity:	2.666	PL:	21

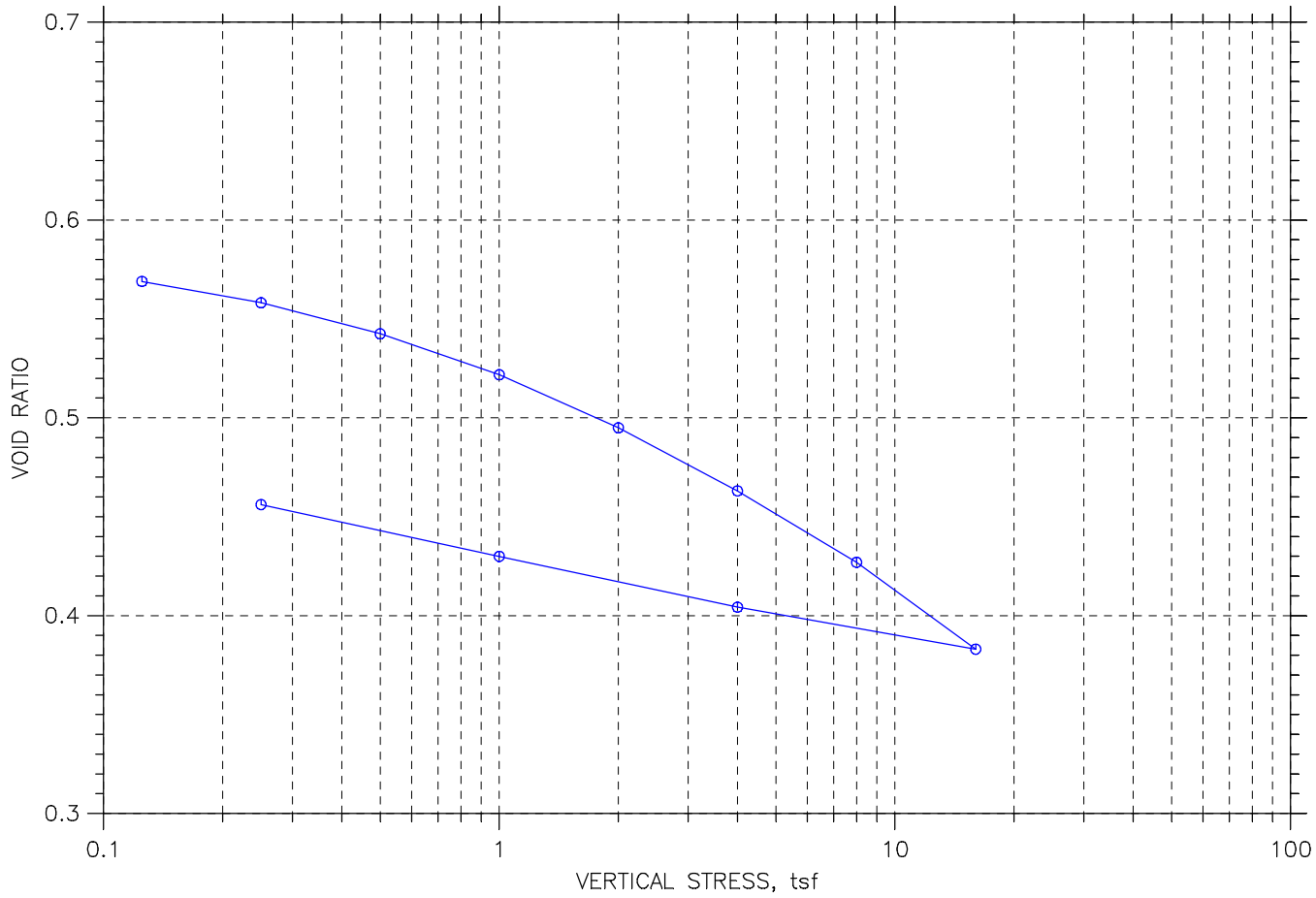
Step No.	Applied Stress (tsf)	Final Displacement (in)	Void Ratio	Strain at End (%)	Sqrt T_{90} (min)	Cv (ft^2/sec)
1	0.125	0.00774	0.569	0.78		
2	0.25	0.01454	0.558	1.46		
3	0.5	0.02441	0.542	2.45		
4	1	0.03744	0.522	3.76		
5	2	0.05434	0.495	5.46	24.4	9.07E-07
6	4	0.07447	0.463	7.48	13.7	1.55E-06
7	8	0.0972	0.427	9.76	19.4	1.05E-06
8	16	0.1248	0.383	12.53	14.3	1.35E-06
9	4	0.1115	0.404	11.19		
10	1	0.0953	0.43	9.57		
11	0.25	0.07882	0.456	7.91		

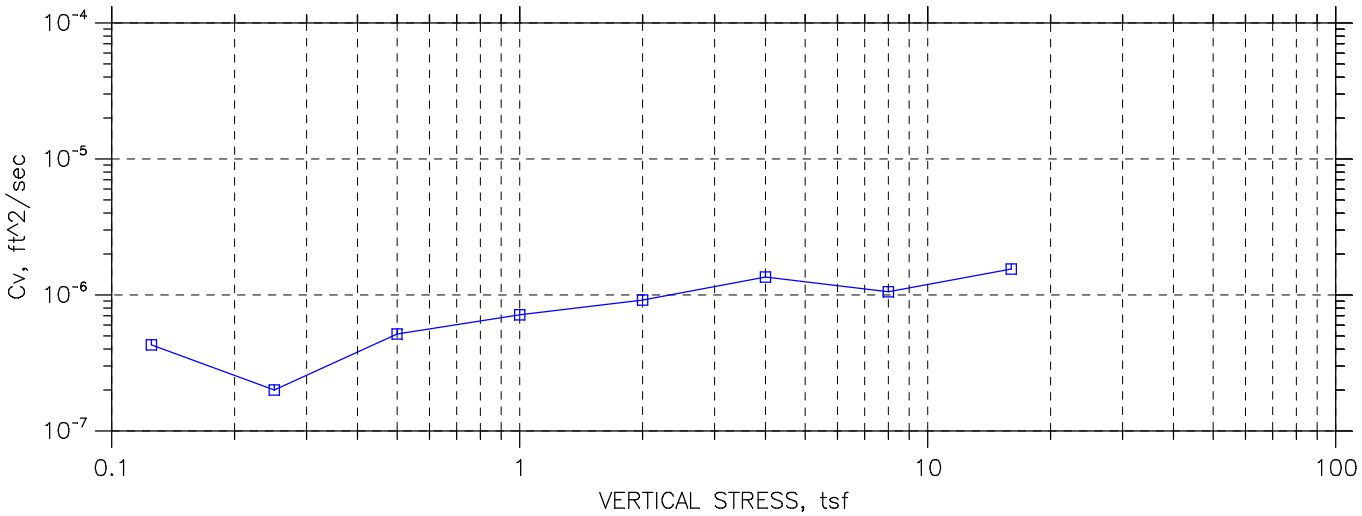
CONSOLIDATION PARAMETERS

Preconsolidation Pressure (tsf):	1.30	Initial Void Ratio:	0.57
Compression Index (C_c):	0.15	Compression Ratio :	0.09
Recompression Index (C_r):	0.043	Recompression Ratio:	0.028

CONSOLIDATION TEST DATA

SUMMARY REPORT





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-1	Test Date: 05/06/2022	Depth: 6'-8'
Test No.: 1	Sample Type: Shelby Tube	Elevation:
Description: Brown, Silt and Clay (A-6a)		
Remarks:		

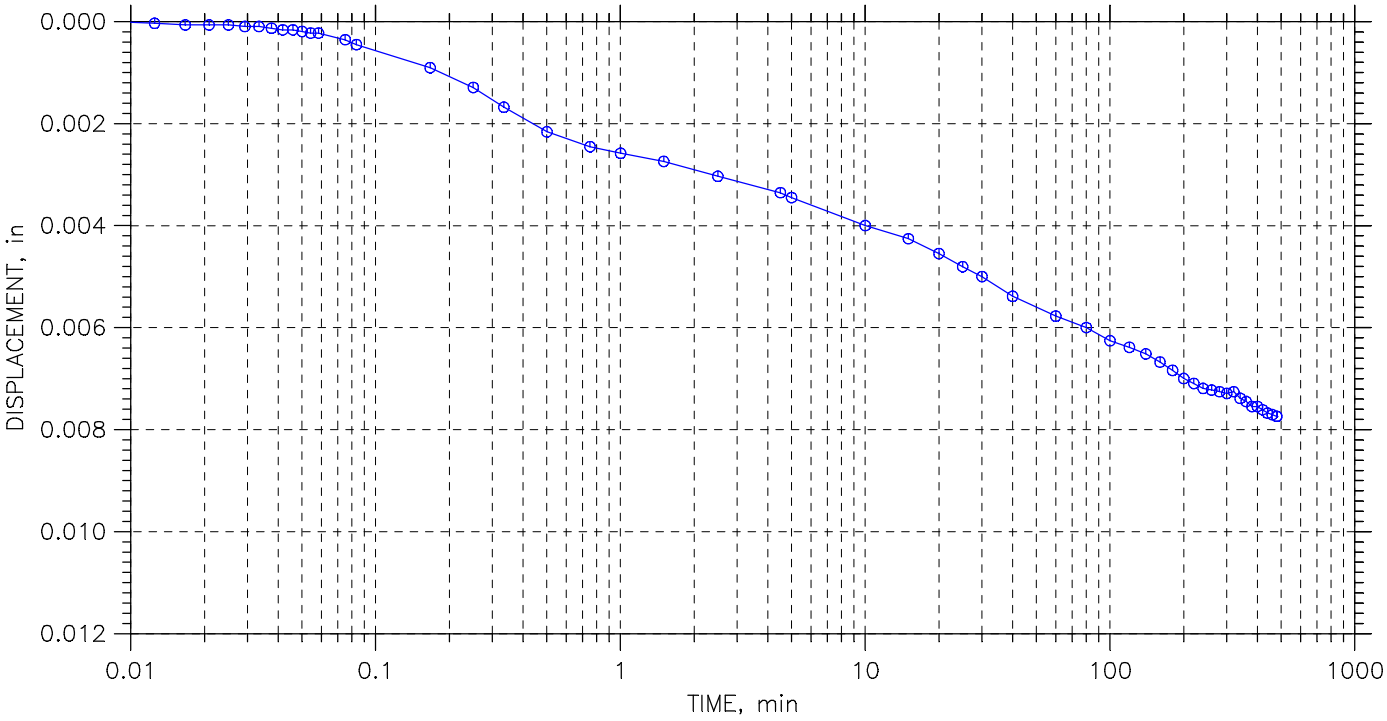
Wed, 01-JUN-2022 11:00:22

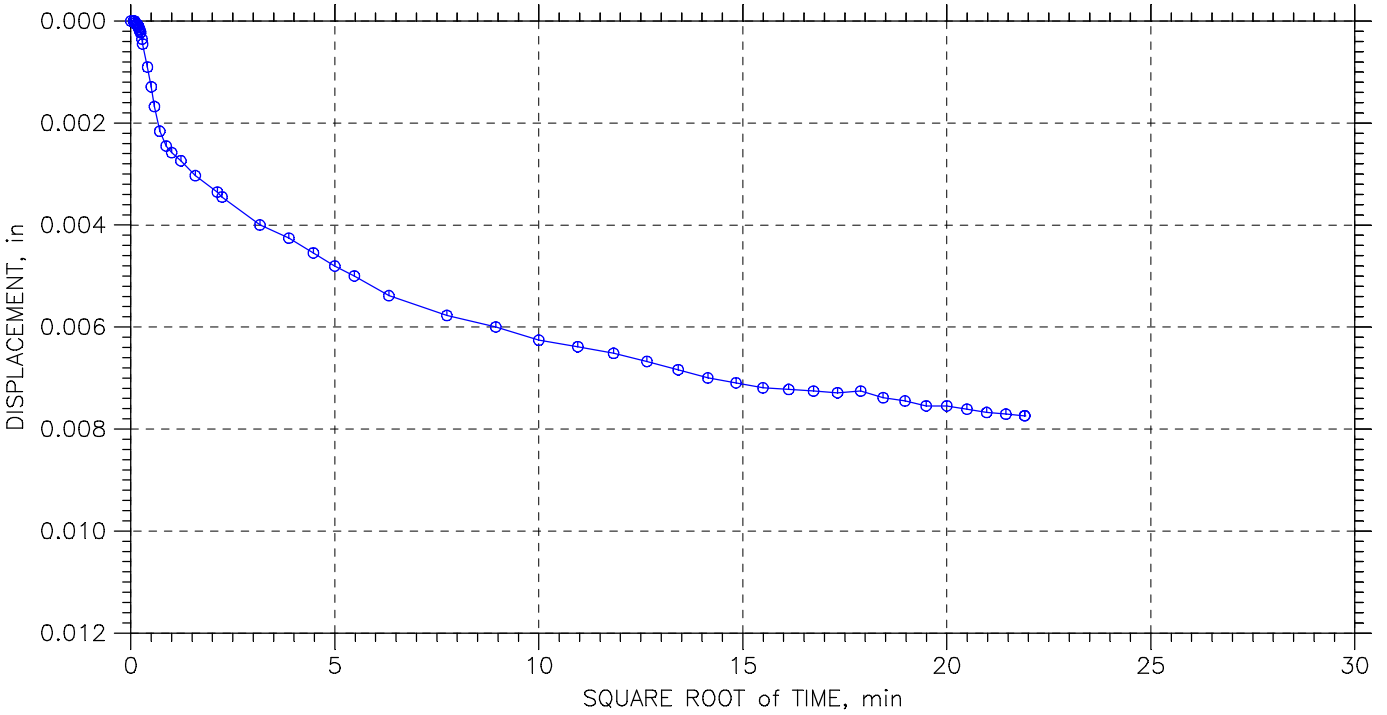
CONSOLIDATION TEST DATA

TIME CURVES

Step: 1 of 11

Stress: 0.125 tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-1	Test Date: 05/06/2022	Depth: 6'-8'
Test No.: 1	Sample Type: Shelby Tube	Elevation:
Description: Brown, Silt and Clay (A-6a)		
Remarks:		

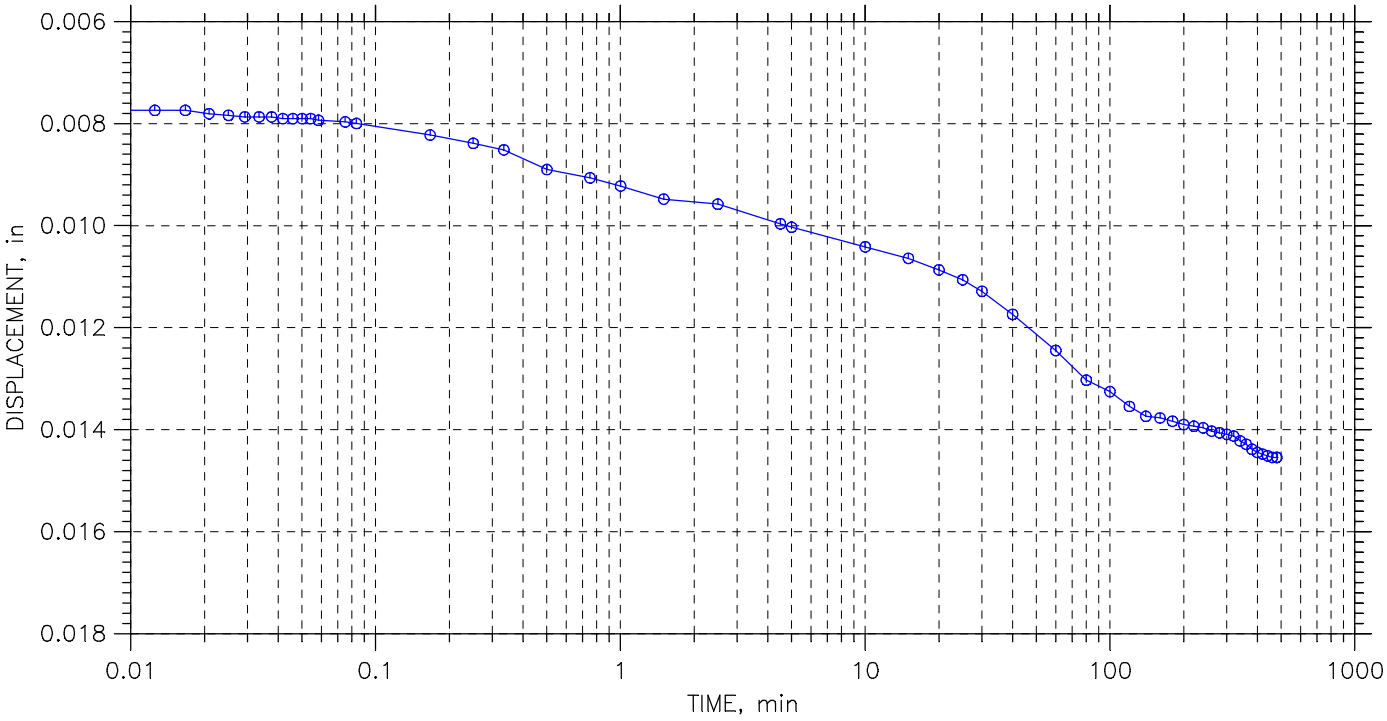
Wed, 01-JUN-2022 11:00:22

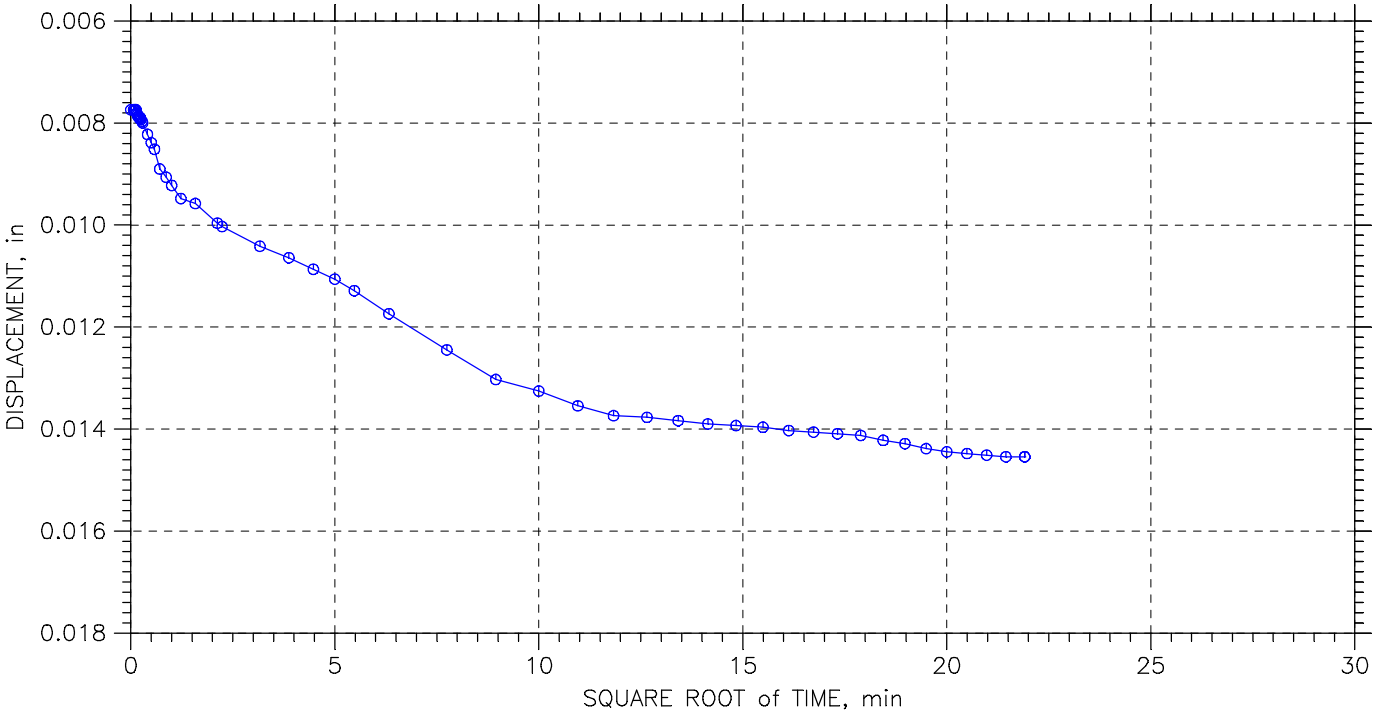
CONSOLIDATION TEST DATA

TIME CURVES

Step: 2 of 11

Stress: 0.25 tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-1	Test Date: 05/06/2022	Depth: 6'-8'
Test No.: 1	Sample Type: Shelby Tube	Elevation:
Description: Brown, Silt and Clay (A-6a)		
Remarks:		

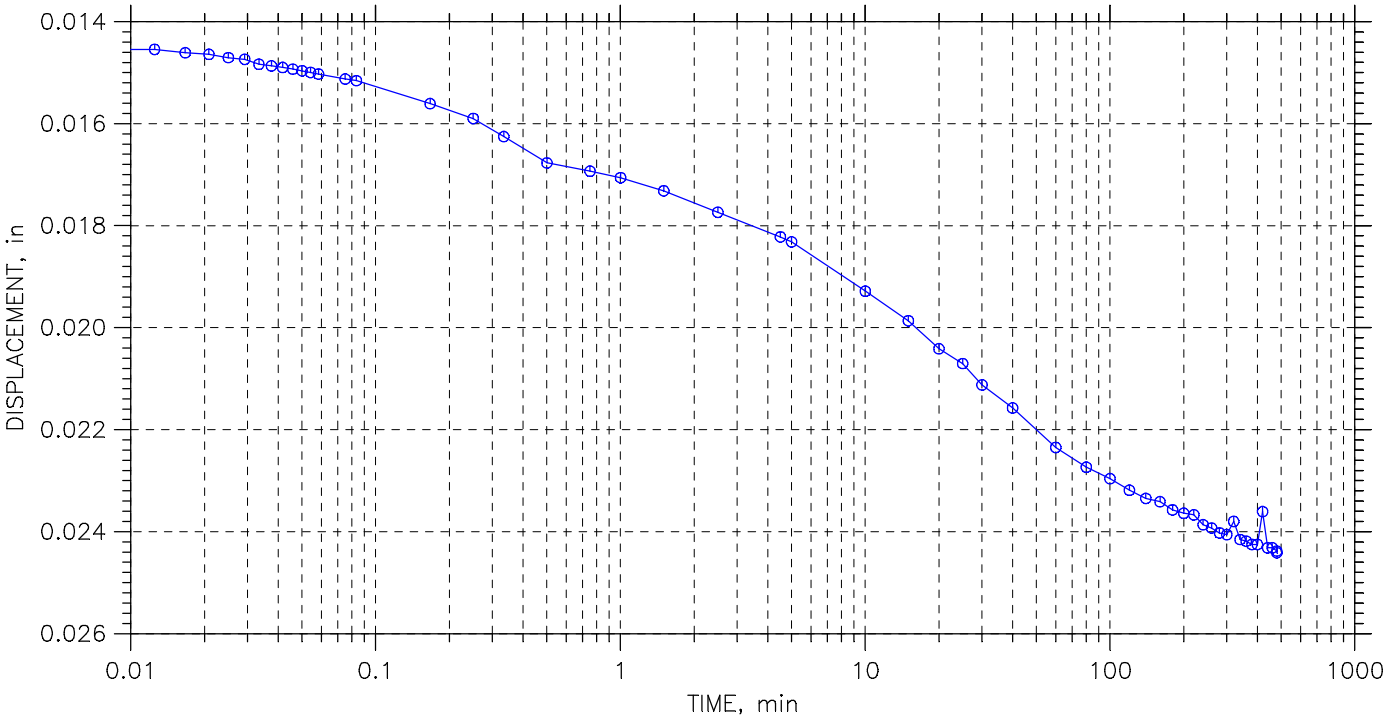
Wed, 01-JUN-2022 11:00:22

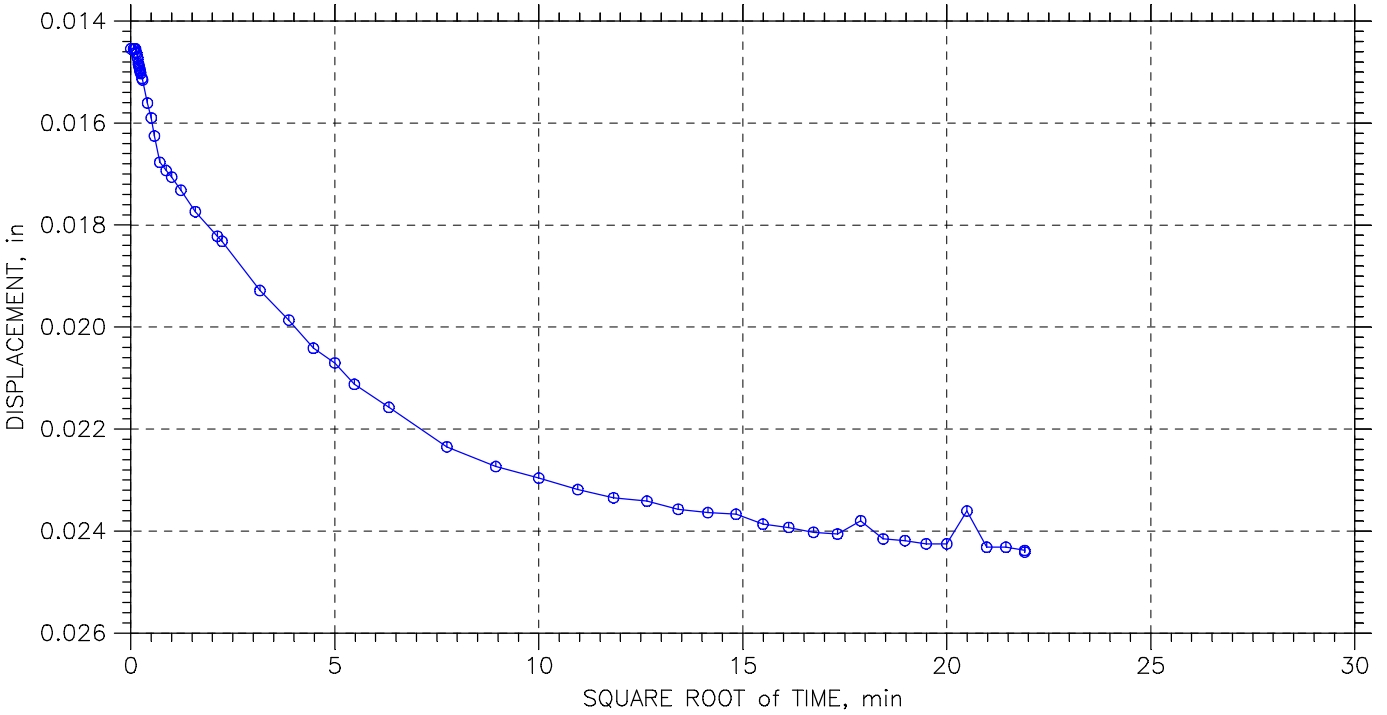
CONSOLIDATION TEST DATA

TIME CURVES

Step: 3 of 11

Stress: 0.5 tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-1	Test Date: 05/06/2022	Depth: 6'-8'
Test No.: 1	Sample Type: Shelby Tube	Elevation:
Description: Brown, Silt and Clay (A-6a)		
Remarks:		

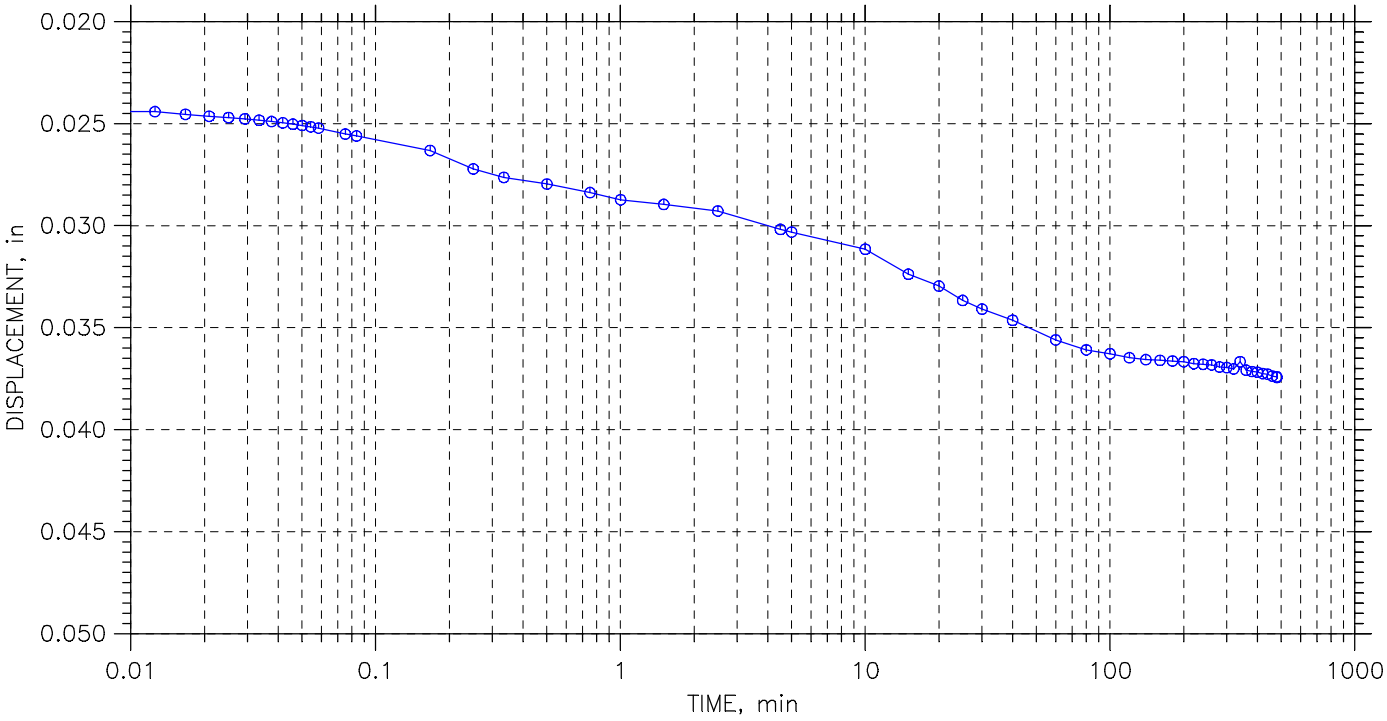
Wed, 01-JUN-2022 11:00:22

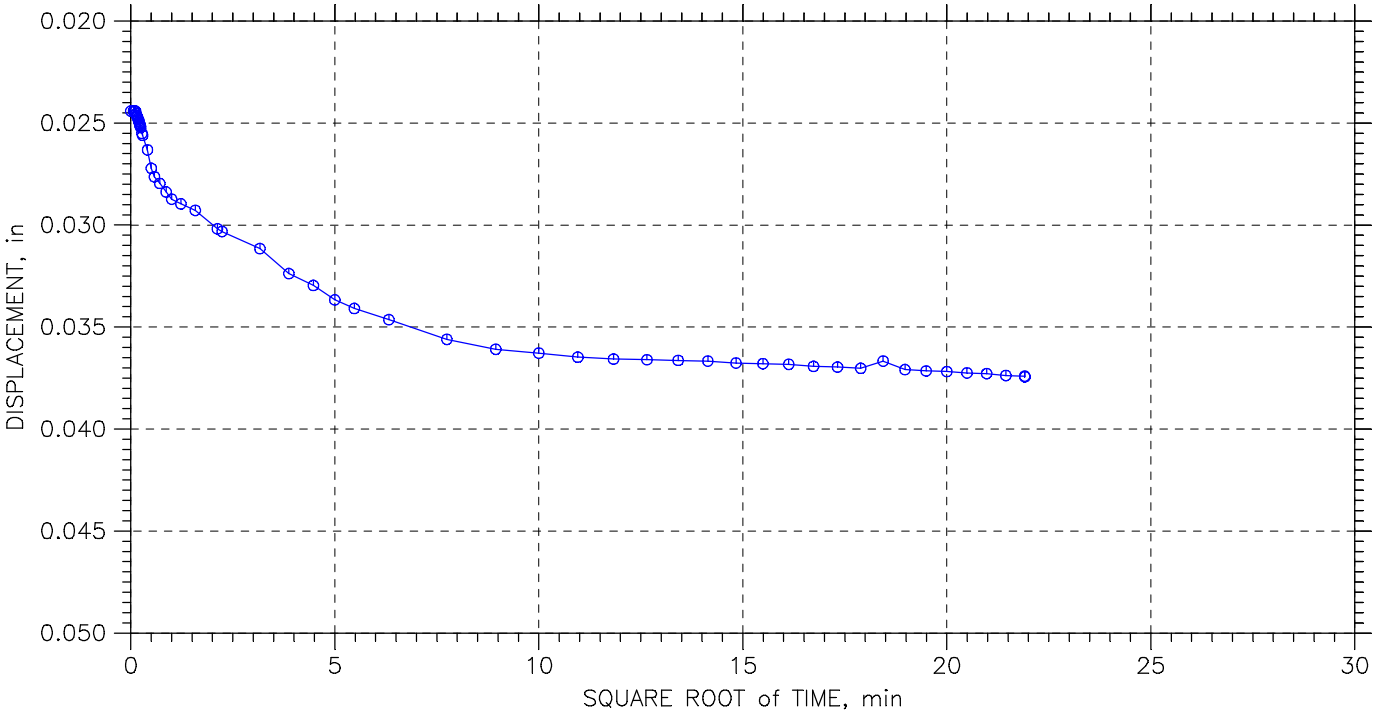
CONSOLIDATION TEST DATA

TIME CURVES

Step: 4 of 11

Stress: 1. tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-1	Test Date: 05/06/2022	Depth: 6'-8'
Test No.: 1	Sample Type: Shelby Tube	Elevation:
Description: Brown, Silt and Clay (A-6a)		
Remarks:		

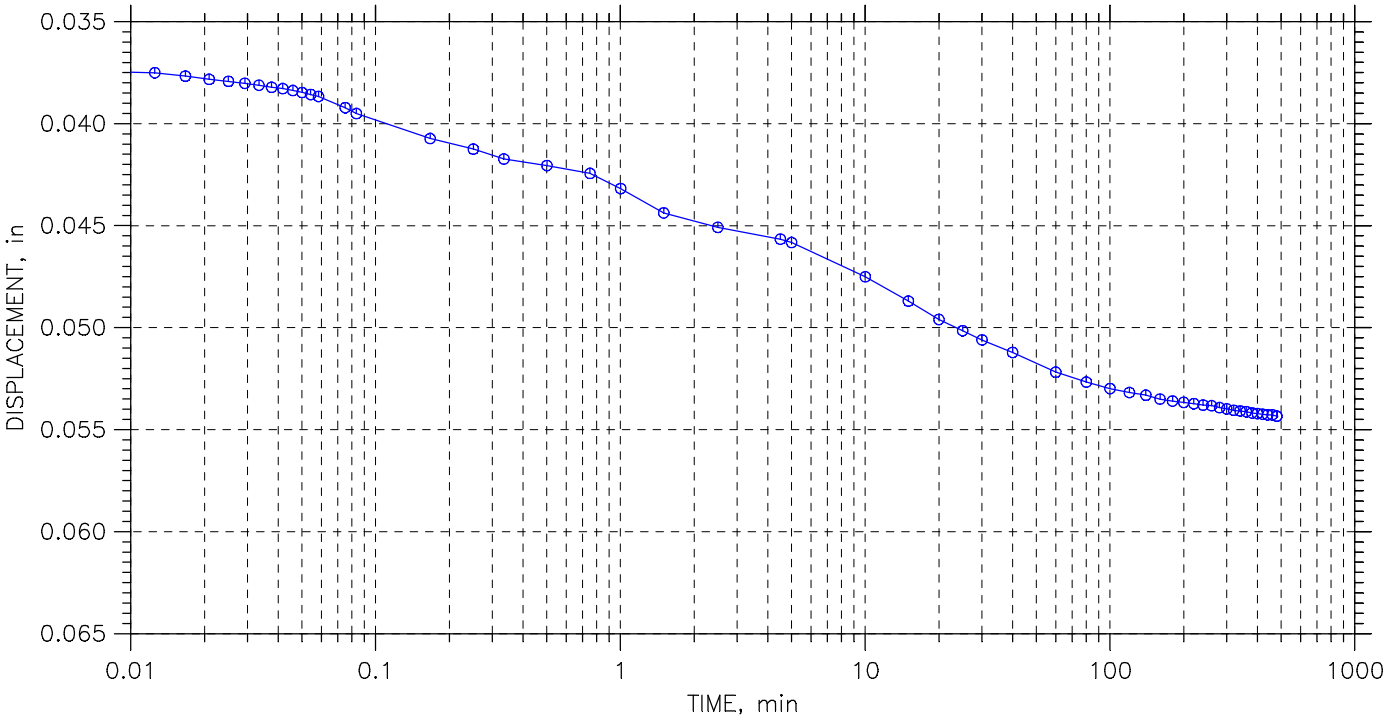
Wed, 01-JUN-2022 11:00:22

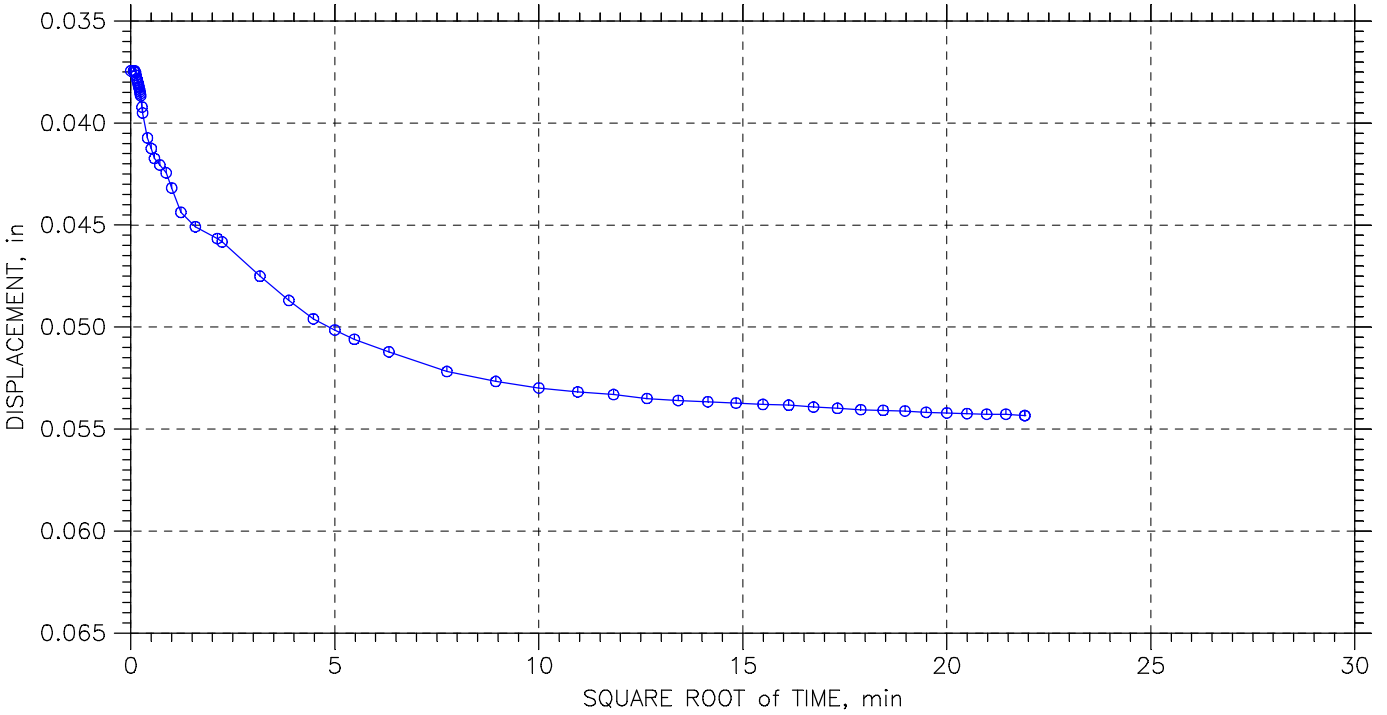
CONSOLIDATION TEST DATA

TIME CURVES

Step: 5 of 11

Stress: 2. tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-1	Test Date: 05/06/2022	Depth: 6'-8'
Test No.: 1	Sample Type: Shelby Tube	Elevation:
Description: Brown, Silt and Clay (A-6a)		
Remarks:		

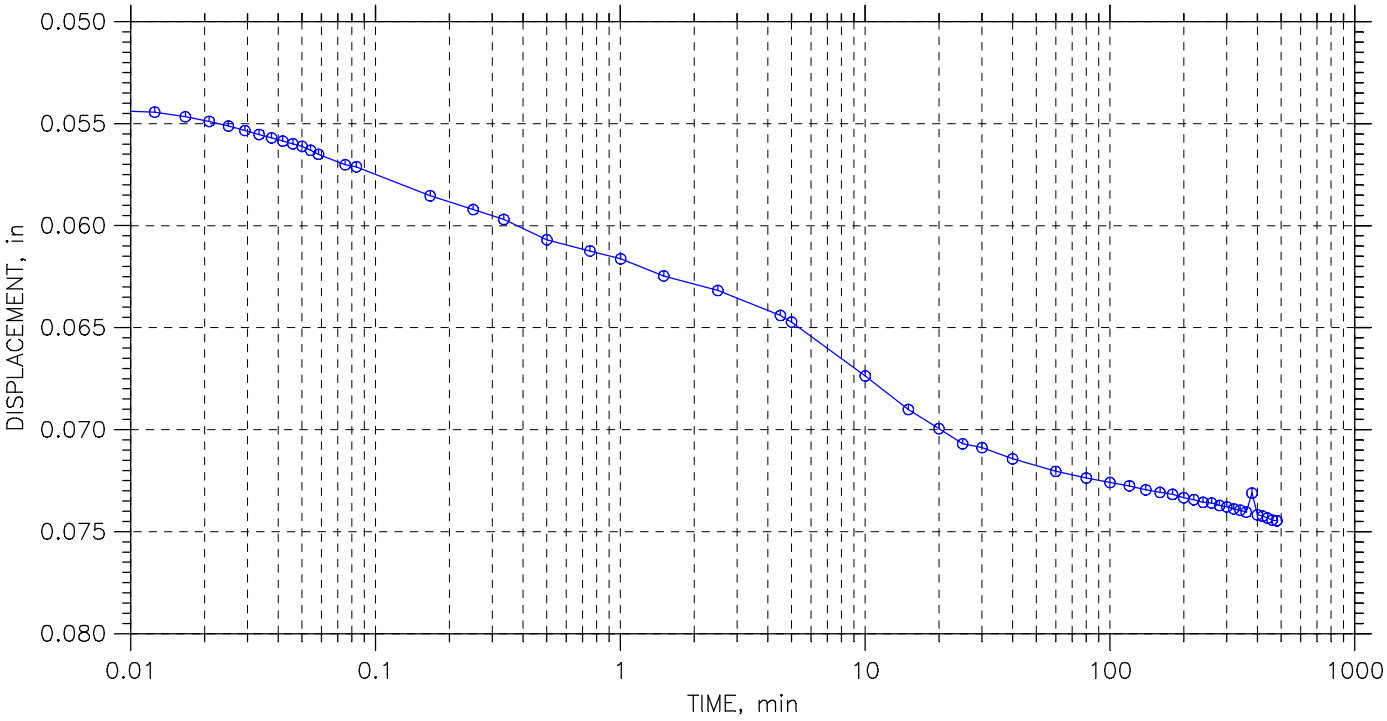
Wed, 01-JUN-2022 11:00:22

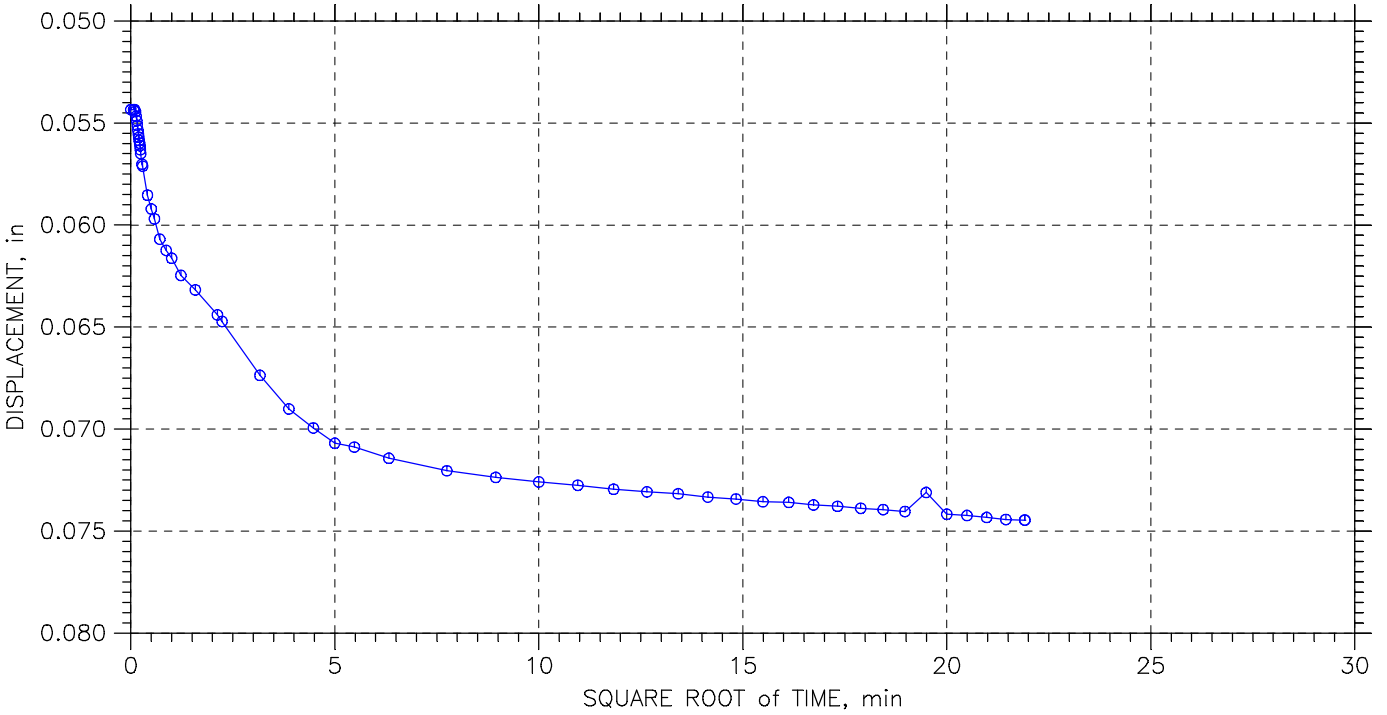
CONSOLIDATION TEST DATA

TIME CURVES

Step: 6 of 11

Stress: 4. tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-1	Test Date: 05/06/2022	Depth: 6'-8'
Test No.: 1	Sample Type: Shelby Tube	Elevation:
Description: Brown, Silt and Clay (A-6a)		
Remarks:		

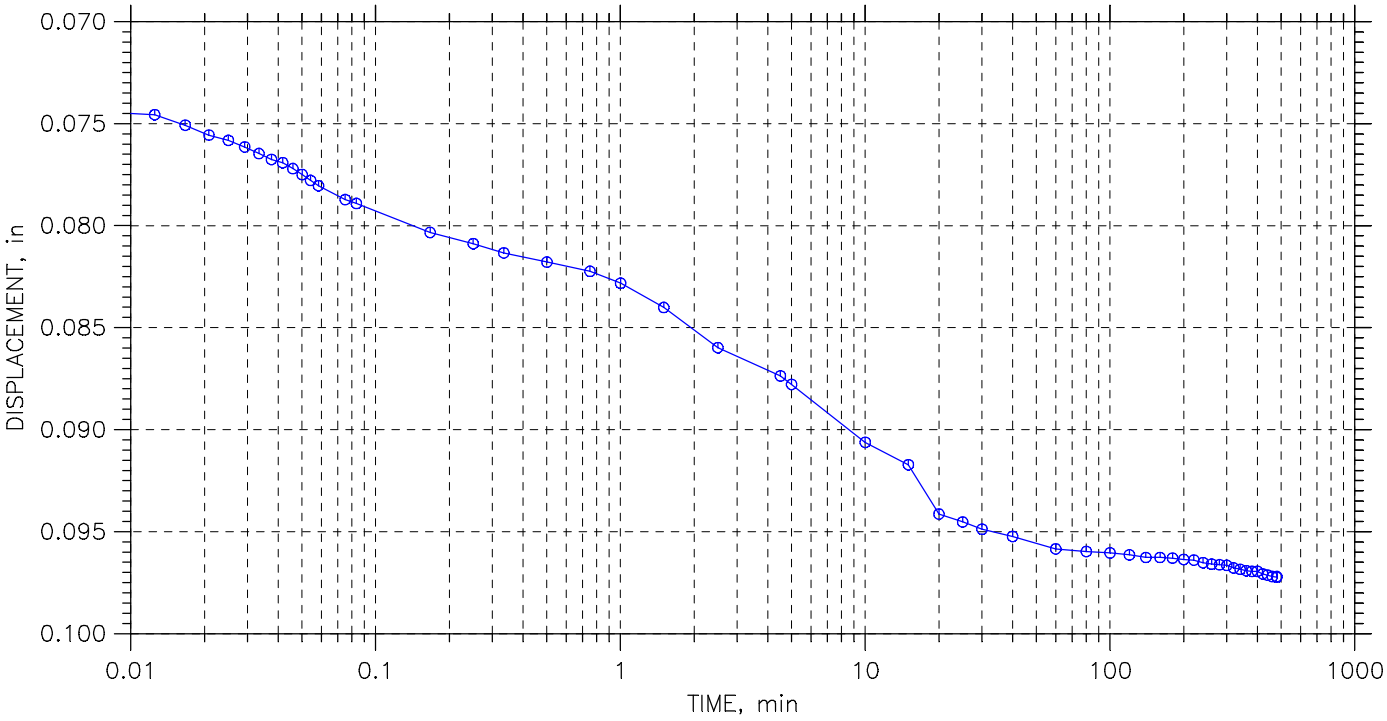
Wed, 01-JUN-2022 11:00:22

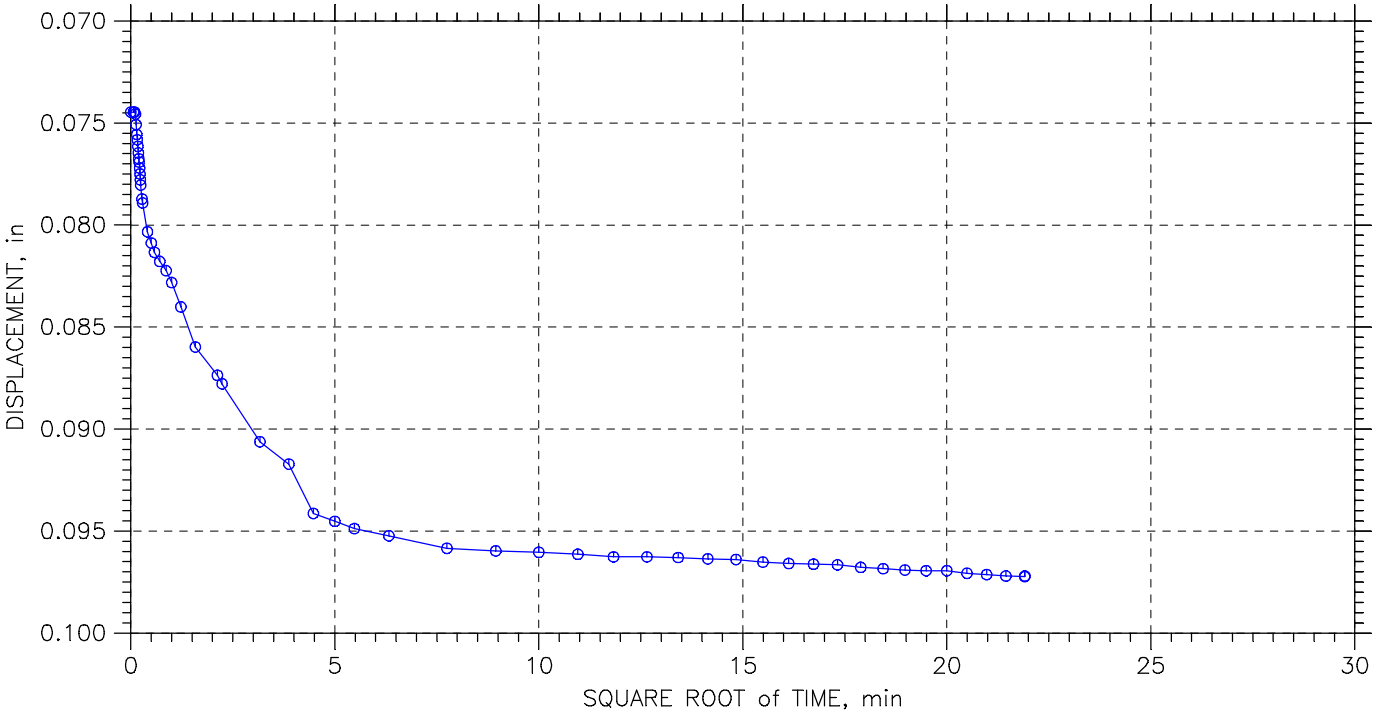
CONSOLIDATION TEST DATA

TIME CURVES

Step: 7 of 11

Stress: 8. tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-1	Test Date: 05/06/2022	Depth: 6'-8'
Test No.: 1	Sample Type: Shelby Tube	Elevation:
Description: Brown, Silt and Clay (A-6a)		
Remarks:		

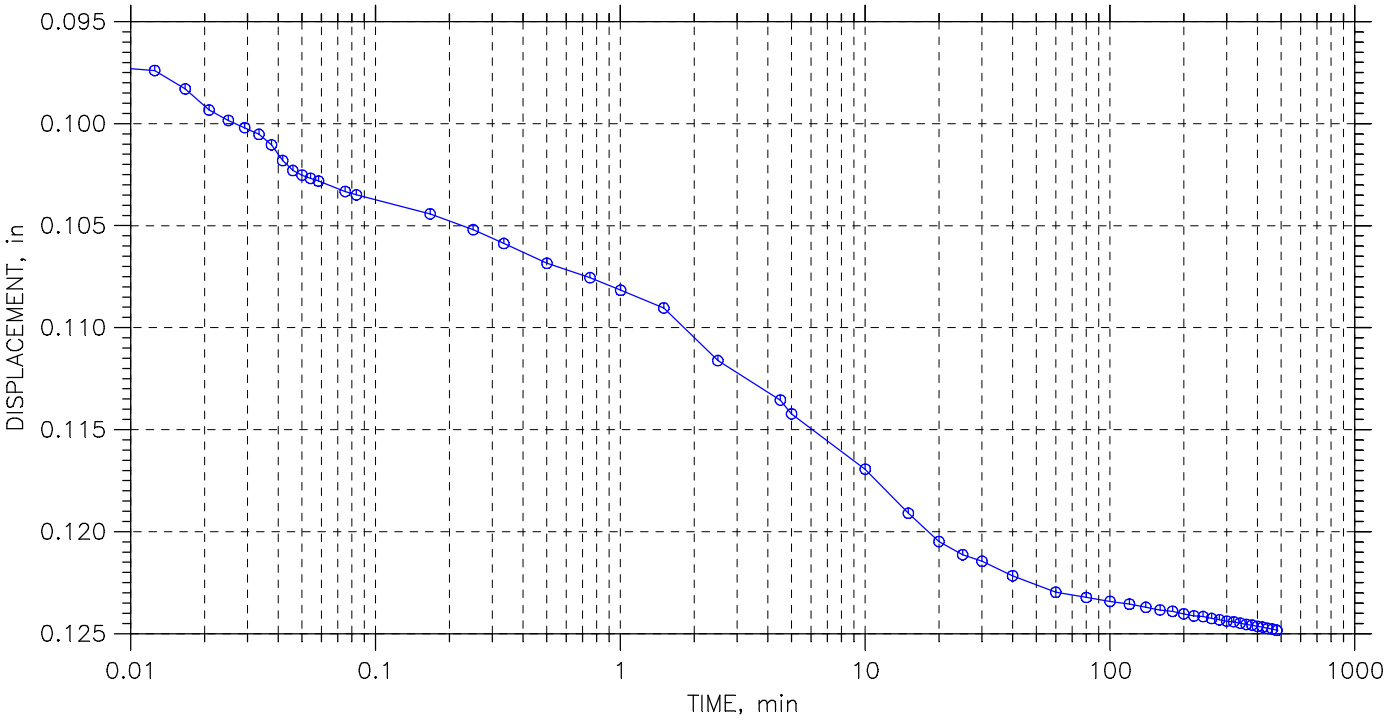
Wed, 01-JUN-2022 11:00:22

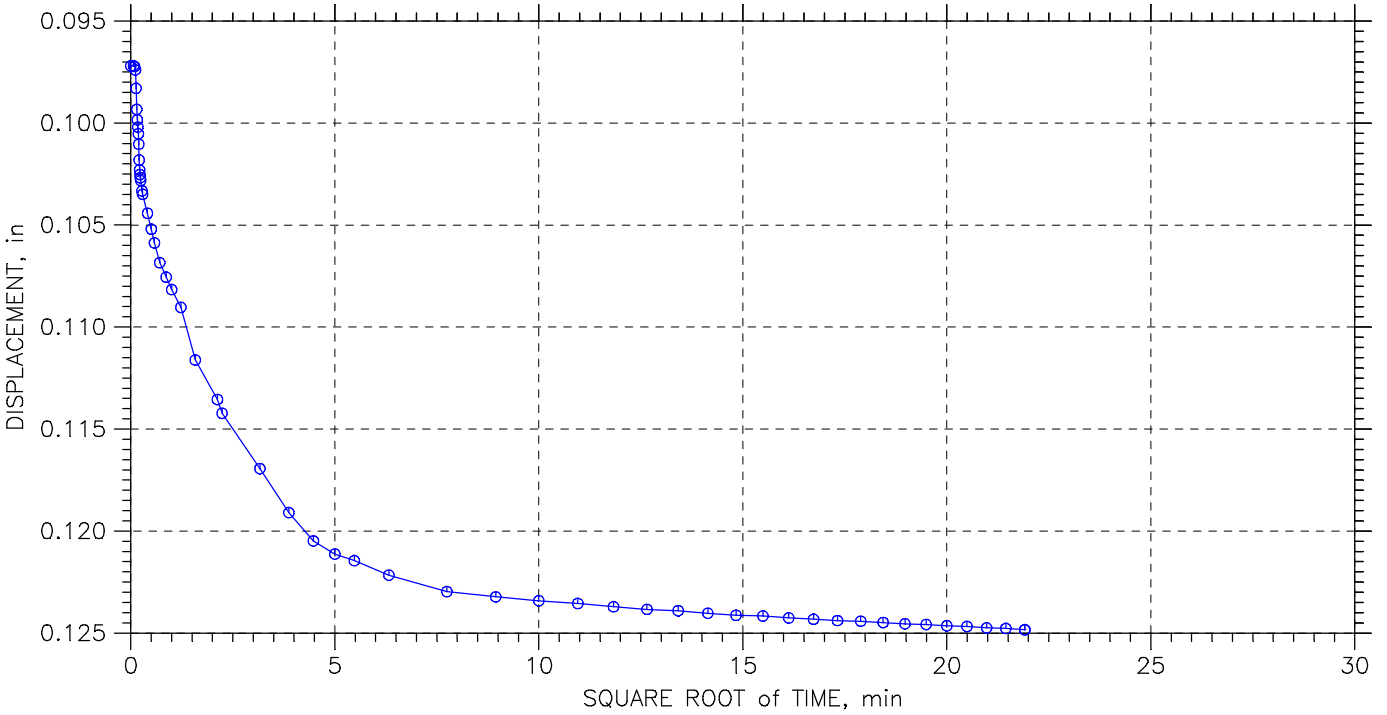
CONSOLIDATION TEST DATA

TIME CURVES

Step: 8 of 11

Stress: 16. tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-1	Test Date: 05/06/2022	Depth: 6'-8'
Test No.: 1	Sample Type: Shelby Tube	Elevation:
Description: Brown, Silt and Clay (A-6a)		
Remarks:		

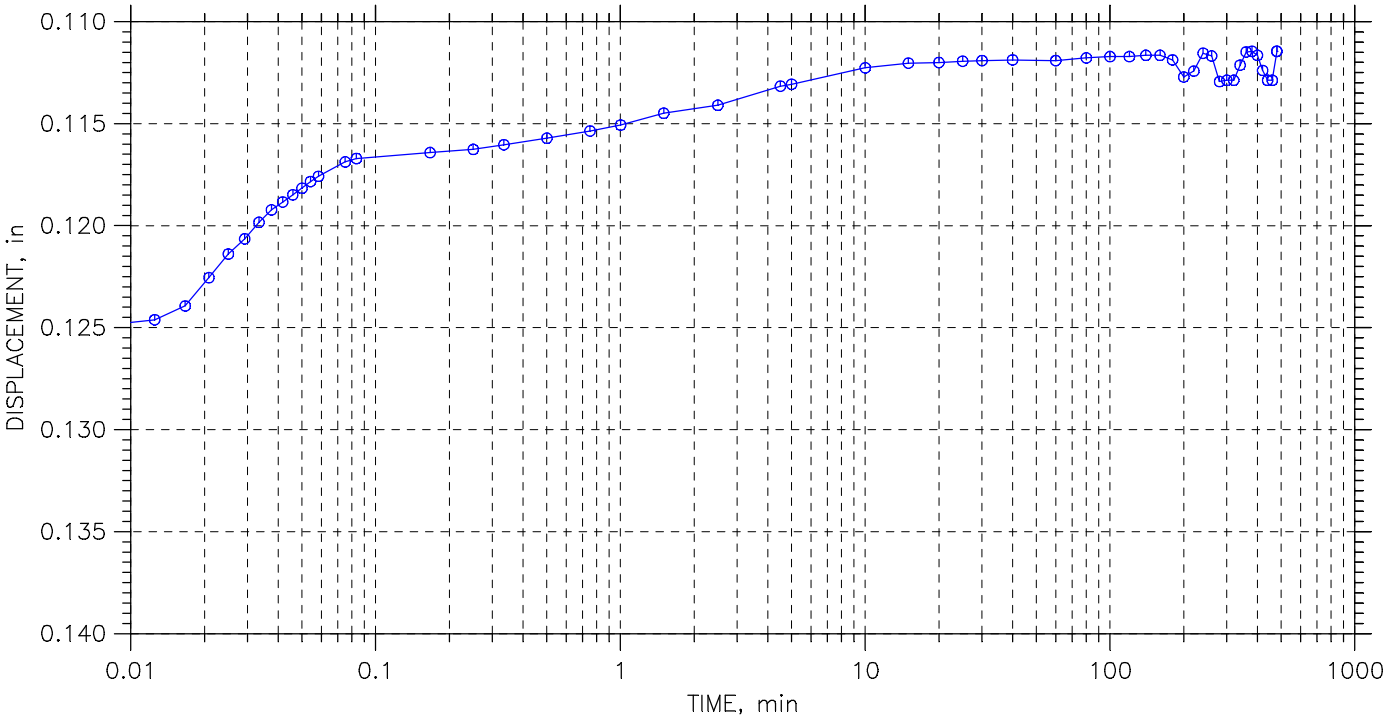
Wed, 01-JUN-2022 11:00:22

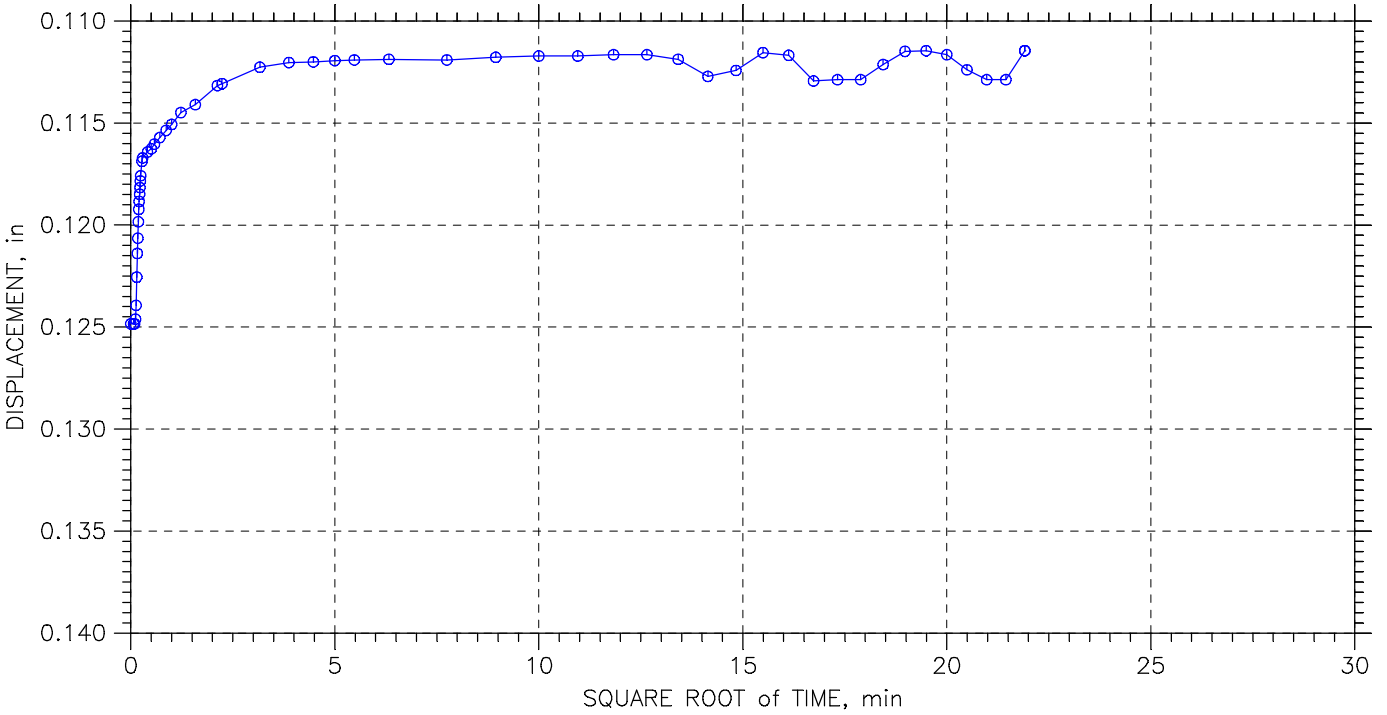
CONSOLIDATION TEST DATA

TIME CURVES

Step: 9 of 11

Stress: 4. tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-1	Test Date: 05/06/2022	Depth: 6'-8'
Test No.: 1	Sample Type: Shelby Tube	Elevation:
Description: Brown, Silt and Clay (A-6a)		
Remarks:		

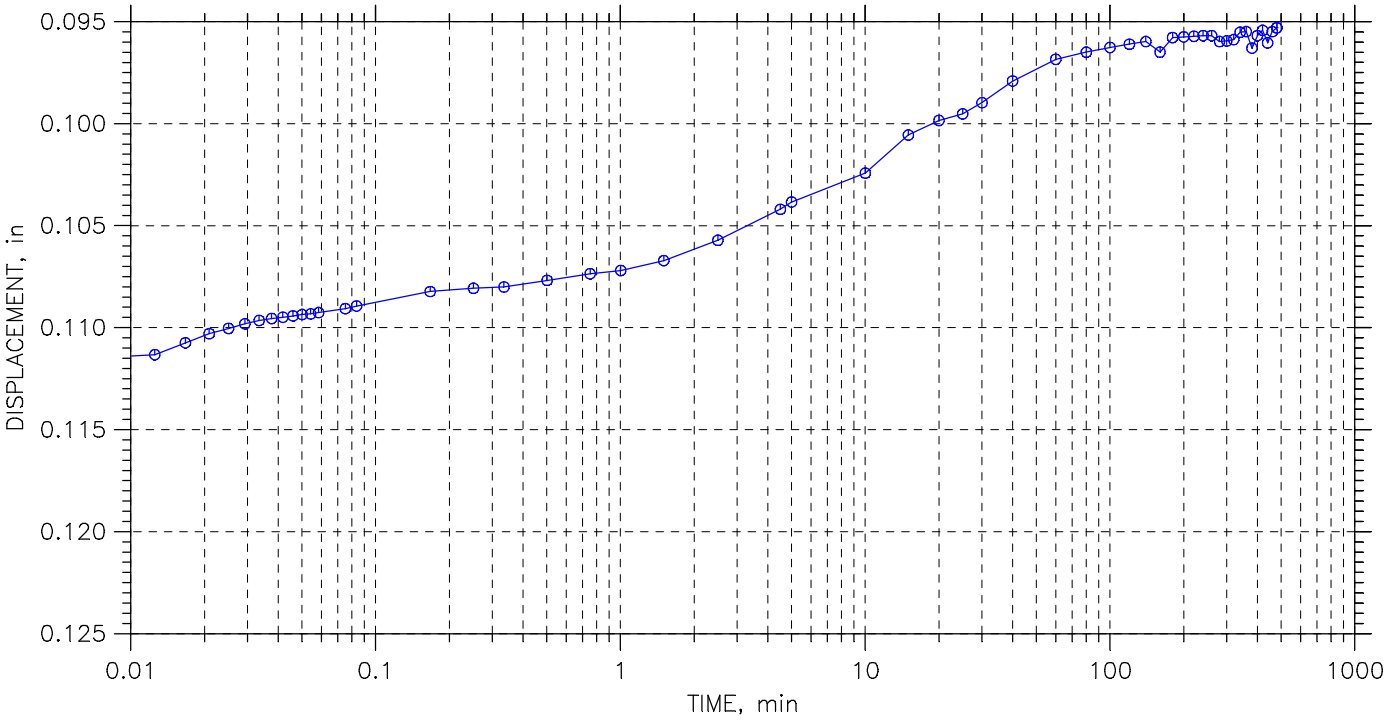
Wed, 01-JUN-2022 11:00:22

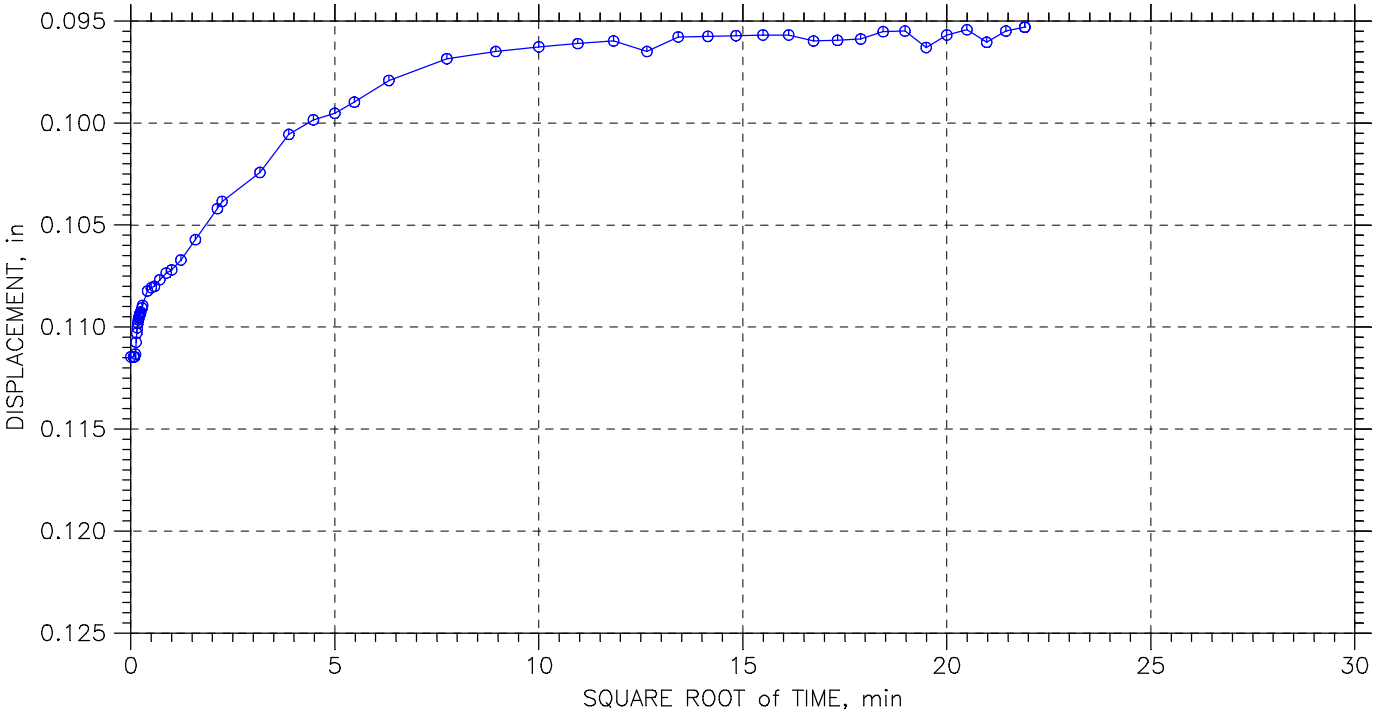
CONSOLIDATION TEST DATA

TIME CURVES

Step: 10 of 11

Stress: 1. tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-1	Test Date: 05/06/2022	Depth: 6'-8'
Test No.: 1	Sample Type: Shelby Tube	Elevation:
Description: Brown, Silt and Clay (A-6a)		
Remarks:		

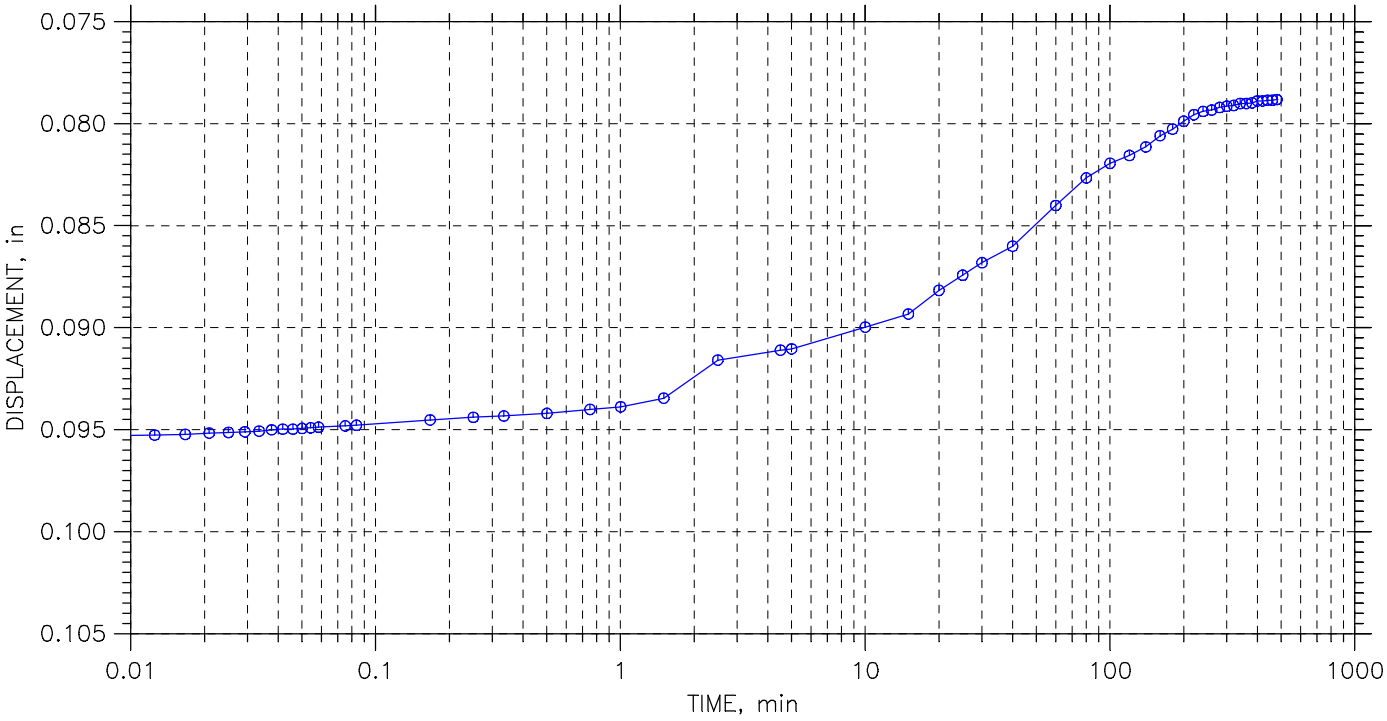
Wed, 01-JUN-2022 11:00:22

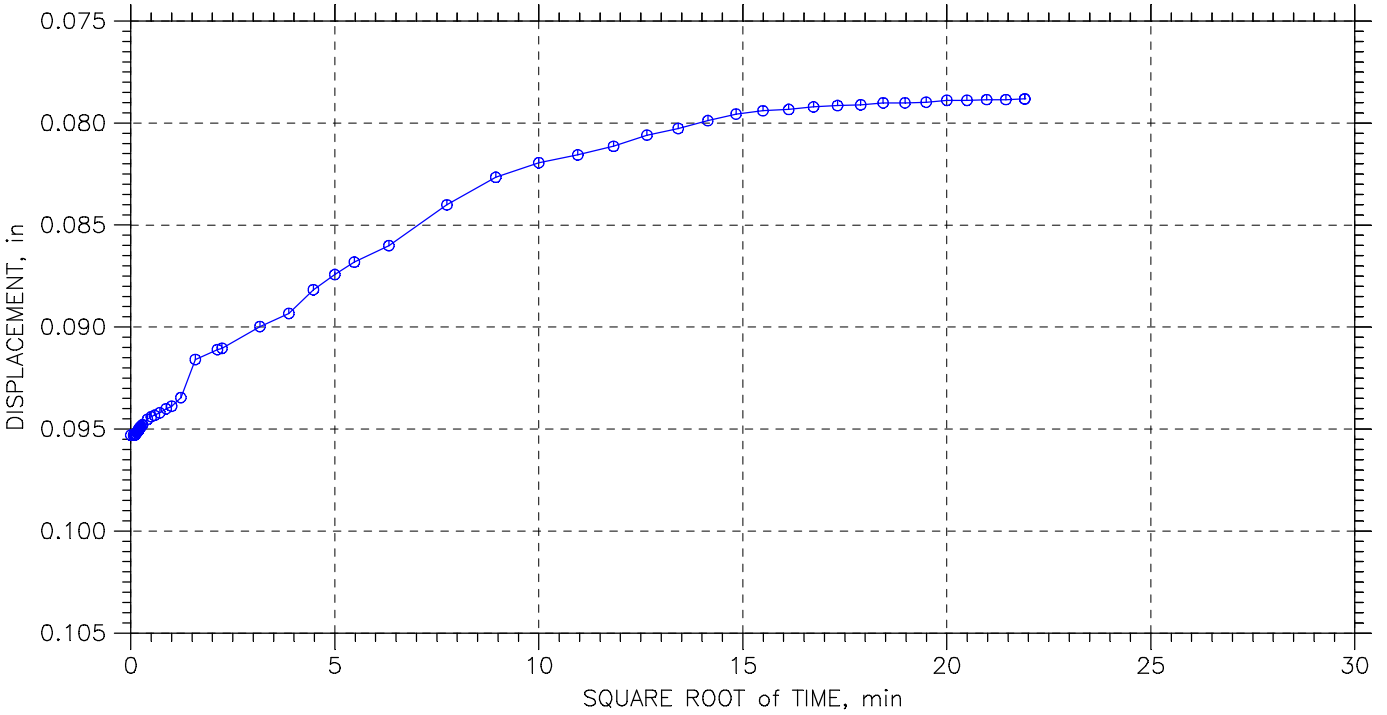
CONSOLIDATION TEST DATA

TIME CURVES

Step: 11 of 11

Stress: 0.25 tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-1	Test Date: 05/06/2022	Depth: 6'-8'
Test No.: 1	Sample Type: Shelby Tube	Elevation:
Description: Brown, Silt and Clay (A-6a)		
Remarks:		

Wed, 01-JUN-2022 11:00:22

CTL Engineering, Inc.
Specific Gravity
ASTM D 854 / AASHTO T 100
Method B

Client: Ohio Department of Transportation
Project: HEN-6-11.36 Roadway Exploration
Project #: 22050022COL

Date: 5/11/2022
Tech: MW
Reviewed by: SM

Visual Classification: Brown, Silt and Clay (A-6a)
Weight of Oven Dry Soil passing #4 Sieve (g): 35.46
Material Excluded From Test: None
Mass of Pycnometer ($M_{p)}$: 108.28
Mass of Pyncometer, Water and Soil Solids ($M_{pws,t}$): 379.92

Test Temperature (°C): 21.4

Sample ID	Specific Gravity (20℃)
B-009-1-22, ST-1, 6'-8'	2.666

CTL ENGINEERING INC

One Dimensional Consolidation and Swell Properties of Soil - ASTM D 2435

CTL ENGINEERING, INC.
2860 Fisher Road
Columbus, OH 43204

Project No.:	22050022COL		
Project:	HEN-6-11.36	Sample Type:	Undisturbed Specimen
Client:	ODOT	Test Date:	5/10/2022
Boring No.:	B-009-1-22	Checked By:	SM
Sample No.:	ST-2_18'-20'	Tested By:	MW
Soil Description:	Gray, Silt and Clay (A-6a)	LL:	29
Specific Gravity:	2.646	PL:	17

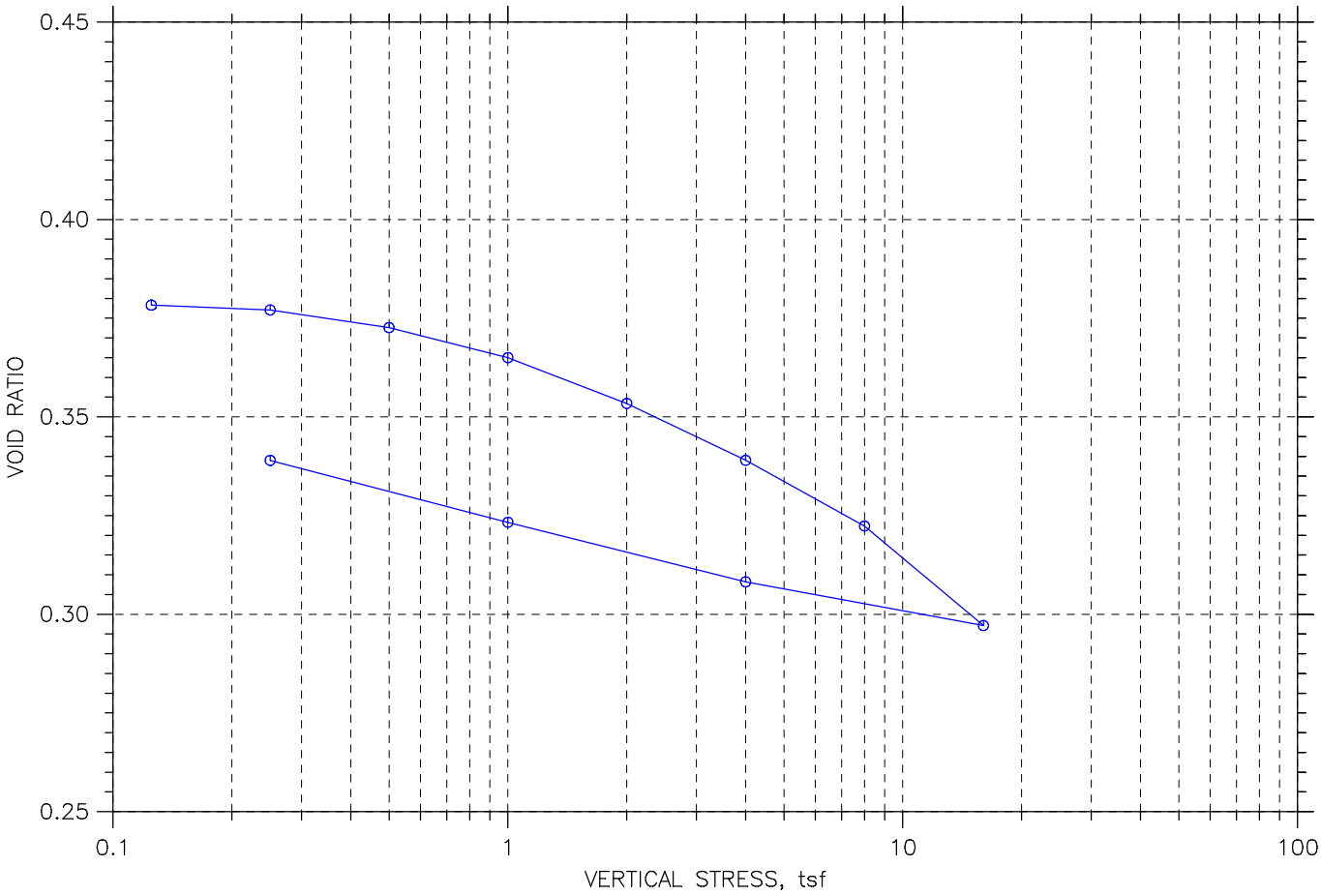
Step No.	Applied Stress (tsf)	Final Displacement (in)	Void Ratio	Strain at End (%)	Sqrt T_{90} (min)	Cv (ft^2/sec)
1	0.125	0.001419	0.378	0.14		
2	0.25	0.00229	0.377	0.23		
3	0.5	0.005515	0.373	0.55		
4	1	0.011	0.365	1.11		
5	2	0.01935	0.353	1.95		
6	4	0.0297	0.339	2.99	19.3	1.19E-06
7	8	0.0417	0.322	4.2	9.4	2.39E-06
8	16	0.05986	0.297	6.02	9.3	2.34E-06
9	4	0.05189	0.308	5.22		
10	1	0.04102	0.323	4.13		
11	0.25	0.02973	0.339	2.99		

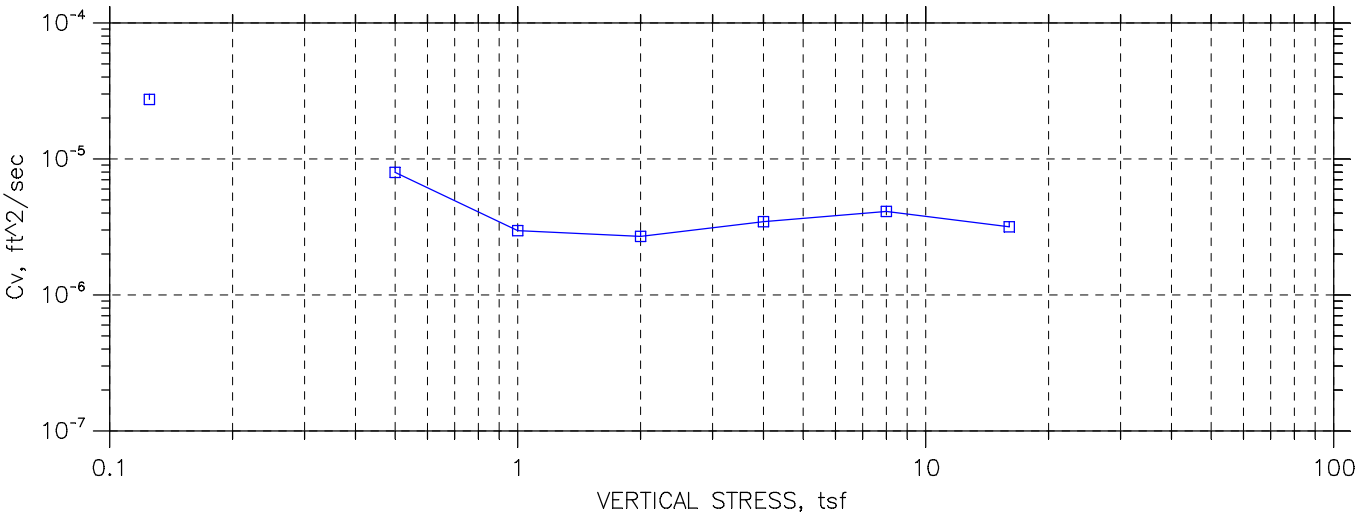
CONSOLIDATION PARAMETERS

Preconsolidation Pressure (tsf):	2.60	Initial Void Ratio:	0.38
Compression Index (C_c):	0.08	Compression Ratio :	0.06
Recompression Index (C_r):	0.025	Recompression Ratio:	0.018

CONSOLIDATION TEST DATA

SUMMARY REPORT





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-2	Test Date: 05/10/2022	Depth: 18'-20'
Test No.: 2	Sample Type: Shelby Tube	Elevation:
Description: Gray, Silt and Clay (A-6a)		
Remarks:		

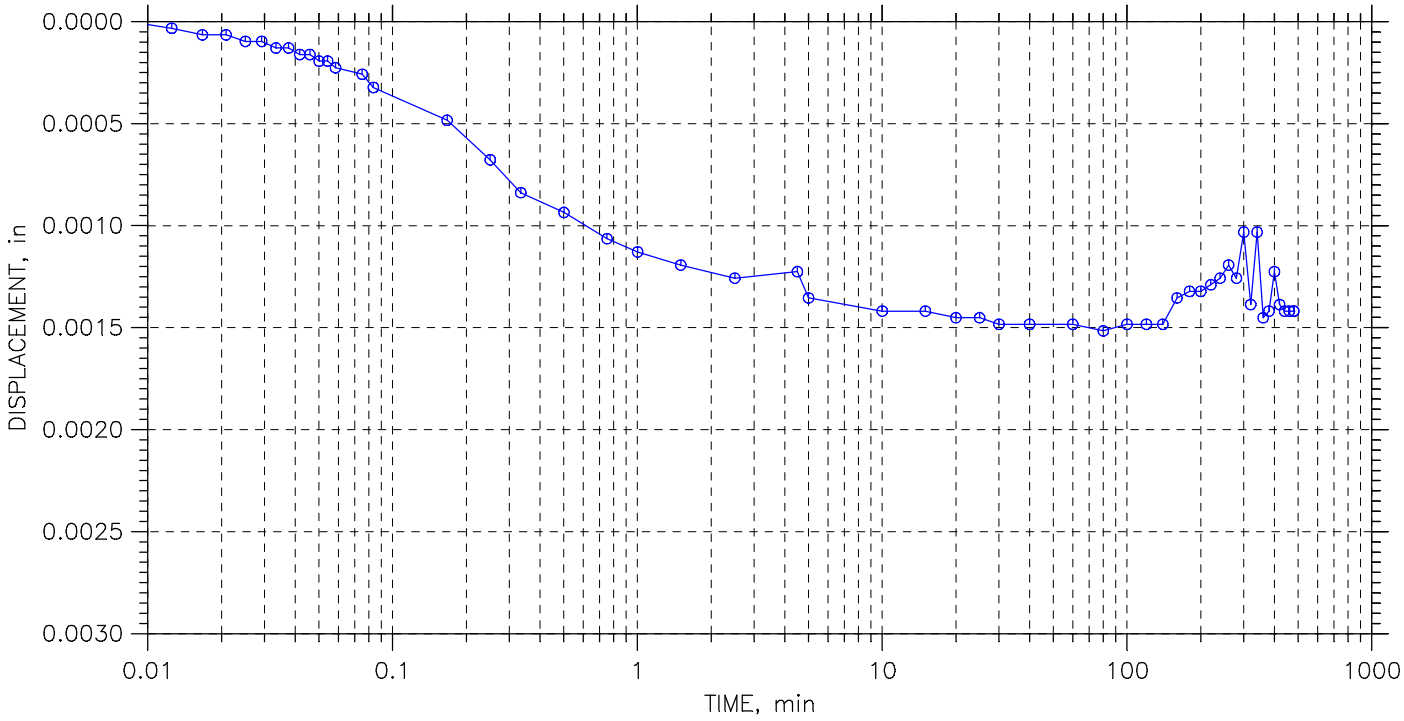
Wed, 01-JUN-2022 11:04:45

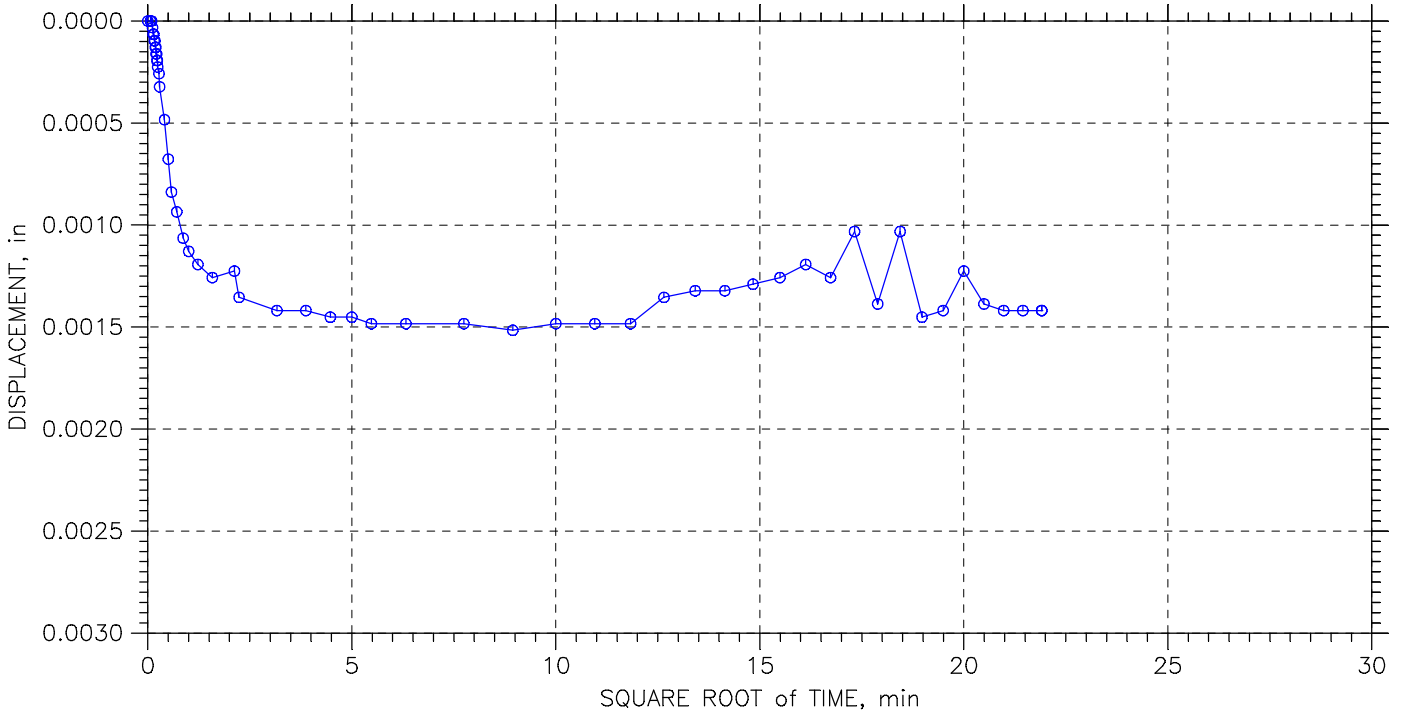
CONSOLIDATION TEST DATA

TIME CURVES

Step: 1 of 11

Stress: 0.125 tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-2	Test Date: 05/10/2022	Depth: 18'-20'
Test No.: 2	Sample Type: Shelby Tube	Elevation:
Description: Gray, Silt and Clay (A-6a)		
Remarks:		

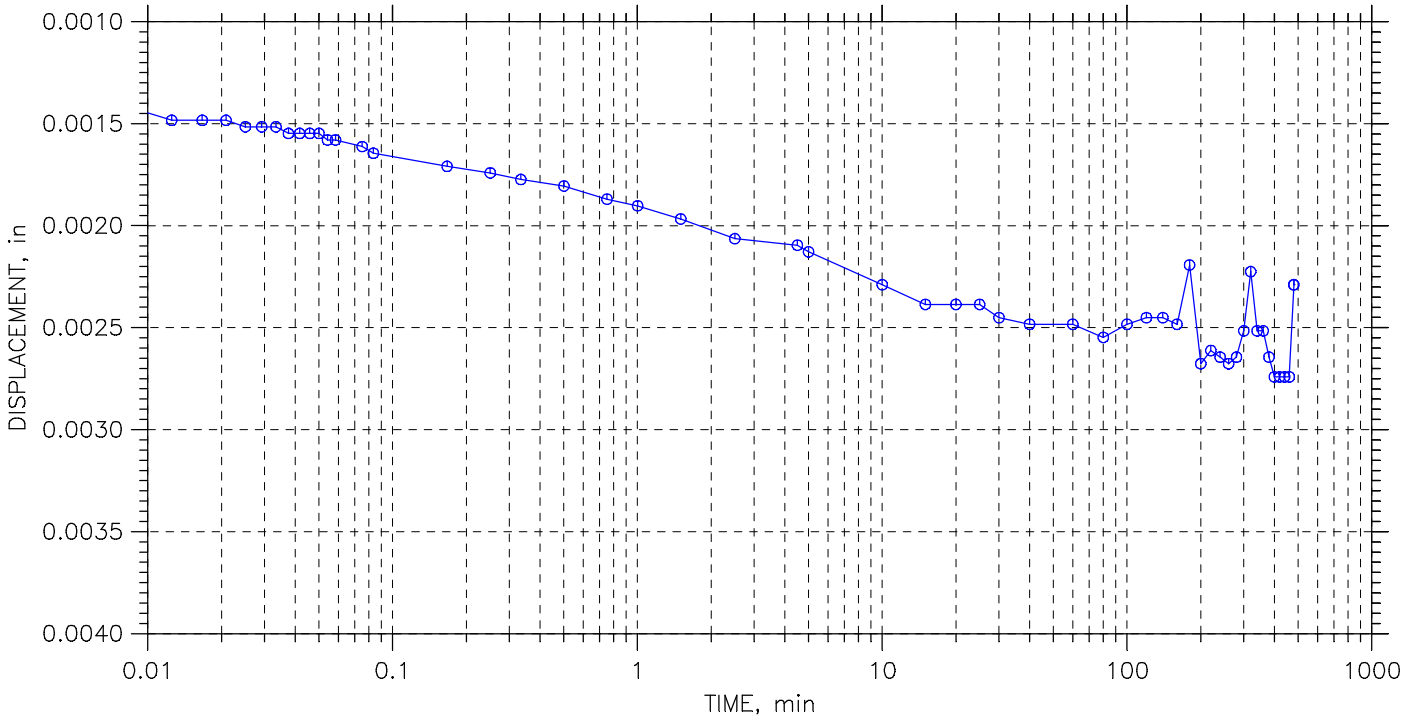
Wed, 01-JUN-2022 11:04:45

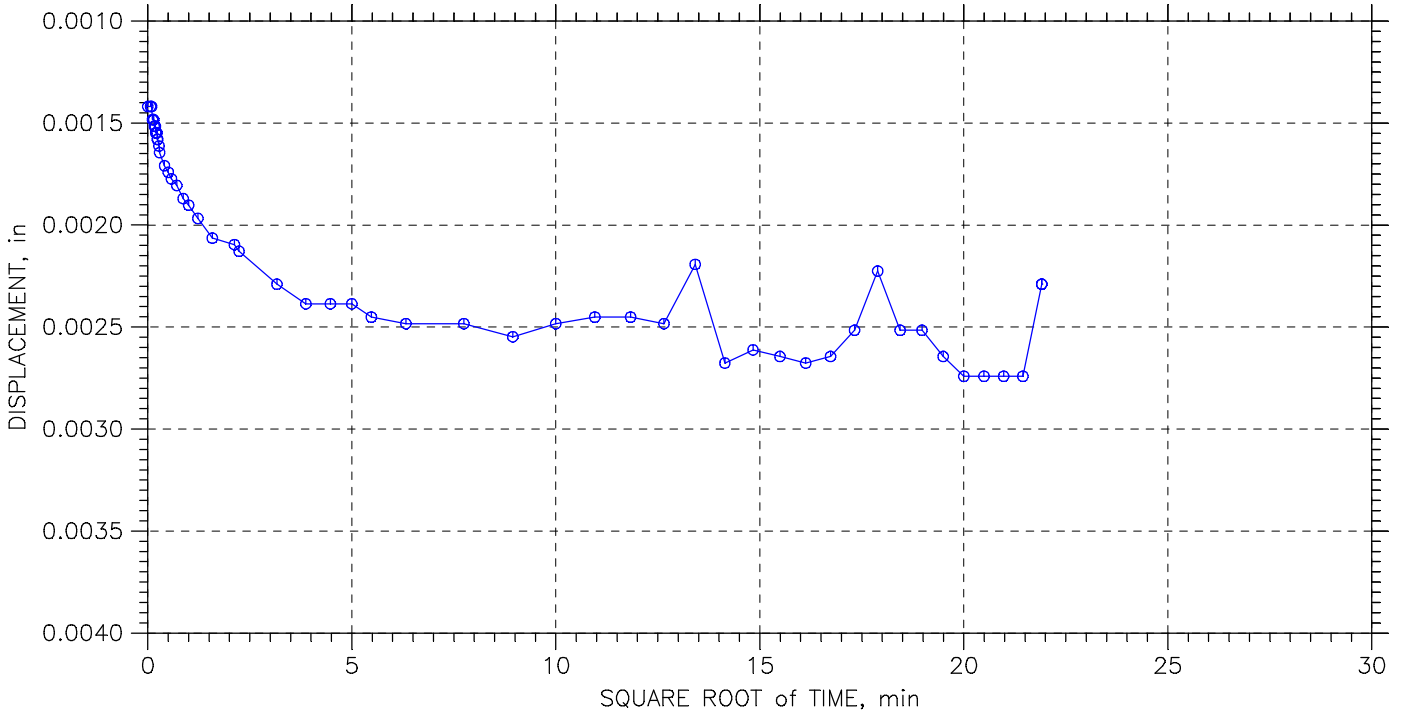
CONSOLIDATION TEST DATA

TIME CURVES

Step: 2 of 11

Stress: 0.25 tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-2	Test Date: 05/10/2022	Depth: 18'-20'
Test No.: 2	Sample Type: Shelby Tube	Elevation:
Description: Gray, Silt and Clay (A-6a)		
Remarks:		

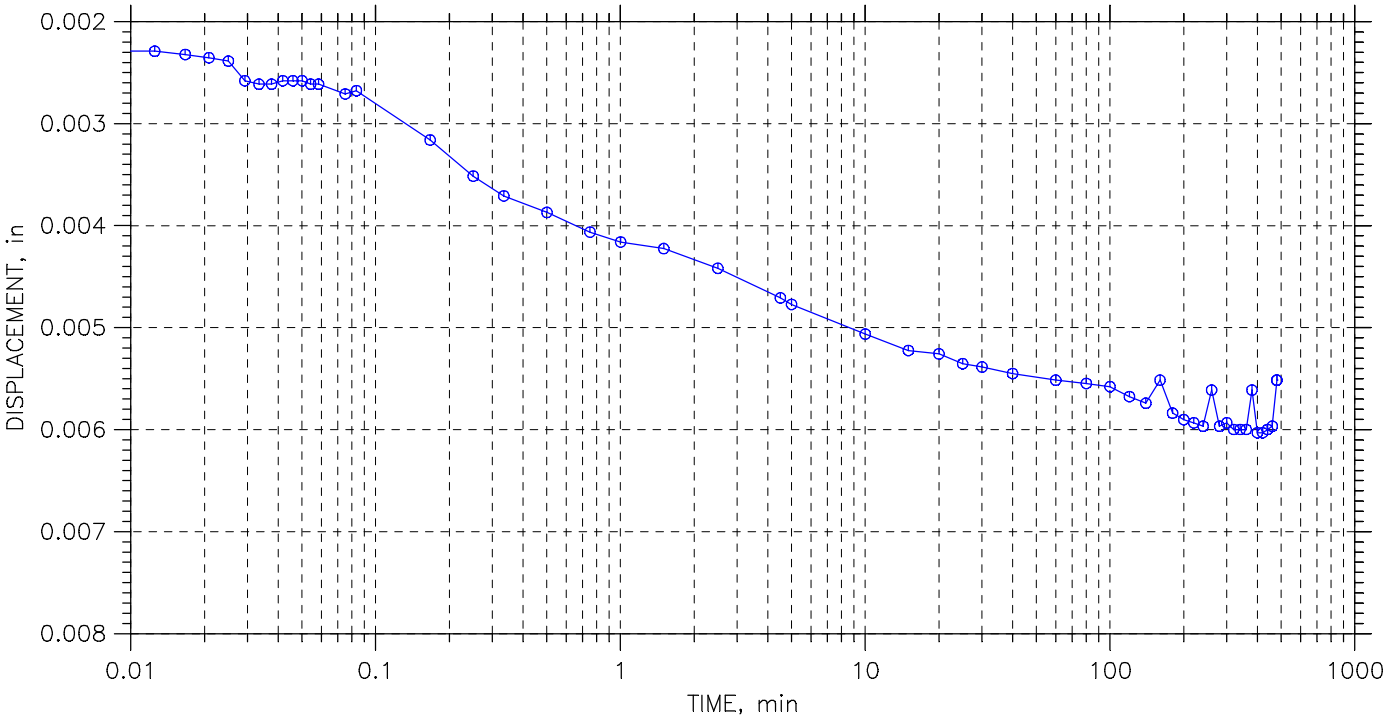
Wed, 01-JUN-2022 11:04:45

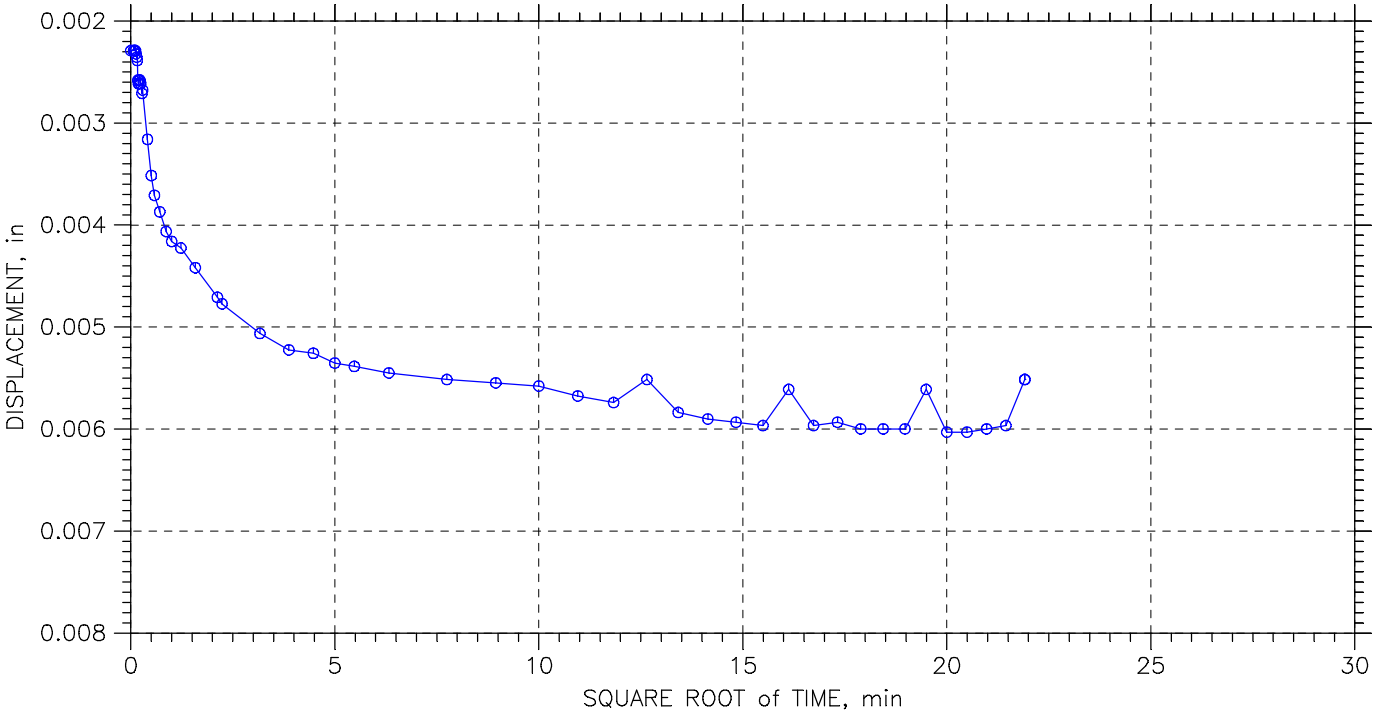
CONSOLIDATION TEST DATA

TIME CURVES

Step: 3 of 11

Stress: 0.5 tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-2	Test Date: 05/10/2022	Depth: 18'-20'
Test No.: 2	Sample Type: Shelby Tube	Elevation:
Description: Gray, Silt and Clay (A-6a)		
Remarks:		

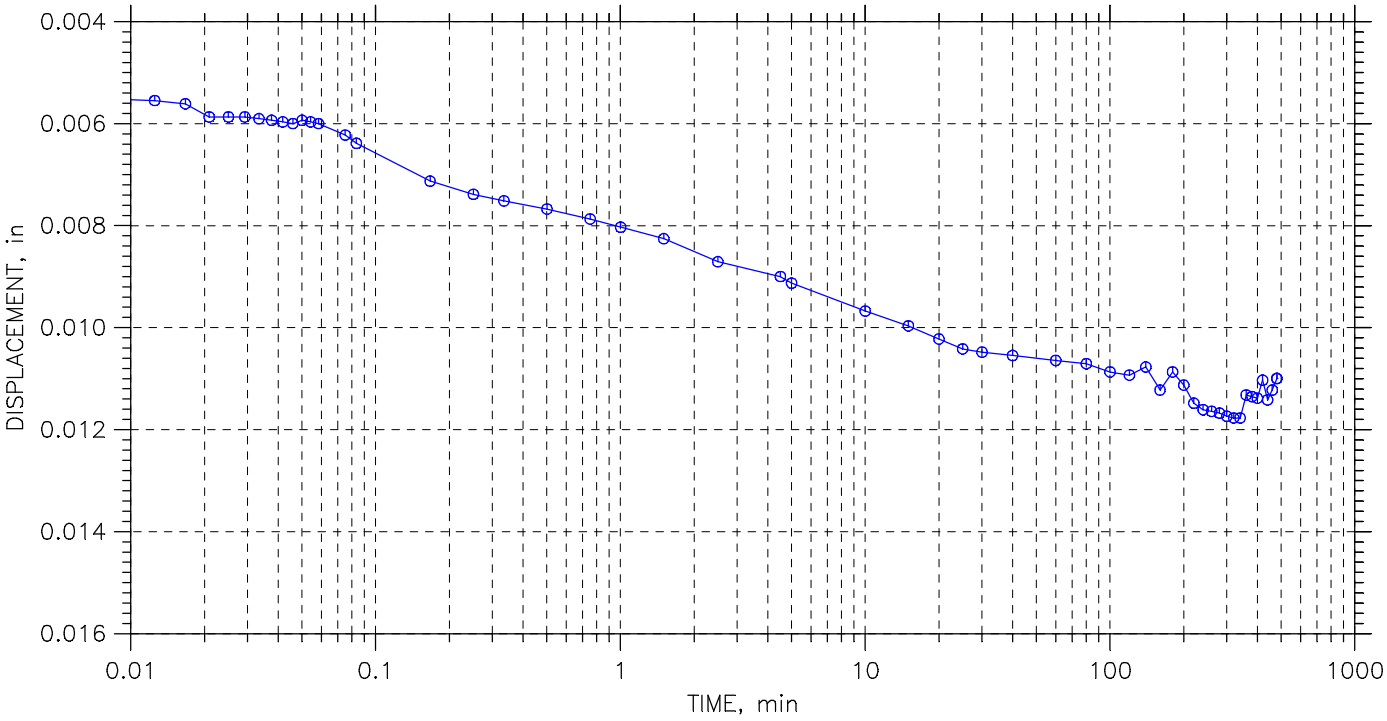
Wed, 01-JUN-2022 11:04:45

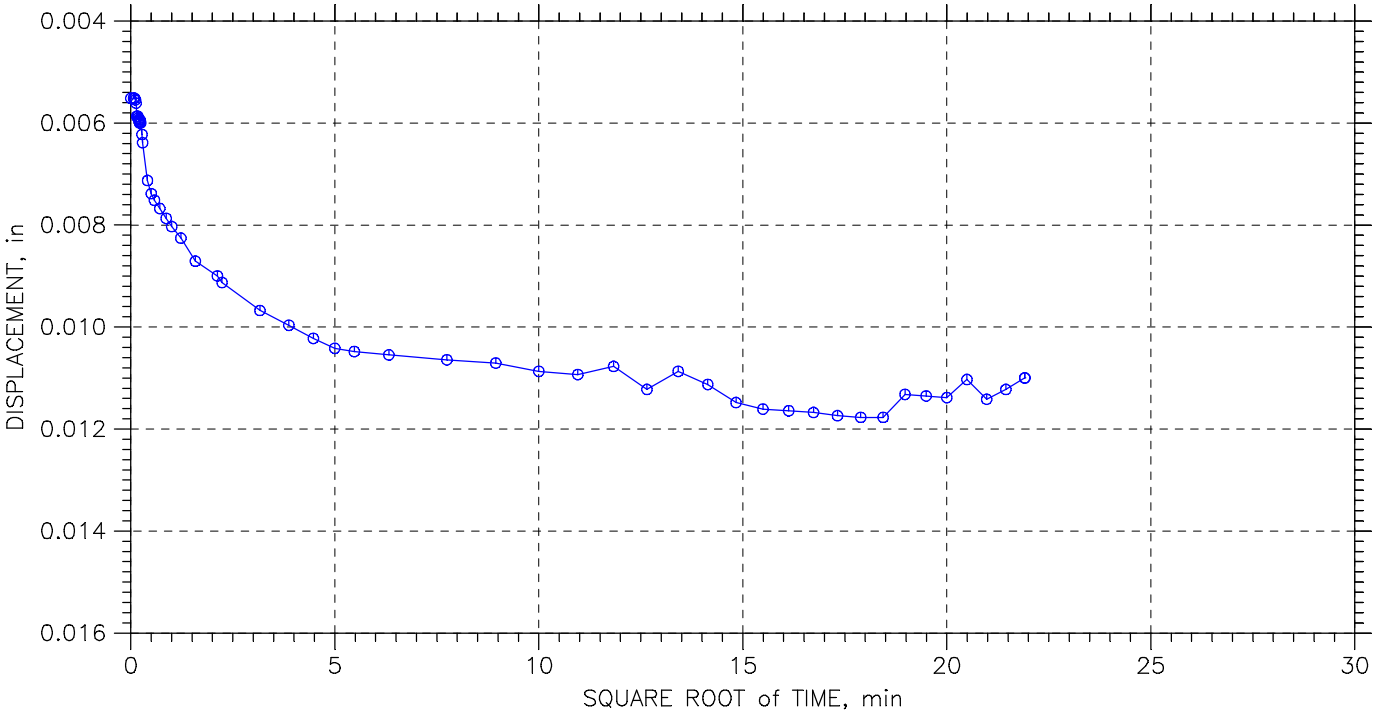
CONSOLIDATION TEST DATA

TIME CURVES

Step: 4 of 11

Stress: 1. tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-2	Test Date: 05/10/2022	Depth: 18'-20'
Test No.: 2	Sample Type: Shelby Tube	Elevation:
Description: Gray, Silt and Clay (A-6a)		
Remarks:		

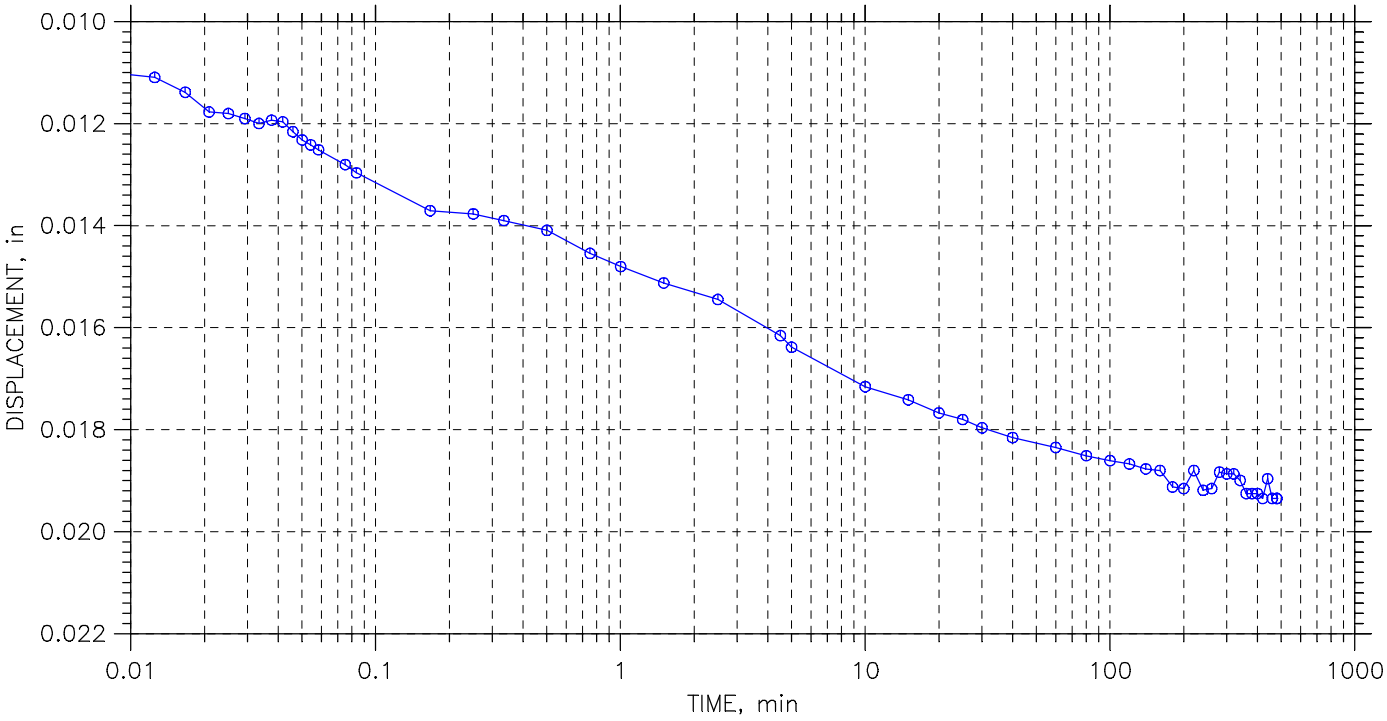
Wed, 01-JUN-2022 11:04:45

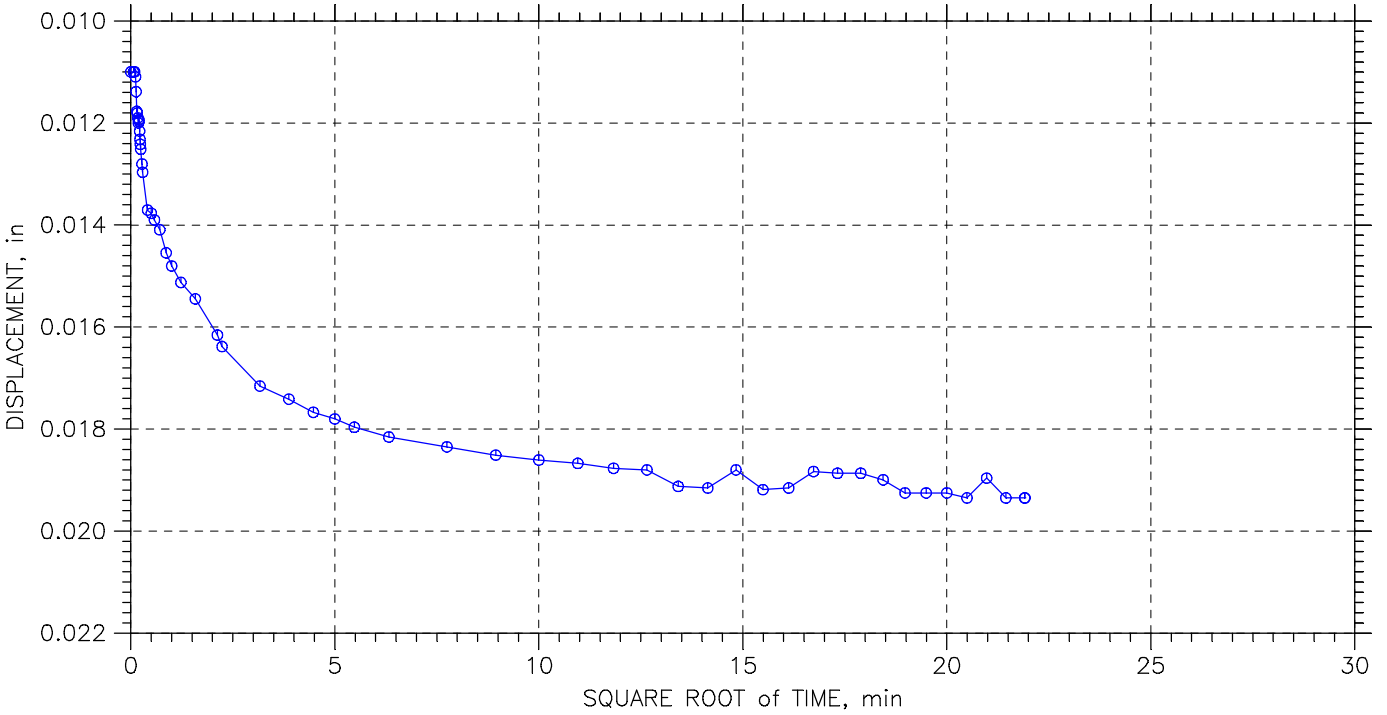
CONSOLIDATION TEST DATA

TIME CURVES

Step: 5 of 11

Stress: 2. tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-2	Test Date: 05/10/2022	Depth: 18'-20'
Test No.: 2	Sample Type: Shelby Tube	Elevation:
Description: Gray, Silt and Clay (A-6a)		
Remarks:		

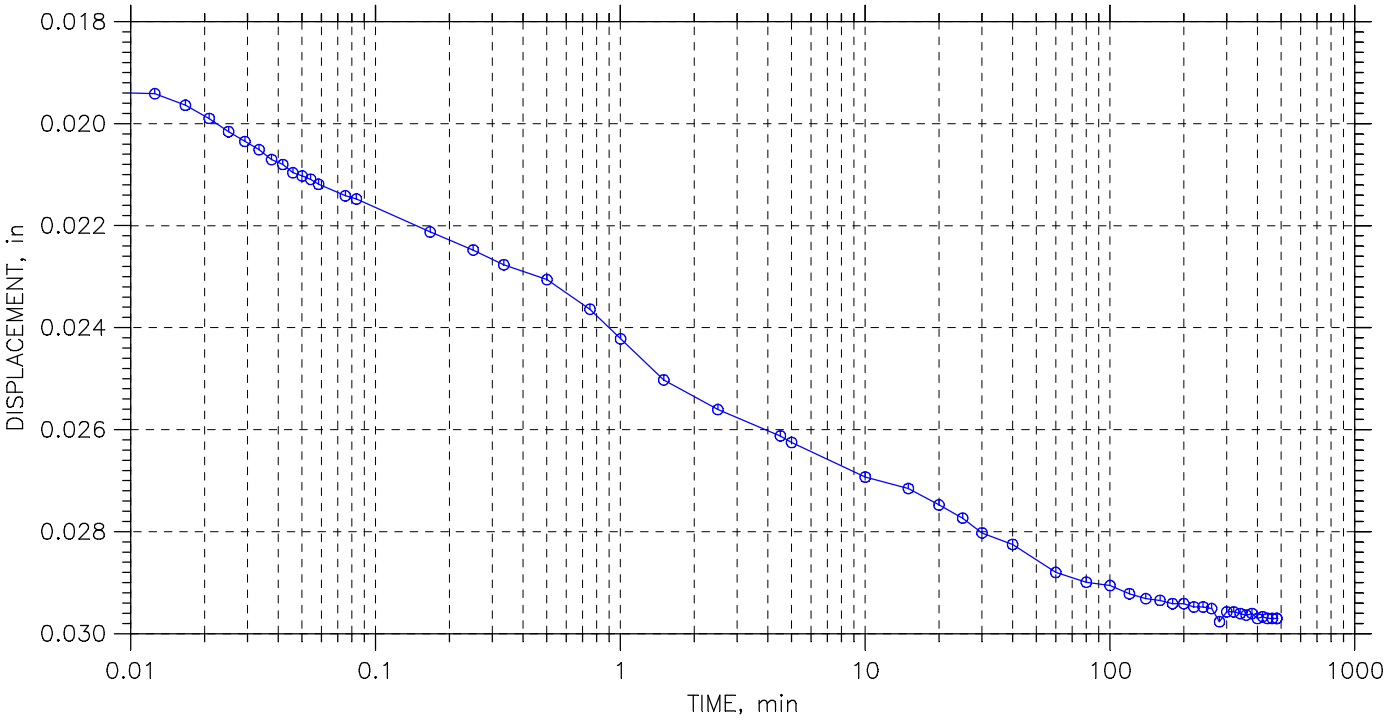
Wed, 01-JUN-2022 11:04:45

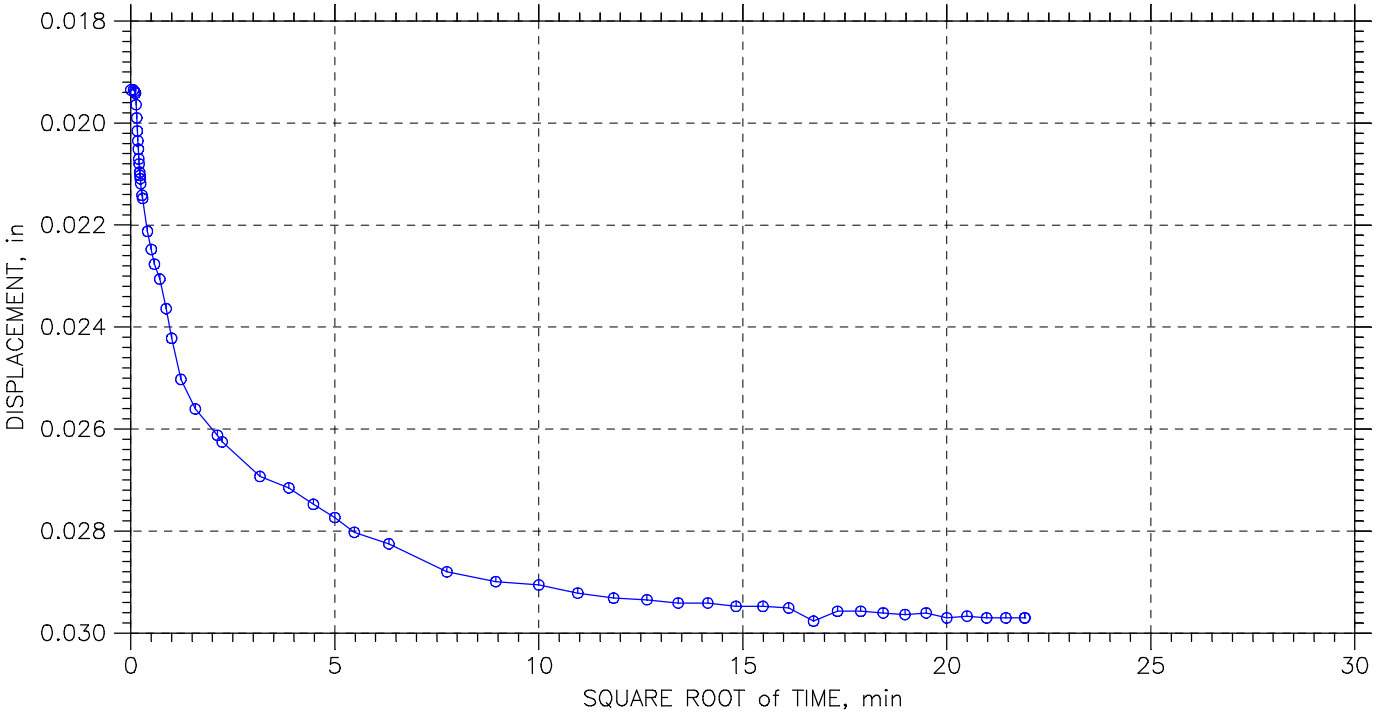
CONSOLIDATION TEST DATA

TIME CURVES

Step: 6 of 11

Stress: 4. tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-2	Test Date: 05/10/2022	Depth: 18'-20'
Test No.: 2	Sample Type: Shelby Tube	Elevation:
Description: Gray, Silt and Clay (A-6a)		
Remarks:		

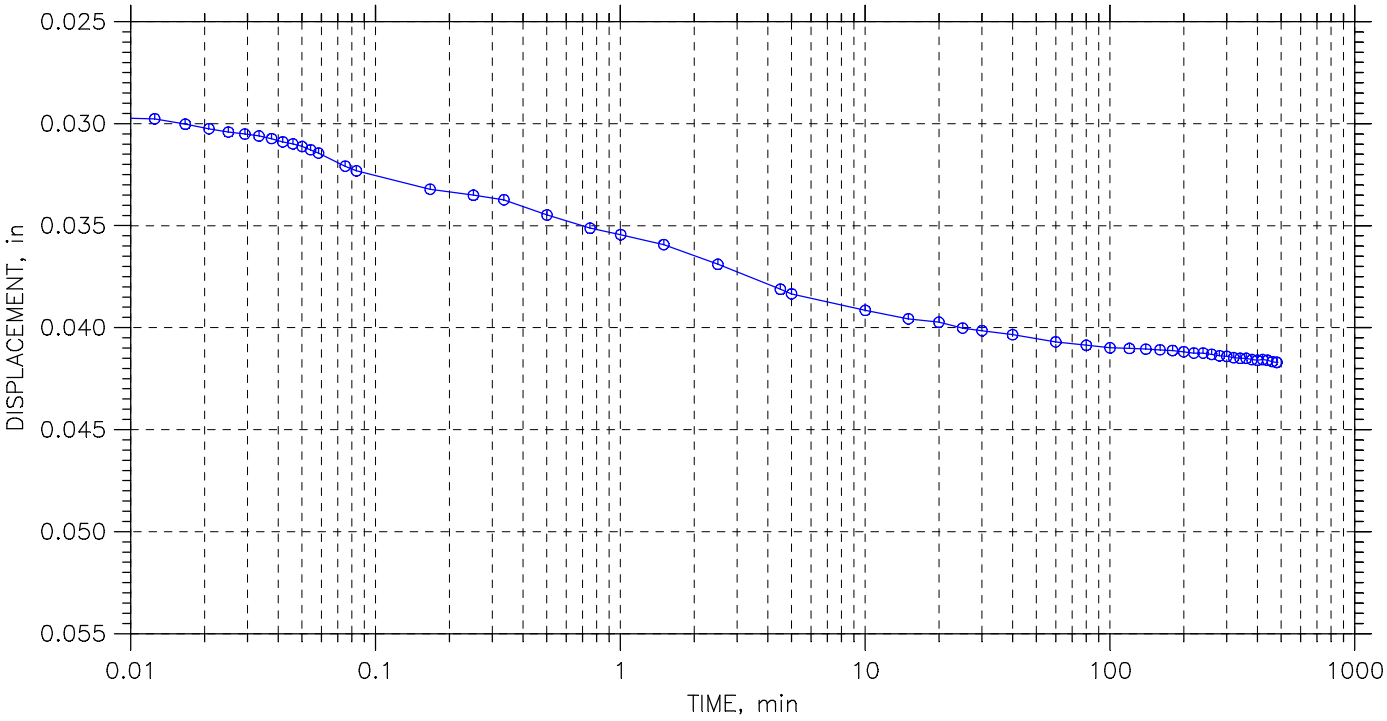
Wed, 01-JUN-2022 11:04:45

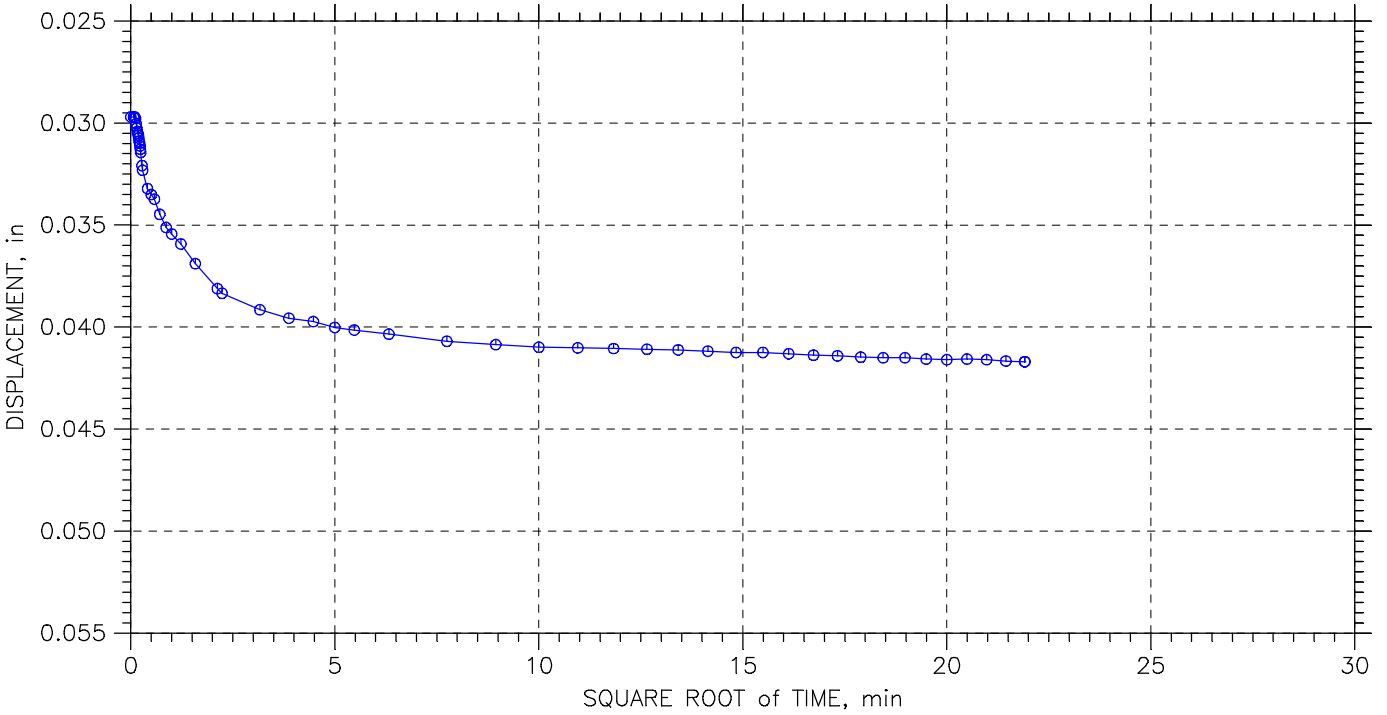
CONSOLIDATION TEST DATA

TIME CURVES

Step: 7 of 11

Stress: 8. tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-2	Test Date: 05/10/2022	Depth: 18'-20'
Test No.: 2	Sample Type: Shelby Tube	Elevation:
Description: Gray, Silt and Clay (A-6a)		
Remarks:		

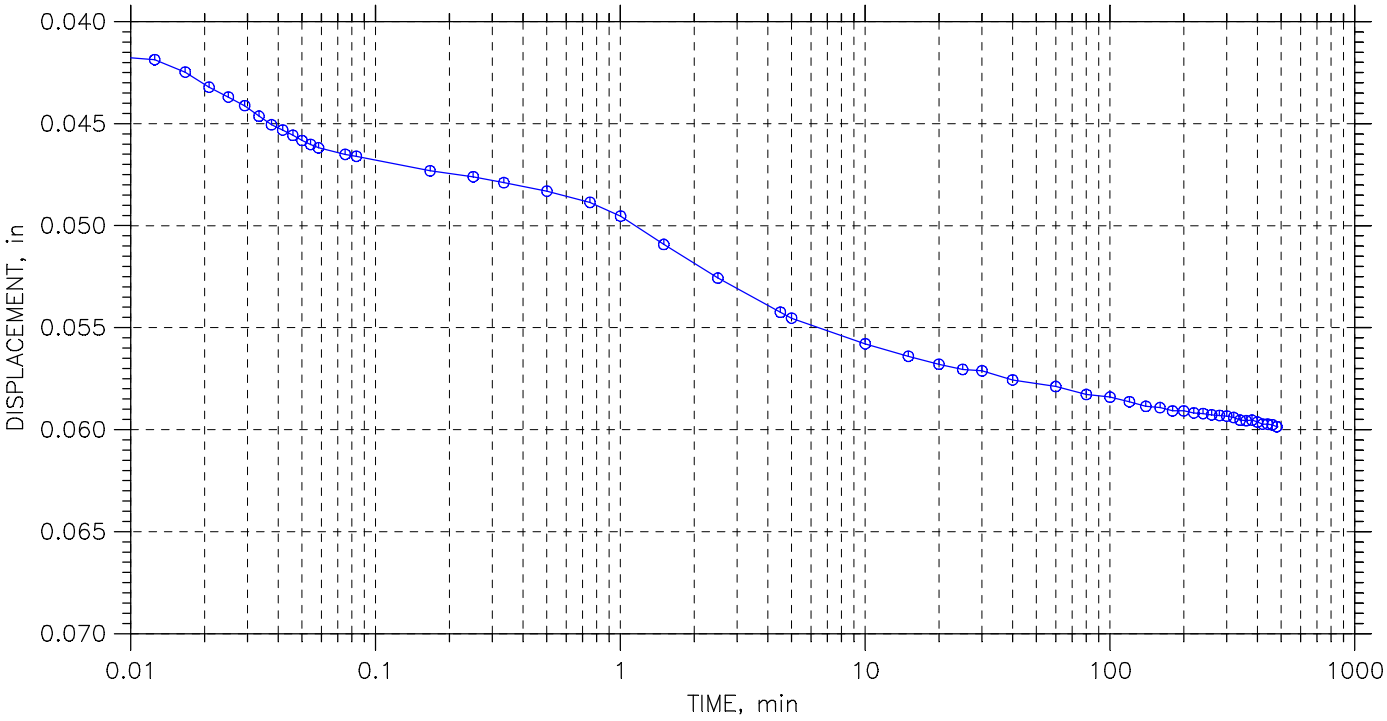
Wed, 01-JUN-2022 11:04:46

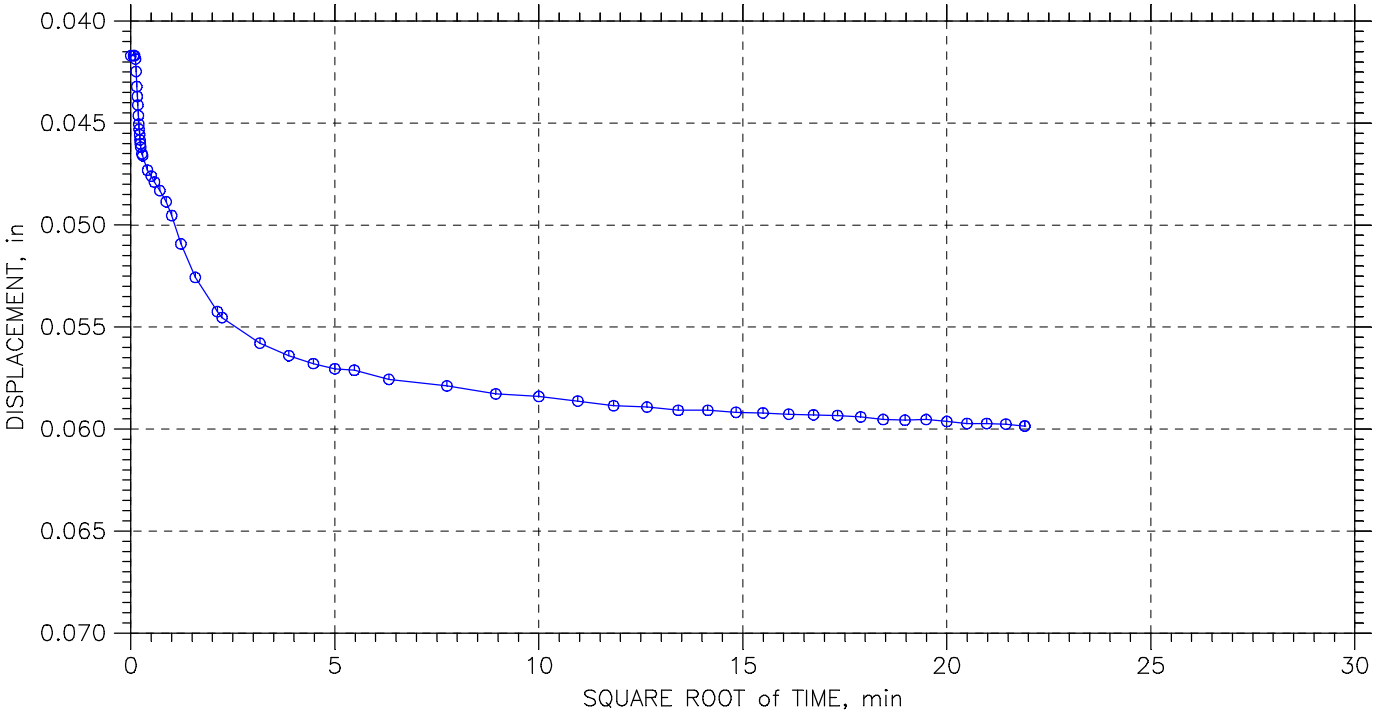
CONSOLIDATION TEST DATA

TIME CURVES

Step: 8 of 11

Stress: 16. tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-2	Test Date: 05/10/2022	Depth: 18'-20'
Test No.: 2	Sample Type: Shelby Tube	Elevation:
Description: Gray, Silt and Clay (A-6a)		
Remarks:		

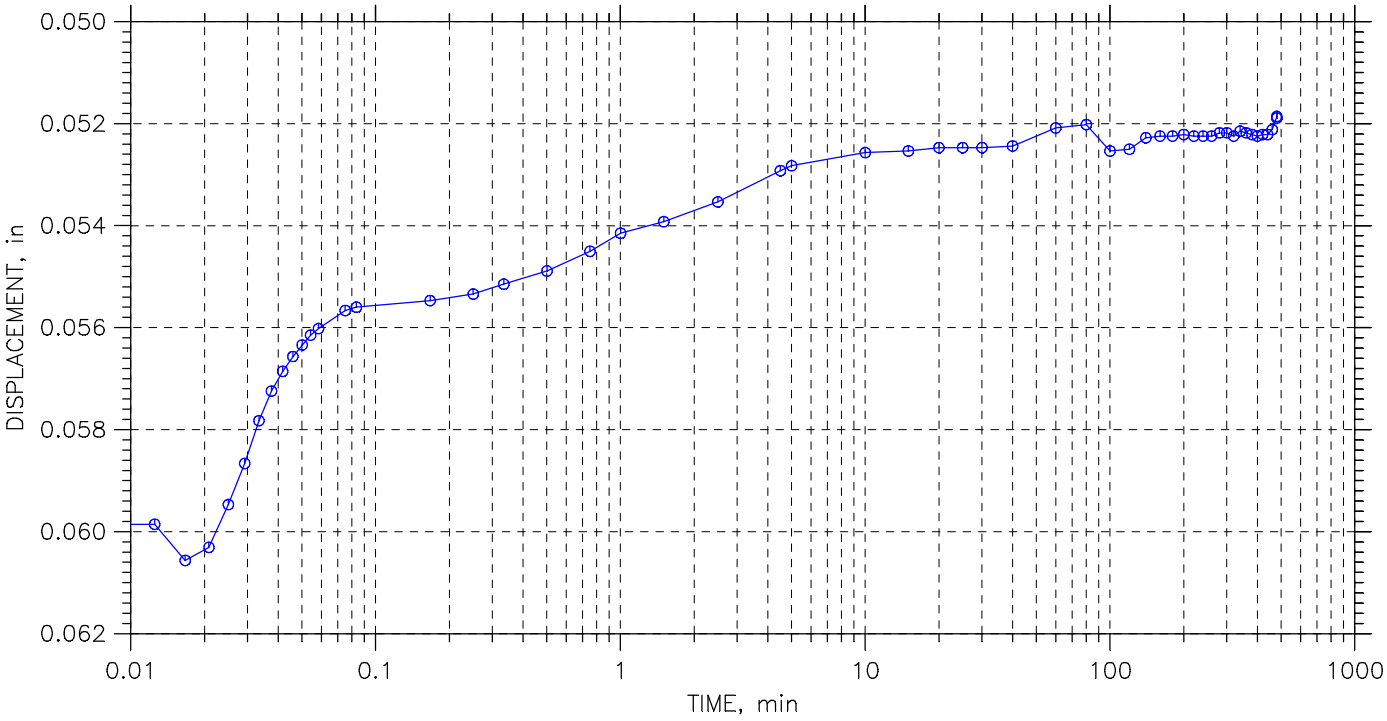
Wed, 01-JUN-2022 11:04:46

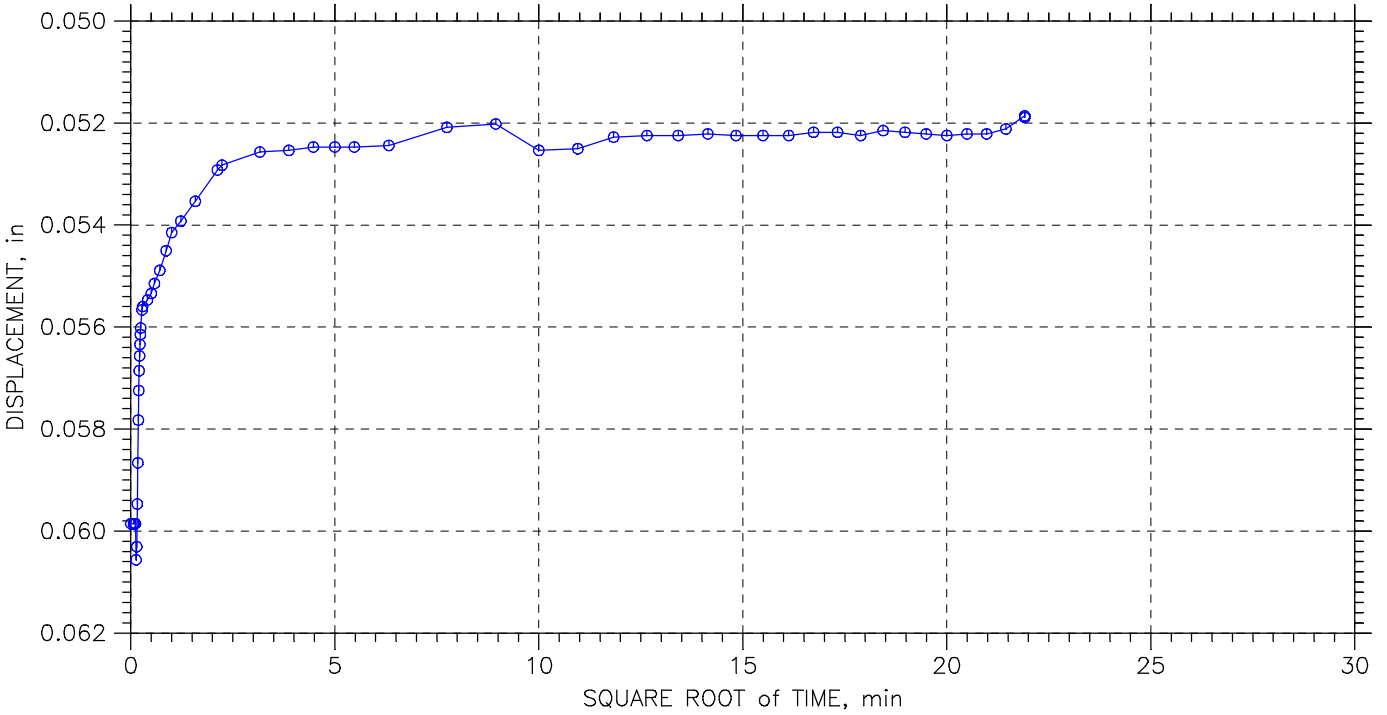
CONSOLIDATION TEST DATA

TIME CURVES

Step: 9 of 11

Stress: 4. tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-2	Test Date: 05/10/2022	Depth: 18'-20'
Test No.: 2	Sample Type: Shelby Tube	Elevation:
Description: Gray, Silt and Clay (A-6a)		
Remarks:		

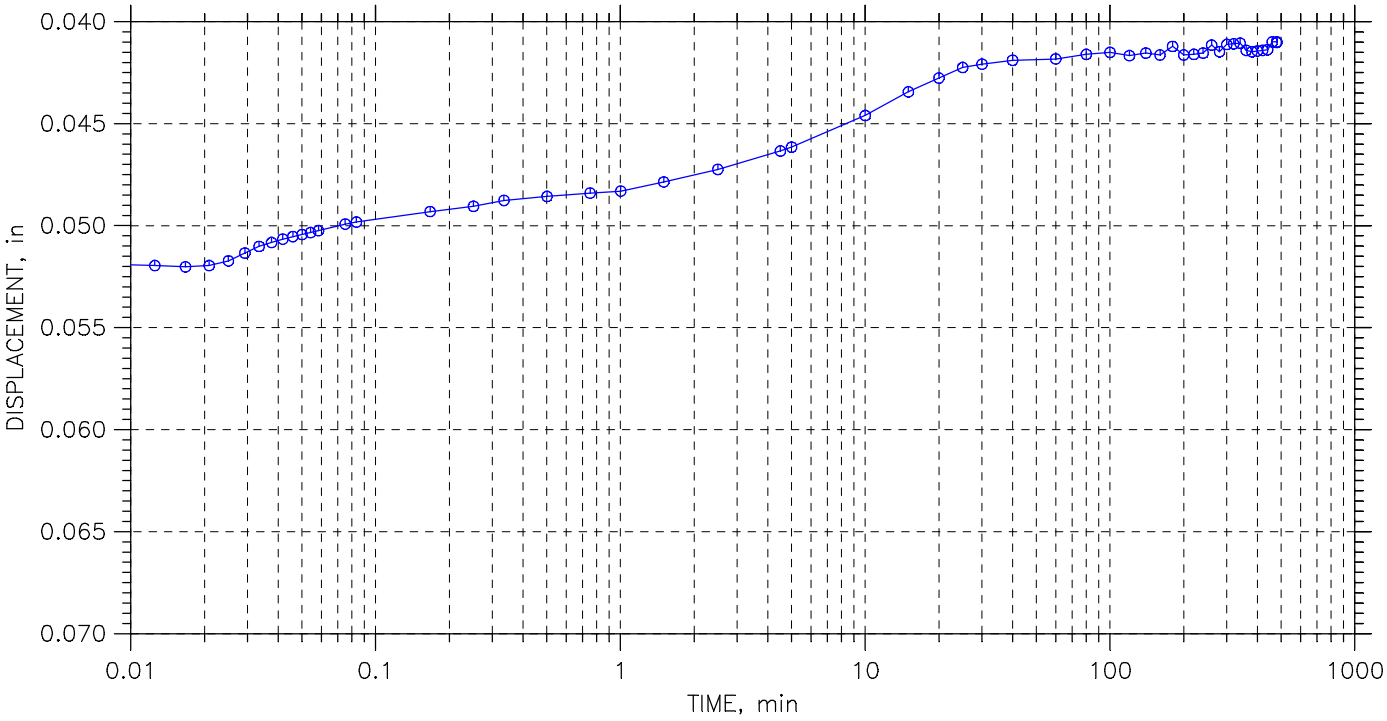
Wed, 01-JUN-2022 11:04:46

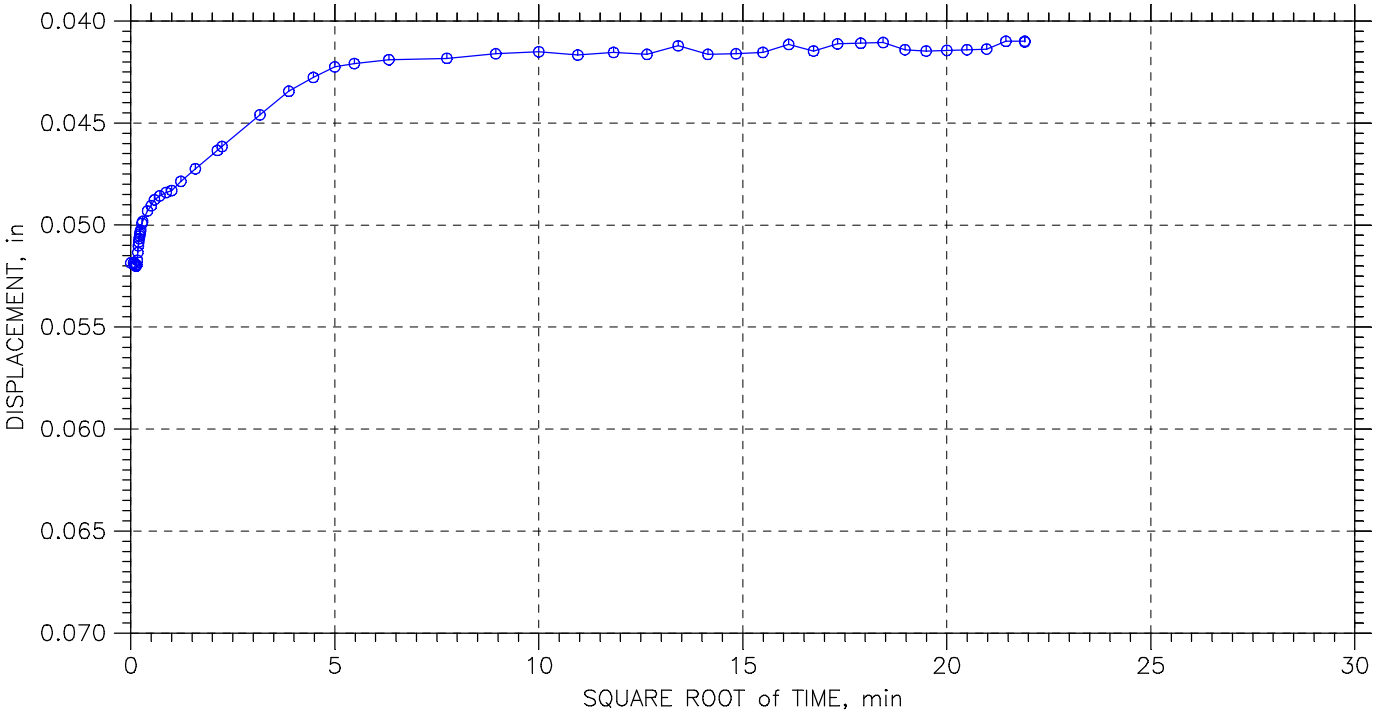
CONSOLIDATION TEST DATA

TIME CURVES

Step: 10 of 11

Stress: 1. tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-2	Test Date: 05/10/2022	Depth: 18'-20'
Test No.: 2	Sample Type: Shelby Tube	Elevation:
Description: Gray, Silt and Clay (A-6a)		
Remarks:		

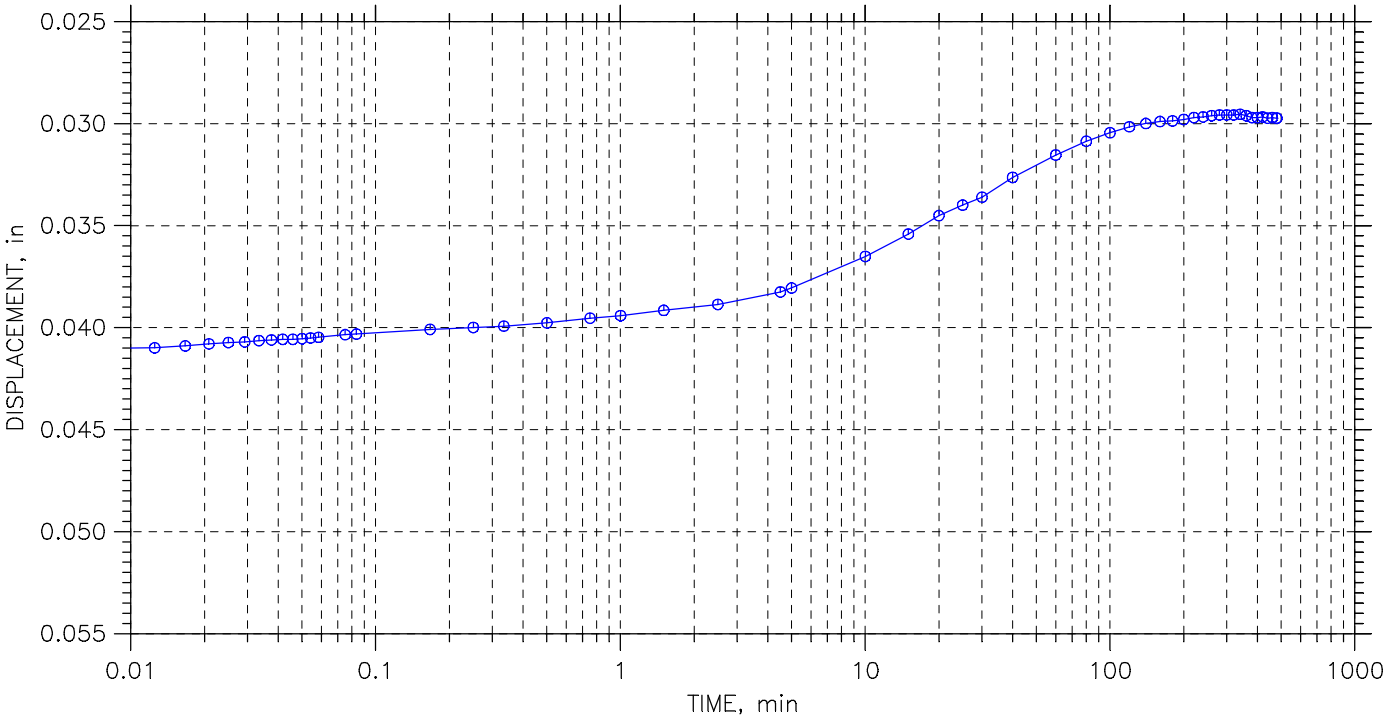
Wed, 01-JUN-2022 11:04:46

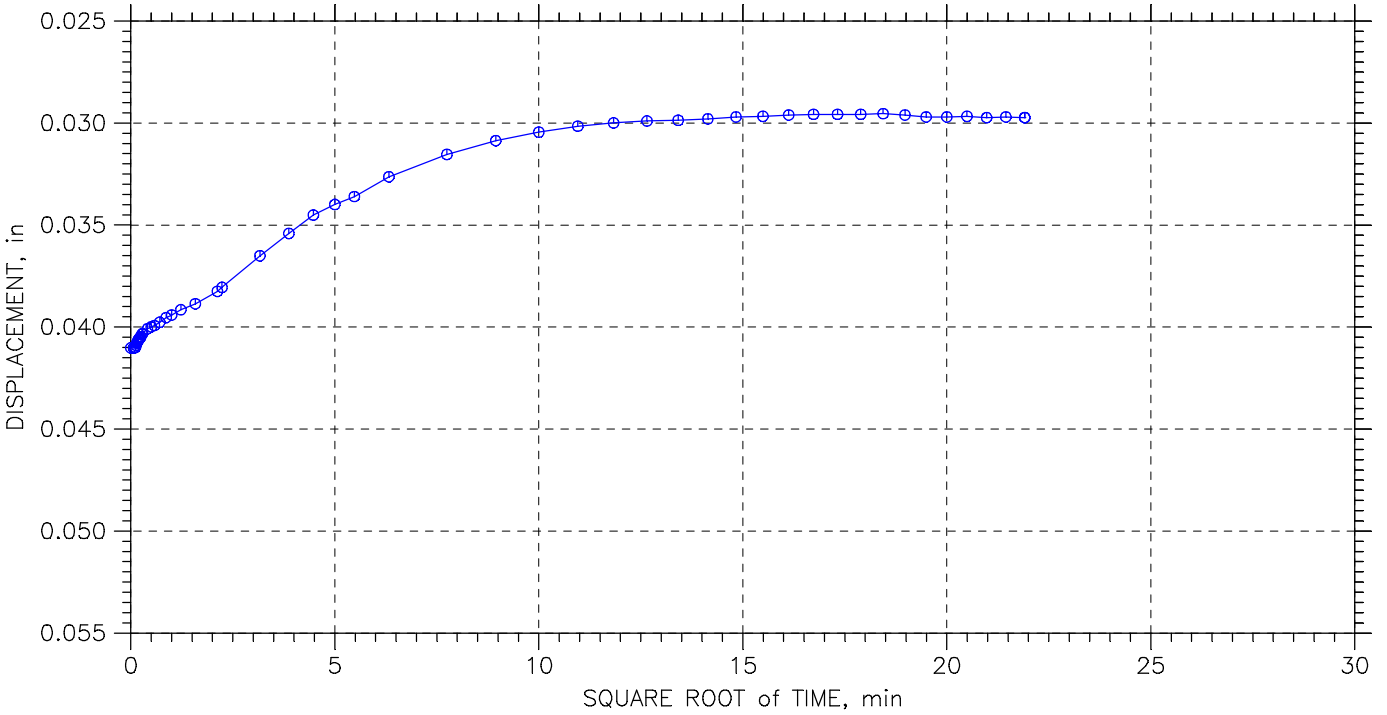
CONSOLIDATION TEST DATA

TIME CURVES

Step: 11 of 11

Stress: 0.25 tsf





Project: HEN-6-11.36 Roadway Explo	Location:	Project No.: 22050022COL
Boring No.: B-009-2-22	Tested By: MW	Checked By: SM
Sample No.: ST-2	Test Date: 05/10/2022	Depth: 18'-20'
Test No.: 2	Sample Type: Shelby Tube	Elevation:
Description: Gray, Silt and Clay (A-6a)		
Remarks:		

Wed, 01-JUN-2022 11:04:46

CTL Engineering, Inc.
Specific Gravity
ASTM D 854 / AASHTO T 100
Method B

Client: Ohio Department of Transportation
Project: HEN-6-11.36 Roadway Exploration
Project #: 22050022COL

Date: 5/11/2022
Tech: MW
Reviewed by: SM

Visual Classification: Gray, Silt and Clay (A-6a)
Weight of Oven Dry Soil passing #4 Sieve (g): 35.65
Material Excluded From Test: None
Mass of Pycnometer ($M_{p)}$: 99.88
Mass of Pyncometer, Water and Soil Solids ($M_{pws,t}$): 371.54

Test Temperature (°C): 21.4

Sample ID	Specific Gravity (20°C)
B-009-1-22, ST-2, 18'-20'	2.646

CTL ENGINEERING INC

APPENDIX D
SUBGRADE ANALYSIS SPREADSHEET

SUBGRADE ANALYSIS CUT/FILL CALCULATION- HEN-6/24-11.32/4.62

BORING NO.	ALIGNMENT	STATION	OFFSET	LATITUDE (DEG)	LONGITUDE (DEG)	EXISTING GROUND SURFACE ELEVATION (FEET)	PROPOSED GRADE (FEET)	PROPOSED PAVEMENT+BASE THICKNESS (FEET)	PROPOSED PAVEMENT SUBGRADE (FEET)	CUT/FILL (FEET)
B-005-0-22	US 6/24	607+28.00	54.085 Left	41.399070	-84.144790	681.45	681.45	1.44	680.0	-1.44
B-006-0-22	US 6/24	614+40.00	34.758 Right	41.400270	-84.142720	683.13	683.13	1.44	681.7	-1.44
B-007-0-22	US 6/24	624+31.00	52.224 Left	41.402360	-84.140370	685.32	685.32	1.44	683.9	-1.44
B-008-0-22	US 6/24	630+13.00	34.398 Right	41.403310	-84.138640	688.00	688.00	1.44	686.6	-1.44
B-009-0-22	US 6/24	639+56.00	48.969 Left	41.405290	-84.136410	705.50	701.50	1.44	700.1	-5.44
B-010-0-22	US 6/24	645+70.00	33.315 Right	41.406320	-84.134610	710.400	707.10	1.44	705.7	-4.74
B-011-0-22	US 6/24	653+50.00	52.116 Left	41.407950	-84.132730	697.530	697.53	1.44	696.1	-1.44
B-012-0-22	US 6/24	662+14.00	34.603 Right	41.409120	-84.129970	673.950	673.95	1.44	672.5	-1.44
B-013-0-22	US 6/24	670+83.00	58.3 Left	41.410410	-84.127290	671.915	671.92	1.44	670.5	-1.44
B-014-0-22	US 6/24	677+90.00	32.754 Right	41.410790	-84.124730	676.898	676.90	1.44	675.5	-1.44
B-015-0-22	US 6/24	686+48.00	52.767 Left	41.411560	-84.121760	680.335	680.34	1.44	678.9	-1.44
B-016-0-22	US 6/24	694+49.00	32.257 Right	41.411820	-84.118840	682.921	682.92	1.44	681.5	-1.44
B-017-0-22	US 6/24	703+12.00	34.134 Left	41.412520	-84.115830	684.897	684.90	1.44	683.5	-1.44
B-018-0-22	US 6/24	708+73.00	32.756 Right	41.412680	-84.113780	684.029	684.03	1.44	682.6	-1.44
B-019-0-22	US 6/24	719+05.00	33.387 Left	41.413490	-84.110170	684.411	684.41	1.44	683.0	-1.44
B-020-0-22	US 6/24	726+36.00	33.947 Right	41.413750	-84.107520	682.812	682.81	1.44	681.4	-1.44
B-021-0-22	US 6/24	733+91.00	32.984 Left	41.414390	-84.104890	680.717	680.72	1.44	679.3	-1.44
B-022-0-22	US 6/24	743+24.00	32.946 Right	41.414780	-84.101510	680.434	680.43	1.44	679.0	-1.44
B-023-0-22	US 6/24	753+44.00	33.504 Left	41.415580	-84.097940	677.717	677.72	1.44	676.3	-1.44
B-024-0-22	US 6/24	758+47.00	32.611 Right	41.415710	-84.096100	675.898	675.90	1.44	674.5	-1.44
B-025-0-22	US 6/24	766+60.00	33.267 Left	41.416370	-84.093260	677.359	677.36	1.44	675.9	-1.44
B-026-0-22	US 6/24	774+55.00	33.708 Right	41.416550	-84.090360	679.355	679.36	1.44	677.9	-1.44
B-027-0-22	US 6/24	782+72.00	33.321 Left	41.416960	-84.087420	678.984	678.98	1.44	677.5	-1.44
B-028-0-22	US 6/24	789+26.00	34.783 Right	41.416840	-84.085030	677.238	677.24	1.44	675.8	-1.44
B-029-0-22	US 6/24	800+24.00	32.397 Left	41.417050	-84.081030	675.691	675.69	1.44	674.3	-1.44
B-030-0-22	US 6/24	805+01.00	32.204 Right	41.416880	-84.079290	674.398	674.40	1.44	673.0	-1.44
B-031-0-22	US 6/24	814+45.00	52.293 Left	41.417120	-84.075850	672.042	672.04	1.44	670.6	-1.44
B-032-0-22	US 6/24	821+92.00	32.847 Right	41.416900	-84.073120	673.267	673.27	1.44	671.8	-1.44
B-033-0-22	US 6 WB	1829+54.88	37 Left	41.417190	-84.070360	672.200	672.20	1.44	670.8	-1.44
B-034-0-22	US 24 EB	1499+80.45	2.77 Right	41.416730	-84.069980	675.984	675.98	1.44	674.5	-1.44
B-035-0-22	US 6 WB	1835+63.00	48.75 Left	41.417230	-84.068140	672.031	672.03	1.44	670.6	-1.44
B-036-0-22	US 24 EB	1506+64.15	38.54 Right	41.416190	-84.067600	677.292	677.29	1.44	675.9	-1.44
B-037-0-22	US 6 WB	1845+79.56	11.82 left	41.416400	-84.064590	670.267	670.27	1.44	668.8	-1.44
B-038-0-22	US 6 EB	846+55.00	26 Right	41.414920	-84.064710	673.417	673.42	1.44	672.0	-1.44
B-039-0-22	US 6 WB	1853+64.00	6.8 left	41.414830	-84.062650	667.702	667.70	1.44	666.3	-1.44
B-040-0-22	US 6 EB	854+17.00	18 Right	41.413600	-84.062580	667.272	667.27	1.44	665.8	-1.44
B-041-0-22	US 6 EB	859+64.00	16 Left	41.412510	-84.061210	664.173	664.17	1.44	662.7	-1.44

SUBGRADE ANALYSIS CUT/FILL CALCULATION- HEN-6/24-11.32/4.62

BORING NO.	ALIGNMENT	STATION	OFFSET	LATITUDE (DEG)	LONGITUDE (DEG)	EXISTING GROUND SURFACE ELEVATION (FEET)	PROPOSED GRADE (FEET)	PROPOSED PAVEMENT+BASE THICKNESS (FEET)	PROPOSED PAVEMENT SUBGRADE (FEET)	CUT/FILL (FEET)
B-042-0-22	US 6	866+82.00	37 left	41.411340	-84.060060	667.491	667.49	1.44	666.1	-1.44
B-043-0-22	US 24 WB	1514+98.46	4.97 Right	41.416830	-84.064410	674.571	674.57	1.44	673.1	-1.44
B-044-0-22	US 24 EB	516+48.00	2 Right	41.415600	-84.064090	687.685	687.69	1.44	686.2	-1.44
B-045-0-22	US 24 WB	1522+59.31	4.36 Right	41.416080	-84.061820	673.157	673.16	1.44	671.7	-1.44
B-046-0-22	US 24 EB	524+01.00	3 Right	41.415490	-84.061350	683.252	683.25	1.44	681.8	-1.44
B-047-0-22	US 24 EB	531+11.00	2 Right	41.415470	-84.058770	671.282	671.28	1.44	669.8	-1.44
B-048-0-22	US 24	541+30.00	53 Left	41.415680	-84.055050	668.492	668.49	1.44	667.1	-1.44
B-049-0-22	US 24	545+02.00	32 Right	41.415440	-84.053690	667.913	667.91	1.44	666.5	-1.44
B-050-0-22	US 6 & 24 Ramp A	109+86.30	19.22 Left	41.394720	-84.148790	687.252	687.25	1.44	685.8	-1.44
B-051-0-22	US 6 & 24 Ramp AB	117+93.75	19.46 Left	41.395280	-84.146320	696.806	696.81	1.44	695.4	-1.44
B-052-0-22	US 6 & 24 Ramp B	216+77.82	17.46 Left	41.395230	-84.148600	686.927	686.93	1.44	685.5	-1.44
B-053-0-22	US 6 & 24 Ramp E	501+75.77	19.89 Left	41.397730	-84.149770	694.704	694.70	1.44	693.3	-1.44
B-054-0-22	US 6 & 24 Ramp C	308+54.10	17.26 Left	41.397990	-84.147830	684.042	684.04	1.44	682.6	-1.44
B-055-0-22	US 6 & 24 Ramp D	1+34.00	4 Left	41.398760	-84.153090	685.223	685.22	1.44	683.8	-1.44
B-056-0-22	US 6 & 24 Ramp D	10+55.00	18 Right	41.398500	-84.149800	684.288	684.29	1.44	682.8	-1.44
B-057-0-22	US 6 & 24 Ramp E	509+53.37	2.27 Left	41.398690	-84.147380	682.549	682.55	1.44	681.1	-1.44
B-058-0-22	US 6 & 24 Ramp D	24+55.00	17 Right	41.399330	-84.144840	680.131	680.13	1.44	678.7	-1.44
B-059-0-22	US 6/24 & SR 108 Ramp A	108+01.56	12.5 Left	41.407840	-84.129990	676.668	676.67	1.44	675.2	-1.44
B-060-0-22	US 6/24 & SR 108 Ramp AD	14+19.00	5.72 Left	41.406860	-84.131310	678.125	678.13	1.44	676.7	-1.44
B-061-0-22	US 6/24 & SR 108 Ramp D	22+66.26	20.61 Left	41.408680	-84.129840	674.009	674.01	1.44	672.6	-1.44
B-067-0-22	SR 424 Ramp A	853+90.00	13 Left	41.413010	-84.063940	671.906	671.91	1.44	670.5	-1.44
B-068-0-22	SR 424 Ramp C	856+22.00	19 Right	41.413980	-84.060830	667.251	667.25	1.44	665.8	-1.44
B-069-0-22	SR 424 Ramp C	849+06.00	98 Left	41.412800	-84.059250	676.818	676.82	1.44	675.4	-1.44

OHIO DEPARTMENT OF TRANSPORTATION

OFFICE OF GEOTECHNICAL ENGINEERING

PLAN SUBGRADES
Geotechnical Design Manual Section 600

Instructions: Enter data in the shaded cells only.
(Enter state route number, project description,county, consultant's name, prepared by name, and date prepared. This information will be transferred to all other sheets. The date prepared must be entered in the appropriate cell on this sheet to remove these instructions prior to printing.)

HEN-6/24-11.32/4.62
110524

<PROJECT DESCRIPTION - roadway length, number of bridges/culverts, type and length of other structures, type and length of geohazard>

CTL ENGINEERING, INC.

Prepared By: SR
Date prepared: Tuesday, November 12, 2024

Shahedur Rahman
2860 Fisher Road
Columbus
Ohio 43204
(614) 276-8123
srahman@ctleng.com

NO. OF BORINGS: 60

#	Boring ID	Alignment	Station	Offset	Dir	Drill Rig	ER	Boring EL.	Proposed Subgrade EL	Cut Fill
1	B-005-0-22	US 6/24	607+28	54	Lt	CME 75	72	681.4	680.0	1.4 C
2	B-006-0-22	US 6/24	614+40	35	Rt	CME 75	72	683.1	681.7	1.4 C
3	B-007-0-22	US 6/24	624+31	52	Lt	CME 75	72	685.3	683.9	1.4 C
4	B-008-0-22	US 6/24	630+13	34	Rt	CME 75	72	688.0	686.6	1.4 C
5	B-009-0-22	US 6/24	639+56	49	Lt	CME 75	72	705.5	700.1	5.4 C
6	B-010-0-22	US 6/24	645+70	33	Rt	CME 75	72	710.4	705.7	4.7 C
7	B-011-0-22	US 6/24	653+50	52	Lt	CME 75	72	697.5	696.1	1.4 C
8	B-012-0-22	US 6/24	662+14	35	Rt	CME 75	72	674.0	672.5	1.4 C
9	B-013-0-22	US 6/24	670+83	58	Lt	CME 75	72	671.9	670.5	1.4 C
10	B-014-0-22	US 6/24	677+90	33	Rt	CME 75	72	676.9	675.5	1.4 C
11	B-015-0-22	US 6/24	686+48	53	Lt	CME 75	72	680.3	678.9	1.4 C
12	B-016-0-22	US 6/24	694+49	32	Rt	CME 75	72	682.9	681.5	1.4 C
13	B-017-0-22	US 6/24	703+12	34	Lt	CME 75	72	684.9	683.5	1.4 C
14	B-018-0-22	US 6/24	708+73	33	Rt	CME 75	72	684.0	682.6	1.4 C
15	B-019-0-22	US 6/24	719+05	33	Lt	CME 75	72	684.4	683.0	1.4 C
16	B-020-0-22	US 6/24	726+36	34	Rt	CME 75	72	682.8	681.4	1.4 C
17	B-021-0-22	US 6/24	733+91	33	Lt	CME 75	72	680.7	679.3	1.4 C
18	B-022-0-22	US 6/24	743+24	33	Rt	CME 75	72	680.4	679.0	1.4 C
19	B-023-0-22	US 6/24	753+44	34	Lt	CME 75	72	677.7	676.3	1.4 C
20	B-024-0-22	US 6/24	758+47	33	Rt	CME 75	72	675.9	674.5	1.4 C
21	B-025-0-22	US 6/24	766+60	33	Lt	CME 75	72	677.4	675.9	1.5 C
22	B-026-0-22	US 6/24	774+55	34	Rt	CME 75	72	679.4	677.9	1.4 C
23	B-027-0-22	US 6/24	782+72	33	Lt	CME 75	72	679.0	677.5	1.4 C
24	B-028-0-22	US 6/24	789+26	35	Rt	CME 75	72	677.2	675.8	1.4 C
25	B-029-0-22	US 6/24	800+24	32	Lt	CME 75	72	675.7	674.3	1.4 C
26	B-030-0-22	US 6/24	805+01	32	Rt	CME 75	72	674.4	673.0	1.4 C
27	B-031-0-22	US 6/24	814+45	52	Lt	CME 75	72	672.0	670.6	1.4 C
28	B-032-0-22	US 6/24	821+92	33	Rt	CME 75	72	673.3	671.8	1.4 C
29	B-033-0-22	US 6 WB	1829+55	37	Lt	CME 75	72	672.2	670.8	1.4 C
30	B-034-0-22	US 24 EB	1499+80	3	Rt	CME 75	72	676.0	674.5	1.4 C
31	B-035-0-22	US 6 WB	1835+63	49	Lt	CME 75	72	672.0	670.6	1.4 C
32	B-036-0-22	US 24 EB	1506+64	39	Rt	CME 75	72	677.3	675.9	1.4 C
33	B-037-0-22	US 6 WB	1845+80	12	Lt	CME 75	72	670.3	668.8	1.4 C
34	B-038-0-22	US 6 EB	846+55	26	Rt	CME 75	72	673.4	672.0	1.4 C
35	B-039-0-22	US 6 WB	1853+64	7	Lt	CME 75	72	667.7	666.3	1.4 C
36	B-040-0-22	US 6 EB	854+17	18	Rt	CME 75	72	667.3	665.8	1.4 C
37	B-041-0-22	US 6 EB	859+64	16	Lt	CME 75	72	664.2	662.7	1.4 C
38	B-042-0-22	US 6	866+82	37	Lt	CME 75	72	667.5	666.1	1.4 C
39	B-043-0-22	US 24 WB	1514+98	5	Rt	CME 75	72	674.6	673.1	1.4 C
40	B-044-0-22	US 24 EB	516+48	2	Rt	CME 75	72	687.7	686.2	1.4 C
41	B-045-0-22	US 24 WB	1522+59	4	Rt	CME 75	72	673.2	671.7	1.4 C
42	B-046-0-22	US 24 EB	524+01	3	Rt	CME 75	72	683.3	681.8	1.4 C
43	B-047-0-22	US 24 EB	531+11	2	Rt	CME 75	72	671.3	669.8	1.4 C
44	B-048-0-22	US 24	541+30	53	Lt	CME 75	72	668.5	667.1	1.4 C
45	B-049-0-22	US 24	545+02	32	Rt	CME 75	72	667.9	666.5	1.4 C

#	Boring ID	Alignment	Station	Offset	Dir	Drill Rig	ER	Boring EL.	Proposed Subgrade EL	Cut Fill
46	B-050-0-22	US 6 & 24 Ramp A	109+86	19	Lt	CME 75	72	687.3	685.8	1.4 C
47	B-051-0-22	US 6 & 24 Ramp AB	117+94	19	Lt	CME 75	72	696.8	695.4	1.4 C
48	B-052-0-22	US 6 & 24 Ramp B	216+78	17	Lt	CME 75	72	686.9	685.5	1.4 C
49	B-053-0-22	US 6 & 24 Ramp E	501+76	20	Lt	CME 75	72	694.7	693.3	1.4 C
50	B-054-0-22	US 6 & 24 Ramp C	308+54	17	Lt	CME 75	72	684.0	682.6	1.4 C
51	B-055-0-22	US 6 & 24 Ramp D	1+34	4	Lt	CME 75	72	685.2	683.8	1.4 C
52	B-056-0-22	US 6 & 24 Ramp D	10+55	18	Rt	CME 75	72	684.3	682.8	1.4 C
53	B-057-0-22	US 6 & 24 Ramp E	509+53	2	Lt	CME 75	72	682.5	681.1	1.4 C
54	B-058-0-22	US 6 & 24 Ramp D	24+55	17	Rt	CME 75	72	680.1	678.7	1.4 C
55	B-059-0-22	S 6/24 & SR 108 Ramp	108+02	13	Lt	CME 75	72	676.7	675.2	1.4 C
56	B-060-0-22	6/24 & SR 108 Ramp	14+19	6	Lt	CME 75	72	678.1	676.7	1.4 C
57	B-061-0-22	S 6/24 & SR 108 Ramp	22+66	21	Lt	CME 75	72	674.0	672.6	1.4 C
58	B-067-0-22	SR 424 Ramp A	853+90	13	Lt	CME 75	72	671.9	670.5	1.4 C
59	B-068-0-22	SR 424 Ramp C	856+22	19	Rt	CME 75	72	667.3	665.8	1.4 C
60	B-069-0-22	SR 424 Ramp C	849+06	98	Lt	CME 75	72	676.8	675.4	1.4 C

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#	Boring	Sample	Sample Depth		Subgrade Depth		Standard Penetration		HP (tsf)	Physical Characteristics						Moisture		Ohio DOT		Sulfate Content (ppm)	Problem		Excavate and Replace (Item 204)		Recommendation (Enter depth in inches)
			From	To	From	To	N_{60}	N_{60L}		LL	PL	PI	% Silt	% Clay	P200	M_C	M_{OPT}	Class	GI		Unsuitable	Unstable	Unsuitable	Unstable	
1	B	SS-1	1.0	2.5	-0.4	1.1	7		3.75	39	21	18	33	47	80	21	16	A-6b	11	99		N_{60} & Mc		15"	Undercut 15" (Bridge
	005-0	SS-2	2.5	4.0	1.1	2.6	7		2.75	38	22	16	35	45	80	22	17	A-6b	10			N_{60} & Mc		15"	
	22	SS-3	4.0	5.5	2.6	4.1	12		1.25							22	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	25	7	4.5							15	16	A-6b	16						
2	B	SS-1	1.0	2.5	-0.4	1.1	12		3	52	26	26	32	55	87	23	23	A-7-6	17	99					OK
	006-0	SS-2	2.5	4.0	1.1	2.6	11		3.5	48	24	24	29	59	88	26	21	A-7-6	15			N_{60} & Mc		12"	
	22	SS-3	4.0	5.5	2.6	4.1	10		2							32	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	22	12	3							23	18	A-7-6	16						
3	B	SS-1	1.0	2.5	-0.4	1.1	11		4.5	46	23	23	31	53	84	22	20	A-7-6	14	99		N_{60}		12"	Undercut 12"
	007-0	SS-2	2.5	4.0	1.1	2.6	11		4.5	44	24	20	32	51	83	23	21	A-7-6	13			N_{60}		12"	
	22	SS-3	4.0	5.5	2.6	4.1	23		4.5							26	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	26	11	3.75							23	18	A-7-6	16						
4	B	SS-1	1.0	2.5	-0.4	1.1	18		4.5	25	15	10	36	38	74	9	10	A-4a	8	700					
	008-0	SS-2	2.5	4.0	1.1	2.6	13		4.5	36	21	15	32	45	77	16	16	A-6a	10						
	22	SS-3	4.0	5.5	2.6	4.1	16		4.5							19	14	A-6a	10						
		SS-4	5.5	7.0	4.1	5.6	23	18	4.5							19	14	A-6a	10						
5	B	SS-1	1.0	2.5	-4.4	-2.9	16		3.25	22	14	8	39	32	71	11	10	A-4a	7	500					
	009-0	SS-2	2.5	4.0	-2.9	-1.4	12		4.5	36	20	16	28	51	79	18	16	A-6b	10						
	22	SS-3	4.0	5.5	-1.4	0.1	20		4.5							14	16	A-6b	16						
		SS-4	5.5	7.0	0.1	1.6	22	20	4.5							24	16	A-6b	16			Mc			
6	B	SS-1	1.0	2.5	-3.7	-2.2	13		3.75	42	23	19	29	53	82	14	20	A-7-6	12	99					
	010-0	SS-2	2.5	4.0	-2.2	-0.7	11		4.5	33	20	13	31	47	78	15	15	A-6a	9						
	22	SS-3	4.0	5.5	-0.7	0.8	17		4.5							16	14	A-6a	10						
		SS-4	5.5	7.0	0.8	2.3	16	17	4.5							24	14	A-6a	10			Mc			
7	B	SS-1	1.0	2.5	-0.4	1.1	12		4.5	36	20	16	31	46	77	18	16	A-6b	10	880					OK
	011-0	SS-2	2.5	4.0	1.1	2.6	10		4.5	44	22	22	37	51	88	23	19	A-7-6	14			N_{60} & Mc		12"	
	22	SS-3	4.0	5.5	2.6	4.1	10		2.75							19	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	18	12	4.5							25	18	A-7-6	16						
8	B	SS-1	1.0	2.5	-0.4	1.1	14		4.5	30	18	12	33	43	76	14	14	A-6a	9	99					
	012-0	SS-2	2.5	4.0	1.1	2.6	19		4.5	31	19	12	34	39	73	15	14	A-6a	8						
	22	SS-3	4.0	5.5	2.6	4.1	29		4.5							15	14	A-6a	10						
		SS-4	5.5	7.0	4.1	5.6	41	14	4.5							14	14	A-6a	10						
9	B	SS-1	1.0	2.5	-0.4	1.1	16		4.5	29	18	11	33	43	76	16	14	A-6a	8	220					
	013-0	SS-2	2.5	4.0	1.1	2.6	13		4.5	31	19	12	32	42	74	16	14	A-6a	9						
	22	SS-3	4.0	5.5	2.6	4.1	41		4.5							13	14	A-6a	10						
		SS-4	5.5	7.0	4.1	5.6	34	16	4.5							16	14	A-6a	10						

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#	Boring	Sample	Sample Depth		Subgrade Depth		Standard Penetration		HP (tsf)	Physical Characteristics						Moisture		Ohio DOT		Sulfate Content (ppm)	Problem		Excavate and Replace (Item 204)		Recommendation (Enter depth in inches)
			From	To	From	To	N_{60}	N_{60L}		LL	PL	PI	% Silt	% Clay	P200	M_C	M_{OPT}	Class	GI		Unsuitable	Unstable	Unsuitable	Unstable	
10	B	SS-1	1.0	2.5	-0.4	1.1	17		4.5	53	31	22	19	79	98	16		A-7-5	15	99	A-7-5		13"		Undercut 13"
	014-0	SS-2	2.5	4.0	1.1	2.6	16		4.5	48	27	21	24	68	92	23	24	A-7-6	14						
	22	SS-3	4.0	5.5	2.6	4.1	26		4.5							15	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	41	17	4.5							15	18	A-7-6	16						
11	B	SS-1	1.0	2.5	-0.4	1.1	11		4.5	46	24	22	29	57	86	18	21	A-7-6	14	99		N_{60}		12"	Undercut 12"
	015-0	SS-2	2.5	4.0	1.1	2.6	10		4.5	51	27	24	19	74	93	23	24	A-7-6	16			N_{60}		12"	
	22	SS-3	4.0	5.5	2.6	4.1	18		4.5							22	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	22	11	4.5							14	18	A-7-6	16						
12	B	SS-1	1.0	2.5	-0.4	1.1	23		4.5	29	18	11	33	43	76	11	14	A-6a	8	99					Undercut 31"
	016-0	SS-2	2.5	4.0	1.1	2.6	17		4.5	55	31	24	31	58	89	22		A-7-5	17		A-7-5		31"		
	22	SS-3	4.0	5.5	2.6	4.1	20		4.5							24	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	20	23	4.5							27	16	A-6b	16						
13	B	SS-1	1.0	2.5	-0.4	1.1	18		4.5	47	24	23	31	57	88	24	21	A-7-6	15	99		Mc			OK
	017-0	SS-2	2.5	4.0	1.1	2.6	14			24	14	10	15	32	47	23	10	A-4a	2			N_{60} & Mc		12"	
	22	SS-3	4.0	5.5	2.6	4.1	14		4.5							18	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	19	18	4.5							24	16	A-6b	16						
14	B	SS-1	1.0	2.5	-0.4	1.1	16		4.5	37	22	15	42	46	88	19	17	A-6a	10	99					OK
	018-0	SS-2	2.5	4.0	1.1	2.6	11		4.5							23	14	A-6a	10			N_{60} & Mc		12"	
	22	SS-3	4.0	5.5	2.6	4.1	22		4.5	46	24	22	46	45	91	20	21	A-7-6	14						
		SS-4	5.5	7.0	4.1	5.6	23	16	4.5							26	18	A-7-6	16						
15	B	SS-1	1.0	2.5	-0.4	1.1	12		4.5	31	20	11	30	48	78	17	15	A-6a	8	99					OK
	019-0	SS-2	2.5	4.0	1.1	2.6	8		4	38	21	17	30	50	80	17	16	A-6b	11			N_{60}		12"	
	22	SS-3	4.0	5.5	2.6	4.1	17									14	8	A-3a	0						
		SS-4	5.5	7.0	4.1	5.6	20	12	4.5							18	16	A-6b	16						
16	B	SS-1	1.0	2.5	-0.4	1.1	19		4.5	32	19	13	41	39	80	12	14	A-6a	9	99					
	020-0	SS-2	2.5	4.0	1.1	2.6	12		4.5	36	20	16	42	40	82	5	16	A-6b	10						
	22	SS-3	4.0	5.5	2.6	4.1	22		4.5							23	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	22	19	4.5							20	16	A-6b	16						
17	B	SS-1	1.0	2.5	-0.4	1.1	20		4.5	42	27	15	52	43	95	22	24	A-7-6	10	99					OK
	021-0	SS-2	2.5	4.0	1.1	2.6	13		4.5	21	15	6	22	19	41	13	10	A-4a	1			N_{60} & Mc		12"	
	22	SS-3	4.0	5.5	2.6	4.1	11		4.5							25	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	11	20	2.5							27	16	A-6b	16						
18	B	SS-1	1.0	2.5	-0.4	1.1	12		4.5	40	25	15	59	37	96	22	20	A-6a	10	99					
	022-0	SS-2	2.5	4.0	1.1	2.6	13		4.5	41	24	17	58	37	95	22	21	A-7-6	11						
	22	SS-3	4.0	5.5	2.6	4.1	17		4.5							23	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	13	12	4.5							23	18	A-7-6	16						

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#	Boring	Sample	Sample Depth		Subgrade Depth		Standard Penetration		HP (tsf)	Physical Characteristics						Moisture		Ohio DOT		Sulfate Content (ppm)	Problem		Excavate and Replace (Item 204)		Recommendation (Enter depth in inches)
			From	To	From	To	N_{60}	N_{60L}		LL	PL	PI	% Silt	% Clay	P200	M_C	M_{OPT}	Class	GI		Unsuitable	Unstable	Unsuitable	Unstable	
19	B	SS-1	1.0	2.5	-0.4	1.1	18		4.5	49	25	24	46	49	95	21	22	A-7-6	15						
	023-0	SS-2	2.5	4.0	1.1	2.6	17		4.5	47	25	22	42	51	93	21	22	A-7-6	14						
	22	SS-3	4.0	5.5	2.6	4.1	17		3.5							27	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	16	18	3.5							28	18	A-7-6	16						
20	B	SS-1	1.0	2.5	-0.4	1.1	16		4.5	45	25	20	47	50	97	23	22	A-7-6	13	99					
	024-0	SS-2	2.5	4.0	1.1	2.6	16		4.5	43	24	19	51	47	98	21	21	A-7-6	12						
	22	SS-3	4.0	5.5	2.6	4.1	11		3.25							26	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	7	16								27	10	A-4a	8						
21	B	SS-1	1.0	2.5	-0.5	1.0	14		3.75	41	22	19	47	46	93	24	19	A-7-6	12	1300		N_{60} & Mc		12"	Undercut 12"
	025-0	SS-2	2.5	4.0	1.0	2.5	10		4.5	39	23	16	44	52	96	25	18	A-6b	10			N_{60} & Mc		12"	
	22	SS-3	4.0	5.5	2.5	4.0	8		3.75							24	16	A-6b	16						
		SS-4	5.5	7.0	4.0	5.5	14	14								27	16	A-6b	16						
22	B	SS-1	1.0	2.5	-0.4	1.1	14		4.5	39	23	16	29	46	75	28	18	A-6b	10	99		N_{60} & Mc		12"	Undercut 31"
	026-0	SS-2	2.5	4.0	1.1	2.6	14		4.5	57	36	21	46	50	96	32		A-7-5	16		A-7-5		31"		
	22	SS-3	4.0	5.5	2.6	4.1	19		4.5							23	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	25	14	3.75							24	16	A-6b	16						
23	B	SS-1	1.0	2.5	-0.4	1.1	12		4.5	41	23	18	52	44	96	18	20	A-7-6	11	99					OK
	027-0	SS-2	2.5	4.0	1.1	2.6	7		4.5	45	26	19	44	50	94	26	23	A-7-6	13			N_{60} & Mc		15"	
	22	SS-3	4.0	5.5	2.6	4.1	17		2.5							30	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	17	12	3							17	16	A-6b	16						
24	B	SS-1	1.0	2.5	-0.4	1.1	16		4.5	35	21	14	14	77	91	10	16	A-6a	10	99					
	028-0	SS-2	2.5	4.0	1.1	2.6	12		3.75	45	25	20	47	48	95	19	22	A-7-6	13						
	22	SS-3	4.0	5.5	2.6	4.1	16		4.5							24	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	23	16	4							26	16	A-6b	16						
25	B	SS-1	1.0	2.5	-0.4	1.1	17		4.5	33	18	15	41	38	79	20	14	A-6a	10	99		Mc			
	029-0	SS-2	2.5	4.0	1.1	2.6	13		4.5	30	17	13	37	36	73	13	14	A-6a	9						
	22	SS-3	4.0	5.5	2.6	4.1	16		4.5							14	14	A-6a	10						
		SS-4	5.5	7.0	4.1	5.6	19	17	4.5							28	16	A-6b	16						
26	B	SS-1	1.0	2.5	-0.4	1.1	14		3.5	45	23	22	39	53	92	17	20	A-7-6	14	99					
	030-0	SS-2	2.5	4.0	1.1	2.6	13			46	25	21	30	51	81	17	22	A-7-6	14						
	22	SS-3	4.0	5.5	2.6	4.1	22									22	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	24	14	4.25							21	18	A-7-6	16						
27	B	SS-1	1.0	2.5	-0.4	1.1	16		4	52	29	23	33	57	90	24	26	A-7-6	16	99					OK
	031-0	SS-2	2.5	4.0	1.1	2.6	11		3.75	58	28	30	32	62	94	25	25	A-7-6	20			N_{60}		12"	
	22	SS-3	4.0	5.5	2.6	4.1	12		3.75							23	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	19	16	4.5							16	18	A-7-6	16						

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Subgrade Analysis

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#	Boring	Sample	Sample Depth		Subgrade Depth		Standard Penetration		HP (tsf)	Physical Characteristics						Moisture		Ohio DOT		Sulfate Content (ppm)	Problem		Excavate and Replace (Item 204)		Recommendation (Enter depth in inches)
			From	To	From	To	N_{60}	N_{60L}		LL	PL	PI	% Silt	% Clay	P200	M_C	M_{OPT}	Class	GI		Unsuitable	Unstable	Unsuitable	Unstable	
28	B	SS-1	1.0	2.5	-0.4	1.1	14		3	56	29	27	43	46	89	19	26	A-7-6	18	99					OK
	032-0	SS-2	2.5	4.0	1.1	2.6	11		3.5	28	16	12	31	36	67	17	14	A-6a	7			N_{60} & Mc		12"	
	22	SS-3	4.0	5.5	2.6	4.1	16		3.75							15	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	32	14	3							29	16	A-6b	16						
29	B	SS-1	1.0	2.5	-0.4	1.1	14		4	44	25	19	32	46	78	13	22	A-7-6	12	99					
	033-0	SS-2	2.5	4.0	1.1	2.6	16		3.75	37	22	15	30	58	88	26	17	A-6a	10			Mc			
	22	SS-3	4.0	5.5	2.6	4.1	16		3.5							24	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	30	14	3.75							18	16	A-6b	16						
30	B	SS-1	1.0	2.5	-0.4	1.1	18		4.5	30	18	12	47	35	82	17	14	A-6a	9	99		Mc			
	034-0	SS-2	2.5	4.0	1.1	2.6	13		4.5	38	22	16	44	50	94	18	17	A-6b	10						
	22	SS-3	4.0	5.5	2.6	4.1	17		4.5							20	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	22	18	2.5							37	14	A-6a	10						
31	B	SS-1	1.0	2.5	-0.4	1.1	22		4.5	45	25	20	35	49	84	21	22	A-7-6	13	99					
	035-0	SS-2	2.5	4.0	1.1	2.6	16			NP	NP	NP	6	3	9	12	8	A-3	0						
	22	SS-3	4.0	5.5	2.6	4.1	14		4.5							23	14	A-6a	10						
		SS-4	5.5	7.0	4.1	5.6	20	22	4.5							16	10	A-4a	8						
32	B	SS-1	1.0	2.5	-0.4	1.1	10			43	23	20	32	54	86	22	20	A-7-6	13	99		N_{60}		12"	Undercut 12"
	036-0	SS-2	2.5	4.0	1.1	2.6	13		3.75	35	20	15	44	38	82	16	15	A-6a	10						
	22	SS-3	4.0	5.5	2.6	4.1	18		3.75							21	14	A-6a	10						
		SS-4	5.5	7.0	4.1	5.6	18	10	3.75							18	14	A-6a	10						
33	B	SS-1	1.0	2.5	-0.4	1.1	13		4.5	50	24	26	29	54	83	21	21	A-7-6	16	99					OK
	037-0	SS-2	2.5	4.0	1.1	2.6	12		4.5	38	21	17	32	48	80	20	16	A-6b	11			N_{60} & Mc		12"	
	22	SS-3	4.0	5.5	2.6	4.1	30		4.5							15	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	28	13	4.5							15	16	A-6b	16						
34	B	SS-1	1.0	2.5	-0.4	1.1	11		3	55	28	27	29	60	89	26	25	A-7-6	18	99		N_{60}		12"	Undercut 12"
	038-0	SS-2	2.5	4.0	1.1	2.6	8		3	60	28	32	28	59	87	30	25	A-7-6	20			N_{60} & Mc		12"	
	22	SS-3	4.0	5.5	2.6	4.1	17		1.75							29	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	26	11	3.25							26	16	A-6b	16						
35	B	SS-1	1.0	2.5	-0.4	1.1	8		2.25	47	25	22	47	42	89	23	22	A-7-6	14	99		N_{60}		12"	Undercut 18" (Bridge Lift)
	039-0	SS-2	2.5	4.0	1.1	2.6	6			30	17	13	25	39	64	19	14	A-6a	7			N_{60} & Mc		18"	
	22	SS-3	4.0	5.5	2.6	4.1	14		4							17	14	A-6a	10						
		SS-4	5.5	7.0	4.1	5.6	19	8	3							13	14	A-6a	10						
36	B	SS-1	1.0	2.5	-0.4	1.1	14		4.5	41	24	17	24	59	83	5	21	A-7-6	11	99					OK
	040-0	SS-2	2.5	4.0	1.1	2.6	10		4.5	32	19	13	32	43	75	15	14	A-6a	9			N_{60}		12"	
	22	SS-3	4.0	5.5	2.6	4.1	12		4.5							17	14	A-6a	10						

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#	Boring	Sample	Sample Depth		Subgrade Depth		Standard Penetration		HP (tsf)	Physical Characteristics						Moisture		Ohio DOT		Sulfate Content (ppm)	Problem		Excavate and Replace (Item 204)		Recommendation (Enter depth in inches)
			From	To	From	To	N_{60}	N_{60L}		LL	PL	PI	% Silt	% Clay	P200	M_C	M_{OPT}	Class	GI		Unsuitable	Unstable	Unsuitable	Unstable	
		SS-4	5.5	7.0	4.1	5.6	19	14	4.5							25	14	A-6a	10						
37	B	SS-1	1.0	2.5	-0.4	1.1	17		4.5	30	18	12	35	41	76	15	14	A-6a	9	99					
	041-0	SS-2	2.5	4.0	1.1	2.6	20		4.5	31	19	12	44	32	76	15	14	A-6a	9						
	22	SS-3	4.0	5.5	2.6	4.1	40		4.5							16	14	A-6a	10						
		SS-4	5.5	7.0	4.1	5.6	34	17	4.5							16	14	A-6a	10						
38	B	SS-1	1.0	2.5	-0.4	1.1	10		4.5	40	21	19	30	43	73	13	16	A-6b	11	99		N_{60}		12"	Undercut 15" (Bridge Lift)
	042-0	SS-2	2.5	4.0	1.1	2.6	7		4.5	36	19	17	24	41	65	19	16	A-6b	9			N_{60} & Mc		15"	
	22	SS-3	4.0	5.5	2.6	4.1	13		4.5							20	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	18	10	4.5							23	16	A-6b	16						
39	B	SS-1	1.0	2.5	-0.4	1.1	13		4.5	43	23	20	32	49	81	16	20	A-7-6	13	99					OK
	043-0	SS-2	2.5	4.0	1.1	2.6	11		4.5	59	29	30	29	59	88	22	26	A-7-6	20			N_{60}		12"	
	22	SS-3	4.0	5.5	2.6	4.1	18		3							24	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	20	13	3.25							24	16	A-6b	16						
40	B	SS-1	1.0	2.5	-0.4	1.1	13		4.5	37	23	14	41	53	94	22	18	A-6a	10	99		N_{60} & Mc		12"	Undercut 12"
	044-0	SS-2	2.5	4.0	1.1	2.6	12		4.5	30	18	12	45	32	77	16	14	A-6a	9						
	22	SS-3	4.0	5.5	2.6	4.1	22		3							23	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	20	13	3.5							22	16	A-6b	16						
41	B	SS-1	1.0	2.5	-0.4	1.1	10		3	50	25	25	29	57	86	23	22	A-7-6	16	99		N_{60}		12"	Undercut 12"
	045-0	SS-2	2.5	4.0	1.1	2.6	8		4.5	41	23	18	31	53	84	25	20	A-7-6	11			N_{60} & Mc		12"	
	22	SS-3	4.0	5.5	2.6	4.1	12		4							28	14	A-6a	10						
		SS-4	5.5	7.0	4.1	5.6	20	10	3.5							23	14	A-6a	10						
42	B	SS-1	1.0	2.5	-0.4	1.1	13		4	31	19	12	40	41	81	19	14	A-6a	9	99		N_{60} & Mc		12"	Undercut 12"
	046-0	SS-2	2.5	4.0	1.1	2.6	18			37	21	16	30	48	78	21	16	A-6b	10			Mc			
	22	SS-3	4.0	5.5	2.6	4.1	13		4.25							16	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	29	13	3.75							23	16	A-6b	16						
43	B	SS-1	1.0	2.5	-0.4	1.1	16		4	42	24	18	39	50	89	25	21	A-7-6	12	99		Mc			OK
	047-0	SS-2	2.5	4.0	1.1	2.6	10		2.75	51	29	22	33	55	88	26	26	A-7-6	15			N_{60}		12"	
	22	SS-3	4.0	5.5	2.6	4.1	18		4							25	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	17	16	3.25							28	18	A-7-6	16						
44	B	SS-1	1.0	2.5	-0.4	1.1	10		3.75	57	27	30	34	63	97	24	24	A-7-6	19	99		N_{60}		12"	Undercut 12"
	048-0	SS-2	2.5	4.0	1.1	2.6	11		3.5	53	24	29	39	57	96	23	21	A-7-6	18			N_{60}		12"	
	22	SS-3	4.0	5.5	2.6	4.1	16		3.75							24	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	18	10	4.25							25	18	A-7-6	16						
45	B	SS-1	1.0	2.5	-0.4	1.1	16		3	43	24	19	49	47	96	23	21	A-7-6	12	99					
	049-0	SS-2	2.5	4.0	1.1	2.6	13		2.75	42	24	18	43	48	91	21	21	A-7-6	12						

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#	Boring	Sample	Sample Depth		Subgrade Depth		Standard Penetration		HP (tsf)	Physical Characteristics						Moisture		Ohio DOT		Sulfate Content (ppm)	Problem		Excavate and Replace (Item 204)		Recommendation (Enter depth in inches)
			From	To	From	To	N_{60}	N_{60L}		LL	PL	PI	% Silt	% Clay	P200	M_C	M_{OPT}	Class	GI		Unsuitable	Unstable	Unsuitable	Unstable	
	22	SS-3	4.0	5.5	2.6	4.1	13		3.5							22	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	11	16	2.5							26	14	A-6a	10						
46	B	SS-1	1.0	2.5	-0.4	1.1	12		4	35	20	15	33	46	79	20	15	A-6a	10	99		N_{60} & Mc		12"	Undercut 12"
	050-0	SS-2	2.5	4.0	1.1	2.6	8		4.5	43	23	20	31	53	84	18	20	A-7-6	13			N_{60}		12"	
	22	SS-3	4.0	5.5	2.6	4.1	14		4.5							13	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	22	12	4.5							18	18	A-7-6	16						
47	B	SS-1	1.0	2.5	-0.4	1.1	10			NP	NP	NP	11	6	17	7	6	A-1-b	0	680					OK
	051-0	SS-2	2.5	4.0	1.1	2.6	10			NP	NP	NP	18	8	26	8	10	A-2-4	0			N_{60}		12"	
	22	SS-3	4.0	5.5	2.6	4.1	13		3							18	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	28	10	3.5							25	16	A-6b	16						
48	B	SS-1	1.0	2.5	-0.4	1.1	18		2	25	15	10	18	35	53	22	10	A-4a	4	99		Mc			Undercut 15" (Bridge Lift)
	052-0	SS-2	2.5	4.0	1.1	2.6	7		3.5	44	24	20	29	53	82	21	21	A-7-6	13			N_{60}		15"	
	22	SS-3	4.0	5.5	2.6	4.1	20		3							24	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	28	18	3.25							26	16	A-6b	16						
49	B	SS-1	1.0	2.5	-0.4	1.1	6		3.75	33	20	13	30	49	79	19	15	A-6a	9	99		N_{60} & Mc		18"	Undercut 18" (Bridge Lift)
	053-0	SS-2	2.5	4.0	1.1	2.6	7		2.75	38	20	18	30	50	80	18	16	A-6b	11			N_{60}		15"	
	22	SS-3	4.0	5.5	2.6	4.1	8		4.5							20	16	A-6b	16						
		SS-4	5.5	7.0	4.1	5.6	11	6	4.25							15	16	A-6b	16						
50	B	SS-1	1.0	2.5	-0.4	1.1	13			26	15	11	21	29	50	12	14	A-6a	3	99					OK
	054-0	SS-2	2.5	4.0	1.1	2.6	8		4.25	47	24	23	34	53	87	20	21	A-7-6	15			N_{60}		12"	
	22	SS-3	4.0	5.5	2.6	4.1	16		4.5							16	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	19	13	4.25							24	18	A-7-6	16						
51	B	SS-1	1.0	2.5	-0.4	1.1	11		4.25	53	29	24	31	51	82	22	26	A-7-6	16	99		N_{60}		12"	Undercut 12"
	055-0	SS-2	2.5	4.0	1.1	2.6	13		4.75	49	25	24	27	47	74	22	22	A-7-6	15						
	22	SS-3	4.0	5.5	2.6	4.1	12		3.75							24	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	16	11	4.5							24	18	A-7-6	16						
52	B	SS-1	1.0	2.5	-0.4	1.1	10		3.75	56	28	28	30	59	89	24	25	A-7-6	18	99		N_{60}		12"	Undercut 12"
	056-0	SS-2	2.5	4.0	1.1	2.6	8		4.5	53	25	28	28	60	88	21	22	A-7-6	18			N_{60}		12"	
	22	SS-3	4.0	5.5	2.6	4.1	16		4.25							22	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	13	10	4.25							19	18	A-7-6	16						
53	B	SS-1	1.0	2.5	-0.4	1.1	8		4.5	47	26	21	30	57	87	26	23	A-7-6	14	99		N_{60} & Mc		12"	Undercut 36"
	057-0	SS-2	2.5	4.0	1.1	2.6	8		3.75	65	30	35	21	72	93	28		A-7-5	20			N_{60}		12"	
	22	SS-3	4.0	5.5	2.6	4.1	8		3.25							28		A-7-5	16		A-7-5		36"		
		SS-4	5.5	7.0	4.1	5.6	19	8	4.5							23	18	A-7-6	16						

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Subgrade Analysis

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#	Boring	Sample	Sample Depth		Subgrade Depth		Standard Penetration		HP (tsf)	Physical Characteristics						Moisture		Ohio DOT		Sulfate Content (ppm)	Problem		Excavate and Replace (Item 204)		Recommendation (Enter depth in inches)
			From	To	From	To	N_{60}	N_{60L}		LL	PL	PI	% Silt	% Clay	P200	M_C	M_{OPT}	Class	GI		Unsuitable	Unstable	Unsuitable	Unstable	
54	B	SS-1	1.0	2.5	-0.4	1.1	13		4.5	31	19	12	31	44	75	15	14	A-6a	9	99					
	058-0	SS-2	2.5	4.0	1.1	2.6	12		4.5	31	19	12	34	44	78	15	14	A-6a	9						
	22	SS-3	4.0	5.5	2.6	4.1	28		4.5							15	14	A-6a	10						
		SS-4	5.5	7.0	4.1	5.6	37	13	4.5							12	14	A-6a	10						
55	B	SS-1	1.0	2.5	-0.4	1.1	23		4.5	29	19	10	31	45	76	16	14	A-4a	8	99					
	059-0	SS-2	2.5	4.0	1.1	2.6	18		4.5	30	19	11	33	40	73	14	14	A-6a	8						
	22	SS-3	4.0	5.5	2.6	4.1	31		4.5							13	14	A-6a	10						
		SS-4	5.5	7.0	4.1	5.6	37	23	4.5							14	14	A-6a	10						
56	B	SS-1	1.0	2.5	-0.4	1.1	17		4	30	19	11	34	43	77	15	14	A-6a	8	99					
	060-0	SS-2	2.5	4.0	1.1	2.6	17		4.5	30	20	10	34	42	76	14	15	A-4a	8						
	22	SS-3	4.0	5.5	2.6	4.1	25		4.5							14	10	A-4a	8						
		SS-4	5.5	7.0	4.1	5.6	37	17	4.5							15	10	A-4a	8						
57	B	SS-1	1.0	2.5	-0.4	1.1	17		4.5	31	16	15	32	44	76	14	14	A-6a	10	600					
	061-0	SS-2	2.5	4.0	1.1	2.6	26		4.5	31	19	12	34	42	76	14	14	A-6a	9						
	22	SS-3	4.0	5.5	2.6	4.1	36		4.5							15	14	A-6a	10						
		SS-4	5.5	7.0	4.1	5.6	41	17	4.5							15	14	A-6a	10						
58	B	SS-1	1.0	2.5	-0.4	1.1	8		4.5	54	30	24	34	54	88	23		A-7-5	16	99	A-7-5	N_{60}	**13"**	**12"**	**Undercut 13" (Bridge Lift)**
	067-0	SS-2	2.5	4.0	1.1	2.6	8		3.75	55	28	27	33	56	89	24	25	A-7-6	18			N_{60}		**12"**	
	22	SS-3	4.0	5.5	2.6	4.1	18		3.75							26	18	A-7-6	16						
		SS-4	5.5	7.0	4.1	5.6	17	8	4.25							22	18	A-7-6	16						
59	B	SS-1	1.0	2.5	-0.4	1.1	12		3	43	23	20	32	52	84	20	20	A-7-6	13	99					**OK**
	068-0	SS-2	2.5	4.0	1.1	2.6	11		4.5	34	20	14	33	45	78	18	15	A-6a	10			N_{60} & Mc		**12"**	
	22	SS-3	4.0	5.5	2.6	4.1	16		4.25							18	14	A-6a	10						
		SS-4	5.5	7.0	4.1	5.6	25	12	4.5							15	14	A-6a	10						
60	B	SS-1	1.0	2.5	-0.4	1.1	19		4.5	30	18	12	30	38	68	14	14	A-6a	7	99					
	069-0	SS-2	2.5	4.0	1.1	2.6	12		4.5	34	20	14	39	39	78	4	15	A-6a	10						
	22	SS-3	4.0	5.5	2.6	4.1	16		4.5							15	14	A-6a	10						
		SS-4	5.5	7.0	4.1	5.6	23	19	4.5							14	14	A-6a	10						

OHIO DEPARTMENT OF TRANSPORTATION

Subgrade Analysis

V. 14.7 11/6/2024

PID: 110524

County-Route-Section: HEN-6/24-11.32/4.62
No. of Borings: 60

Geotechnical Consultant: CTL ENGINEERING, INC.
Prepared By: SR
Date prepared: 11/12/2024

Chemical Stabilization Options		
320	Rubblize & Roll	Option
206	Cement Stabilization	Option
	Lime Stabilization	Option
206	Depth	12''

Excavate and Replace Stabilization Options	
Global Geotextile Average(N60L):	12''
Average(HP):	0''
Global Geogrid Average(N60L):	0''
Average(HP):	0''

Design CBR	5

% Samples within 3 feet of subgrade			
$N_{60} \leq 5$	0%	HP ≤ 0.5	0%
$N_{60} < 12$	21%	0.5 < HP ≤ 1	0%
$12 \leq N_{60} < 15$	22%	1 < HP ≤ 2	2%
$N_{60} \geq 20$	10%	HP > 2	69%
M+	14%		
Rock	0%		
Unsuitable Soil	600%		

Excavate and Replace at Surface	
Average	0''
Maximum	0''
Minimum	0''

% Proposed Subgrade Surface	
Unstable & Unsuitable	35%
Unstable	32%
Unsuitable (Soil & Rock)	3%

	N_{60}	N_{60L}	HP	LL	PL	PI	Silt	Clay	P 200	M_C	M_{OPT}	GI
Average	17	14	4.06	41	23	18	34	47	81	20	17	13
Maximum	41	23	4.75	65	36	35	59	79	98	37	26	20
Minimum	6	6	1.25	21	14	6	6	3	9	4	6	0

Classification Counts by Sample

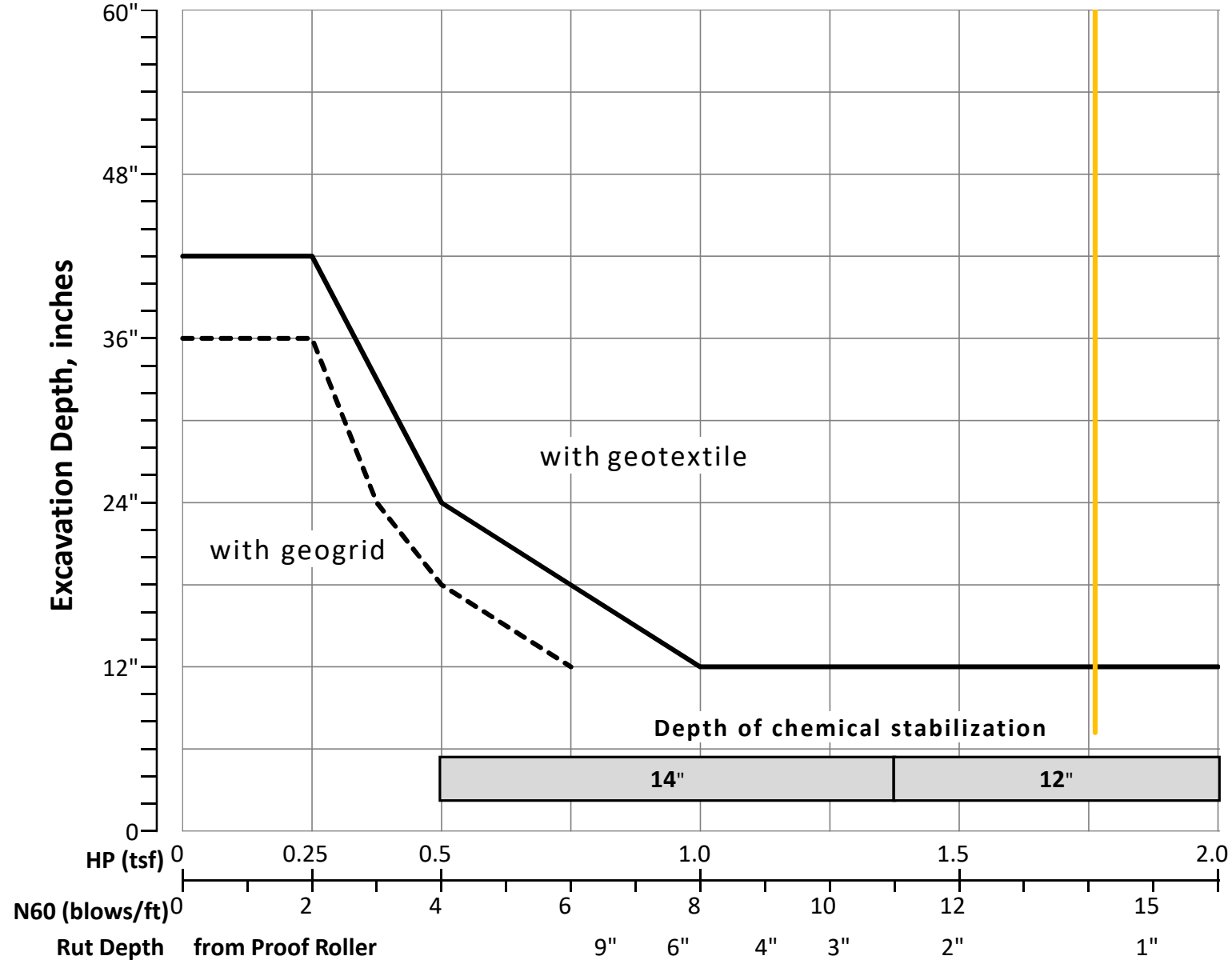
ODOT Class	UCF	Rock	A-1-a	A-1-b	A-2-4	A-2-5	A-2-6	A-2-7	A-3	A-3a	A-4a	A-4b	A-5	A-6a	A-6b	A-7-5	A-7-6	A-8a	A-8b	Totals
Count	0	0	0	1	1	0	0	0	1	1	10	0	0	69	57	6	90	0	0	236
Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	29%	24%	3%	38%	0%	0%	100%
% Rock|Granular|Cohesive	0%	0%	6%									94%								100%
Surface Class Count	0	0	0	1	1	0	0	0	1	1	8	0	0	55	36	6	73	0	0	182
Surface Class Percent	0%	0%	0%	1%	1%	0%	0%	0%	1%	1%	4%	0%	0%	30%	20%	3%	40%	0%	0%	100%

OHIO DEPARTMENT OF TRANSPORTATION

Subgrade Analysis

V. 14.7 11/6/2024

Fig. 600-1 – Subgrade Stabilization



OVERRIDE TABLE

Calculated Average	New Values	Check to Override
4.06	0.50	☐ HP
14.18	6.00	☐ N60L

Average HP

Average N_{60L}

The subgrade analysis workbook consists of five worksheets. Each worksheet functions independently. In all of the worksheets the fields are color coded as follows:

- Every yellow highlighted field indicates a field to be entered by the user.
- Every salmon field is to indicate a problem/issue.
- Every gray or green field is a heading/informational field.

IMPORTANT: The sequence of filling out the data needs to be followed as outlined below:

1. Cover Sheet: this worksheet is designed for the purpose of entering the project information. Enter all the following fields:

County-Route-Section	This includes the county, route, section number assigned to the project.
PID	the Project Identification Number
Project Description	See Cover Sheet for list of example details
Geotechnical Consultant	The Geotechnical Consultant performing the analysis.
Prepared By	The preparer of the subgrade analysis
Date prepared	The date the analysis is performed.
Contact Information	Name, address, telephone #, and email address
No. of Borings	Enter the total number of borings within the alignment that is being analyzed.

2. Boring Logs Entry Worksheet: this worksheet has a programming code that will run in the background every time the sheet is activated and will make the sheet unresponsive for less than a minute. The code is designed to read the total number of borings from the cover sheet and generate the needed number of fields.
    a. All yellow highlighted fields are user's entry.
    b. ODOT has developed a text table export from gINT *(GB 1 Borings Log Entry Tab)* that will allow for copy and paste of all highlighted fields with the exception of proposed subgrade elevation. The designer must provide a proposed subgrade elevation in order for the spreadsheet to function properly.
    c. The Cut/Fill field is a calculated field that, based on the difference between the boring elevation and the proposed subgrade elevation, will highlight the cell either gray and adds the letter "C" to the end in a cut situation or highlights the cell in light purple and adds the letter "F" to the end in a fill situation.
    d. Every duplicate boring ID will be highlighted in salmon background and red text.
    e. **IMPORTANT**: <u>After</u> entering all the borings' information, the user must click "Add Subgrade Analysis Entry Fields" button. This will generate all the required fields in the "Subgrade Analysis" Worksheet.

3. Subgrade Analysis Worksheet:
    a. The boring number and boring ID is read from the "Boring Logs Entry Worksheet" excluding every boring that has six feet or more of fill.
    b. All yellow highlighted fields are to be entered by the user and salmon highlighted fields indicates a problem or issue.
    c. Every sample that has a Sulfate Content greater than or equal to 3000 will be highlighted in light salmon background. Every sample that has a Sulfate Content greater than or equal to 8000 will be highlighted in darker salmon background. Refer to Section 605 of the Geotechnical Design Manual for the latest guidance regarding high sulfate soils.

d. Unsuitable/Unstable:

i. Unsuitable samples that are within 3 feet of the top of subgrade will be highlighted with salmon background and the class will be showing in this field.

ii. Unstable Samples that are within 3 feet of top of subgrade will be highlighted with salmon background and text to indicate the problem as follows:

Criterion	Stabilization Need Check	Text displayed in the field
A-1-a, A-1-b, A-3, or A-3a Soil Class	No Stabilization is needed	
HP ≥ 1.875	No Stabilization is needed	
$N_{60} \geq 15$	No Stabilization is needed	
$1.875 \geq HP \geq 1.5$ and $M_c \geq$ Opt. M_c+3	Unstable Subgrade	HP & Mc
$15 \geq N_{60} \geq 12$ and $M_c \geq$ Opt. M_c+3	Unstable Subgrade	N_{60} & Mc
HP ≤ 1.5	Unstable Subgrade	HP
$N_{60} \leq 12$	Unstable Subgrade	N_{60}

iii. The field is formulated to check for HP first and check for N_{60} second.

f. Excavate and Replace (Item 204) is going to be calculated based on the subgrade depth for each sample indicating an unsuitable or unstable problem.

g. Recommendation:

i. Geotextile Option is calculated and rounded to a multiple of 3 inches based on the subgrade depth for every sample indicating an unsuitable or unstable problem.

ii. GEOGRID Option is only offered in case of unstable subgrade problem and if the geotextile option indicates the need to excavate greater than 12 inches.

PLEASE NOTE: The Problem, Excavate & Replace, and Recommendation Fields are the responsibility of the Designer. These fields are being enhanced to attempt to capture the ODOT philosophy regarding the subgrade stabilization chart, but are considered still under development. If there are discrepancies between the spreadsheet output and the stabilization chart - the chart governs in conjunction with engineering judgement. Please contact Steve Taliaferro at stephen.taliaferro@dot.ohio.gov if you have any questions.

PLEASE NOTE: It is the Designer's responsibility to identify the most representative data when samples have been separated into multiple specimen (say 1.5 to 2.3 feet and 2.3 to 3.0 feet). The spreadsheet is not capable at this time of addressing this issue within a direct data export from gINT.

4. Results Summary:

All fields in this sheet are password protected and are either calculated or read from the other worksheets.

The spreadsheet calcaulates the % unstable and % unsuitable soils based on the number of samples encountered within 3.0 feet of the bottom of subgrade (say if 10 samples are taken within 3.0 feet of the bottom of subgrade and two encounter unstable soils and three encounter unsuitable soils, then the spreadsheet will return unstable = 20% and unsuitable = 30% for a combined total of 50%).

5. Graph Worksheet:

   This worksheet is designed to read the average N_{60L} and the average HP from the Cover Sheet and plot a blue line for Average HP and orange line for Average N_{60L} on GDM Figure 600-1 – Subgrade Stabilization. The Override Table can be used to enter HP and/or N_{60L} values that are different than the calculated averages. The Override values will change the global undercut recommendation in the Results Summary.

APPENDIX E
SETTLEMENT ANALYSIS

Soil Parameters

Project: HEN-6/24-11.32/4.62
Boring No.: B-009-1-22, B-009-2-22
Location: US 6/24
Station: 644+00
Date: 11/12/24

Layer No.	Top Elev	Bottom Elev	Thickness (feet)	Type	Total Weight (pcf)	N_{60} value (bpf)	Moisture Content (%)	Liquid Limit (LL)	Plastic Limit (PL)	Gs	e_0	C_c	C_r	C_v (cm^2/sec)	Su (psf)	Pre-Consolidation Stress σ'p (psf)	Reference
1	684.8	678.8	6.0	A-7-6	120	12	37	45	24	2.70							
						5	40	61	29								
			Avg	A-7-6	120	9	39	53	27	2.70	1.05	0.358	0.072	0.0100	1125	5407	1,2,5
2	678.8	673.8	5.0	A-6a	125.3	8	19	36	21	2.67							
						11	18	33	20								
			Avg	A-6a	125.3	10	19	35	21	2.67	0.57	0.150	0.043	0.0008		2600	3
3	673.8	664.8	9.0	A-6a	138.2	28	15	31	19	2.65							
						25	14										
						16	15										
						17	16	29	17								
			Avg	A-6a	138.2	22	15	30	18	2.65	0.38	0.080	0.025	0.0024		5200	4
4	664.8	654.8	10.0	A-6a	138.2	19	16	30	17	2.65							
						22	13										
			Avg	A-6a	138.2	21	15	30	17	2.65	0.38	0.080	0.025	0.0019		5200	4

Reference Key

1 Skempton (1957), FHWA-IF-03-017- GEC-N0.7, TABLE 3.7 used for computing σ'p if no consolidation data is available
2 Kulhawy and Mayne (1990) per GEC 5 (2016), Figure 6-36 used for computing C_c and C_r if no consolidation data is available
3 Laboratory Consolidation Test Results B-009-2-22, ST-1, 6'-8'
4 Laboratory Consolidation Test Results B-009-2-22, ST-1, 18'-20'
5 FHWA GEC 5 (2016) Figure 6-37, Reloading (lower bound) curve used for C_v computation of Cohesive soil if no consolidation data is available

Settlement Calculations

Boring No.: **B-009-1-22, B-009-2-22**
Location: **US 6/24**
Station: **644+00**

Embankment Geometry

B_1 = 77.5 ft
B_2 = 65 ft

Emb. Fill Ht. 22 ft
Unit Wt. = 125 pcf
q = 2750 psf

	Elevation		
Top of embankment	706.8		
		Emb. Fill Unit Wt. =	125 pcf
Existing Grade	684.8		
		N_{60} Avg =	9 bpf
		Layer A Unit Wt. =	120 pcf
	678.8		
		N_{60} Avg =	10 bpf
		Layer B Unit Wt. =	125.3 pcf
	673.8		
		N_{60} Avg =	22 bpf
		Layer C Unit Wt. =	138.2 pcf
	664.8		
		N_{60} Avg =	21 bpf
		Layer D Unit Wt. =	138.2 pcf
	654.8		

Layer	Thickness (H_c) (ft)	Unit Weight(pcf)	z (ft)	σ'_o (psf)	B_1 / z	B_2 / z	I*	$\sigma'p$ (psf)	σ'_f (psf)	Consolidation	Settlement (in) **
A	6	120	3	360	25.8	21.7	1.00	5,407	3,110	OC	2.4
B	5	125.3	8.5	1033	9.1	7.6	1.00	2,600	3,783	OC	1.6
C	9	138.2	15.5	1968	5.0	4.2	1.00	5,200	4,718	OC	0.7
D	10	138.2	25	3281	3.1	2.6	1.00	5,200	6,031	OC	0.9
										Total	5.6

*The influence value (I) for embankment loading was computed based on “Influence Values for Vertical Stresses in Semi- Infinite Loading” charts (After Osterberg 1957).

**The settlement value of Cohesive soils is computed based on LRFD Equation 10.6.2.4.3-1

Time Rate of Settlement Determination

Boring No.: **B-009-1-22, B-009-2-22**
Location: **US 6/24**
Station: **644+00**

Top Elev	Bottom Elev	1 or 2 sides Drained	Total Settlement (in)	H (feet)	Cv (cm2/sec)	Cv (ft2/day)	t (days)	Tv	U (%)	Settlement Remaining (in)	
684.8	678.8	1	2.4	6	0.0100	0.93	14	0.361667	0.67	0.8	
678.8	673.8	1	1.6	5	0.0008	0.078018	14	0.04369	0.27	1.2	
673.8	664.8	1	0.7	9	0.0024	0.224733	14	0.038843	0.26	0.5	
664.8	654.8	2	0.9	5	0.0019	0.175957	14	0.098536	0.36	0.6	
	Net=		5.6	in					Total	3.0	in

Top Elev	Bottom Elev	1 or 2 sides Drained	Total Settlement (in)	H (feet)	Cv (cm2/sec)	Cv (ft2/day)	t (days)	Tv	U (%)	Settlement Remaining (in)	
684.8	678.8	1	2.4	6	0.0100	0.93	98	2.531667	1.00	0.0	
678.8	673.8	1	1.6	5	0.0008	0.078018	98	0.305831	0.62	0.6	
673.8	664.8	1	0.7	9	0.0024	0.224733	98	0.2719	0.59	0.3	
664.8	654.8	2	0.9	5	0.0019	0.175957	98	0.68975	0.85	0.1	
	Net=		5.6	in					Total	1.0	in