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Geotechnical Evaluation Report

Hershey Transload Facility

Sidney Subdivision, MP296.50
Hershey, NE

Prepared for

GFT, Inc.

Professional Certification:
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Nebraska.

Scott Mackiewicz, Ph.D., P.E., BC.GE.
Vice President/Freight Rail Leader
License Number: E-11450
May 4, 2026

Braun Intertec Corporation

Project B2502329

BRAUN INTERTEC

May 4, 2026

Project B2502329

Paul R. Hentschke
GFT, Inc.
2400 Pershing Road, Suite 400
Kansas City, MO 64108

Re: Geotechnical Evaluation Report
Hershey Transload Facility
Union Pacific, Sidney Subdivision, MP296.50
Hershey, Nebraska

Dear Mr. Hentschke:

We are pleased to present this geotechnical evaluation report for the proposed Hershey Transload Facility. The purpose of our evaluation was to characterize subsurface conditions and provide geotechnical recommendations for the proposed industrial track lead extensions, access road and truck scale. The attached report contains our findings, analyses, and recommendations for design and construction.

Thank you for making Braun Intertec Corporation (Braun Intertec) your geotechnical consultant for this project. If you have questions about this report, or if there are other services that we can provide in support of our work to date, please contact Morgan Race at 214.679.9951 (mrace@braunintertec.com).

Sincerely,
Braun Intertec Corporation

Morgan Race, Ph.D.
Senior Consultant

Scott M. Mackiewicz, Ph.D., P.E., BC.GE.
Principal Engineer/Freight Rail Leader

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1.0 Introduction

1.1 Project Description

This geotechnical evaluation report addresses the proposed design and construction of six proposed tracks connecting to Union Pacific Railroad (UPRR) mainline, as well as a new access road and a truck scale located in Hershey, Nebraska. The project will include the construction of approximately 48,133 total linear feet of track. Table 1-1 summarize the provided and assumed project details used to prepare this report. The proposed track locations are shown in Figure A-1 in the Appendix.

Table 1-1. Project Description[1]

Aspect	Descriptions
New Tracks	▪ Loads: Cooper E80 (Assumed) ▪ Track Structure (Assumed) • 7” X 9” X 8.5’ Wood Ties at 19.5” c-c (industry) • Minimum 8 inches ballast (industry) • Minimum 12 inches sub ballast (industry) • 15-foot track centers ▪ Speed: 10 mph (Assumed) ▪ Track Extensions (Provided) • Track A: 10,312 feet • Track B: 8,901 feet • Track C: 3,306 feet • Track D: 1,091 feet • Track 801: 957 feet • Track 803: 3,073 feet
Drainage Structures	▪ Track A, Sta. 100+29.10 – 30-inch CMP ▪ Track A, Sta. 84+00.32 – 30-inch x 60-foot CMP ▪ Track A, Sta. 74+00.31 – 30-inch x 166-foot CMP ▪ Track A, Sta. 64+00.30 – 30-inch x 170-foot CMP ▪ Track A, Sta. 13+55.39 – 30-inch x 72-foot CMP ▪ Track C, Sta. 6+22.60 – 30-inch x 48-foot CMP ▪ Track C, Sta. 16+23.73 – 30-inch x 90-foot CMP ▪ Track C, Sta. 26+23.74 – 30-inch x 92-foot CMP ▪ Track C, Sta. 31+23.74 – 30-inch x 93-foot CMP ▪ Track 803, Sta. 2+69.98 – 30-inch x 80-foot CMP
Scale Structure	▪ No information available at the time of this report
Access Road	▪ Minimum 10-foot wide ▪ Generally used by facility vehicles, contractor vehicles, and UPRR maintenance vehicles
Cuts/Fills	▪ Fills up to 5 feet and cuts up to 4 feet

[1]Based on plans dated February 9, 2026

1.2 Site Conditions and History

The site appears to be primarily an undeveloped agricultural area with minimal infrastructure or construction activities before 2006. Between 2006 and 2009, a silo on the west end of the site, shown in Figure 1-1, was constructed followed by a new industrial track and detention pond in 2012. Minimal changes have occurred since 2012.

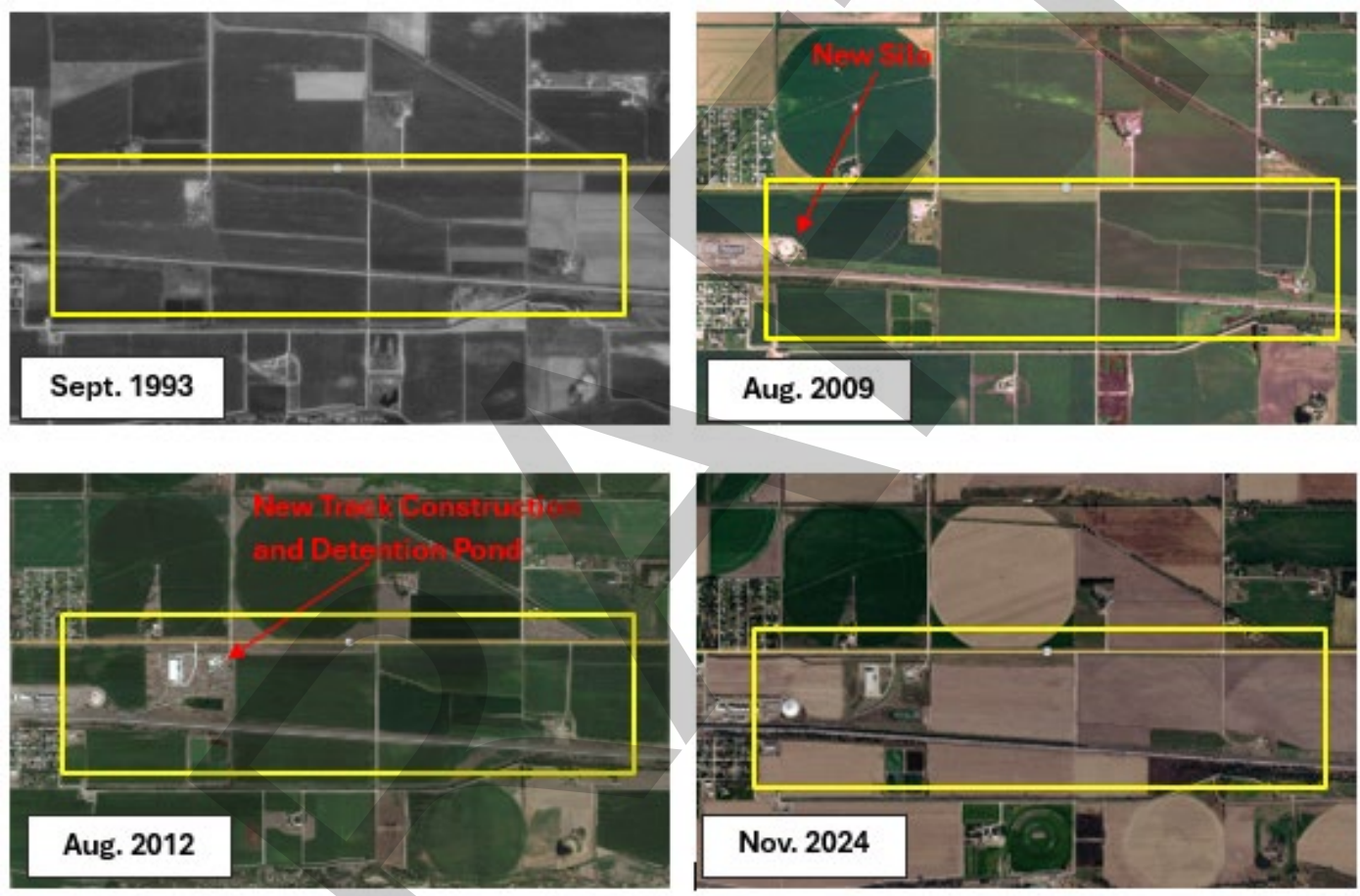

Figure 1-1. Historical aerial photographs from Google Earth© from 1993 to 2024.

Currently, the proposed location of the track extensions exists as a flat, undeveloped tract of land with minimal surface relief. Vegetative cover is generally limited to scattered low grasses and small bushes, with large expanses of bare ground (Figure 1-2). There appears to be numerous drainage channels that divert surface water away from the existing facility and fields. The proposed storage tracks are situated approximately 70 feet north of the existing UPRR mainline and connects to the UPRR Sibley Subdivision mainline at the east and west ends of the proposed industry tracks.

Current elevation data indicates ranges between approximately 2,881 feet and 2,896 feet above Mean Sea Level (MSL). The site generally exhibits a gentle slope from north to south and from west to east.

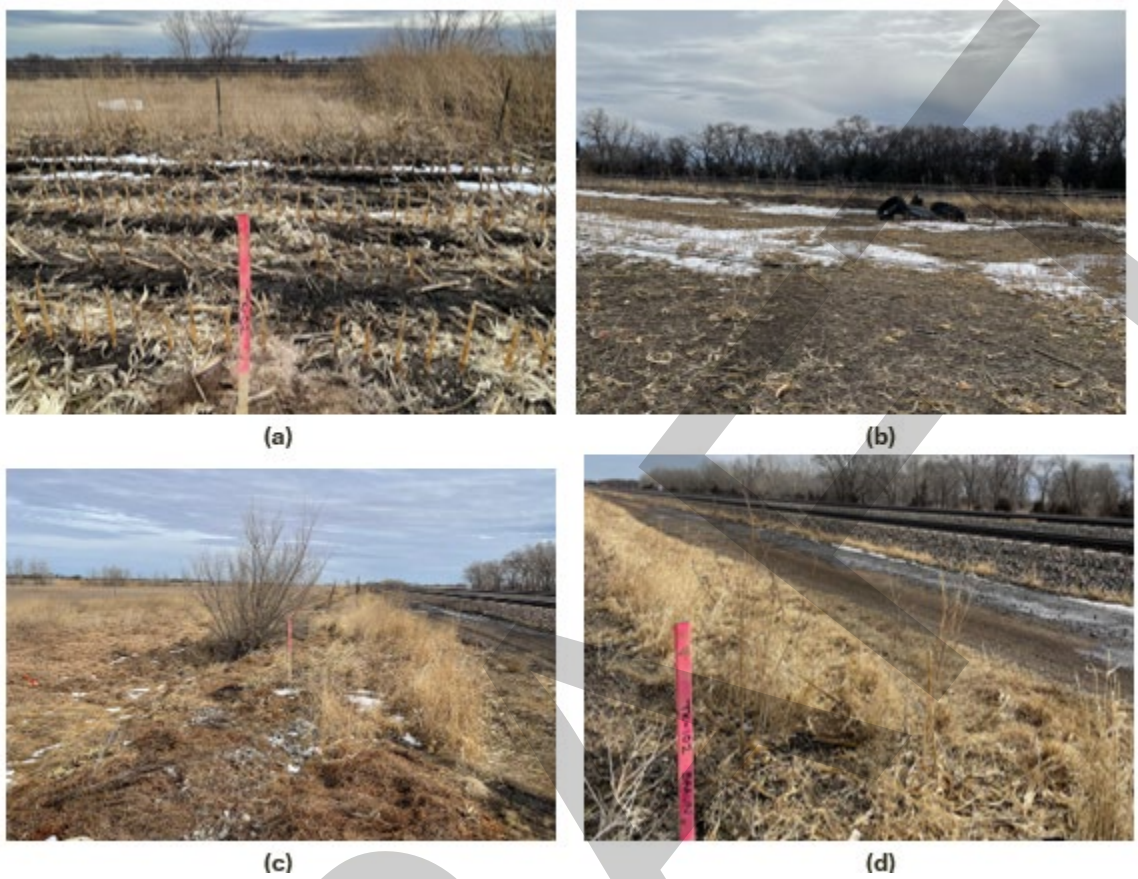

Figure 1-2. Site photographs taken by a Braun Intertec representative on February 25, 2026 near our borings a) TK-02, b) TK-05, c) TK-101, and d) TK-102.

1.3 Purpose

The purpose of our geotechnical evaluation is to: 1) evaluate the subsurface conditions at the proposed industrial track lead extensions and 2) develop track substructure, access road and truck scale geotechnical design recommendations.

1.4 Background Information and Reference Documents

We reviewed the following information:

- Communication with Mr. Paul Hentschke regarding the proposed track substructure in 2026.
- 100% Construction Plans, Hershey, NE, Lincoln County, Sidney Subdivision MP296.50, FES #47882, dated February 9, 2026.

In addition to the provided sources, we have used several publicly available sources of information.

- Web Soil Survey, http://websoilsurvey.nrcs.usda.gov/. United States Department of Agriculture (USDA) and Natural Resources Conservation Service (NRCS) used to aid in our evaluation of the subsurface soil conditions.
- American Railway Engineering and Maintenance-Of-Way Association (AREMA) Manual for Railway Engineering.
- Overhead images of the site using Google Earth©, used to aid in evaluating site access and historic construction.

We have described our understanding of the proposed construction and site to the extent others reported it to us. Depending on the extent of available information, we may have made assumptions based on our experience with similar projects. If we have not correctly recorded or interpreted the project details, the project team should notify us. New or changed information could require additional evaluation, analyses, and/or recommendations.

1.5 Scope of Services

We performed our scope of services for the project in accordance with our Proposal QTB207713 dated December 10, 2024, and authorized with a request for services number P101240293-01 on February 11, 2025. Our scope of services did not include environmental services or testing and our geotechnical personnel performing this evaluation are not trained to provide environmental services or testing. We can provide environmental services or testing at your request.

2.0 Results

2.1 Soil Survey

We reviewed the Web Soil Survey developed by the United States Department of Agriculture (USDA) and Natural Resources Conservation Service (NRCS) for the area near the project. A general description of the near surface (<5 feet) soil properties identified along the length of this project, as reported by the NRCS, is summarized in Table 2-1 and depicted in Figure A-1 in the Appendix.

Table 2-1. Properties of Soil Series

Series No.	Soil Series	Parent Material Description	USCS	Liquid Limit/Plasticity Index
1020	Caruso Loam	Calcareous Alluvium over Sandy Alluvium	CL-ML, CL, SC-CM, ML SM, SP-SM, SP	25-45/5-20 10-25/NP-5
2309	McCook Loam	Calcareous Alluvium	CL-ML, CL, ML SP-SM, SM	15-35/NP-10 10-15/NP-5

Series No.	Soil Series	Parent Material Description	USCS	Liquid Limit/Plasticity Index
8432	Cass Fine Sandy Loam	Calcareous Alluvium over Sandy/Silty Alluvium	SC-SM, SM, SP-SM, CL, SC	15-35/NP-20
8503	Lex Loam	Loamy Alluvium over Sandy/Gravelly Alluvium	CL-ML/CL, ML SP-SM, SM, SP	20-45/3-25 15-20/NP-5
8554	Silver Creek Silt Loam	Alluvium	CL, CH, CL-ML, SC-SM, SC SP-SM, SM, SP	20-60/5-35 15-20/NP-5
8567	Platte-Alda Complex	Loamy Alluvium over Sandy/Gravelly Alluvium	CL-ML, CL, SC-SM, ML SP-SM, SM	15-35/NP-15 0-10/NP-5

2.2 Boring Results

Table 2-2 provides a summary of the soil boring results, in the general order we encountered the strata. Please refer to the Log of Boring sheets in the Appendix for additional details. The Descriptive Terminology sheets in the Appendix include definitions of abbreviations used in the table below. We based the geologic origins used in this report on the soil types, in-situ and laboratory testing, and available common knowledge of the geological history of the site. Because of the complex depositional history, geologic origins can be difficult to ascertain. We did not perform a detailed investigation of the geologic history for the site.

Table 2-2. Subsurface Profile Summary*

Strata	Soil Type -ASTM Classification	Field and Laboratory Results	Commentary and Details
Topsoil			▪ Generally 4 to 12 inches thick, present at all borings.
Fill	CL, ML	6 to 16 BPF MC = 9 to 36% LL = 32, PL = 19, PI = 13 P200 = 52%	▪ Present in all borings except RD-04 TK-04 and ranging from depths of 1.8 to 6 feet below existing ground surface. ▪ Generally consists of lean clay with varying amounts of sand and gravel ▪ Moisture condition is generally moist ▪ Apparent aggregate base present in TK-101 and TK-102 below topsoil fill.
Native	CL	N = 3 to 6 BPF MC = 12 % to 37% LL = 34, PL = 17, PI = 17	▪ Encountered in boring TK-04 ▪ Generally lean clay, moist, dark brown ▪ Medium to soft in consistency
	SP-SM, SM, GP, SP-GP, SC, SP	N = 2 to 19 BPF MC = 2 to 26 % P200 = 2 to 17%	▪ Encountered in all borings to termination depth. ▪ Generally sand with gravel and clay, brown, moist to wet, loose to medium dense consistency

*Abbreviations are defined in the attached Descriptive Terminology sheets.

2.3 Groundwater

Table 2-3 summarizes the depths where we observed groundwater; the attached Log of Boring sheets in the Appendix also include this information and additional details.

Table 2-3. Groundwater Summary

Locations	Measured or Estimated Depth to Groundwater (ft)	Corresponding Groundwater Elevation (ft)	Locations	Measured or Estimated Depth to Groundwater (ft)	Corresponding Groundwater Elevation (ft)
RD-01	8	2887 ½	TK-02	6 ½	2885 ½
RD-02	8	2886	TK-03	8 ½	2881 ½
RD-03	7	2886 ½	TK-05	6	2879 ½
RD-04	8	2883 ½	TK-06	7 ½	2876
SC-01	7	2887 ½	TK-101	8	2888 ½
TK-01	7	2887	TK-102	7	2876

2.4 Laboratory Subgrade Strength Characteristics

We performed laboratory testing to aid in characterization of the subgrade strength in the planned pavement area. In that, we performed moisture-density relationship (Standard Proctor method) and CBR testing on a representative bulk sample of the sandy lean clay subgrade soils. In summary, the tested sandy lean clay subgrade materials have a maximum dry density of 112.3 pcf at an optimum moisture content of 13.8 percent for the Standard Proctor. CBR testing indicated that the materials had a CBR value of 9.1 under the soaked condition. The results of our laboratory testing are included in the Appendix.

3.0 Recommendations

3.1 General

Based on our findings, it is our professional opinion that the proposed tracks, access road and scale can be constructed using conventional methods along the proposed alignments. We have summarized the potential geotechnical design and construction concerns as well as recommendations for track design and construction in the following sections.

3.1.1 Track

The proposed track profile and existing variable topographic surface along the alignment will result in the track being supported on native soils and new fill materials. Based on the plans dated February 9, 2026, we estimate that less than 3 feet of new embankment fill and cut will be required at the proposed storage tracks

and access road to bring the subgrade up to design grade. General track geotechnical design conditions are outlined below.

3.1.2 Groundwater

Based on our borings and the online soil survey, we anticipate that the depth to water table is within 4 to 8 feet below the planned track and access road subgrade elevations. Additionally, based on the drainage ditches at/near the site, we anticipate surface water is present periodically during the year. We recommend ditches be established at the beginning of construction to divert the surface water away from construction activities. Subgrade stabilization may be required in areas where the groundwater levels affect subgrade support characteristics.

Depending on the final depth of the planned scale structure, groundwater may be encountered in excavations. If water is encountered during excavation operations, we recommend a well contractor should develop a dewatering plan and the design team should review this plan. Dewatering of high-permeability soils (e.g., sands) from within the excavation with conventional pumps has the potential to loosen the soils, due to upward flow.

3.1.3 Scale

We understand that a truck scale is planned for the site. No information regarding the truck scale was provided but we assume that it will extend approximately 5 feet below the proposed elevation and will be supported on shallow foundations. As previously indicated, control of groundwater may be required to facilitate excavations and construction of the scale structure.

3.1.4 Limitations

The recommendations submitted herein are based, in part, upon data obtained from our subsurface exploration. The nature and extent of subsurface variations that may exist at the proposed project site will not become evident until construction. If variations appear evident, then the recommendations presented in this report should be evaluated considering them. In the event of any changes in nature, design, location, or elevations of the proposed structures are planned, the conclusions and recommendations contained in this report will not be considered valid unless the changes are reviewed, and our recommendations are modified in writing.

It is important to note that the following recommendations are limited to the area evaluated as described herein. The information and recommendations presented in this report should not be extrapolated to other areas or sites.

3.2 Site Grading and Subgrade Preparation

3.2.1 Site stripping and Grubbing

We recommend stripping of vegetation, topsoil, and stockpiled/buried debris from construction areas. Stripping operations should be observed by a geotechnical engineer or technician working under the direction of a geotechnical engineer to confirm unsuitable materials have been removed prior to filling or

placement of track section materials. We recommend the stripped material be wasted outside embankment and track subgrade limits or placed as topsoil fill on finished embankment slopes if compliant with embankment topsoil specifications. If any existing utilities are within the construction areas, these utilities should be relocated prior to construction activities.

3.2.2 Site Drainage

Providing site drainage will be critical to the performance of embankments, tracks and roadway. Final site grading should route surface water away from track sections to a suitable location. Track ditches should be designed to maintain water levels a minimum of 2 feet below the top of track subgrade elevation and be sloped and routed to promote removal of water from the site. Planned ditches should be installed at the beginning of construction to aid in controlling surface water and saturation of embankment subgrades. If adequate surface slopes cannot be provided, underdrains should be incorporated into the design to remove water and prevent ponding, infiltration, and subgrade weakening.

3.2.3 Subgrade Preparation

Following stripping, to address substructure and gravel access road support requirements, we recommend that exposed surfaces in cut areas or to receive fill be scarified to a depth no less than 6 inches, moisture conditioned to moisture contents within the ranges given below in Section 3.2.5 and compacted to the relative compaction values given in Table 3-1 .

We then recommend proof-rolling prepared subgrades to evaluate subgrade stability. Proof-rolling can be accomplished through use of a fully loaded, tandem-axle dump truck or similar equipment providing an equivalent subgrade loading. Unsuitable areas identified by the proof-rolling operation should be undercut and replaced with structural fill.

With soft and loose soils and a relatively high water table, the proofrolling procedure may reduce the stability of the subgrade. If this condition occurs, the general procedures should be modified such as deleting or reducing the proofrolling, stabilizing the soil and/or placing the initial lift of fill to help bridge across the soft areas.

3.2.4 Embankment Fill and Backfill Material

We recommend excavation backfill and additional required embankment fill consist of approved materials classifying as ASTM D2487 GW, GP (angular), GC, GM, SM, SW, SC, SP, CL and CH. We further recommend these materials contain less than 3 percent of organic matter.

We do not recommend placing fat clay (CH) or Silt (ML) within 3 feet of track subgrades. Soils considered unsuitable for reuse as excavation backfill, or embankment fill classify as ASTM D2487 GP (rounded), ML, CL-ML, MH, OL, OH and PT.

Based on results of our field explorations, some of the on-site soils from cut areas may be considered for use as fill material, assuming they are segregated from vegetation, topsoil and, in the case of fill, entrained debris or large cobbles and boulders. Finer-grained soils being considered for reuse may be moisture sensitive and subject to disturbance, particularly if they are wet of their optimum moisture content.

3.2.5 Placement and Compaction of Fill

All compaction requirements should be referenced to the ASTM D1557 test method (Modified) Proctor). Fill should be placed in lifts having a maximum loose lift thickness of 8 inches. We recommend moisture conditioning and compacting backfill and fill in accordance with the criteria presented below in Table 3-1.

Table 3-1. Compaction Recommendations Summary

Reference	Relative Compaction, % (ASTM D 1557 – Modified Proctor)	Moisture Content Variance from Optimum, percentage points
Track Substructure ▪ <3 feet below subgrade ▪ >3 feet below subgrade	 ▪ 95 ▪ 90	▪ Cohesive Fill with LL>40; 0 to +4 ▪ Cohesive Fill with LL≤40; -1 to +3 ▪ Granular: ±3

The contractor should expect that it will be necessary to adjust the moisture content of the on-site soil to levels suitable to achieve the specified compaction. Moisture contents should be maintained within the recommended range until completion of the embankment. Laboratory tests of on-site materials suggest that on-site clay material is generally above optimum moisture content and sandy/silty soils are generally below their optimum moisture content and will require moisture conditioning during placement.

3.2.6 Benching

We recommend benching fill into slopes steeper than 5:1 (horizontal: vertical). Benches can be established in advance of filling or cut into the slopes as fill is being spread and compacted. If cut in advance, we recommend a limiting bench height of 2 feet.

Based on field observations made during boring operations, it is not anticipated to encounter water during benching operations. If water is observed seeping from slopes during benching or grading operations, we recommend consulting with a geotechnical engineer to determine how best to capture and dispose of that water (e.g., ballast drain, chimney drain, drain-tile, etc.).

3.2.7 Permanent Slopes

We recommend that permanent embankment and cut slopes be designed at 3H:1V to minimize erosion of the embankment slopes. For permanent cut and fill soil slopes in cohesive material (i.e. clay) designed at a 2H:1V, additional maintenance of the slopes (i.e., re-grading) due to potential near surface instability (i.e., sloughing) and riling will likely be required during the life of the project.

We anticipate that sandy materials will be encountered within ditch excavations. In ditches that will hold water or extend below the groundwater levels, we recommend that the ditch slopes be flattened to 4H:1V to reduce sloughing into the ditch during water carrying events.

Embankments constructed of silty sands (SM), silty clays (CL) or silts (ML) with PI<10 will be prone to surface rilling and erosion. We recommend that the flow on unprotected embankment slopes be limited to 2.0

feet/second on silts (ML) and silty sands (SM) slopes and to 3.5 feet/second for clay (CL with PI>10, CH) slopes, to reduce potential surface erosion.

3.2.8 Embankment Settlement

Embankment settlement will be governed by the compressibility of the soils on which embankment fill is placed, and the thickness of that fill. These things considered, we anticipate that up to approximately 1 inch of embankment settlement is possible long-term, assuming the subgrade preparation procedures outlined above are followed for the embankment construction of up to 5 feet above existing ground surface.

Anticipating the majority foundation soils along the track alignment will consist of clay underlain by sand, we anticipate the majority of the settlement to take place will occur during construction activities. Thus, the majority of settlement can be addressed during resurfacing operations after construction; however, there may be areas where resurfacing may be needed periodically for about a year after construction.

3.2.9 Site Utilities

Proposed construction settlement impacts to existing and proposed utilities beneath embankment and track loads should be evaluated during design. We recommend this includes an assessment of the condition of existing utilities. Existing utilities that could be unfavorably impacted by settlement should be reinstalled post-construction or relocated.

We recommend evaluating backfill above existing utilities to confirm if it is suitable for support of embankment fill. Hand auger borings, cone penetrometer tests, and compaction tests would assist in this evaluation.

Excavations for utility installation, removal, or maintenance should be wide enough to accommodate equipment capable of producing relative compaction consistent with the parameters above in Table 3-1. We recommend placing utility backfill in accordance with the recommendations presented above in Section 3.2.4.

We recommend that constrained utility excavations – those that cannot accommodate conventional compaction equipment – be backfilled with Controlled Low Strength Material (CLSM), also referred to as “flowable fill” or “lean mix.”

3.2.10 Temporary Excavations

All excavations must comply with applicable local, state, and federal safety regulations. The responsibility for excavation safety and stability of temporary construction slopes lies solely with the contractor. We are providing this information below solely as a service to our client. Under no circumstances should this information provided be interpreted to mean that Braun Intertec is assuming responsibility for construction site safety or the Contractor’s activities; such responsibility is not being implied and should not be inferred.

Soil Classification: The majority of the encountered native soils generally appear to classify as OSHA soil type "B" and "C." Therefore, unbraced excavations should be maintained at a minimum slope of 1H:1V and 1.5H:1V (Horizontal: Vertical) for OSHA soil type "B" and "C" soils, respectively.

Excavation Dewatering: Excavations extending greater than 4 feet at this site may extend below the hydrostatic groundwater table for the site. If water should be present, water should be removed from excavations prior to placement and compaction of backfill. Project planning should include temporary sumps and pumps for excavations in low-permeability soils, such as clays. Dewatering of high-permeability soils (e.g., sands) from within the excavation with conventional pumps has the potential to loosen the soils, due to upward flow.

Excavation Backfill: Excavation backfill supporting the track or access road should consist of structural fill materials as outlined in Section 3.2.4 or meets the manufacturer's requirements for pipe structures. On-site soil that meets this requirement and is free of organic soil and debris may be suitable for reuse as backfill and fill.

3.2.11 Climatic Conditions

Weather conditions will influence the site preparation required. Following periods of rainfall, the moisture content of the near-surface soils may be significantly above the optimum moisture content. Excessive moisture could seriously impede grading by causing an unstable subgrade condition. Typical remedial measures include aerating the wet subgrade, removal of the wet materials and replacing them with materials at or near optimum moisture, or treating the material with lime, cement, or fly ash.

If site grading commences during summer months, moisture contents may be low and typical discing and moisture conditioning of the exposed subgrade materials may be required. As an alternative, the dry soil could be undercut and replaced with structural fill.

If construction of the project is to be performed during winter months, appropriate steps should be taken to prevent the soil from freezing. In no case should the ballast or fill be placed on or against frozen or partially frozen materials. Frozen materials should be removed and replaced with suitable material. Frozen materials should not be included in any compacted fills.

3.3 Track Substructure

3.3.1 Track Substructure Section

We evaluated the track substructure using methodology outlined in the American Railway Engineering and Maintenance-of-Way Association (AREMA) Manual using the Talbot Equation. An average ballast pressure of 26.7 psi at the bottom of the wood ties, corresponding to a track speed of 10 mph in our evaluation.

We have estimated that the in-place materials at subgrade elevation will have a minimum SPT blow count of 5 to 7 bpf. Based on the minimum subgrade support characteristics, we have estimated an allowable subgrade bearing pressure with a factor of safety equal to 3.

Using these parameters, along with the AREMA design procedure (Talbot Equation) and an assumed depth of ballast (8 inches) and sub-ballast (12 inches), we evaluated the track substructure reinforcement and subgrade strength to develop track support for the site conditions. Table 3-2 summarizes the required ballast/subballast thickness and stabilization required to develop suitable track support based on the observed subgrade strength during construction.

Table 3-2. Substructure Section

Description	Various Track Sections	
Approximate Track Sections	Sta. 103+12 to 34+00 (Track A) Sta. 30+00 to 0+00 (Track A)	Sta. 34+00 to 30+00 (Track A)
Average Ballast Pressure (psi)	26.7	
Ballast Thickness (in.) *	8	
Sub-ballast Thickness (in.)	12	
Minimum Compacted Subgrade Thickness (in.)	6	12
Track Subgrade Material	Silty Sand or Fill (Lean Clay)	Lean Clay (Alluvium)
Existing Material	Minimum SPT 'N' Values = 7 BPF Minimum Allowable Bearing Capacity = 10.4 psi (1.5 ksf)	Minimum SPT 'N' Values = 5 BPF Minimum Allowable Bearing Capacity = 7.4 psi (1.05 ksf)

*Measured from bottom of tie

If the materials encountered below the planned structural fill or recompacted subgrade do not meet the estimated allowable subgrade bearing pressures presented in Table 3-2, additional undercutting and replacement with structural fill will be required. To aid in evaluation of the track subgrade suitability, the prepared subgrade should be investigated using hand probes and proof-rolled with a heavily loaded pneumatic-tired tandem-axle vehicle after preparation and prior to placing embankment fill or the sub-ballast.

Areas that deform under heavy wheel loads are not stable and should be removed and replaced or stabilized, as outlined previously, to achieve a stable subgrade.

3.3.2 Ballast and Subballast Materials

All ballast and subballast should meet the material and gradation requirements outlined in the "UPRR Industrial Track Specifications," and the AREMA Manual. Based on our review of the required gradations, it appears the Nebraska Department of Transportation (NDOT) Standard Specification for Highway Construction, Section 1033.02, Table 1033.07, Crushed Rock for Base Course could be used for sub-ballast. Additionally, we recommend no more than 10 percent freeze-thaw loss when tested under 5 cycles of freeze-thaw in accordance with ASTM C88. Ballast should meet the UPRR requirements for industrial track.

3.4 Scale Foundation

We anticipate that the scale structure will be founded on spread footing foundation; however, the layout, loads and deformation criteria for the scale structure are unknown at the time of this report. We can provide final recommendations for the scale structure once details on the structure are provided.

3.5 Access Road

Detailed traffic counts were not provided for design of the proposed gravel access road loop. We estimate the traffic for this roadway to be standard vehicle traffic and semi-truck and trailer traffic on a regular basis. Aggregate surfaced roadway will be supported on the underlying lean clay and sandy silts and should have a minimum aggregate thickness of 12 inches. Aggregate for the access roadways should be comprised of NDOT surfacing aggregate meeting the requirements in Section 1033. Maintenance of the aggregate surface, i.e., grading and replacement of material, will be required over the life of the roadway and will be dependent on the amount of traffic in each area.

Consideration should be given to placing a geotextile fabric similar Mirafi RS-280i on the exposed subgrade prior to aggregate placement to reduce the potential for long term aggregate fouling and improve the support characteristics. Additionally, consideration could be given to reducing the minimum aggregate thickness to 8 inches and using a geogrid. We recommend that a qualified engineer perform a pavement analysis once traffic loads are confirmed.

4.0 Procedures

4.1 Penetration Test Borings

We drilled the penetration test borings with a truck-mounted auger drill equipped with hollow-stem auger. We performed the borings in general accordance with ASTM D6151 taking penetration test samples at 2 1/2- or 5-foot intervals in general accordance with ASTM D1586. We collected thin-walled tube samples in general accordance with ASTM D1587 at selected depths. The boring logs show the actual sample intervals and corresponding depths.

4.2 Exploration Logs

4.2.1 Log of Boring Sheets

The Appendix includes Log of Boring sheets for our penetration test borings. The logs identify and describe the penetrated geologic materials and present the results of penetration resistance and other in-situ tests performed. The logs also present the results of laboratory tests performed on penetration test samples, and groundwater measurements.

We inferred strata boundaries from changes in the penetration test samples and the auger cuttings. Because we did not perform continuous sampling, the strata boundary depths are only approximate. The boundary depths likely vary away from the boring locations, and the boundaries themselves may occur as gradual rather than abrupt transitions.

4.2.2 Geologic Origins

We assigned geologic origins to the materials shown on the logs and referenced within this report, based on: (1) a review of the background information and reference documents cited above, (2) visual classification of the various geologic material samples retrieved during the course of our subsurface exploration, (3) penetration resistance and other in-situ testing performed for the project, (4) laboratory test results, and (5) available common knowledge of the geologic processes and environments that have impacted the site and surrounding area in the past .

4.3 Material Classification and Testing

4.3.1 Visual and Manual Classification

We visually and manually classified the geologic materials encountered based on ASTM D2488. When we performed laboratory classification tests, we used the results to classify the geologic materials in accordance with ASTM D2487. The Appendix includes a chart explaining the classification system we used.

4.3.2 Laboratory Testing

The exploration logs in the Appendix note most of the results of the laboratory tests performed on geologic material samples. We performed the tests in general accordance with ASTM procedures.

4.4 Groundwater Measurements

The drillers checked for groundwater while advancing the penetration test borings, and again after auger withdrawal. We then filled the boreholes as noted on the boring logs.

5.0 Qualifications

5.1 Variations in Subsurface Conditions

5.1.1 Material Strata

We developed our evaluation, analyses, and recommendations from a limited amount of site and subsurface information. It is not standard engineering practice to retrieve material samples from exploration locations continuously with depth. Therefore, we must infer strata boundaries and thicknesses to some extent. Strata boundaries may also be gradual transitions, and project planning should expect the strata to vary in depth, elevation, and thickness, away from the exploration locations.

Variations in subsurface conditions present between exploration locations may not be revealed until performing additional exploration work or starting construction. If future activity for this project reveals any such variations, you should notify us so that we may re-evaluate our recommendations. Such variations could increase construction costs, and we recommend including a contingency to accommodate them.

5.1.2 Groundwater Levels

We made groundwater measurements under the conditions reported herein and shown on the exploration logs and interpreted in the text of this report. Note that the observation periods were relatively short, and project planning can expect groundwater levels to fluctuate in response to rainfall, flooding, irrigation, seasonal freezing and thawing, surface drainage modifications and other seasonal and annual factors.

5.2 Continuity of Professional Responsibility

5.2.1 Plan Review

We based this report on a limited amount of information, and we made a number of assumptions to help us develop our recommendations. We should be retained to review the geotechnical aspects of the designs and specifications. This review will allow us to evaluate whether we anticipated the design correctly, if any design changes affect the validity of our recommendations, and if the design and specifications correctly interpret and implement our recommendations.

5.2.2 Construction Observations and Testing

We recommend retaining us to perform the required observations and testing during construction as part of the ongoing geotechnical evaluation. This will allow us to correlate the subsurface conditions exposed during construction with those encountered by the borings and provide professional continuity from the design phase to the construction phase. If we do not perform observations and testing during construction, it becomes the responsibility of others to validate the assumption made during the preparation of this report and to accept the construction-related geotechnical engineer-of-record responsibilities.

5.3 Use of Report

This report is for the exclusive use of the addressed parties. Without written approval, we assume no responsibility to other parties regarding this report. Our evaluation, analyses and recommendations may not be appropriate for other parties or projects.

5.4 Standard of Care

In performing its services, Braun Intertec used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession currently practicing in the same locality. No warranty, express or implied, is made.

Appendix

Figure A-1: Soil Boring Location Sketch
Figure A-2: Subsurface Profile
Log of Boring Sheets
Descriptive Terminology of Soil
Proctor and CBR Results

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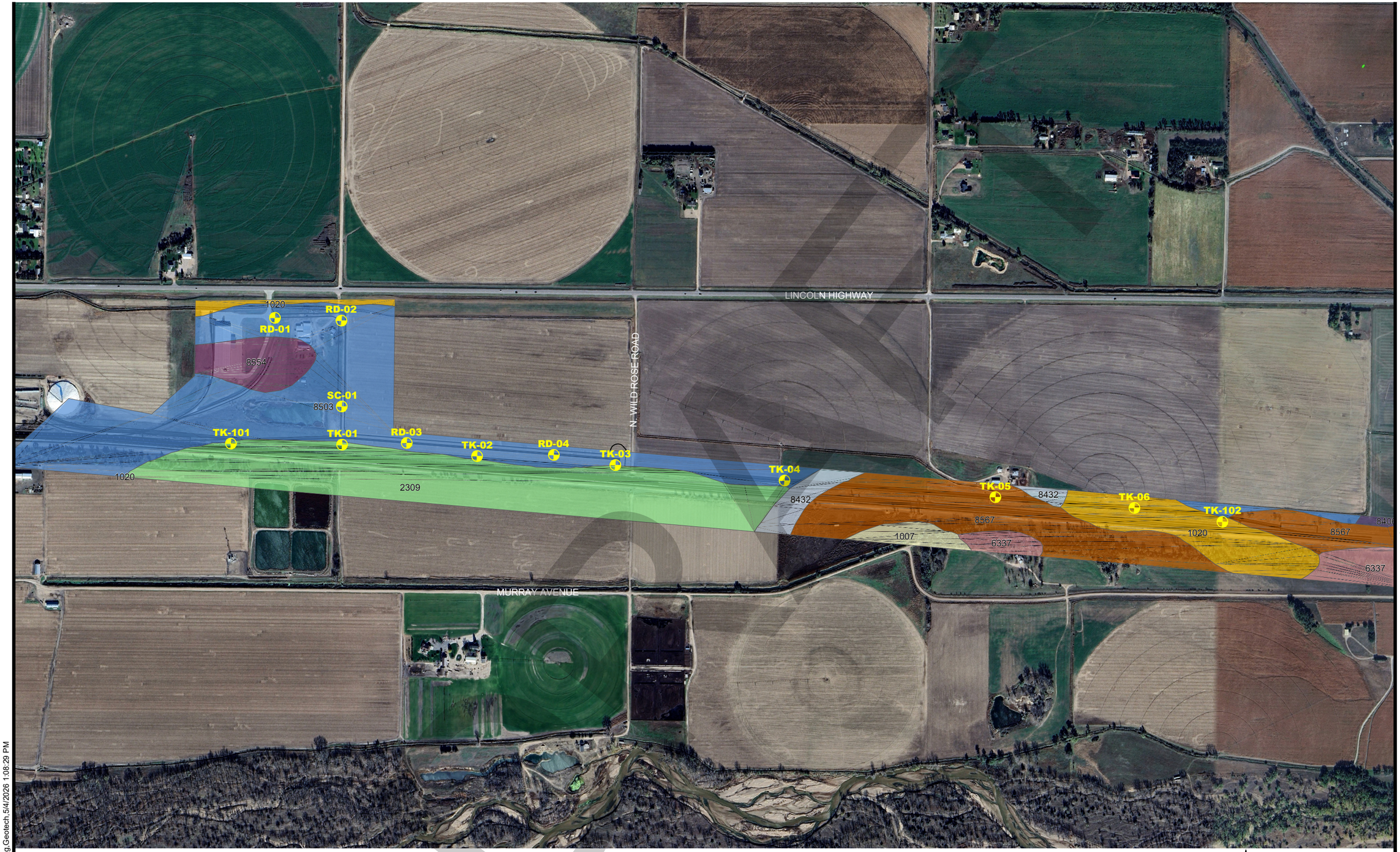

DENOTES APPROXIMATE LOCATION OF SOIL BORING

WEB SOIL SURVEY (NRCS)

- 1007 - Bankard Loamy Fine Sand, Loamy Subsoil Variant
- 1020 - Caruso Loam
- 2309 - McCook Loam, Saline-Alkali
- 6337 - Lawet Silt Loam, Drained, Occasionally Flooded
- 8406 - Alda Soils, Occasionally Flooded
- 8432 - Cass Fine Sandy Loam, Calcareous Variant, Rarely Flooded
- 8503 - Lex Loam, Occasionally Flooded
- 8554 - Silver Creek Silt Loam, Occasionally Flooded
- 8567 - Platte-Alda Complex, Occasionally Flooded

N

400' 0 800'

SCALE: 1"=800'

F:\2025\B2502329\B2502329.dwg,Geotech,5/4/2026 1:08:29 PM

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11001 Hampshire Avenue S
Minneapolis, MN 55438
952.995.2000
braunintertec.com

Drawing Information

Project No:	B2502329
Drawing No:	B2502329
Drawn By:	MMH
Date Drawn:	3/20/26
Checked By:	MR
Last Modified:	5/4/26

Project Information

Hershey Transload Facility

Sidney Subdivision, MP296.50

Hershey, Nebraska

Boring Location Sketch

Figure A-1

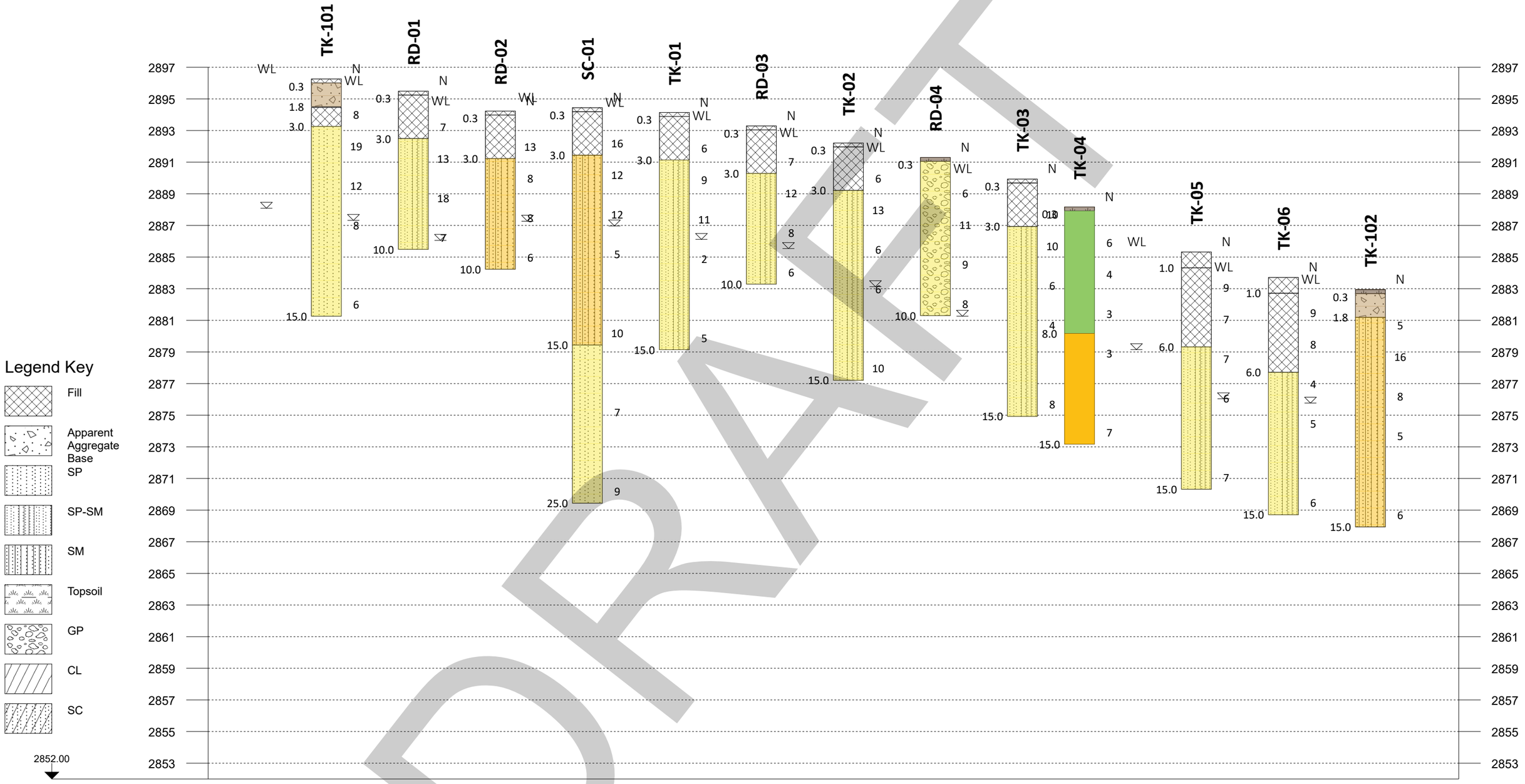

Figure A-2: Subsurface Profile

Fence Diagram
Geotechnical Evaluation
Hershey Transload Facility
Sidney Subdivision, MP 296.50
Hershey, Nebraska

Project ID:	B2502329
Vert. Scale:	1"= 6'
Hor. Scale:	NTS
Date:	03/19/2026

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LOG OF BORING

See Descriptive Terminology sheet for explanation of abbreviations

Project Number B2502329
Geotechnical Evaluation
Hershey Transload Facility
Sidney Subdivision, MP 296.50
Hershey, Nebraska

BORING: **RD-01**
LOCATION: Captured with RTK GPS.
DATUM: WGS 84
LATITUDE: 41.162040 LONGITUDE: -100.985000
DRILLER: Subcontractor LOGGED BY: M. Garcia START DATE: 02/23/26 END DATE: 02/23/26
SURFACE ELEVATION: 2895.5 ft RIG: Subcontractor METHOD: 3 1/4" HSA SURFACING: Topsoil WEATHER: Partly Cloudy, 48°

Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q_p tsf	MC %	Tests or Remarks
~~2895.2~~ 0.3		TOPSOIL FILL FILL: LEAN CLAY (CL), with Sand, trace Gravel, brown, moist		3-3-4 (7) 9"		20	
2892.5 3.0		POORLY GRADED SAND with SILT (SP-SM), fine to coarse-grained, with Gravel, brown, moist to wet, medium dense to loose (ALLUVIUM)		4-6-7 (13) 11"		5	
	▽			7-9-9 (18) 4"			P200=6%
2885.5 10.0		END OF BORING Boring then backfilled with auger cuttings		4-4-3 (7) 14"		14	Water observed at 8.0 feet while drilling.

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LOG OF BORING

See Descriptive Terminology sheet for explanation of abbreviations

Project Number B2502329
Geotechnical Evaluation
Hershey Transload Facility
Sidney Subdivision, MP 296.50
Hershey, Nebraska

BORING: **RD-02**
LOCATION: Captured with RTK GPS.
DATUM: WGS 84
LATITUDE: 41.161990 LONGITUDE: -100.983000
DRILLER: Subcontractor LOGGED BY: M. Garcia START DATE: 02/23/26 END DATE: 02/23/26
SURFACE ELEVATION: 2894.2 ft RIG: Subcontractor METHOD: 3 1/4" HSA SURFACING: Topsoil WEATHER: Partly Cloudy, 48°

Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q_p tsf	MC %	Tests or Remarks
~~2894.0~~		TOPSOIL FILL					
0.3		FILL: LEAN CLAY (CL), with Sand, trace Gravel, brown, moist		4-5-8 (13) 15"		22	
2891.2							
3.0		SILTY SAND (SM), fine to coarse-grained, with Gravel, brown, moist to wet, loose (ALLUVIUM)		4-4-4 (8) 14"			P200=23%
	▽			4-4-4 (8) 14"		6	
				3-3-3 (6) 12"		14	
2884.2							
10.0		END OF BORING					Water observed at 8.0 feet while drilling.
		Boring then backfilled with auger cuttings					

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See Descriptive Terminology sheet for explanation of abbreviations

Project Number B2502329
Geotechnical Evaluation
Hershey Transload Facility
Sidney Subdivision, MP 296.50
Hershey, Nebraska

BORING: **RD-03**
LOCATION: Captured with RTK GPS.
DATUM: WGS 84
LATITUDE: 41.159010 LONGITUDE: -100.981000
DRILLER: Subcontractor LOGGED BY: M. Garcia START DATE: 02/23/26 END DATE: 02/23/26
SURFACE ELEVATION: 2893.3 ft RIG: Subcontractor METHOD: 3 1/4" HSA SURFACING: Topsoil WEATHER: Partly Cloudy, 48°

Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q_p tsf	MC %	Tests or Remarks
~~2893.0~~		TOPSOIL FILL					
0.3		FILL: LEAN CLAY (CL), with Sand, trace Gravel, dark brown, moist		2-2-5 (7) 10"		22	
2890.3							
3.0	▽	POORLY GRADED SAND with SILT (SP-SM), fine to coarse-grained, with Gravel, brown, moist to wet, medium dense to loose (ALLUVIUM)		6-6-6 (12) 12"		7	
				4-4-4 (8) 12"		7	
				2-3-3 (6) 10"			
2883.3							
10.0		END OF BORING					Water observed at 7.0 feet while drilling.
		Boring then backfilled with auger cuttings					

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See Descriptive Terminology sheet for explanation of abbreviations

Project Number B2502329
Geotechnical Evaluation
Hershey Transload Facility
Sidney Subdivision, MP 296.50
Hershey, Nebraska

BORING: **RD-04**
LOCATION: Captured with RTK GPS.
DATUM: WGS 84
LATITUDE: 41.158760 LONGITUDE: -100.976000
DRILLER: Subcontractor LOGGED BY: M. Garcia START DATE: 02/23/26 END DATE: 02/23/26
SURFACE ELEVATION: 2891.3 ft RIG: Subcontractor METHOD: 3 1/4" HSA SURFACING: Topsoil WEATHER: Partly Cloudy, 48°

Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q_p tsf	MC %	Tests or Remarks
~~2891.0~~ 0.3		TOPSOIL POORLY GRADED GRAVEL with SAND (GP), fine to coarse-grained, brown, moist to wet, loose to medium dense (ALLUVIUM)		2-3-3 (6) 9"		5	
				4-6-5 (11) 10"		2	
	▽			4-4-5 (9) 6"		15	Gravel=53% Sand=45% P200=2%
				3-4-4 (8) 10"		17	
2881.3 10.0		END OF BORING Boring then backfilled with auger cuttings					Water observed at 8.0 feet while drilling.

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See Descriptive Terminology sheet for explanation of abbreviations

Project Number B2502329
Geotechnical Evaluation
Hershey Transload Facility
Sidney Subdivision, MP 296.50
Hershey, Nebraska

BORING: **SC-01**
LOCATION: Captured with RTK GPS.
DATUM: WGS 84
LATITUDE: 41.159890 LONGITUDE: -100.983000
DRILLER: Subcontractor LOGGED BY: M. Garcia START DATE: 02/23/26 END DATE: 02/23/26
SURFACE ELEVATION: 2894.4 ft RIG: Subcontractor METHOD: 3 1/4" HSA SURFACING: Topsoil WEATHER: Partly Cloudy, 48°

Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q_p tsf	MC %	Tests or Remarks
~~2894.2~~		TOPSOIL FILL					
0.3		FILL: LEAN CLAY (CL), with Sand, trace Gravel, dark brown, moist		6-10-6 (16) 10"		13	
2891.4							
3.0	▽	SILTY SAND (SM), fine to coarse-grained, little Gravel, brown, moist, loose to medium dense (ALLUVIUM)		5-5-7 (12) 10"		3	Gravel=14% Sand=73% Silt=11% Clay=2%
			5	5-6-6 (12) 12"		12	
				2-2-3 (5) 7"		10	
			10				
				3-3-7 (10) 15"		14	
2879.4			15				
15.0		POORLY GRADED SAND with GRAVEL (SP), fine to coarse-grained, brown, moist, loose to medium dense					
				2-2-5 (7) 12"		14	Gravel=47% Sand=51% P200=2%
			20				
				3-4-5 (9) 18"		14	
2869.4			25				
25.0		END OF BORING Boring then backfilled with auger cuttings					Water observed at 7.0 feet while drilling.
			30				

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See Descriptive Terminology sheet for explanation of abbreviations

Project Number B2502329
Geotechnical Evaluation
Hershey Transload Facility
Sidney Subdivision, MP 296.50
Hershey, Nebraska

BORING: **TK-01**
LOCATION: Captured with RTK GPS.
DATUM: WGS 84
LATITUDE: 41.158960 LONGITUDE: -100.983000
DRILLER: Subcontractor LOGGED BY: M. Garcia START DATE: 02/23/26 END DATE: 02/23/26
SURFACE ELEVATION: 2894.1 ft RIG: Subcontractor METHOD: 3 1/4" HSA SURFACING: Topsoil WEATHER: Partly Cloudy, 48°

Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q_p tsf	MC %	Tests or Remarks
~~2893.9~~ 0.3		TOPSOIL FILL FILL: LEAN CLAY (CL), with Sand, trace Gravel, dark brown, moist		4-3-3 (6) 17"		19	
2891.1 3.0	▽	POORLY GRADED SAND with SILT (SP-SM), fine to coarse-grained, with Gravel, brown, moist to wet, very loose to medium dense (ALLUVIUM)		6-4-5 (9) 14"		5	
			5	5-6-5 (11) 11"		6	
				1-1-1 (2) 11"		17	
			10				
2879.1 15.0		END OF BORING Boring then backfilled with auger cuttings	15	3-2-3 (5) 11"		12	Water observed at 7.0 feet while drilling.
			20				
			25				
			30				

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See Descriptive Terminology sheet for explanation of abbreviations

Project Number B2502329
Geotechnical Evaluation
Hershey Transload Facility
Sidney Subdivision, MP 296.50
Hershey, Nebraska

BORING: **TK-02**
LOCATION: Captured with RTK GPS.
DATUM: WGS 84
LATITUDE: 41.158710 LONGITUDE: -100.979000
DRILLER: Subcontractor LOGGED BY: M. Garcia START DATE: 02/23/26 END DATE: 02/23/26
SURFACE ELEVATION: 2892.2 ft RIG: Subcontractor METHOD: 3 1/4" HSA SURFACING: Topsoil WEATHER: Partly Cloudy, 48°

Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q_p tsf	MC %	Tests or Remarks
~~2892.0~~		TOPSOIL FILL					
0.3		FILL: LEAN CLAY (CL), with Sand, dark brown and brown, moist		3-3-3 (6) 12"		23	
2889.2							
3.0	▽	POORLY GRADED SAND with SILT (SP-SM), medium to coarse-grained, with Gravel, brown, moist to wet, medium dense to loose (ALLUVIUM)		4-6-7 (13) 10"		2	
			5	4-3-3 (6) 10"		6	
				4-3-3 (6) 9"		13	
			10				
				4-5-5 (10) 7"		12	
2877.2			15				
15.0		END OF BORING					Water observed at 6.5 feet while drilling.
		Boring then backfilled with auger cuttings					
			20				
			25				
			30				

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See Descriptive Terminology sheet for explanation of abbreviations

Project Number B2502329
Geotechnical Evaluation
Hershey Transload Facility
Sidney Subdivision, MP 296.50
Hershey, Nebraska

BORING: **TK-03**
LOCATION: Captured with RTK GPS.
DATUM: WGS 84
LATITUDE: 41.158530 LONGITUDE: -100.974000
DRILLER: Subcontractor LOGGED BY: M. Garcia START DATE: 02/23/26 END DATE: 02/23/26
SURFACE ELEVATION: 2889.9 ft RIG: Subcontractor METHOD: 3 1/4" HSA SURFACING: Topsoil WEATHER: Partly Cloudy, 48°

Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q_p tsf	MC %	Tests or Remarks
~~2889.7~~ 0.3		TOPSOIL FILL FILL: LEAN CLAY (CL), with Sand, dark brown and brown, moist		2-4-6 (10)		17	
2886.9 3.0	▽	POORLY GRADED SAND with SILT (SP-SM), fine to coarse-grained, with Gravel, brown, moist to wet, very loose to medium dense (ALLUVIUM)		4-5-5 (10) 12"		3	
				3-3-3 (6) 7"		11	
				2-2-2 (4) 8"		15	
				2-4-4 (8) 5"		11	
2874.9 15.0		END OF BORING Boring then backfilled with auger cuttings					Water observed at 8.5 feet while drilling.

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See Descriptive Terminology sheet for explanation of abbreviations

Project Number B2502329
Geotechnical Evaluation
Hershey Transload Facility
Sidney Subdivision, MP 296.50
Hershey, Nebraska

BORING: **TK-04**
LOCATION: Captured with RTK GPS.
DATUM: WGS 84
LATITUDE: 41.158200 LONGITUDE: -100.969000
DRILLER: Subcontractor LOGGED BY: M. Garcia START DATE: 02/23/26 END DATE: 02/23/26
SURFACE ELEVATION: 2888.2 ft RIG: Subcontractor METHOD: 3 1/4" HSA SURFACING: Topsoil WEATHER: Partly Cloudy, 48°

Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q_p tsf	MC %	Tests or Remarks
~~2887.9~~ 0.3		TOPSOIL					
		LEAN CLAY (CL), with Sand, dark brown, moist, medium to soft (ALLUVIUM)		2-3-3 (6) 10"		12	
				2-2-2 (4) 8"		37	
		Trace Gravel		2-1-2 (3) 8"		19	LL=34, PL=17, PI=17
2880.2 8.0		CLAYEY SAND (SC), fine to coarse-grained, with Gravel, gray, moist, very loose to loose (ALLUVIUM)		2-1-2 (3) 11"		16	P200=15%
				3-3-4 (7) 15"		19	
2873.2 15.0		END OF BORING					Water not observed while drilling.
		Boring then backfilled with auger cuttings					

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See Descriptive Terminology sheet for explanation of abbreviations

Project Number B2502329
Geotechnical Evaluation
Hershey Transload Facility
Sidney Subdivision, MP 296.50
Hershey, Nebraska

BORING: **TK-05**
LOCATION: Captured with RTK GPS.
DATUM: WGS 84
LATITUDE: 41.157850 LONGITUDE: -100.962000
DRILLER: Subcontractor LOGGED BY: M. Garcia START DATE: 02/24/26 END DATE: 02/24/26
SURFACE ELEVATION: 2885.3 ft RIG: Subcontractor METHOD: 3 1/4" HSA SURFACING: Topsoil WEATHER: Cloudy, 56°

Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q_p tsf	MC %	Tests or Remarks
2884.3		TOPSOIL FILL					
1.0		FILL: LEAN CLAY (CL), with Sand, trace Gravel, dark brown, moist		6-6-3 (9) 7"		9	
				3-3-4 (7) 8"		17	
2879.3	▽		5				
6.0		POORLY GRADED SAND with SILT (SP-SM), fine to coarse-grained, with Gravel, brown, wet, loose (ALLUVIUM)		5-4-3 (7) 13"		10	
				4-3-3 (6) 10"		11	
			10				
				2-3-4 (7) 14"		14	
2870.3			15				
15.0		END OF BORING					Water observed at 6.0 feet while drilling.
		Boring then backfilled with auger cuttings					
			20				
			25				
			30				

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LOG OF BORING

See Descriptive Terminology sheet for explanation of abbreviations

Project Number B2502329
Geotechnical Evaluation
Hershey Transload Facility
Sidney Subdivision, MP 296.50
Hershey, Nebraska

BORING: **TK-06**
LOCATION: Captured with RTK GPS.
DATUM: WGS 84
LATITUDE: 41.157630 LONGITUDE: -100.958000
DRILLER: Subcontractor LOGGED BY: M. Garcia START DATE: 02/24/26 END DATE: 02/24/26
SURFACE ELEVATION: 2883.7 ft RIG: Subcontractor METHOD: 3 1/4" HSA SURFACING: Topsoil WEATHER: Cloudy, 56°

Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q_p tsf	MC %	Tests or Remarks
2882.7		TOPSOIL FILL					
1.0		FILL: SANDY LEAN CLAY (CL), with Sand, dark brown to brown, moist		3-4-5 (9) 10"		17	P200=52%
				2-3-5 (8) 13"		36	LL=32, PL=19, PI=13
2877.7			5				
6.0	▽	POORLY GRADED SAND with SILT (SP-SM), fine to coarse-grained, with Gravel, brown, moist to wet, very loose to loose (ALLUVIUM)		2-2-2 (4) 6"		19	
				2-3-2 (5) 10"		26	
			10				
2868.7				2-3-3 (6) 7"		13	
15.0		END OF BORING	15				Water observed at 7.5 feet while drilling.
		Boring then backfilled with auger cuttings					
			20				
			25				
			30				

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LOG OF BORING

See Descriptive Terminology sheet for explanation of abbreviations

Project Number B2502329
Geotechnical Evaluation
Hershey Transload Facility
Sidney Subdivision, MP 296.50
Hershey, Nebraska

BORING: **TK-101**
LOCATION: Captured with RTK GPS.
DATUM: WGS 84
LATITUDE: 41.158950 LONGITUDE: -100.987000
DRILLER: Subcontractor LOGGED BY: M. Garcia START DATE: 02/24/26 END DATE: 02/24/26
SURFACE ELEVATION: 2896.3 ft RIG: Subcontractor METHOD: 3 1/4" HSA SURFACING: Aggregate WEATHER: Cloudy, 56°

Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q_p tsf	MC %	Tests or Remarks
2896.0		TOPSOIL FILL					
0.3		APPARENT AGGREGATE BASE					
2894.5		FILL: SILT (ML), with Sand, trace Gravel, dark brown, moist		3-4-4 (8) 7"		10	LL=31, PL=25, PI=6
1.8		POORLY GRADED SAND (SP), fine to coarse-grained, with Gravel, brown, moist to wet, medium dense to loose (ALLUVIUM)		11-10-9 (19) 10"		5	
2893.3			5	6-6-6 (12) 10"		13	P200=3%
3.0	▽			4-4-4 (8) 5"		13	
			10				
				3-3-3 (6) 2"		9	
2881.3			15				
15.0		END OF BORING					Water observed at 8.0 feet while drilling.
		Boring then backfilled with auger cuttings					
			20				
			25				
			30				

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LOG OF BORING

See Descriptive Terminology sheet for explanation of abbreviations

Project Number B2502329
Geotechnical Evaluation
Hershey Transload Facility
Sidney Subdivision, MP 296.50
Hershey, Nebraska

BORING:	TK-102		
LOCATION: Captured with RTK GPS.			
DATUM: WGS 84			
LATITUDE: 41.157310		LONGITUDE: -100.955000	
DRILLER: Subcontractor	LOGGED BY: M. Garcia	START DATE: 02/24/26	END DATE: 02/24/26
SURFACE ELEVATION: 2882.9 ft	RIG: Subcontractor	METHOD: 3 1/4" HSA	SURFACING: Aggregate	WEATHER: Cloudy, 56°

Elev./ Depth ft	Water Level	Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908)	Sample	Blows (N-Value) Recovery	q_p tsf	MC %	Tests or Remarks
2882.7 0.3		TOPSOIL APPARENT AGGREGATE BASE					
2881.2 1.8		SILTY SAND (SM), fine to medium-grained, brown, moist to wet, medium dense to loose (ALLUVIUM)		2-3-2 (5) 0"			
	▽			4-8-8 (16) 13"		9	P200=17%
				4-4-4 (8) 10"		11	
				3-2-3 (5) 10"		16	
				2-3-3 (6) 7"		15	
2867.9 15.0		END OF BORING Boring then backfilled with auger cuttings					Water observed at 7.0 feet while drilling.

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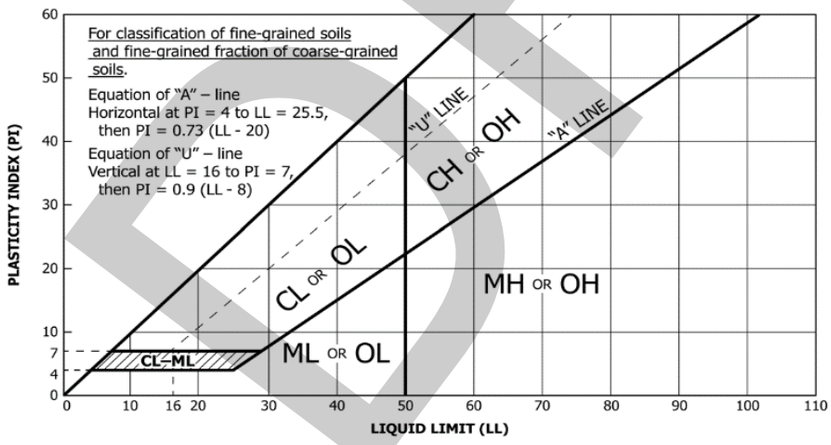
Descriptive Terminology of Soil

Based on Standards ASTM D2487/2488
(Unified Soil Classification System)

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests[A]				Soil Classification	
				Group Symbol	Group Name[B]
Coarse-grained Soils (more than 50% retained on No. 200 sieve)	Gravels (More than 50% of coarse fraction retained on No. 4 sieve)	Clean Gravels (Less than 5% fines[C])	$C_u \geq 4$ and $1 \leq C_c \leq 3^D$	GW	Well-graded gravel[E]
			$C_u < 4$ and/or ($C_c < 1$ or $C_c > 3$)[D]	GP	Poorly graded gravel[E]
		Gravels with Fines (More than 12% fines[C])	Fines classify as ML or MH	GM	Silty gravel[E F G]
			Fines Classify as CL or CH	GC	Clayey gravel[E F G]
	Sands (50% or more coarse fraction passes No. 4 sieve)	Clean Sands (Less than 5% fines[H])	$C_u \geq 6$ and $1 \leq C_c \leq 3^D$	SW	Well-graded sand[I]
			$C_u < 6$ and/or ($C_c < 1$ or $C_c > 3$)[D]	SP	Poorly graded sand[I]
		Sands with Fines (More than 12% fines[H])	Fines classify as ML or MH	SM	Silty sand[F G I]
			Fines classify as CL or CH	SC	Clayey sand[F G I]
Fine-grained Soils (50% or more passes the No. 200 sieve)	Silts and Clays (Liquid limit less than 50)	Inorganic	PI > 7 and plots on or above "A" line[J]	CL	Lean clay[K L M]
			PI < 4 or plots below "A" line[J]	ML	Silt[K L M]
		Organic	Liquid Limit – oven dried / Liquid Limit – not dried <0.75	OL	Organic clay[K L M N] / Organic silt[K L M O]
	Silts and Clays (Liquid limit 50 or more)	Inorganic	PI plots on or above "A" line	CH	Fat clay[K L M]
			PI plots below "A" line	MH	Elastic silt[K L M]
		Organic	Liquid Limit – oven dried / Liquid Limit – not dried <0.75	OH	Organic clay[K L M P] / Organic silt[K L M Q]
Highly Organic Soils		Primarily organic matter, dark in color, and organic odor		PT	Peat

A. Based on the material passing the 3-inch (75-mm) sieve.
B. If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
C. Gravels with 5 to 12% fines require dual symbols:
   GW-GM well-graded gravel with silt
   GW-GC well-graded gravel with clay
   GP-GM poorly graded gravel with silt
   GP-GC poorly graded gravel with clay
D. $C_u = D_{60} / D_{10}$ $C_c = (D_{30})^2 / (D_{10} \times D_{60})$
E. If soil contains ≥ 15% sand, add "with sand" to group name.
F. If fines classify as CL-ML, use dual symbol GC-GM or SC-SM.
G. If fines are organic, add "with organic fines" to group name.
H. Sands with 5 to 12% fines require dual symbols:
   SW-SM well-graded sand with silt
   SW-SC well-graded sand with clay
   SP-SM poorly graded sand with silt
   SP-SC poorly graded sand with clay
I. If soil contains ≥ 15% gravel, add "with gravel" to group name.
J. If Atterberg limits plot in hatched area, soil is CL-ML, silty clay.
K. If soil contains 15 to < 30% plus No. 200, add "with sand" or "with gravel", whichever is predominant.
L. If soil contains ≥ 30% plus No. 200, predominantly sand, add "sandy" to group name.
M. If soil contains ≥ 30% plus No. 200 predominantly gravel, add "gravelly" to group name.
N. PI ≥ 4 and plots on or above "A" line.
O. PI < 4 or plots below "A" line.
P. PI plots on or above "A" line.
Q. PI plots below "A" line.



Laboratory Tests

DD	Dry density, pcf	**q_p**	Pocket penetrometer strength, tsf
WD	Wet density, pcf	**q_U**	Unconfined compression test, tsf
P200	% Passing #200 sieve	**LL**	Liquid limit
MC	Moisture content, %	**PL**	Plastic limit
OC	Organic content, %	**PI**	Plasticity index

Particle Size Identification

Boulders..... over 12"
Cobbles..... 3" to 12"
Gravel
  Coarse..... 3/4" to 3" (19.00 mm to 75.00 mm)
  Fine..... No. 4 to 3/4" (4.75 mm to 19.00 mm)
Sand
  Coarse..... No. 10 to No. 4 (2.00 mm to 4.75 mm)
  Medium..... No. 40 to No. 10 (0.425 mm to 2.00 mm)
  Fine..... No. 200 to No. 40 (0.075 mm to 0.425 mm)
Silt..... No. 200 (0.075 mm) to .005 mm
Clay..... < .005 mm

Relative Proportions[L,M]

trace..... 0 to 5%
little..... 6 to 14%
with..... ≥ 15%

Inclusion Thicknesses

lens..... 0 to 1/8"
seam..... 1/8" to 1"
layer..... over 1"

Apparent Relative Density of Cohesionless Soils

Very loose ..... 0 to 4 BPF
Loose ..... 5 to 10 BPF
Medium dense..... 11 to 30 BPF
Dense..... 31 to 50 BPF
Very dense..... over 50 BPF

Consistency of Cohesive Soils	Blows Per Foot	Approximate Unconfined Compressive Strength
Very soft	0 to 1 BPF	< 0.25 tsf
Soft	2 to 4 BPF	0.25 to 0.5 tsf
Medium	5 to 8 BPF	0.5 to 1 tsf
Stiff	9 to 15 BPF	1 to 2 tsf
Very Stiff	16 to 30 BPF	2 to 4 tsf
Hard	over 30 BPF	> 4 tsf

Moisture Content:

Dry: Absence of moisture, dusty, dry to the touch.
Moist: Damp but no visible water.
Wet: Visible free water, usually soil is below water table.

Drilling Notes:

Blows/N-value: Blows indicate the driving resistance recorded for each 6-inch interval. The reported N-value is the blows per foot recorded by summing the second and third interval in accordance with the Standard Penetration Test, ASTM D1586.

Partial Penetration: If the sampler could not be driven through a full 6-inch interval, the number of blows for that partial penetration is shown as #/x" (i.e. 50/2"). The N-value is reported as "REF" indicating refusal.

Recovery: Indicates the inches of sample recovered from the sampled interval. For a standard penetration test, full recovery is 18", and is 24" for a thinwall/shelby tube sample.

WOH: Indicates the sampler penetrated soil under weight of hammer and rods alone; driving not required.

WOR: Indicates the sampler penetrated soil under weight of rods alone; hammer weight and driving not required.

Water Level: Indicates the water level measured by the drillers either while drilling (▽), at the end of drilling (▼), or at some time after drilling (▽▼).

Sample Symbols

Standard Penetration Test
Modified California (MC)
Auger
Grab Sample
Rock Core
Thinwall (TW)/Shelby Tube (SH)
Texas Cone Penetrometer
Dynamic Cone Penetrometer

5/2021

BRAUN INTERTEC
the science you build on
11001 Hampshire Avenue S
Minneapolis, MN 55438
Phone: 952-995-2000

Standard Proctor M-D Relationship

ASTM D698

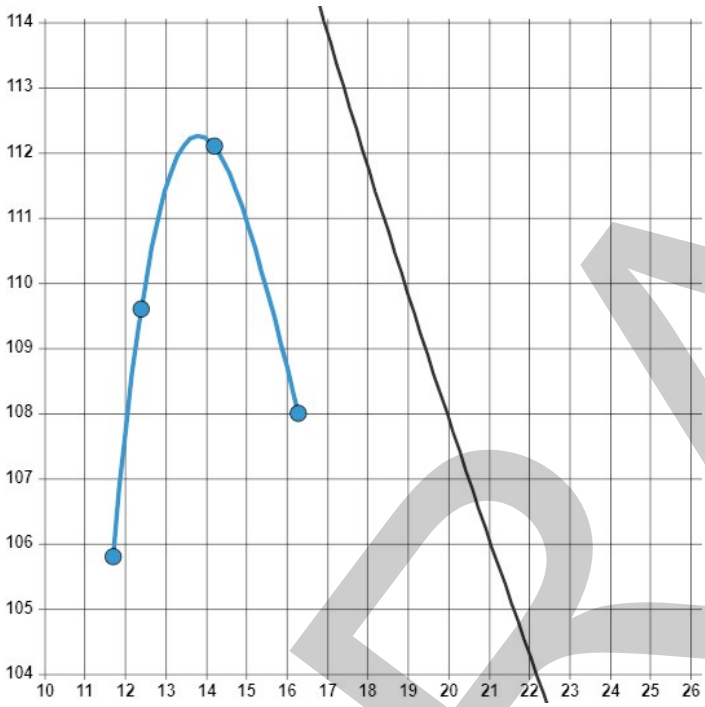
Report #: BI0578-000001
Report Date: 03/09/2026

Client:	**Project:**
TranSystems Corporation 2400 Pershing Road, Suite 400 Kansas City, MO 64108	B2502329 Hershey Transload Facility Hershey, NE

Sample Information

Sample Number:	716256	**Depth (ft):**	1.0-4.0
Boring Number:	RD-03	**Sampled By:**	Drill Crew
Sample Date:	03/09/2026		
Received Date:	03/09/2026	**Lab:**	11001 Hampshire Ave S, Bloomington, MN
Tested Date:	03/09/2026	**Tested By:**	Andraschko, Nina

Laboratory Data



Proctor ID:	P-01-std		
Maximum Dry Density (pcf):	112.3		
Optimum Moisture (%):	13.8		
Method:	Method A		
Preparation Method:	Moist		
Rammer Type:	Manual Round		
Specific Gravity:	2.65		
Specific Gravity Source:	Assumed		
Passes #200 (%):	55	**Retained #200 (%):**	45
Retained On 3/4 (%):	0	**Retained On 3/8 (%):**	0
Retained On #4 (%):	0	**Passing #4 (%):**	100

Classification: CL Sandy lean clay, brown

General

Remarks: The % passing the #200 is for informational purposes only.

BRAUN INTERTEC
the science you build on
11001 Hampshire Avenue S
Minneapolis, MN 55438
Phone: 952-995-2000

California Bearing Ratio

ASTM D1883

Report #: BI0641-000001
03/17/2026

Client:	**Project:**
TranSystems Corporation 2400 Pershing Road, Suite 400 Kansas City, MO 64108	B2502329 Hershey Transload Facility Hershey, NE

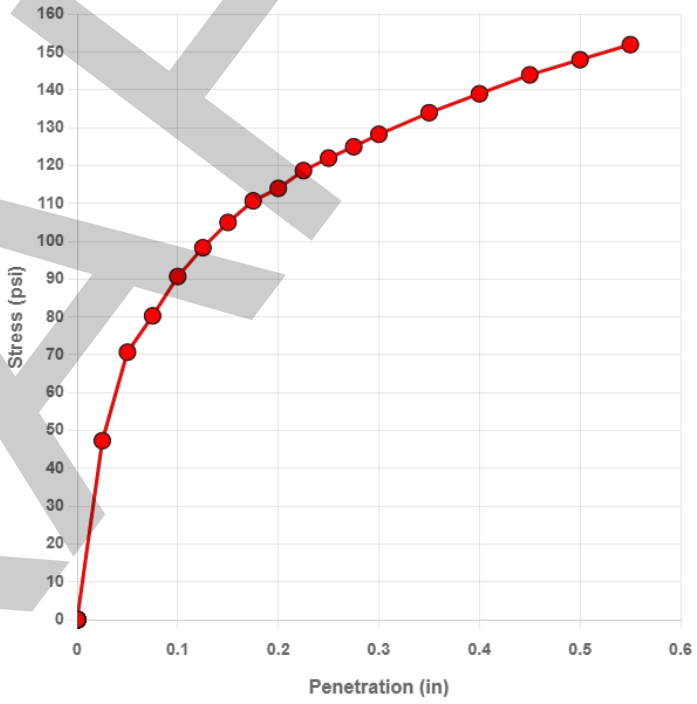
Sample Information

Sample Number:	716256	**Depth (ft):**	1.0-4.0
Boring Number:	RD-03	**Sampled By:**	Drill Crew
Sample Date:	03/09/2026		
Received Date:	03/09/2026	**Lab:**	11001 Hampshire Ave S, Bloomington, MN
Tested Date:	03/17/2026	**Tested By:**	Seokaran, Kanhai

Laboratory Data

Property	Result
Soaked Or Unsoaked:	Soaked
Method Of Preparation:	ASTM D698
Number Of Blows Per Lift:	25
Surcharge (lbs):	10
Molding Moisture Content (%):	14.3
Final Moisture Content (%):	15.1
Moisture in Top Inch (%):	17.7
Molded Dry Density (pcf):	109.9
Percent Of Maximum Density:	97.9
Swell (%):	0.2
CBR at 0.1 Penetration:	9.1
CBR at 0.2 Penetration:	7.6
Soil Classification:	CL Sandy lean clay

CBR Load Graph



Minimum Specified

Bearing Ratio Result: 9.1

General

Results: The test is for informational purposes.