

WASTEWATER DISPOSAL REPORT

FLYING HORSE NORTH PHASE 2 PUD DEVELOPMENT PLAN & In order to satisfactorily meet the requirements of the Code

October 2023 Revised: January 2024 Revised: March 2024

Prepared by:

HR Green, LLC. 1975 Research Parkway, Suite 220 Colorado Springs, CO 80920 (719) 300-4140

Prepared for:

Flying Horse Development, LLC

PUD FILE NO.: PUDSP234

In order to satisfactorily meet the requirements of the Code, a report must be submitted for the preliminary plan area that covers the requirements of both section 8.4.8.E.2.b for the portion proposed to be served by central services AND section 8.4.8.E.2.d for the portion proposed to be served by OWTS.

The first part has been done in this report; the second part has not been done.

Identify which lots are proposed to be served by central services, and which lots are proposed to be served by OWTS. If you are not proposing to use OWTS on any of these lots, please do not submit an OWTS report and clearly identify in this report that ALL lots are proposed to be serviced by central services, regardless of lot size.

You have consistently included documentation for FHN Filing No. 3, for soils and OWTS reports. Filing 3 is not included in this PUD / preliminary plan boundary, and therefore not relevant to this request.



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Exhibit 1 – Map Showing Point of Connection to Existing System and Location of Upper Monument Creek Regional WWTF

Exhibit 2 - Wastewater Study Report by Entech Engineering, Inc

Exhibit 3 - Letter of Intent to Serve



1.0 WASTEWATER DISPOSAL

The purpose of this report is to discuss the specific wastewater needs of the proposed Flying Horse North development in El Paso County, Colorado.

The project consists of 913.6 acres and roughly 846 residential units, 64.7 acres of commercial, and a hotel. Located between Black Forest Rd and Highway 83, within Section 31 of Township 11 South, Range 65 West of the 6th Principal Meridian and Section 36 of Township 11 South, Range 66 West. This report will evaluate the projected loading for Parcels 1-6 that consists of 796 residential units, 64.7 acres of commercial, and a hotel. Nine of the residential units will have individual on-site wastewater treatment systems (OWTS). The remainder of the residential and commercial properties within the development will be provided wastewater services through an agreement with Triview Metropolitan District (TMD).

A. Map Showing Relative Location of Point of Connection to an Existing System

Refer to Exhibit 1

B. Map Showing Relative Location of the Existing or Proposed Treatment Facility

Refer to Exhibit 1

C. Estimate of Projected Population, Units, and Density (Average Day)

Projected Wastewater Loads: Wastewater projections are based on average-daily design flows specified in COS Wastewater Line Extension and Service Standards. It is expected that Flying Horse North will generate an average of 227,182 gallons/day of wastewater. Table 1 below summarizes the projected wastewater loads for the units that will be provided wastewater services by TMD. Table 2 summarizes the projects wastewater loads for the units that will have individual OWTS. Values used for calculating projected loadings are summarized in Table 3.

Table 1 - Overall Projected Wastewater Loads to UMCR WWTF

	Wastewater Projected Loading (GPD)
Residential - 796 Units	127,887
Hotel - 225 rooms, 50 branded flats, meeting space, spa, bars, pools, etc.	70,493
Commercial and Parks - Black Forest Rd, internal site, amenity and fitness centers, parks, etc.	27,339
TOTAL	225,719



Table 2 - Overall Projected OWTS Wastewater Loads

	Wastewater Projected Loading (GPD)
Residential – 9 units	1,463
TOTAL	1,463

The residential units that will have individual OWTS are 5 and 2.5 acre lots described in the Wastewater Study Report provided by Entech Engineering, Inc as Exhibit 2.

Table 3- Average-Daily Design Flows per Colorado Springs Utilities Standards

	Average-Daily Design Flow
Single Family (2.5 person per unit)	65 Gal / Person / Day
Commercial	1,300 Gal / Ac / Day

that lists Cherokee as the wastewater provider. That report is outdated and Capacit

contains conflicting information to this report. I recognize the commitment letter

Exhibit 2 is not a letter of intent - it is the sketch plan report

is also included, but it is not acceptable to submit two separate reports attached

between the reports. You must provide an updated report that meets the criteria identified in the

comment on the 1st

page.

conflicting information

together with

D. Capacity of the Existing Treatment Plant and Current Utilization

The current plant capacity of the Wastewater Treatment Facility (WWTF) that Triview Metropolitan District (Triview) is tributary to is 1.75 MGD. The utilization of the WWTF is being evaluated due to the change of multiple zoning districts within the service area of the plan. Note that North Monument Creek Interceptor (NMCI) project analysis is underway to determine bypassing Triview's effluent away from the WWTF and directly into the Colorado Springs Utility interceptor. The results of these studies will not be available for a couple months. It is anticipated that the utilization of the WWTF or the NMCI will allow for the addition of the wastewater effluent from the Flying Horse MD.

contingent

commitment letter.

contingency is and

Explain what the

how it will be

achieved.

E. Anticipated Capacity of any Proposed Treatment Plant

No treatment plants are proposed to be constructed for this project. The existing Upper Monument Creek Regional WWTF has the capacity to treat the projected wastewater loading from the Development.

F. Letter of Commitment from the Wastewater Provider Proposed for Service w/Service Boundaries

TMD has signed a **letter or intent** to provide wastewater service to the Flying Horse North development. The letter of intent is enclosed as Exhibit 3.

G. YStateyneyn lay the Wastewater/Provider/that Adequate Capacity/Exists

Refer to Exhibit 2 for the letter of intent which includes TMDs statement of adequacy.

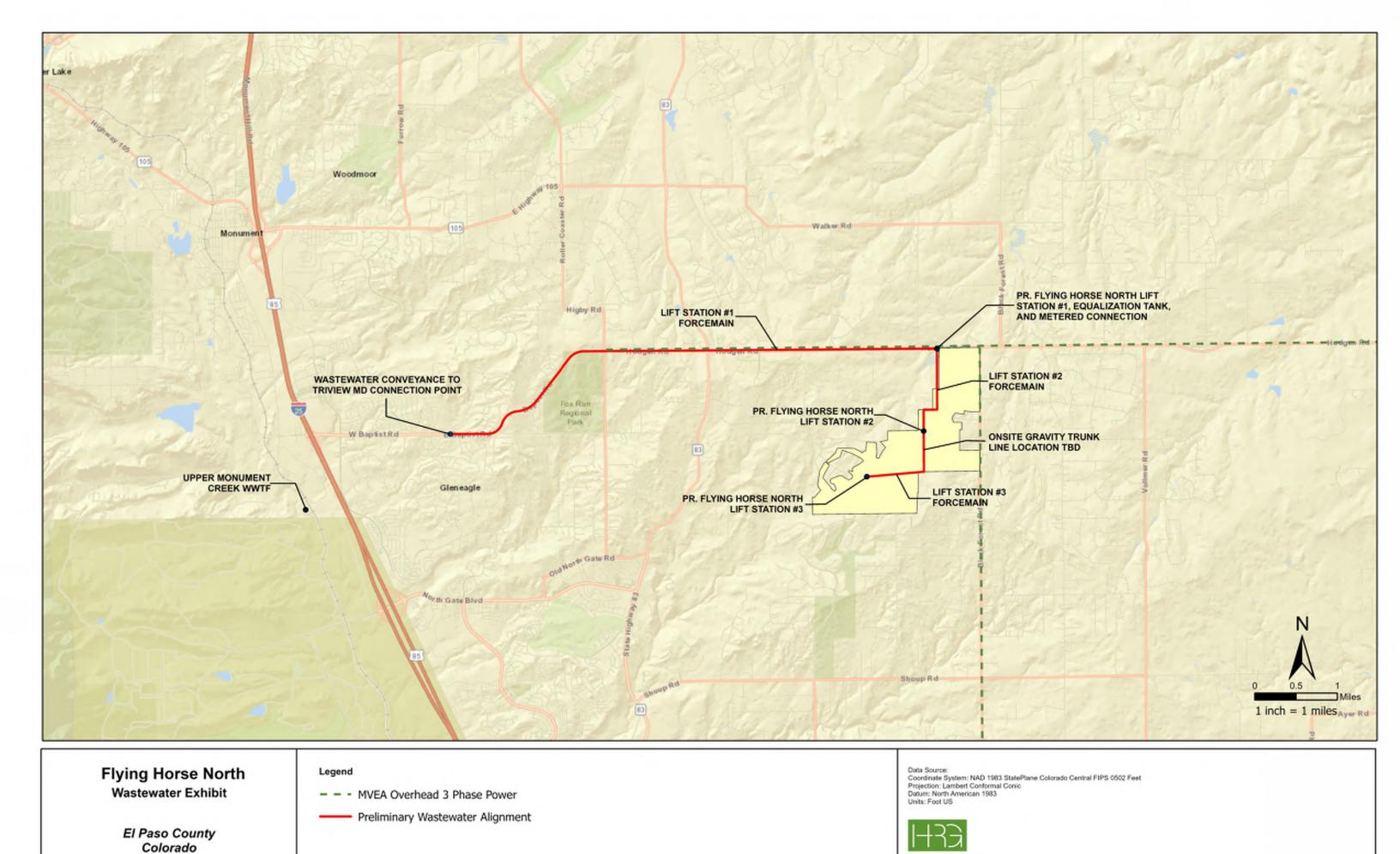


H. Estimate of Construction Costs

The initial construction cost estimate to convey the wastewater to the Upper Monument Creek Regional WWTF is \$10-12 million.







HRGreen





WASTEWATER STUDY FLYING HORSE NORTH SKETCH PLAN EL PASO COUNTY, COLORADO

Prepared for:

Flying Horse Development, LLC 2138 Flying Horse Club Drive Colorado Springs, Colorado 80921

Attn: Drew Balsick

January 23, 2024

Respectfully Submitted,

ENTECH ENGINEERING, INC.

Logan L. Langford, P.G.

Sr. Geologist

Reviewed by:

Joseph C. Goode Jr., P.E.

President

PCD File No. SKP223

LLL



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1 SUMMARY

Project Location

The project consists of Section 36, Township 11 South, Range 66 West and portions of Sections 30 and 31, Township 11 South, Range 65 West of the 6th Principal Meridian in El Paso County, Colorado. The site is located approximately 4 miles southeast of Monument, Colorado.

Project Description

The Flying Horse North Sketch Plan project will consist of the development of 912.5 acres. The proposed site development will include single-family residential estate lots, low to high density residential lots, a commercial golf club, hotel and fitness center, a potential fire station, detention ponds, open space, parks, and trail systems. A total of 1,571 residential units are proposed with the development. Most of the development will utilize Cherokee Water and Sanitation for water and sewer. Flying Horse North Filing No. 3 will utilize individual water wells and onsite wastewater treatment systems (OWTS) for the residential lots. A portion of the 2.5+ acre lots in the eastern portion of the site will utilize OWTS for sewer, but will be on central water.

Scope of Report

This report presents the results of our geologic evaluation and treatment of engineering geologic hazard study.

Land Use and Engineering Geology

This site was found to be suitable for the proposed development. Areas were encountered where the geologic conditions will impose some constraints on development and land use. These include areas of seasonal and potentially seasonal shallow groundwater areas, drainage areas, areas of ponded water, floodplain, erosion, artificial fill, expansive soils, and areas of downslope creep. Based on the proposed development plan, it appears that these areas will have some impact on the development. These conditions will be discussed in greater detail in the report.

In general, it is our opinion that the development can be achieved if the observed geologic conditions on site are either avoided or properly mitigated. All recommendations are subject to the limitations discussed in the report.



2 GENERAL SITE CONDITIONS AND PROJECT DESCRIPTION

The site consists of Section 36, Township 11 South, Range 66 West and portions of Sections 30 and 31, Township 11 South, Range 65 West of the 6th Principal Meridian in El Paso County, Colorado. The site is located approximately 4 miles southwest of Monument, Colorado, at the east end of Stagecoach Road between Highway 83 and Black Forest Road. The location of the site is as shown on the Vicinity Map, Figure 1.

The topography of the site varies from gently to moderately sloping generally to the northeast and southwest off a ridge line that bisects the site with some steeper slopes along drainages in the western portion of the site. The ridge line that bisects the site is associated with the Palmer Divide. The drainages on site flow in westerly and northerly directions through the property. No water was observed flowing in these the drainages at the time of this investigation, however, areas of ponded water were observed behind several earthen dams. The site boundaries are indicated on the USGS Map, Figure 2. Previous land uses have included grazing and pastureland. Flying Horse North Filing Nos. 1 and two, and the Flying Horse North golf course have been developed. The site contains primarily field grasses and weeds in the eastern portions of the site with areas of ponderosa pine tree coverage, grasses, and weeds in the western portions of the site. Site photographs are included in Appendix A. The locations and directions of the photographs are indicated in Figure 3.

The Flying Horse North Sketch Plan project will consist of the development of 912.5 acres. The proposed site development will include single-family residential estate lots, low to high density residential lots, a commercial golf club, hotel and fitness center, a potential fire station, detention ponds, open space, parks, and trail systems. A total of 1,571 residential units are proposed with the development. The area will be serviced by Cherokee Water and Sanitation. The proposed Sketch Plan prepared by HRGreen is presented in Figure 4. The proposed lot configuration is shown on Figure 4A.

The site was previously investigated by Entech Engineering, Inc. as a part of a Soil, Geology, Geologic Hazard and Wastewater Study dated February 26, 2015 (Reference 1), and a Soil, Geology, Geologic Hazard and Wastewater Study dated February 22, 2016 (Reference 2), and the Soils and Geology Study and Wastewater Study for Flying Horse North Filing No. 3 dated August 23, 2023 (Reference 3). Information from these reports was used in evaluating the site.



3 SCOPE OF THE REPORT

The scope of the report will include a general geologic analysis utilizing published geologic data. Detailed site-specific mapping was conducted to obtain general information in respect to major geographic and geologic features, geologic descriptions, and their effects on the development of the property in accordance with the El Paso Land Development Code.

4 FIELD INVESTIGATION

Our field investigation consisted of the preparation of a geologic map of any bedrock features and significant surficial deposits. The Natural Resource Conservation Service (NRCS), previously the Soil Conservation Service (SCS) survey was also reviewed to evaluate the site. The position of mappable units within the subject property are shown on the Geologic Map. Our mapping procedures involved both field reconnaissance and measurements and air photo reconnaissance and interpretation. The same mapping procedures have also been utilized to produce the Engineering Geology Map which identified pertinent geologic conditions affecting development. The field mapping was initially performed by personnel of Entech on November 21 and December 2, 2014. Field mapping has continued to be conducted during our previous site investigations and current investigations of the Flying Horse North Development. The most recent site observations were made on January 2, 2024. Site photographs are included in Appendix A.

Thirty-four (34) test borings were drilled, and eighteen (18) test pits excavated across the project site to determine the soils classification and engineering characteristics. Six (6) borings were completed for the initial submittal of this report, and twenty-eight (28) additional test borings were recently drilled in December 2023 and January 2024. Three (3) additional test pits were excavated in January 2024 to evaluate OWTS systems. The borings were drilled to depths of 20 feet using a truck-mounted, continuous flight auger drilling rig supplied and operated by Entech, and the test pits were excavated to depths ranging from 3 to 8 feet.

The original field investigation consisted of fourteen (14) profile holes drilled to depths of 15 feet to determine the general suitability of the site for construction across the Flying Horse North property in previous studies. Six (6) additional test borings were drilled for the Flying Horse North Filing No. 3 submittal (Reference 3). A total of fifty-four (54) borings have been drilled within the Flying Horse North Sketch Plan boundaries.



The locations of the current and previous test borings, and test pits are indicated on the Development Plan/Test Location Map, Figure 3. The Test Boring Logs and Laboratory Test Results are included in Appendix B and C. Previous test boring logs and laboratory testing summaries are included in Appendix D and E (Reference 3 and 4). Results of the testing will be discussed later in this report.

Laboratory testing was performed on the soils to classify and determine the soils engineering characteristics. Laboratory tests included moisture content testing, ASTM D-2216, grain-size analysis, ASTM D-422, and Atterberg Limits, ASTM D-4318. Swell testing included both FHA Swell Tests and Swell/Consolidation Tests. Results of the laboratory testing are included in Appendices C, and D.

5 SOIL, GEOLOGY, AND ENGINEERING GEOLOGY

5.1 General Geology

Physiographically, the site lies in the western portion of the Great Plains Physiographic Province. Approximately 10 miles to the west is a major structural feature known as the Rampart Range Fault. This fault marks the boundary between the Great Plains Physiographic Province and the Southern Rocky Mountain Province. The site exists within the southeastern edge of a large structural feature known as the Denver Basin. Bedrock in the area tends to be very gently dipping in a northerly direction (Reference 4). The rocks in the area of the site are sedimentary in nature, and typically Tertiary to Cretaceous in age. The bedrock underlying the site consists of the Dawson Arkose Formation. Overlying this formation are unconsolidated deposits of residual, colluvial, man-made, and alluvial soils of the Quaternary Age. The residual soils are produced by the in-situ action of weathering of the bedrock on site. Some colluvial soils exist which are deposited by gravity and sheetwash. The alluvial soils were deposited by water in the drainages on site. Man-made soils exist as earthen dams and erosion berms. The site's stratigraphy will be discussed in more detail in Section 5.3.

5.2 Soil Conservation Survey

The Natural Resource Conservation Service (Reference 5), previously the Soil Conservation Service (Reference 6) has mapped five soil types on the site (Figure 5). In general, they vary from sandy loam to loam and sandy loam with subsoils of clay loam. The soils are described as follows:

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<u>Type</u>	<u>Description</u>
14	Brussett loam, 1-3% slopes
26	Elbeth sandy loam, 8-15% slopes
66	Peyton sandy loam, 1-5% slopes
67	Peyton sandy loam, 5-9% slopes
68	Peyton-Pring complex, 3-8% slopes

Complete descriptions of each soil type are presented in Appendix F. The soils have generally been described as having moderate to rapid permeabilities. Limitations on development include limited ability to support a load, shrink swell potential, slopes and frost action potential.

Possible hazards with soil erosion are present on the site. The erosion potential can be controlled with vegetation. Most of the soils have been described to have moderate erosion hazards.

5.3 Site Stratigraphy

The Black Forest Quadrangle Geology Map showing the site is presented in Figure 6 (Reference 7). The Geology Map prepared for the site is presented in Figure 7. Three mappable units were identified on this site which are described as follows:

- **Qaf** Artificial Fill of Quaternary Age: These are man-made fill deposits associated with erosion berms and earthen dams on-site. Additionally, temporary stockpiles were observed on the site. Other areas of fill may exist on the site other than those mapped due to on-going construction.
- **Qal Recent Alluvium of Quaternary Age:** These are recent stream deposits associated with the drainages on-site. These materials generally consist of silty to clayey sands and may contain clay lenses. Highly organic soils may be encountered in some of these areas.
- **Tkd Dawson Formation of Tertiary to Cretaceous Age:** The Dawson formation typically consists of arkosic sandstone with interbedded fine-grained sandstone, siltstone and claystone. Overlying this formation is a variable layer of residual soil. The residual soils were derived from the in-situ weathering of the bedrock materials on-site. These soils consisted of silty to clayey sands and sandy clays. Areas of colluvial soils may



exist on some of the slopes on site. These materials are derived from the bedrock materials and have been re-deposited by the action of sheetwash and gravity.

The soils listed above were mapped from site-specific mapping, the *Geologic Map of the Black Forest Quadrangle* distributed by the Colorado Geological Survey in 2003 (References 6), the *Geologic Map of the Colorado Springs-Castle Rock Area*, distributed by the US Geological Survey in 1979 (Reference 8), and the *Geologic Map of the Denver 1º x 2º Quadrangle*, distributed by the US Geological Survey in 1981 (Reference 9). The Test Borings and Test Pit Logs used in evaluating the site are included in Appendix B. The Geology Map prepared for the site is presented in Figure 7.

5.4 Soil Conditions

The soils encountered in the Test Pits can be grouped into four general soil and rock types. The soils were classified using the USDA textural soil classification.

<u>Sandy Loam (Soil Type 2 and 2A)</u> The sandy loam was encountered in three of the test pits at the ground surface extending to depths ranging from 1.5 to 2 feet bgs. The sandy loam was encountered at loose to medium dense states.

<u>Sandy Clay Loam (Soil Type 3 and 3A)</u> The sandy clay loam was encountered in two of the test pits at the ground surface extending to depths of 2 to 3 feet. The sandy clay loam was encountered at medium stiff to very stiff consistencies.

<u>Sandy Clay (Soil Type 4 and 4A)</u> The sandy clay was encountered in three of the test pits at the ground surface to 2 feet bgs, and extending to depths of 4 feet 8 feet. The clay was encountered at medium stiff to very stiff consistencies. The sandstone was encountered at very dense states.

<u>Sandstone</u> (Soil Types 3A and 4A) The sandstone with silt to silty sandstone, and clayey sandstone were encountered in five of the test pits at depths of 2 to 4 feet, and extended to the termination of the test pits (3 to 8 feet). The sandstone was encountered at dense to very dense states.

The Test Pit Logs are presented in Appendix B, and the depth to bedrock and groundwater are presented on Table B-1. Laboratory Test Results are presented in Appendix C, and a Summary of Laboratory Test Results is presented in Table C-1. Previous Laboratory Testing Summary and Test Pit Logs are included in Appendix D.



5.5 Groundwater

Groundwater was not encountered in any of the test borings or test pits which were drilled to 15 to 20 feet and excavated to depths of 3 to 8 feet. Areas of seasonal, potentially seasonal shallow groundwater, and ponded water have been mapped in the drainages and low-lying areas on the site. These areas are discussed in the following section. Fluctuation in groundwater conditions may occur due to variations in rainfall and other factors not readily apparent at this time. It should be noted that in the sandy materials on-site, some groundwater conditions might be encountered due to the variability in the soil profile. Isolated sand and gravel layers within the soils, sometimes only a few feet in thickness and width, can carry water in the subsurface. Groundwater may also flow on top of the underlying bedrock. Builders and planners should be cognizant of the potential for the occurrence of such subsurface water features during construction on-site and deal with each individual problem as necessary at the time of construction.

<u>Groundwater and Floodplain Areas – Constraint</u>

Drainages and several minor drainages are located across the site that generally flow in westerly, and northerly directions. None of the drainages on the site have been mapped within floodplain zones according to the FEMA Map Nos. 08041CO305G and 08041CO315G, (Figure 7, Reference 11). Areas where potentially seasonal shallow, seasonal shallow, and ponded water have been indicated on the site geology/engineering geology map, Figure 6. OWTS soil treatment areas should not be located within areas mapped as seasonally shallow and potential seasonally shallow groundwater areas.

Seasonal Shallow and Potential Seasonally Shallow Groundwater – Constraint

In these areas, we would anticipate periodic high subsurface moisture conditions and frost heave potential on a seasonal basis. Additional, highly organic soils could be encountered in these areas. These areas lie within defined drainages and it is anticipated they will be avoided by development. Minor drainage swales in building areas should be properly diverted away from the structures. Any structures in or adjacent to these areas should follow the mitigation discussed below.

<u>Areas of Ponded Water – Constraint</u>

These are areas of standing water behind temporary erosion berms on the site, and flowing water within the drainage in the southwestern corner of the site in the area of proposed drainage Tract B. Temporary erosion berms will be removed during the site grading; shallow groundwater may affect the construction of the proposed detention pond located on Tract B. Temporary dewatering

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during construction may be required. Should complete regrading of the site be considered, all organic matter and soft, wet soils should be completely removed before filling. Any drainage into these areas should be rerouted in a non-erosive manner off of the site where it does not create areas of ponded water around proposed structures.

6 ON-SITE WASTEWATER TREATMENT

The site was evaluated for individual on-site wastewater treatment systems in accordance with El Paso Land Development Code. The test pits were located in potential locations of future systems. Three (3) additional test pits were excavated for the proposed 2.5 to 5-acre lots in the eastern portion of the development in January 2024. The approximate locations of the Test Pits are indicated on the Septic Suitability Map, Figures 8 and 8A. Test Pit Logs are included in Appendix B, and Laboratory Test Results in Appendix C. Previous Laboratory Testing Summary and Test Pit Logs are included in Appendix E.

The Natural Resource Conservation Service (Reference 5), previously the Soil Conservation Service (Reference 6) has been mapped with two soil descriptions. The Soil Survey Map (Reference 5) is presented in Figure 4, and the Soil Survey Descriptions are presented in Appendix F. The soils are described as having slow to rapid percolation rates. The majority of the soils have been described with moderate permeabilities.

Soils encountered in the tactile test pits consisted of sandy loam, sandy clay loam, and sandy clay, sandstone with silt to silty sandstone and clayey sandstone. Signs of seasonal occurring groundwater were observed in TP-3 at 4 feet. The limiting layers encountered in the test pits are sandy loam (2A), sandy clay loam (Soil Types 3 and 3A), sandstone (sandy clay loam when classified as a soil) (Soil Type 2A), sandstone (sandy clay when classified as a soil) (Soil Type 4A), and claystone (sandy clay when classified as a soil). The soil types correspond to LTAR values ranging from 0.50 to 0.15 gallons per day per square foot. Additional investigation may identify areas where suitable conventional systems could be used on the lots, however, the lots will likely require engineered systems.

In summary, it is our opinion that the 2.5+ acre lots are suitable individual on-site wastewater treatment systems (OWTS) and that contamination of surface and subsurface water resources should not occur provided the OWTS sites are evaluated and installed according to El Paso County and State Guidelines and properly maintained. Based on the testing performed as part of this investigation designed systems will likely be required for the majority of the lots. A Septic



Suitability Map is presented in Figures 8 and 8A. OWTS sites should not be located within defined drainages. Individual soil testing is required on the lots prior to construction. Absorption fields must be located a minimum of 100 feet from any well, including those on adjacent properties. Absorption fields must also be located a minimum of 50 feet from any drainages, floodplains or ponded areas and 25 feet from dry gulches.

7 CLOSURE

It is our opinion that the existing geologic engineering and geologic conditions will impose some constraints on development and construction of the site. The majority of these conditions can be mitigated through proper engineering design and construction practices. The proposed development and use are consistent with anticipated geologic and engineering geologic conditions.

It should be pointed out that because of the nature of data obtained by random sampling of such variable and non-homogeneous materials as soil and rock, it is important that we be informed of any differences observed between surface and subsurface conditions encountered in construction and those assumed in the body of this report. Individual investigations for building sites will be required prior to construction. Construction and design personnel should be made familiar with the contents of this report. Reporting such discrepancies to Entech Engineering, Inc. soon after they are discovered would be greatly appreciated and could possibly help avoid construction and development problems.

This report has been prepared for Flying Horse Development, LLC for application to the proposed project in accordance with generally accepted geologic soil and engineering practices. No other warranty expressed or implied is made.

We trust that this report has provided you with all the information that you required. Should you require additional information, please do not hesitate to contact Entech Engineering, Inc.

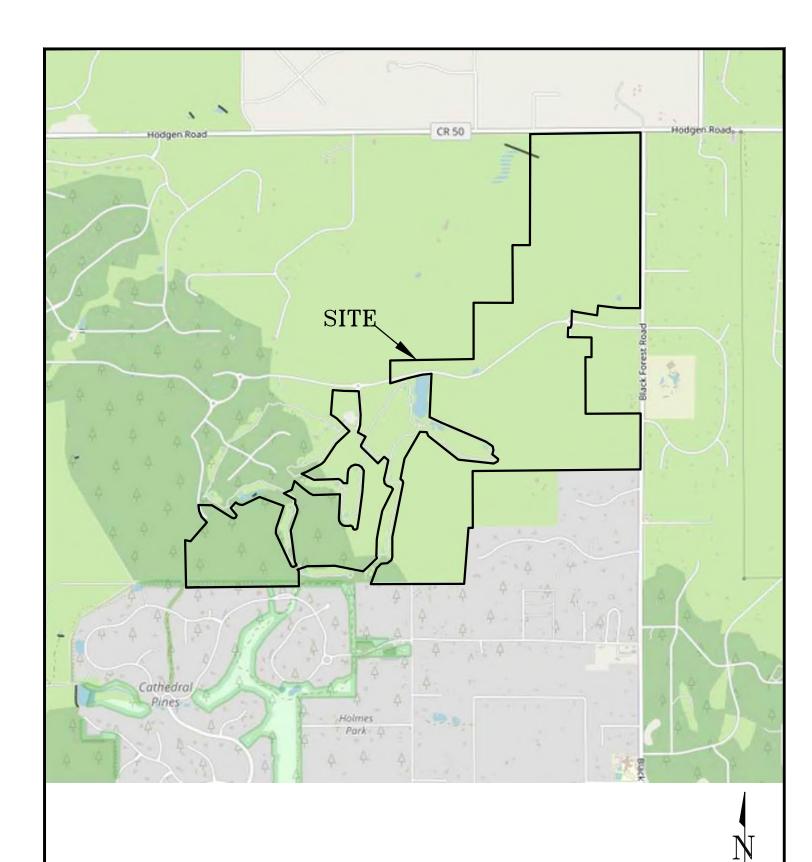


8 BIBLIOGRAPHY

- 1. Entech Engineering, Inc., February 26, 2015. Soil, Geology, Geologic Hazard, and Wastewater Study, Shamrock Ranch, El Paso County, Colorado. Entech Job No. 141588
- 2. Entech Engineering, Inc., February 22, 2016. Soil, Geology, Geologic Hazard, and Wastewater Study, Flying Horse North, PUD Submittal, El Paso County, Colorado. Entech Job No. 160118.
- 3. Entech Engineering, Inc., August 23, 2023. *Soil and Geology Study, Wastewater Study, Flying Horse North, Filing No. 3, El Paso County, Colorado.* Entech Job No. 231192.
- 4. Bryant, Bruce; McGrew, Laura W. and Wobus, Reinhard A. 1981. *Geologic Structure Map of the Denver 1° x 2° Quadrangle, North-Central Colorado*. U.S. Geologic Survey. Map 1-1163.
- 5. Natural Resource Conservation *Service*, June 20, 2007. *Web Soil Survey*. United States Department Agriculture, hhtp://web soil survey.nrcs.usda.gov.
- 6. United States Department of Agriculture Soil Conservation Service. June 1981. *Soil Survey of El Paso County Area, Colorado.*
- 7. Thorson, Jon P. 2003. *Geologic Map of the Black Forest Quadrangle, El Paso County, Colorado*. Colorado Geological Survey. Open-File Report 03-6.
- 8. Trimble, Donald E. and Machette, Michael N. 1979. *Geologic Map of the Colorado Springs-Castle Rock Area, Front Range Urban Corridor, Colorado*. USGS, Map I-857-F.
- 9. Bryant, Bruce; McGrew, Laura W. and Wobus, Reinhard A. 1981. *Geologic Map of the Denver* 1° x 2° Quadrangle, North-Central Colorado. U.S. Geologic Survey. Map 1-1163.
- Hart, Stephen S. 1974. Potentially Swelling Soil and Rock in the Front Range Urban Corridor, Colorado. Colorado Springs-Castle Rock Map. Colorado Geological Survey. Environmental Geology 7.
- 11. Federal Emergency Management Agency. December 7, 2018. *Flood Insurance Rate Maps for the City of Colorado Springs, Colorado.* Map Numbers 08041CO305G, and 08041CO315G.



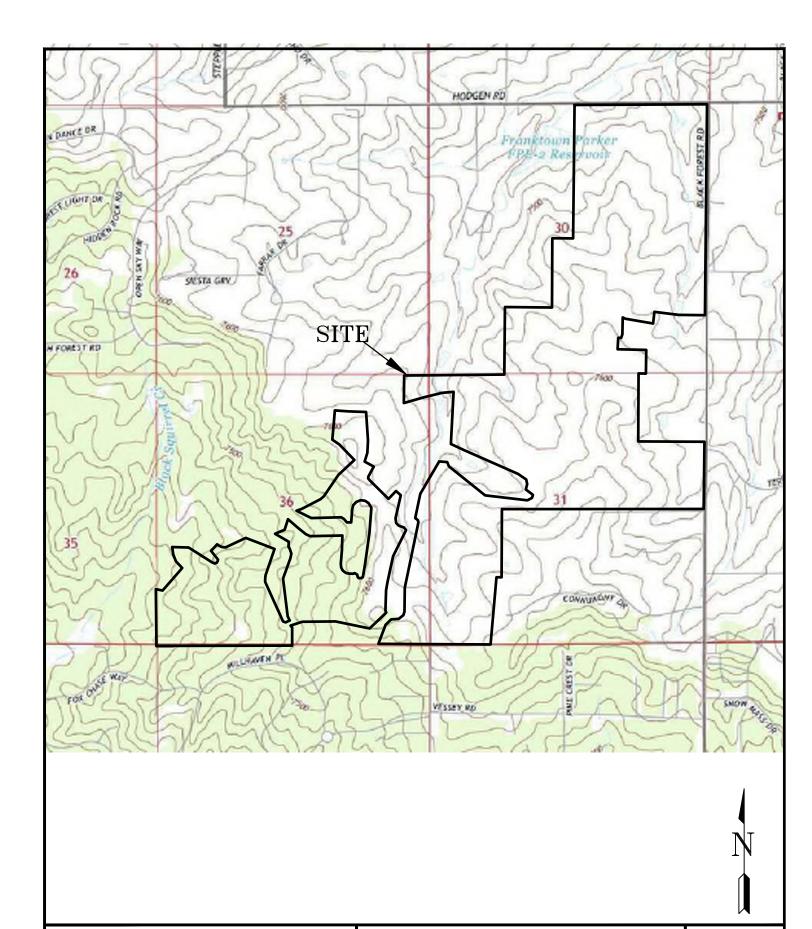
FIGURES





VICINITY MAP

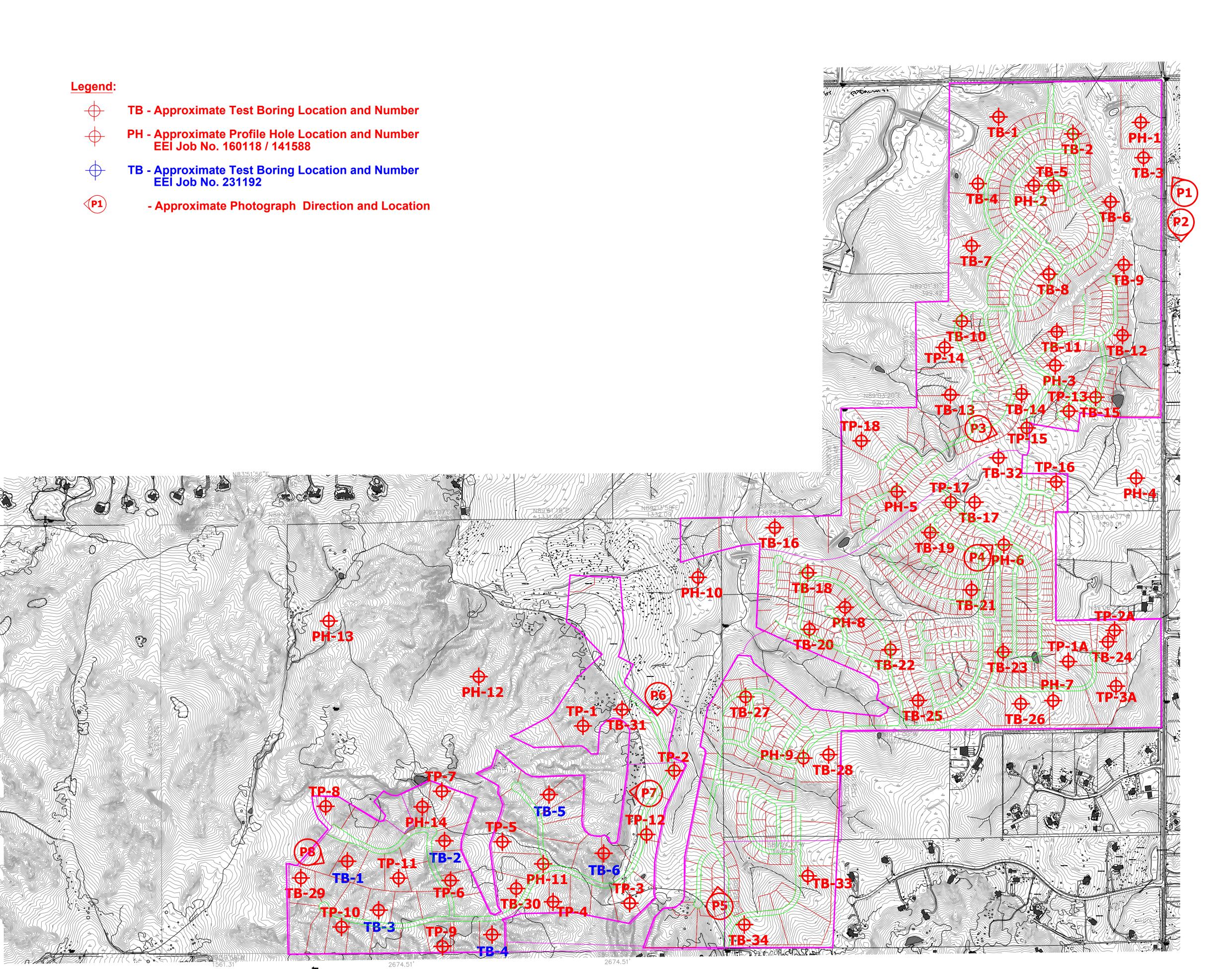
FLYING HORSE NORTH SKETCH PLAN EL PASO COUNTY, CO. FOR: FLYING HORSE DEVELOPMENT, LLC JOB NO. 220404

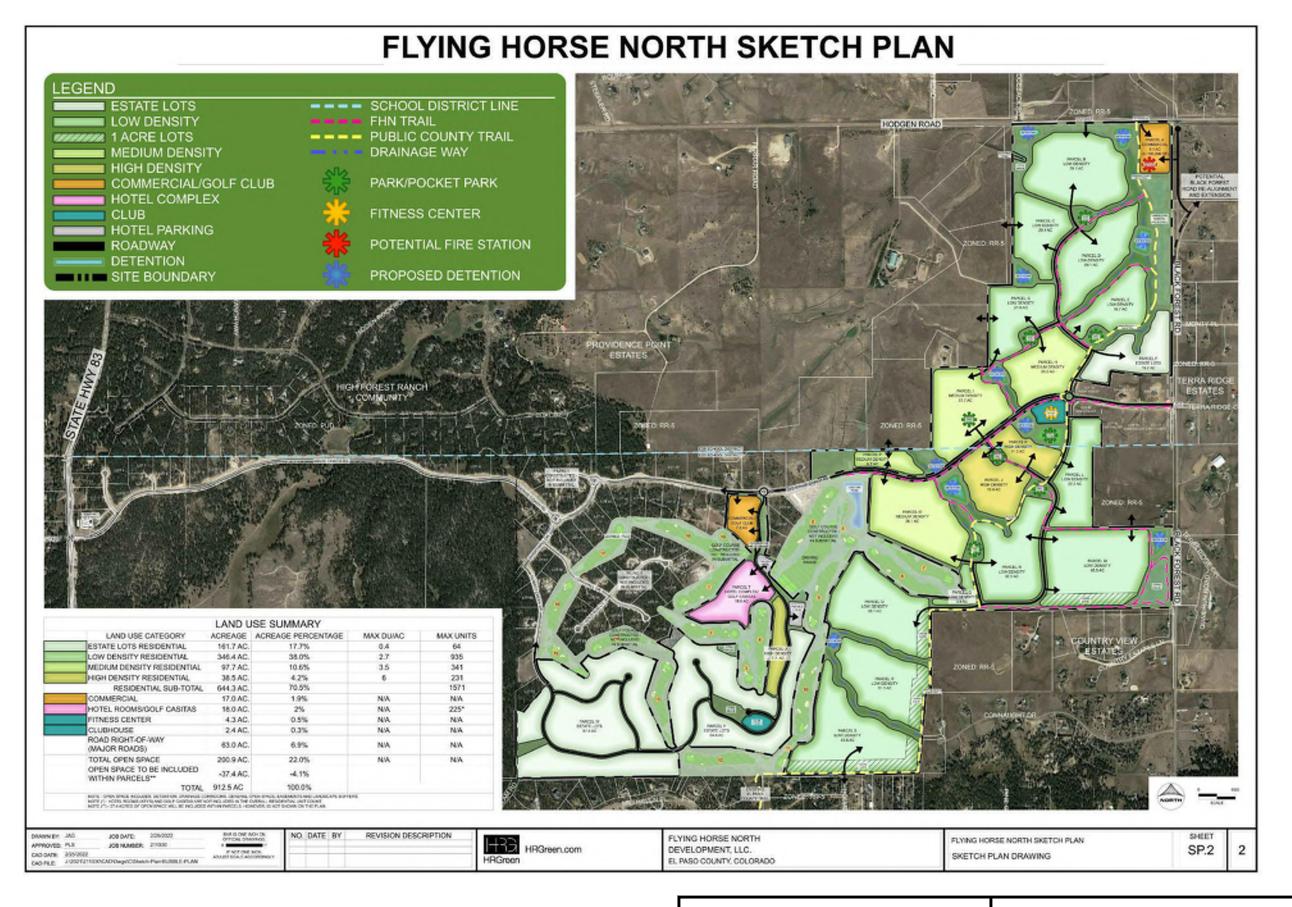




USGS TOPOGRAPHY MAP

FLYING HORSE NORTH SKETCH PLAN EL PASO COUNTY, CO. FOR: FLYING HORSE DEVELOPMENT, LLC JOB NO. 220404

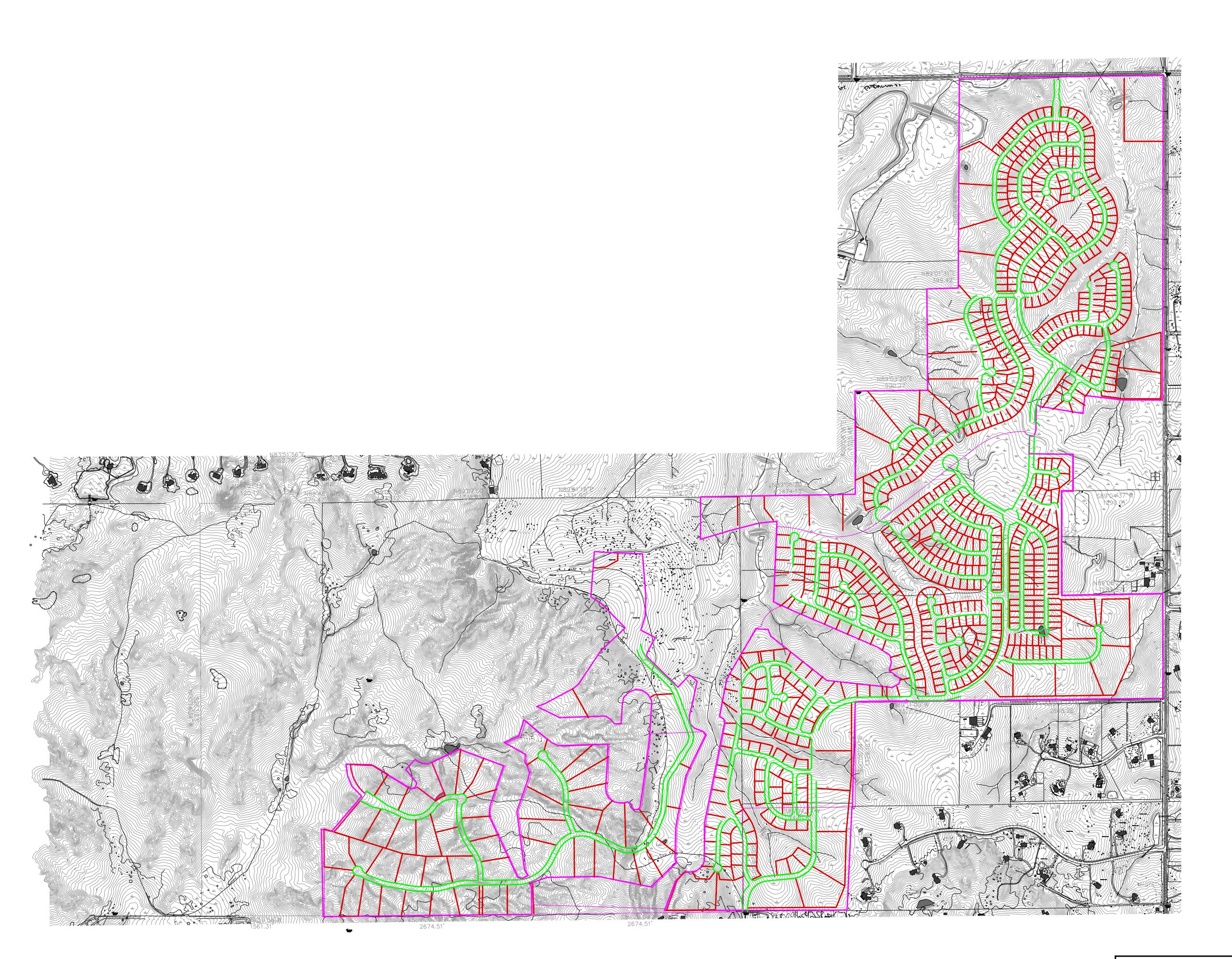






SKETCH PLAN

FLYING HORSE NORTH SKETCH PLAN EL PASO COUNTY, CO. FOR: FLYING HORSE DEVELOPMENT, LLC JOB NO. 220404

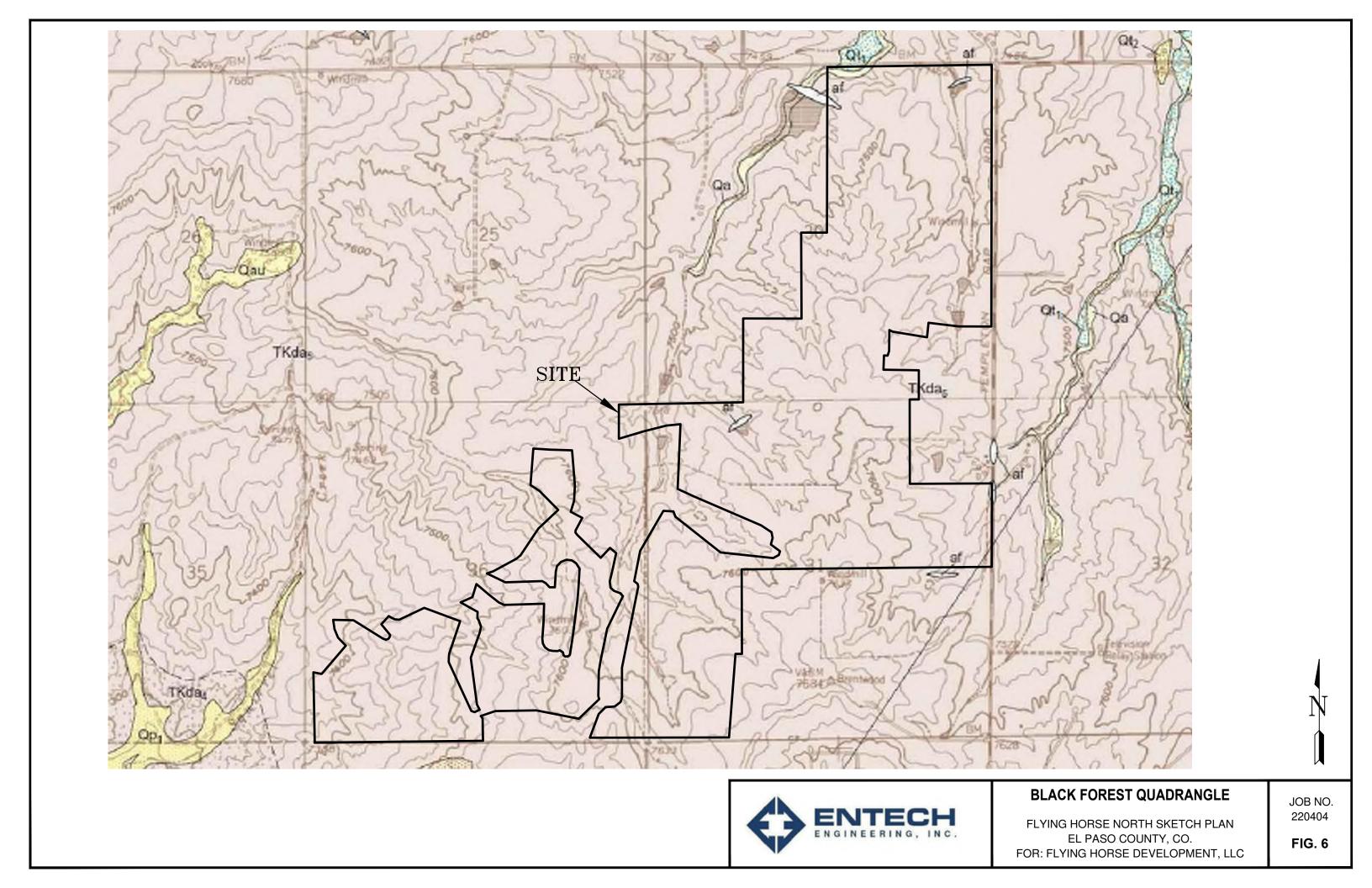


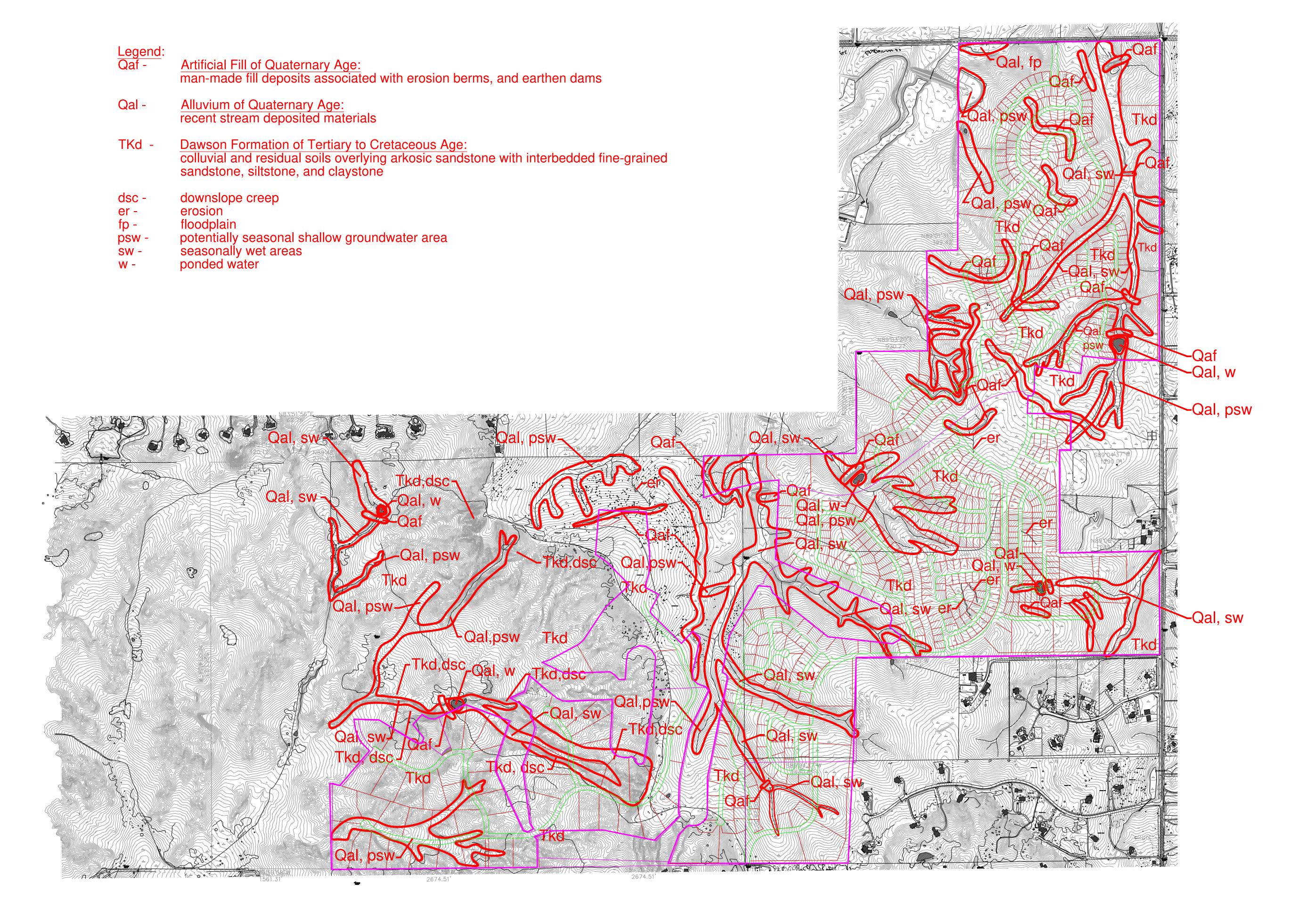




SOIL SURVEY MAP

FLYING HORSE NORTH SKETCH PLAN EL PASO COUNTY, CO. FOR: FLYING HORSE DEVELOPMENT, LLC JOB NO. 220404





JOB NO.

220404

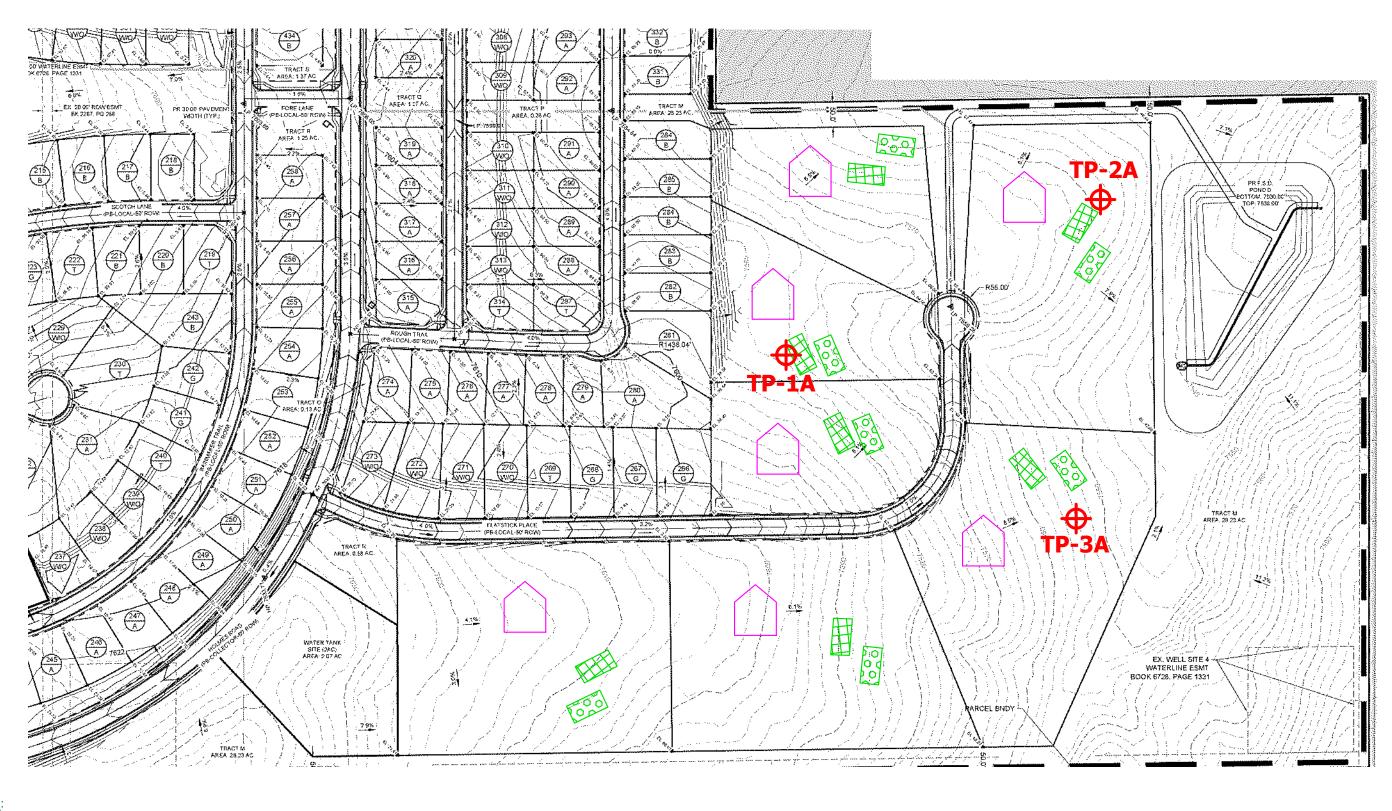


FLOODPLAIN MAP

FLYING HORSE NORTH SKETCH PLAN EL PASO COUNTY, CO. FOR: FLYING HORSE DEVELOPMENT, LLC JOB NO. 220404

FIG. 8

N









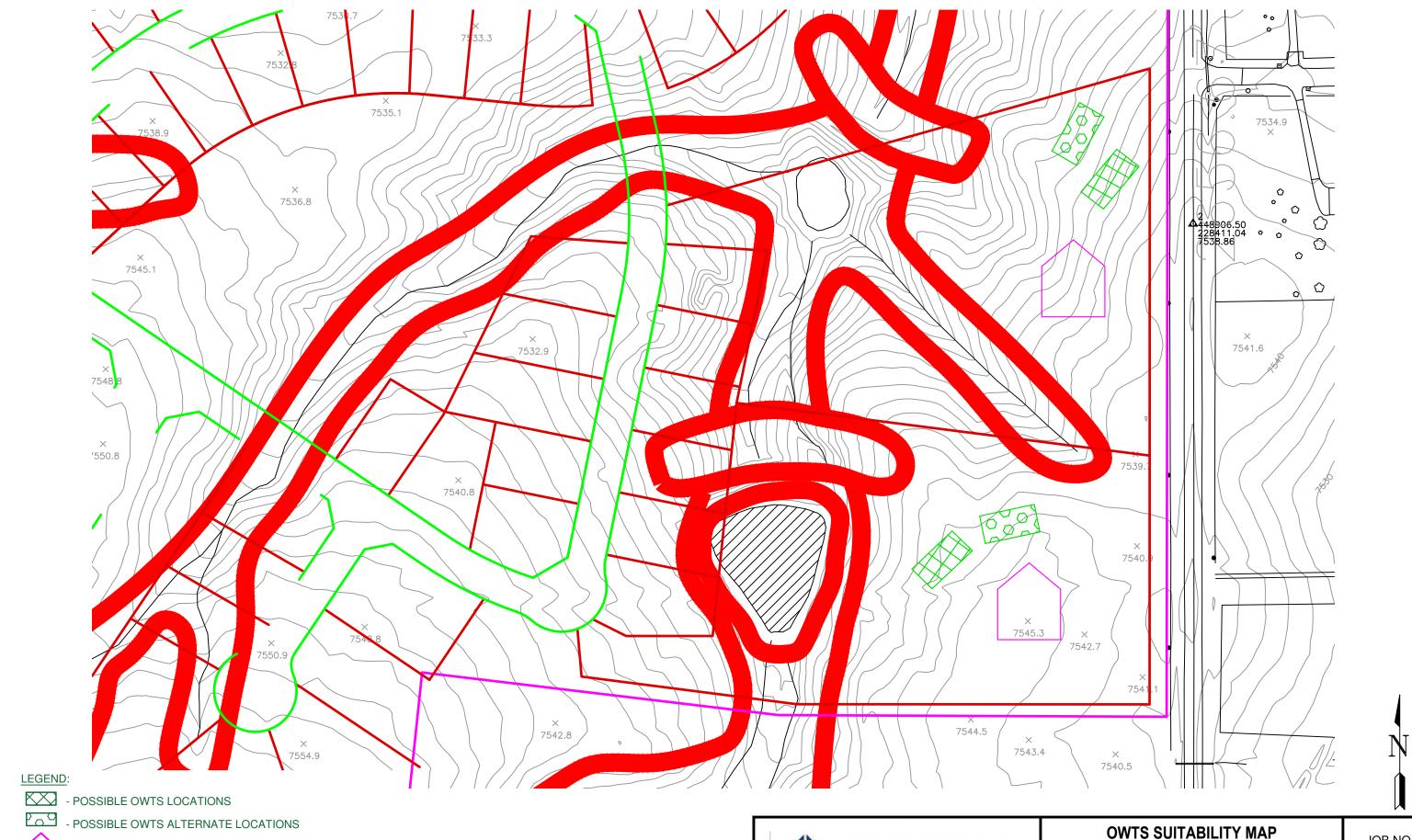
- POSSIBLE HOUSE LOCATIONS

- OWTS SHOULD NOT BE LOCATED WITHIN ANY DRAINAGES, DEFINED DRAINAGE SWALES



OWTS SUITABILITY MAP

FLYING HORSE NORTH SKETCH PLAN EL PASO COUNTY, CO. FOR: FLYING HORSE DEVELOPMENT, LLC JOB NO. 220404



- POSSIBLE HOUSE LOCATIONS

- OWTS SHOULD NOT BE LOCATED WITHIN ANY DRAINAGES, DEFINED DRAINAGE SWALES

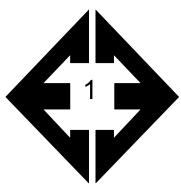
FLYING HORSE NORTH SKETCH PLAN EL PASO COUNTY, CO. FOR: FLYING HORSE DEVELOPMENT, LLC JOB NO. 220404

FIG. 8A



APPENDIX A: Site Photographs

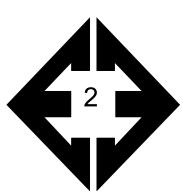




Looking northwest from the northeastern side of the site along Black Forest Road.

February 24, 2022



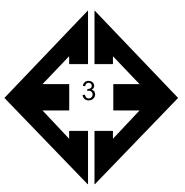


Looking south from the northeastern side of the site along Black Forest Road.

February 24, 2022

Job No. 220404





Looking southeast from the north-central portion of the site.

February 24, 2022





Looking northeast from the central portion of the site.

February 24, 2022

Job No. 220404

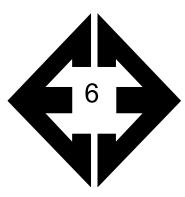




Looking north from the southern portion of the site.

February 24, 2022





Looking south from the central portion of the site.

February 24, 2022

Job No. 220404

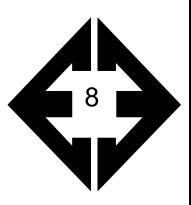




Looking west from the west-central portion of the site.

February 24, 2022





Looking east from the southwestern side of the site.

February 24, 2022

Job No. 220404



APPENDIX B: Test Boring Logs



TABLE B-1 DEPTH TO BEDROCK

TEST BORING	DEPTH TO BEDROCK (ft.)
1	3
2	17
3	14
4	17
5	14
6	>20
7	16
8	14
9	19
10	12
11	16
12	19
13	>20
14	12
15	14
16	>20
17	16
18	>20
19	>20
20	>20
21	18
22	16
23	>20
24	19
25	7
26	14
27	18
28	17
29	>20
30	1
31	>20
32	3
33	18
34	17

Project: Flying Horse North Sketch Plan Client: Flying Horse Development

Job No: 220404

TEST BORING 1 DATE DRILLED 12/19/20	23						TEST BORING 2 DATE DRILLED 12/19/20	<u>2</u>)23					
REMARKS							REMARKS	T					
DRY TO 20', 12/19/23	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent %	Soil Type	DRY TO 20', 12/19/23	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent %	Soil Type
6" TOPSOIL	-	 					6" TOPSOIL	_					
SAND, CLAYEY, BROWN, DENSE, MOIST SANDSTONE, VERY WEAK, TAN	- -	·/·		32	4.2	1	CLAY, SANDY, BROWN, VERY STIFF, MOIST	-			16	13.3	2
to OLIVE, HIGHLY WEATHERED (SAND, CLAYEY, VERY DENSE, MOIST)	5_			<u>50</u> 8"	8.0	3		5_			16	13.2	2
COMPLETELY WEATHERED ZONE	10			9	12.5	3	SAND, CLAYEY, TAN to OLIVE, MEDIUM DENSE, MOIST	10	/		27	6.3	1
	-	1						-	·/·				
	15	1		<u>50</u> 11"	10.8	3		15	:/		27	7.8	1
	20_			<u>50</u> 10"	10.9	3		20_			<u>50</u> 11"	9.2	3



FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING 3 DATE DRILLED 12/19/20						TEST BORING 4 DATE DRILLED 12/19/20						
REMARKS				. 0		REMARKS						
DRY TO 20', 12/19/23	Depth (ft)	Symbol	Blows per foot	Watercontent %	Soil Type	DRY TO 20', 12/19/23	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent %	Soil Type
6" TOPSOIL	- :					6" TOPSOIL SAND, CLAYEY, BROWN to OLIVE,	-	 				
SAND, CLAYEY, TAN to OLIVE, MEDIUM DENSE to DENSE, DRY			11	2.8	1	MEDIUM DENSE to DENSE,	-	<u>: </u>		18	3.6	1
to MOIST	5_		21	9.3	1	MOIST	5_	···		31	10.5	1
	10		39	18.1	1		10			35	12.2	1
SANDSTONE, VERY WEAK, OLIVE, HIGHLY WEATHERED (SAND, CLAYEY, VERY DENSE, MOIST)	15		50	14.5	3		15	· · · · · · · · · · · · · · · · · · ·		24	14.4	1
	20		5 <u>0</u>	9.3	3	SANDSTONE, VERY WEAK, OLIVE, HIGHLY WEATHERED (SAND, CLAYEY, VERY DENSE, MOIST)	20			<u>50</u> 10"	14.2	3



FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

							l=====================================						
TEST BORING 5							TEST BORING 6						
DATE DRILLED 12/20/20: REMARKS	23						DATE DRILLED 12/20/20 REMARKS	23 T	1			1	
REMARKS					9		REMARKS					9	
				oot	nt 9						oot	nt 9	
	(i			ər fo	nte	Φ					er fo	nte	Φ
	ր) (fi	00	səlc	s pe	irco	Type		J (f	<u>8</u>	səlc	s pe	021	ſyp
DDV TO 001 40/00/00	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent %	Soil 1	DDV TO 001 40/00/00	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent %	Soil Type
DRY TO 20', 12/20/23 6" TOPSOIL	Δ	Ś	Š	B	>	Ο̈́	DRY TO 20', 12/20/23 6" TOPSOIL	Δ	(v)	Š	B	>	Ο̈
CLAY, WITH SAND, BROWN, VERY	-	./!					SAND, CLAYEY, BROWN, MEDIUM	-	 				
STIFF, MOIST	-	•		17	12.5	2	DENSE to DENSE, MOIST	-	بسنيا		13	10.2	1
SAND, CLAYEY, OLIVE, DENSE,	-	<u></u>				_	DENSE to DENSE, WOIST	-	 • • •				
MOIST	5			31	6.1	1		5	····		14	8.8	1
		: //:											
]:				
] : •				
	40			24	4.0	,		40 -	 		40	7.0	,
	10_			31	4.2	1		10_	. <i>ن</i> زا		13	7.9	1
	_	<i></i> .						-	 ::•				
	-	•						-	·				
	-	<i>:</i>						-	 				
SANDSTONE, VERY WEAK, OLIVE,	15			50	8.0	3		15	·/·		16	10.6	1
HIGHLY WEATHERED (SAND,		: : :							1:::				
CLAYEY, VERY DENSE to DENSE,		: : : :							<i>:</i> ~.				
MOIST)]: , '				
				40	7.4				 		00	40.0	
	20_			48	7.4	3		20_	<u> : · · </u>		30	12.8	1



FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING 7							TEST BORING 8	}				
DATE DRILLED 12/20/202	23						DATE DRILLED 12/20/20	23				
REMARKS							REMARKS					
				oot	Watercontent %					ot	Watercontent %	
				ır fo	nter	a)				날	nter	d)
	T) (#	<u> </u>	oles	e be	100	Jype		J (ff		s pe	. 8	Jy pe
DDV TO 201 42/20/22	Depth (ft)	Symbol	Samples	Blows per foot	/ate	Soil Type	DDV TO 001 40/00/00	Jepth (ft)	Symbol	samples Blows per foot	/ate	Soil Type
DRY TO 20', 12/20/23 6" TOPSOIL		S .	S	В	>	S	DRY TO 20', 12/20/23 6" TOPSOIL		S	n m	>	S
SAND, CLAYEY, BROWN, MEDIUM	-	•					CLAY, SANDY, BROWN, VERY	-				
DENSE to DENSE, MOIST	_	···:		18	4.9	1	STIFF, MOIST	_		25	8.8	2
	<u> </u>							_ =	//			
	5_	···		16	8.0	1	SAND, CLAYEY, OLIVE, DENSE,	5_		37	7.5	1
	-	.···.					MOIST	-				
	-							-				
	-	<i>:</i>						-				
	10			24	8.8	1		10	·/·]	32	8.0	1
	_	 :::::						-				
	_	<u>. ر</u> . ا						_				
	-	···						-	.;.'			
	15	. بسزا		38	11.9	1	SANDSTONE, VERY WEAK, OLIVE,	15	· · ·	50	9.1	3
	_	•					HIGHLY WEATHERED (SAND,	-				
SANDSTONE, VERY WEAK, OLIVE,	_	::::					CLAYEY, VERY DENSE to DENSE,					
HIGHLY WEATHERED (SAND,		: : : :					MOIST)					
CLAYEY, VERY DENSE, MOIST)	-			ΕΛ	0.0	_						
	20_			<u>50</u> 7"	9.9	3		20_		50 9"		3
	I			'		l		I	l l	J]



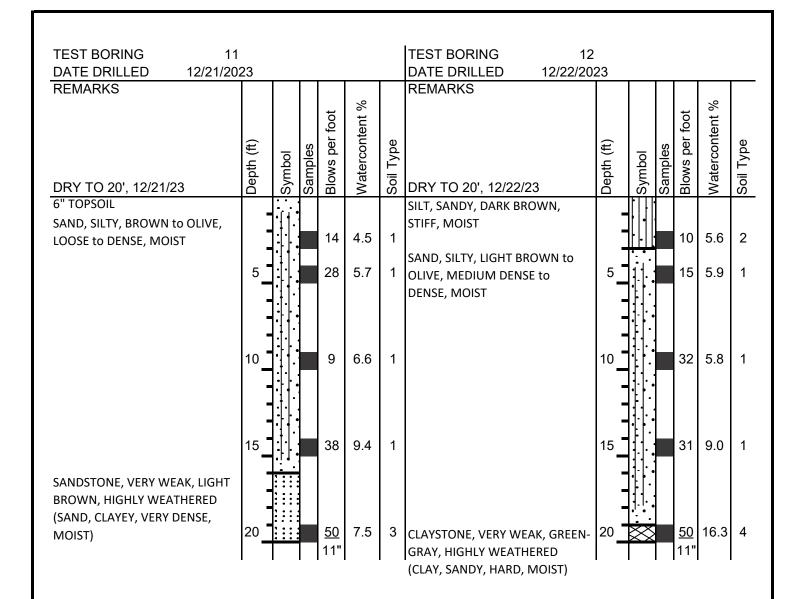
FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING TEST BORING 10 DATE DRILLED 12/20/2023 DATE DRILLED 12/21/2023 **REMARKS** REMARKS Watercontent % Blows per foot Blows per foot Watercontent Soil Type Depth (ft) Depth (ft) Soil Type Samples Symbol Symbol DRY TO 20', 12/21/23 DRY TO 20', 12/20/23 CLAY, WITH SAND, BROWN, STIFF, 6" TOPSOIL **MOIST** SAND, CLAYEY, OLIVE to LIGHT 9.6 17 3.6 1 BROWN, MEDIUM DENSE to DENSE, MOIST 9.2 2 14 13 12.3 SAND, CLAYEY, OLIVE to LIGHT 10 14 6.3 1 10 30 8.9 1 BROWN, MEDIUM DENSE, MOIST SANDSTONE, VERY WEAK, OLIVE, HIGHLY WEATHERED (SAND, 15 15 6.7 15 <u>50</u> 9.2 3 1 CLAYEY, VERY DENSE, MOIST) 11" 20 SANDSTONE, EXTREMELY WEAK, 50 4.9 <u>50</u> 7.8 TAN, COMPLETELY WEATHERED (SAND, CLAYEY, VERY DENSE, MOIST)



TEST BORING LOGS





FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404

TEST BORING 13 DATE DRILLED 1/3/2024							TEST BORING 14 DATE DRILLED 1/3/2024					
REMARKS							REMARKS				. 0	
DRY TO 20', 1/3/24	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent %	Soil Type	DRY TO 20', 1/3/24	Depth (ft)	Symbol	Blows per foot	Watercontent %	Soil Type
SAND, WITH SILT, TAN, MEDIUM	_						6" TOPSOIL	-				
DENSE to VERY DENSE, MOIST	-			26	6.8	1	CLAY, SANDY, LIGHT BROWN, STIFF, MOIST	-		9	11.1	2
	5_			26	5.4	1	SAND, WITH SILT, OLIVE, DENSE to MEDIUM DENSE, MOIST	5_		33	4.9	1
	10			13	6.3	1	SANDSTONE, VERY WEAK, LIGHT	10		25	5.9	1
	15			50	6.1	1	BROWN, HIGHLY WEATHERED (SAND, CLAYEY, VERY DENSE, MOIST)	15		5 <u>0</u> 9"	7.0	3
	20_			35	10.3	1		20_		46	7.6	3



FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING 15 DATE DRILLED 12/22/20							TEST BORING 16 DATE DRILLED 1/3/2024					
REMARKS	<u> </u>						REMARKS	<u> </u>				
DRY TO 20', 12/22/23	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent %	Soil Type	DRY TO 20', 1/3/24	Depth (ft)	Symbol	Blows per foot	Watercontent %	Soil Type
6" TOPSOIL	_						SAND, SILTY, TAN, MEDIUM	-			•	
SAND, CLAYEY, OLIVE, MEDIUM DENSE, MOIST	-	· · ·		17	5.5	1	DENSE, MOIST	-		25	6.5	1
	5_	·/·		14	6.3	1		5		23	13.8	1
	10			25	4.4	1		10			12.5	1
SANDSTONE, VERY WEAK, LIGHT BROWN, HIGHLY WEATHERED (SAND, CLAYEY, VERY DENSE, MOIST)	15_	1		50	6.6	3	SAND, SILTY, TAN, DENSE to VERY DENSE, MOIST (SANDSTONE, WEAK, RESIDUAL SOIL)	15_		47	8.9	1
	20_			<u>50</u> 10"	8.0	3		20_		50	11.1	1



FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING 17 DATE DRILLED 12/28/20							TEST BORING 18 DATE DRILLED 1/3/2024					
REMARKS					%		REMARKS				%	
DRY TO 20', 12/28/23	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent ⁽	Soil Type	DRY TO 20', 1/3/24	Depth (ft)	Symbol	Blows per foot	Watercontent %	Soil Type
6" TOPSOIL	_						SAND, SILTY, TAN, MEDIUM	_				
CLAY, SANDY, BROWN, VERY STIFF, MOIST	-			19	8.0	2	DENSE, MOIST	-		23	6.5	1
SILT, SANDY, BROWN, MEDIUM STIFF, MOIST	5			5	8.6	2		5		17	13.8	1
CLAY, SANDY, BROWN, VERY STIFF, MOIST	10_			22	3.8	2		10		27	12.5	1
SAND, SILTY, TAN, DENSE, MOIST	-				0.0	4		-		47	0.0	
SANDSTONE, VERY WEAK, OLIVE, HIGHLY WEATHERED (SAND,	15			44	3.9	1	SAND, SILTY, TAN, DENSE, MOIST (SANDSTONE, WEAK, RESIDUAL SOIL)	15		47	8.9	1
SILTY, VERY DENSE, MOIST)	20			<u>50</u> 10"	4.4	4		20		49	11.1	1



FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING 19 DATE DRILLED 1/3/2024							TEST BORING 20 DATE DRILLED 1/3/2024						
REMARKS				_ _	%		REMARKS				t	%	_
DRY TO 20', 1/3/24	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent	Soil Type	DRY TO 20', 1/3/24	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent	Soil Type
SAND, SILTY, TAN, MEDIUM DENSE, MOIST	-						CLAY, SANDY, TAN, STIFF, MOIST	T -					_
				20	6.7	1		-			7	9.7	2
	5			26	8.6	1		5_			9	14.7	2
							SAND, SILTY, BROWN, MEDIUM DENSE to DENSE, MOIST	- - -					
CLAY, SANDY, TAN, STIFF, MOIST	10			15	13.6	2		10			16	5.3	1
SAND SILTY TAN DENSE to	15			45	7.5	1		- 15			34	4.3	1
SAND, SILTY, TAN, DENSE to DENSE, MOIST (SANDSTONE, WEAK, RESIDUAL SOIL)				45	7.0	'		-			J-1	4.0	
	20			50	8.1	1		20_			15	11.7	1



FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING 21 DATE DRILLED 1/9/2024						TEST BORING 22 DATE DRILLED 1/9/2024					
REMARKS	Depth (ft)	Symbol	Blows per foot	Watercontent %	Soil Type	REMARKS	Depth (ft)	Symbol	Blows per foot	Watercontent %	Soil Type
DRY TO 20', 1/9/24 SAND, SILTY, BROWN to TAN,		ώ ν 		>	Ŋ	DRY TO 20', 1/9/24 SAND, CLAYEY, LIGHT BROWN,		ν ν ν ν ν ν ν ν ν ν ν ν ν ν ν ν ν ν ν		>	Ň
MEDIUM DENSE to DENSE, MOIST			11	6.7	1	LOOSE, MOIST	_		8	9.4	1
	5_		27	4.4	1	CLAY, WITH SAND, STIFF, MOIST	5_		10	14.2	2
	10		11	7.8	1		10		11	10.3	2
	15		36	11.5	1	SAND, SILTY, TAN, DENSE, MOIST	15		44	4.7	1
						SANDSTONE, VERY WEAK, OLIVE, HIGHLY WEATHERED (SAND,					
SANDSTONE, VERY WEAK, OLIVE, HIGHLY WEATHERED (SAND, SILTY, VERY DENSE, MOIST)	20		<u>50</u> 11"	8.9	3	SILTY, VERY DENSE, MOIST)	20_		50 9"	3.2	4



FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING 23 DATE DRILLED 1/9/2024						TEST BORING 24 DATE DRILLED 1/9/2024					
REMARKS				,		REMARKS				vo	
DRY TO 20', 1/9/24	Depth (ft) Symbol	Samples	Blows per foot	Watercontent %	Soil Type	DRY TO 20', 1/9/24	Depth (ft)	Symbol	Blows per foot	Watercontent %	Soil Type
SAND, CLAYEY, LIGHT BROWN, LOOSE to MEDIUM DENSE,		1				SAND, SILTY, TAN, MEDIUM DENSE to DENSE, MOIST	-				
MOIST			10	12.1	1				15	5.5	1
	5		7	13.2	1		5		16	9.2	1
	10		7	11.2	1		10		19	6.2	1
SAND, SILTY, LIGHT BROWN, MEDIUM DENSE, MOIST	15		19	7.9	1		15		31	9.4	1
	20		27	5.1		SANDSTONE, VERY WEAK, OLIVE, HIGHLY WEATHERED (SAND, SILTY, VERY DENSE, MOIST)	20_		<u>50</u> 11"	10.5	3



FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING 25 DATE DRILLED 1/9/2024							TEST BORING 26 DATE DRILLED 1/9/2024					
REMARKS							REMARKS					
DRY TO 20', 1/9/24	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent %	Soil Type	DRY TO 20', 1/9/24	Depth (ft) Svmbol	Samples	Blows per foot	Watercontent %	Soil Type
6" TOPSOIL							SAND, CLAYEY, BROWN, MEDIUM	•	•			
CLAY, WITH SAND, BROWN to OLIVE, VERY STIFF, MOIST	- -			21	6.2	2	DENSE, MOIST			12	13.0	1
	5_			19	16.4	2	SAND, SILTY, BROWN to TAN, MEDIUM DENSE, MOIST	5		12	6.2	1
SANDSTONE, VERY WEAK, TAN to OLIVE, HIGHLY WEATHERED (SAND, CLAYEY, VERY DENSE, MOIST)	10			<u>50</u> 8"	8.1	3		10		23	7.7	1
	15			<u>50</u> 9"	10.0	3	SAND, SILTY, TAN, DENSE to VERY DENSE, MOIST (SANDSTONE, WEAK, RESIDUAL SOIL)	15		<u>50</u> 11"	6.8	1
	20_			<u>50</u> 10"	8.9	3		20 -:]:		41	12.6	1



FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING 27							TEST BORING 28	}					
DATE DRILLED 1/9/2024					1		DATE DRILLED 1/9/2024						
REMARKS					۰,0		REMARKS					\ 0	
				oot	nt %						oot	nt %	
	<u></u>			er fc	nte	Θ		Ξ.			er fo	nte	Φ
	h (f	<u>o</u>	bles	s be	co	Гур		h (f	loq	bles	s be	020	Гур
DDV TO 201 1/0/24	Depth (ft)	Symbol	Samples	Blows per foot	Natercontent	Soil Type	DRY TO 20', 1/9/24	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent	Soil Type
DRY TO 20', 1/9/24 6" TOPSOIL		S	S	В	>	S	6" TOPSOIL		S	ഗ	<u>B</u>	>	S
CLAY, SANDY, BROWN, VERY	-						SAND, SILTY, LIGHT BROWN to	-	<u> </u>				
STIFF, MOIST	_			23	7.1	2	TAN, MEDIUM DENSE to DENSE,]: :		28	3.1	1
		//		~4	4 7		MOIST]]].		40		
SAND, SILTY, BROWN, MEDIUM	5_			24	4.7	1		5_	<u> </u>		19	5.5	1
DENSE to DENSE, MOIST	-	 : •						-	- . `,				
	-	<u>.</u> . `,						-	- 1-11-1:				
	-	-]- :						-	1:11.				
	10			44	3.2	1		10]'[.ˈ		29	9.6	1
	_							_]: }:				
SANDSTONE, VERY WEAK, TAN to	-							-					
OLIVE, HIGHLY WEATHERED (SAND, CLAYEY, VERY DENSE,	-							-	 ; ∤∙				
MOIST)	15			<u>50</u>	6.6	3		15	 : `.		36	8.8	1
Weist,	_			7"				_	<u> </u>				
	_	: : : :	1]: :				
									·! •.				
CLAYSTONE, VERY WEAK, OLIVE,	20 -	\otimes		50	15.8	4	SANDSTONE, VERY WEAK, TAN to	20	-		50	9.3	3
HIGHLY WEATHERED (CLAY, WITH SAND, HARD, MOIST)		$\times\!\!\times\!\!\times$		<u>50</u> 11"	13.6	4	OLIVE, HIGHLY WEATHERED (SAND, CLAYEY, VERY DENSE,	20-	::::		<u>50</u> 11"	შ.ა	J
SAINU, HANU, IVIUIST)	I	I		'''			MOIST)		1	I	' '		
								1					



FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING 29						TEST BORING 3)					
DATE DRILLED 2/14/201	8			ī		DATE DRILLED 2/14/20	18	F 1	-			
REMARKS	(ft) ol	les	Blows per foot	Watercontent %	ype	REMARKS	(ft)	lo	les	Blows per foot	Watercontent %	уре
DRY TO 20', 2/14/18	Depth (ft) Symbol	Samples	lows	Vater	Soil Type	DRY TO 20', 2/14/18	Depth (ft)	Symbol	Samples	lows	Vater	-Soil Type
SAND, SILTY, TAN, MEDIUM	1:1.	(O)	ш	>	(V)	SAND, SILTY, TAN) 	(J)	<u>an</u>	>	1
DENSE, MOIST			10	4.1	1	SANDSTONE, WEAK, RED BROWN, WEATHERED (SAND, SILTY, VERY DENSE, MOIST)	-			<u>50</u> 10"	7.0	3
	5		12	6.8	1	SILIT, VERT DENSE, MICHST)	5_			50	7.0	3
	10		13	14.1	1		10			<u>50</u>	12.1	3
THIN CLAY LENSES										6"		
	15		10	3.6	1		15			<u>50</u> 7"	10.7	3
	20		14	10.6	1		20_			<u>50</u> 6"	9.8	3



FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING 31 DATE DRILLED 2/14/201							TEST BORING 32 DATE DRILLED 2/14/201					
REMARKS					,		REMARKS				5	
DRY TO 20', 2/14/18	Depth (ft)	Symbol	Samples	Blows per foot	Natercontent %	Soil Type	DRY TO 20', 2/14/18	Jepth (ft)	Symbol Samples	Blows per foot	Watercontent %	Soil Type
SAND, SILTY, TAN, MEDIUM		11.	,			0)	SAND, SILTY, TAN, MEDIUM		11.	Ш		<u> </u>
DENSE, MOIST	-			21	6.6	1	DENSE, MOIST	-		17	5.2	1
CLAY, WITH SAND, TAN, STIFF, MOIST	5_			13	11.4	2	SANDSTONE, WEAK, TAN, WEATHERED (SAND, SILTY, VERY DENSE, MOIST)	5_		50	5.4	3
SAND, SILTY, WITH CLAY LENSES, TAN, MEDIUM DENSE, MOIST	-						DENSE, MOIST,	-				
	10			17	8.2	1		10		<u>50</u> 9"	8.2	3
	15			21	8.8	1	SANDSTONE, WEAK, GREEN-GRAY	15		<u>50</u>	14.9	3
	-						to TAN, WEATHERED (SAND, SILTY, VERY DENSE, MOIST)	-		8"		
	20			13	5.5	1		20		<u>50</u> 9"	16.7	3



FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

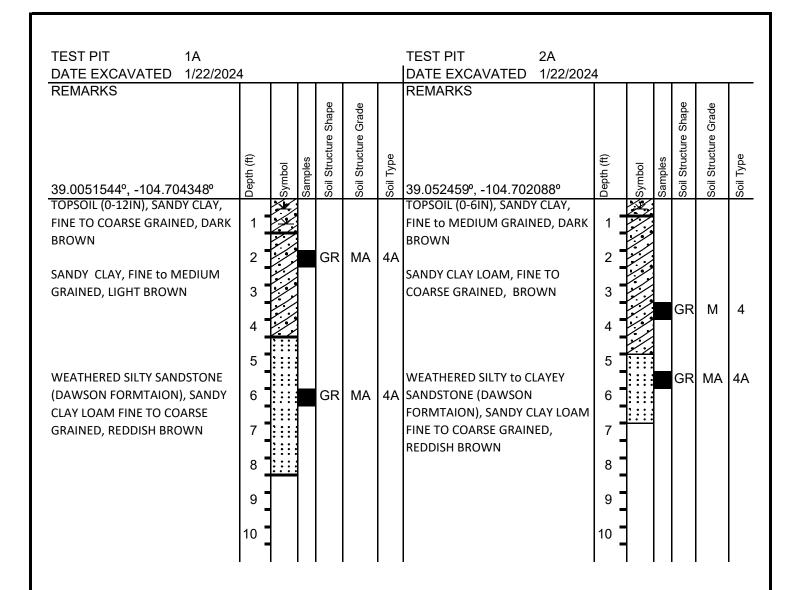
JOB NO. 220404

TEST BORING 33					TEST BORING 34					
DATE DRILLED 3/4/2022					DATE DRILLED 3/4/2022					
REMARKS					REMARKS					
DRY TO 20', 3/4/22	Depth (ft) Symbol	Samples	Blows per foot Watercontent %	Soil Type	DRY TO 20', 3/4/22	Depth (ft)	Symbol	Blows per foot	Watercontent %	Soil Type
SAND, WITH SILT, TAN, DENSE,	- :::				CLAY, SANDY, TAN, VERY STIFF to	-				
MOIST			42 5.1	1	HARD, MOIST	-		16	8.3	2
	5	;	36 7.6	1		5_		30	8.4	2
	10		36 6.4	1	SAND, SILTY, RED, MEDIUM DENSE, MOIST	10		21	8.4	1
	15	4	40 10.4	1	SAND, CLAYEY, TAN, DENSE, MOIST	15_	· · · · · · · · · · · · · · · · · · ·	41	12.6	1
SANDSTONE, WEAK, TAN, WEATHERED (SAND, SILTY, VERY DENSE, MOIST)	20		<u>50</u> 10.4	3	SANDSTONE, WEAK, BROWN, WEATHERED (SAND, WITH SILT, VERY DENSE, MOIST)	20		5 <u>0</u> 6"	6.2	3



FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404



Soil Structure Shape

granular - gr platy - pl blocky - bl prismatic - pr single grain - sg Soil Structure Grade

weak - w moderate - m strong - s loose - I massive - ma



TEST PIT LOGS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE NORTH, LLC JOB NO. 220404

TEST PIT 3A DATE EXCAVATED 1/22/2024	4		1	1			•			1		T
REMARKS 39.050334°, -104.702484°	Depth (ft)	Symbol	Samples	Soil Structure Shape	Soil Structure Grade	Soil Type	Depth (ft)	Symbol	Samples	Soil Structure Shape	Soil Structure Grade	Soil Type
TOPSOIL (0-12IN), SANDY CLAY, FINE TO COARSE GRAINED, DARK BROWN SANDY CLAY, FINE to MEDIUM GRAINED, OLIVE BROWN	1 2 3			GR	W	4A	1 2 3					
FORMATIONAL SITLY TO CLAYEY SANDSTONE (DAWSON FORMATION), SANDY CLAY LOAM to SANDY CLAY, FINE TO COARSE GRAINED, LIGHT BROWN TO *-SIGNS OF SEASONAL GW AT 4FT	4 5 6 7 8 9 9			GR	MA	4A	4 5 6 7 8 9					
	10						10					

Soil Structure Shape

granular - gr platy - pl blocky - bl prismatic - pr single grain - sg Soil Structure Grade

weak - w moderate - m strong - s loose - l massive - ma



TEST PIT LOGS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE NORTH, LLC JOB NO. 220404

TEST PIT NO. 1
DATE EXCAVATED 1/31/2018
Job # 220404

TEST PIT NO. 2
DATE EXCAVATED 1/31/2018
CLIENT FLYING HORSE DEVELOPMENT, LLC

JOD # 22040 ²	+						TING F	10H5	E DE	VE	LUP	IMEN	المالمارا
							ANG E	10RS	E NO	RT	HE	L2	
Lot ? GPS Location 39° 02' 57.3" N	Depth (ft) Symbol	Samples	Soil Structure Shape	Soil Structure Grade	USDA Soil Type	Lot ? GPS Location 39° 02' 53.5" N		Depth (ft)	Symbol	Samples	Soil Structure Shape	Soil Structure Grade	USDA Soil Type
104° 43' 30.1" W	0 0	S			_	104° 43' 19.5" W			0)	S			
weathered to formational silty sandstone, redish tan to tan *formational sandstone at 4.5 feet	1 2 3 3 4 5 5 6 7 8 9 10		gr	ma	4A	topsoil, sandy clay loam, brown sandy silty clay, fine grai tan		1 2 3 4 5 6 7 8 9 10			bl	m	3

Soil Structure Shape granular - gr platy - pl blocky - bl prismatic - pr Soil Structure Grade weak - w moderate - m strong - s single grain - sg massive - ma



	TEST PIT LOG											
DRAWN:	DATE:	CHECKED:	3/8/22									

JOB NO.: 270404 Fig No.:

B-20

TEST PIT NO. 3 DATE EXCAVATED 1/31/2018 Job # 220404 TEST PIT NO. 4 DATE EXCAVATED 1/31/2018

CLIENT FLYING HORSE DEVELOPMENT, LLC LOCATION FLYING HORSE NORTH FIL 2

						LOCATION FLYING	HORS	E NC	RT	H FI	L2	,
REMARKS Lot ? GPS Location 39° 02' 36.2" N 104° 43' 23.8" W	Depth (ft)	Symbol	Soil Structure Shape	Soil Structure Grade	USDA Soil Type	Lot ? GPS Location 39° 02' 37.3" N 104° 43' 38.8" W	Depth (ft)	Symbol	Samples	Soil Structure Shape	Soil Structure Grade	NUSDA Soil Type
topsoil, sandy clay loam, brown	1		bl	m	3	sandy loam, fine to coarse grained, tan	1 -			gr	m	2
sandy silty clay, fine grained, tan	2		Ы	m	4	sandy silty clay, tan	2 -	#		bi	m	4
	3 1					sandy clay loam, fine to coarse grained, tan	3 -			gr	m	3
	5			:			5_					
	6 7						6 -					
	8						8 -					
	9 -						9 -					
	1.0	- 1	1	I	1	I	1.0	1	1			J

Soil Structure Shape granular - gr platy - pl blocky - bl prismatic - pr Soil Structure Grade weak - w moderate - m strong - s single grain - sg massive - ma



	TEST	PIT LOG	
DRAWN:	DATE:	CHECKED:	DATE:

JOB NO.: 2-70 4 64 FIG NO.: B-21 TEST PIT NO. 5
DATE EXCAVATED 1/31/2018
Job # 220404

TEST PIT NO. 6
DATE EXCAVATED 1/31/2018
CLIENT FLYING HORSE DEVELOPMENT, LLC

2204	J-7					CLIENT						I, LEC
DELLI BUG		_				LOCATION FLYING	HORS	E NC	RT	H FI	L 2	
Lot ? GPS Location 39° 02' 47.9" N	Depth (ft)	Samples	Soil Structure Shape	Soil Structure Grade	USDA Soil Type	Lot ? GPS Location 39° 02' 41.3" N	Depth (ft)	Symbol	Samples	Soil Structure Shape	Soil Structure Grade	USDA Soil Type
104° 43′ 42.7″ W	<u> </u>	S	-	-	_	104° 43' 51.0" W	ļā.	S	Ś			5
weathered to formational silty to clayey sandstone, fine to coarse grained,	1		gr gr	m ma	2 4A	sandy loam, fine to coarse grained, tan alternating layers of loamy	1 2			gr gr	m	3
olive tan	3					sand and sandy clay loam,		ززا				
*formational sandstone at 2.5 feet	4					fine to coarse grained, tan	3 <u>4</u> <u>5 _</u>					
	6						6	37.3				
	7						7 -					
	8						8					
	9 =						9 _					
	10						10					

Soil Structure Shape granular - gr platy - pl blocky - bl prismatic - pr

Soil Structure Grade

weak - w moderate - m strong - s single grain - sg massive - ma



	TEST	PIT LOG	
DRAWN:	DATE:	CHECKED:	PATE //

JOB NO.: **Z2040-**FIG NO.: **B-22**

TEST PIT NO. TEST PIT NO. DATE EXCAVATED 1/31/2018 DATE EXCAVATED 1/31/2018 CLIENT FLYING HORSE DEVELOPMENT, LLC Job# 220404 LOCATION FLYING HORSE NORTH FIL 2 REMARKS REMARKS Soil Structure Shape Soil Structure Grade Soil Structure Shape Soil Structure Grade Type NSDA Soil Type Soil. Lot? Lot? Depth (ft) Depth (ft) Samples Samples **GPS** Location Symbol GPS Location Symbol 39° 02' 50.3" N 39° 02' 49.3" N 104° 43' 56.1" W 104° 44' 11.5" W sandy loam, fine to coarse 2 sandy loam, fine to coarse m grained, tan grained, tan 2 sandy clay, fine to coarse 2 gr m 4 weathered to formational 4A grained, brown gr ma silty to clayey sandstone, 3 3 fine to coarse grained, reddish tan to tan. 4 5 *formational sandstone at 5 feet 6

Soil Structure Shape granular - gr platy - pl blocky - bl prismatic - pr 7

8

9

Soil Structure Grade

highly weathered clayey

sandstone, fine to coarse

grained, olive tan

weak - w moderate - m strong - s single grain - sg massive - ma



	TEST	PIT LOG	
DRAWN:	DATE:	CHECKED:	3/8/22

JOB NO.: 220404

ma 4A

gr

9

10

B-23

TEST PIT NO. DATE EXCAVATED 2/1/2018 Job# 220404

TEST PIT NO. 10 DATE EXCAVATED 2/1/2018 CLIENT

FLYING HORSE DEVELOPMENT, LLC

To the first to th		LOCATION FLYING HORSE NORTH FIL 2										
REMARKS		T	П			REMARKS	T			,		
Lot ? GPS Location 39° 02' 33.7" N 104° 43' 51.3" W	Depth (ft)	Samples	Soil Structure Shape	Soil Structure Grade	USDA Soil Type	Lot ? GPS Location 39° 02' 33.1" N 104° 44' 07.6" W	Depth (ft)	Symbol	Samples	Soil Structure Shape	Soil Structure Grade	N USDA Soil Type
topsoil, sandy clay loam,	نلېز ا	7	, ,	07	1	sandy loam fine to coarse	1	17	0,	gr	m	2
brown	1 7	3				grained, tan	1]	11.				
sandy clay loam, fine to		3	bl	m	3	sandy clay, fine to coarse				gr	m	4
coarse grained light brown	2	1				grained, tan	2 -					
	3						3 -					
	4						4 _					
weathered silty sandstone	5		ar	ma	4A		5_					
fine to coarse grained, reddish tan	6		gr	IIIa	***		6					
readistrican	7						7 _					
	8						8 _					
	9]						9 _					
	10						10					

Soil Structure Shape granular - gr platy - pl blocky - bl prismatic - pr

Soil Structure Grade

weak - w moderate - m strong - s single grain - sg massive - ma



TEST PIT LOG										
DRAWN:	DATE:	CHECKED:	DATE: 3/8/22							

220404 FIG NO.: B-24

TEST PIT NO. 11
DATE EXCAVATED 2/1/2018
Job # 220404

TEST PIT NO. 12 DATE EXCAVATED 2/1/2018

CLIENT FLYING HORSE DEVELOPMENT, LLC LOCATION FLYING HORSE NORTH FIL 2

					LOCATION FLYING	HORS	E NO	RTI	H FII	L2	
Lot ? GPS Location 39° 02' 40.0" N 104° 44' 01.5" W	Depth (ft) Symbol	Soil Structure Shape	Soil Structure Grade	USDA Soil Type	Lot ? GPS Location 39° 02' 45.8" N 104° 43' 24.6" W	Depth (ft)	Symbol	Samples	Soil Structure Shape	Soil Structure Grade	ω USDA Soil Type
sandy loam, fine to coarse grained, tan	1	gr	m	2	topsoil, sandy clay loam, brown	1 2			bl	m	
sandy silty clay, fine grained, tan	3 4 5 6 6 6	bl	m	4	sandy silty clay, fine grained, tan	2 3 4 5			UI	m	4
weathered silty sandstone, fine to coarse grained, tan	7 8 9	gr	ma	4A		7 8 9 9 10					

Soil Structure Shape granular - gr platy - pl blocky - bl prismatic - pr Soil Structure Grade weak - w

weak - w moderate - m strong - s single grain - sg massive - ma



	TEST	PIT LOG	
DRAWN:	DATE:	CHECKED:	DATE: 3/8/22

JOB NO.: 220404 FIG NO.: B-25 TEST PIT NO. 13 DATE EXCAVATED 2/1/2018 Job# 220404

TEST PIT NO. DATE EXCAVATED 2/1/2018 CLIENT

FLYING HORSE DEVELOPMENT, LLC

							110110					,
						LOCATION FLYING HORSE NORTH FIL 2						
REMARKS			e Shape	e Grade	ype	REMARKS				Shape	Grade	/pe
Lot ? GPS Location 39° 03' 35.3" N 104° 42' 17.8" W	Depth (ft) Symbot	Samples	Soil Structure	Soil Structure	S POS	Lot ? GPS Location 39° 03' 41.7" N 104° 42' 36.9" W	Depth (ft)	Symbol	Samples	Soil Structure	Soil Structure	ω USDA Soil Type
topsoil, sandy clay loam, brown	1		bl	m	3	topsoil, sandy clay loam, brown	1 -			bl	m	3
weathered very clayey sandstone, fine to coarse grained, reddish brown	3		gr	ma	4A	sandy silty clay, fine grained, tan	3 4		:	ы	m	4
interbedded claystone layer	5 7 7 8						5 6 7 8					
	9						9 -					

Soil Structure Shape granular - gr platy - pl blocky - bl prismatic - pr

Soil Structure Grade

weak - w moderate - m strong - s single grain - sg massive - ma



TEST PIT LOG											
DRAWN:	DATE:	CHÉCKED:	DATE: 7/3/2.7								

JOB NO.: 220404 FIG NO.: B-26

TEST PIT NO. 15 DATE EXCAVATED 2/1/2018 Job # 220404

TEST PIT NO. 16
DATE EXCAVATED 2/1/2018
CLIENT FLYING H

NT FLYING HORSE DEVELOPMENT, LLC
ATION FLYING HORSE NORTH FIL 2

					LOCATION FLYING HORSE NORTH FIL 2						
Lot ? GPS Location 39° 03' 36.9" N 104° 42' 31.4" W	Depth (ft) Symbol	Samples Soil Structure Shape	Soil Structure Grade	USDA Soil Type	REMARKS Lot ? GPS Location 39° 03' 25.7" N 104° 42' 24.0" W	Depth (ft)	Symbol	Soil Structure Shape	Soil Structure Grade	ω USDA Soil Type	
topsoil, sandy clay loam, brown	1	bl	m	3	topsoil, sandy clay loam, brown	1 -		bl	m	3	
sandy silty clay, fine grained, tan	2 3 4 5 6 7	bl	m	4	sandy silty clay, fine grained, tan	3 4 5 6 7		bl	m	4	
weathered very clayey sandstone, fine to coarse grained, reddish brown	9	gr	ma	4A	weathered very clayey sandstone, fine to coarse grained, reddish brown	8 - 9 - 10		gr	ma	4A	

Soil Structure Shape granular - gr platy - pl blocky - bl prismatic - pr Soil Structure Grade weak - w moderate - m strong - s single grain - sg massive - ma



	TEST	PIT LOG	
DRAWN:	DATE:	CHECKED:	DATE: 3/8/22

JOB NO.: **2.70404** FIG NO.:

B-27

TEST PIT NO. 17 DATE EXCAVATED 2/1/2018 Job# 220404

TEST PIT NO. 18 DATE EXCAVATED 2/1/2018 CLIENT

FLYING HORSE DEVELOPMENT, LLC

555	Ο Τ					LOCATION						I, LLC
REMARKS				_		LOCATION FLYING	HORS	E NO	HI	HH	L2	
Lot ? GPS Location 39° 03' 23.1" N 104° 42' 36.0" W	Depth (ft)	Symbol	Soil Structure Shape	Soil Structure Grade	USDA Soil Type	Lot ? GPS Location 39° 03' 25.7" N 104° 42' 24.0" W	Depth (ft)	Symbol	Samples	Soil Structure Shape	Soil Structure Grade	USDA Soil Type
topsoil, sandy clay loam,			bl	m	3	topsoil, sandy clay loam,	+-	199	0)	bl	m	3
brown	1					brown	1]				'''	ľ
weathered to formational silty to clayey sandstone, fine to coarse grained,	2 3		gr	ma	4A	sandy silty clay, fine grained, tan	2 3			bl	m	4
brown to tan	4					weathered to formational silty to clayey sandstone,	4-			gr	ma	4A
]::	:::				fine to coarse grained,						
*formational sandstone at	5_					brown to tan	5_					
5.5 feet	6					*formational sandstone at 5 feet	6					
	7						7 -					
	8]:						8					
	9]						9 _					
	10						10					

Soil Structure Shape granular - gr platy - pl blocky - bl prismatic - pr

Soil Structure Grade

weak - w moderate - m strong - s single grain - sg massive - ma



TEST PIT LOG										
DRAWN:	DATE:	CHECKED:	DATE: 3/8/22							

JOB NO.: 220404 FIG NO.:

B-28



APPENDIX C: Laboratory Test Results



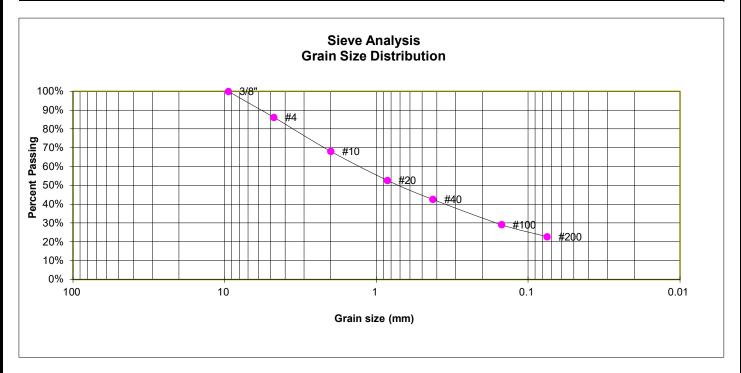
TABLE C-1 SUMMARY OF LABORATORY TEST RESULTS

	TEST			DRY	PASSING	LIQUID	PLASTIC	PLASTIC		FHA	SWELL/		
SOIL	BORING	DEPTH	WATER	DENSITY	NO. 200 SIEVE	LIMIT	LIMIT	INDEX	SULFATE	SWELL	CONSOL		
TYPE	NO.	(FT)	(%)	(PCF)	(%)				(WT %)	(PSF)	(%)	USCS	SOIL DESCRIPTION
1	1	2-3			22.8	27	16	11	<0.01			SC	SAND, CLAYEY
1	3	15			30.9	28	6	22	<0.01			SC	SAND, CLAYEY
1	4	5			25.9					730		SC	SAND, CLAYEY
1	6	5			38.9	31	19	12				SC	SAND, CLAYEY
1	10	5			14.7					610		SC	SAND, CLAYEY
1	11	10			14.6							SM	SAND, SILTY
1	13	5			8.2	NV	NP	NP				SW-SM	SAND, WITH SILT
1	14	5			11.7				<0.01			SW-SM	SAND, WITH SILT
1	16	10			33.9	21	20	1				SM	SAND, SILTY
1	18	15			14.8					270		SM	SAND, SILTY
1	24	15			12.1							SM	SAND, SILTY
1	28	10			17.3							SM	SAND, SILTY
1	29	2-3			20.0	NV	NP	NP	<0.01			SM	SAND, SILTY
1	33	2-3			11.6							SW-SM	SAND, WITH SILT
1	34	15			47.3							SC	SAND, CLAYEY
2	26	2-3	14.5	101.5	69.2						0.4	CL	CLAY, SANDY
2	2	5	13.3	110.0	57.9	30	17	13	<0.01		-0.7	CL	CLAY, SANDY
2	5	2-3	11.9	104.3	74.2	29	18	11			0.0	CL	CLAY, WITH SAND
2	8	2-3			53.5							CL	CLAY, SANDY
2	9	5	11.8	95.4	73.9						-0.6	CL	CLAY, WITH SAND
2	12	2-3	6.9	94.4	68.8	NV	NP	NP	<0.01		-1.2	ML	SILT, SANDY
2	31	5			82.8	38	17	21	<0.01	930		CL	CLAY, WITH SAND
2	34	2-3			52.1					270		CL	CLAY, SANDY
2	17	2-3			71.9					880		CL	CLAY, WITH SAND
2	19	10			55.4							CL	CLAY, SANDY
2	20	2-3			64.6							CL	CLAY, SANDY
2	22	5			77.2							CL	CLAY, WITH SAND
2	25	5	16.8	111.3	71.2						-0.3	CL	CLAY, WITH SAND
2	14	2-3	14.2	108.5							0.1	CL	CLAY, SANDY
3	30	5			18.8	NV	NP	NP				SM	SANDSTONE (SAND, SILTY)
3	32	10			20.0				<0.01			SM	SANDSTONE (SAND, SILTY)
3	33	20			16.7							SM	SANDSTONE (SAND, SILTY)
3	34	20			9.1							SW-SM	SANDSTONE (SAND, WITH SILT)
3	7	20			49.3	32	19	13				SC	SANDSTONE (SAND, CLAYEY)



SOIL TYPE	TEST BORING NO.	DEPTH (FT)	WATER (%)	DRY DENSITY (PCF)	PASSING NO. 200 SIEVE (%)	LIQUID LIMIT	PLASTIC LIMIT	PLASTIC INDEX	SULFATE (WT %)	FHA SWELL (PSF)	SWELL/ CONSOL (%)	USCS	SOIL DESCRIPTION
3	15	15			20.0				<0.01			SM	SANDSTONE (SAND, SILTY)
3	21	20			16.0	NV	NP	NP				SM	SANDSTONE (SAND, SILTY)
4	12	20			67.7				<0.01			CL	CLAYSTONE (CLAY, SANDY)
4	27	20	16.1	114.2	73.0						2.0	CL	CLAYSTONE (CLAY, WITH SAND)

TEST BORING1SOIL DESCRIPTION SAND, CLAYEYDEPTH (FT)2-3SOIL TYPE 1



GRAIN SIZE ANALYSIS

U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	100.0%
4	86.2%
10	68.1%
20	52.8%
40	42.6%
100	29.2%
200	22.8%

SOIL CLASSIFICATION

USCS CLASSIFICATION: SC

ATTERBERG LIMITS

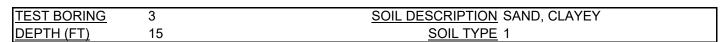
Plastic Limit	16
Liquid Limit	27
Plastic Index	11

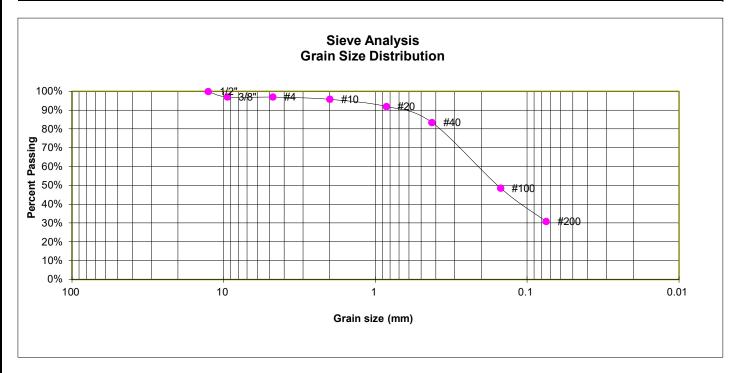


LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404

FIG. C-1





GRAIN SIZE ANALYSIS

U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	100.0%
3/8"	97.0%
4	97.0%
10	95.8%
20	92.0%
40	83.5%
100	48.6%
200	30.9%

SOIL CLASSIFICATION

USCS CLASSIFICATION: SC

ATTERBERG LIMITS

Plastic Limit	6
Liquid Limit	28
Plastic Index	22

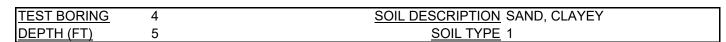


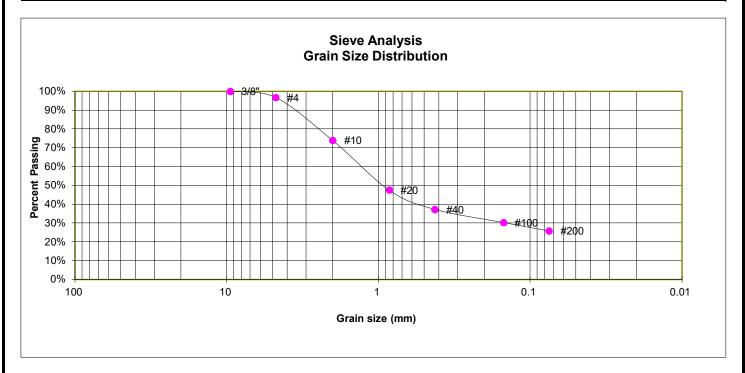
LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

FIG. C-2





U.S.	Percent		
Sieve #	<u>Finer</u>		
3"			
1 1/2"			
3/4"			
1/2"			
3/8"	100.0%	<u>FHA SWELL</u>	
4	96.7%	Moisture at start	11.6%
10	73.9%	Moisture at finish	23.0%
20	47.6%	Moisture increase	11.4%
40	37.3%	Initial dry density (pcf)	96
100	30.3%	Swell (psf)	730
200	25.9%		

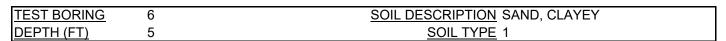
SOIL CLASSIFICATION

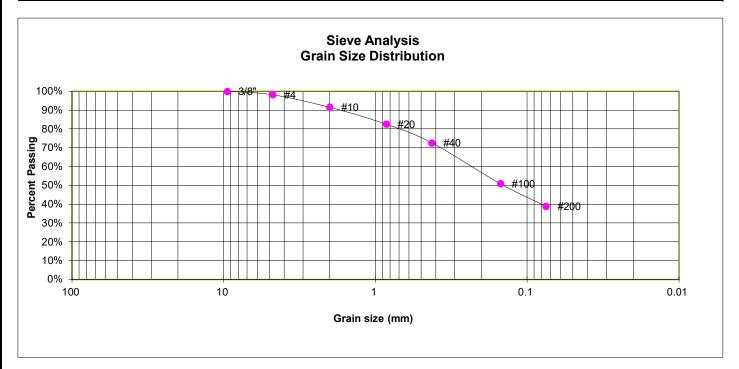
USCS CLASSIFICATION: SC



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	100.0%
4	98.2%
10	91.6%
20	82.6%
40	72.6%
100	50.9%
200	38.9%

SOIL CLASSIFICATION

USCS CLASSIFICATION: SC

ATTERBERG LIMITS

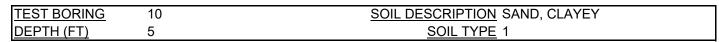
Plastic Limit	19
Liquid Limit	31
Plastic Index	12

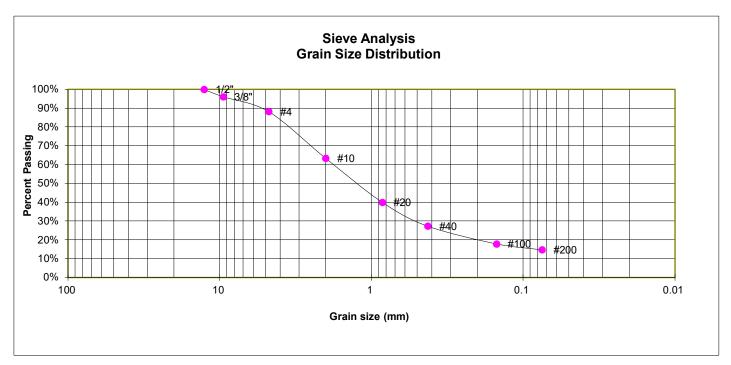


LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404





Percent	
<u>Finer</u>	
100.0%	
96.1%	
88.2%	
63.3%	
40.0%	
27.3%	
17.9%	
14.7%	
	Finer 100.0% 96.1% 88.2% 63.3% 40.0% 27.3% 17.9%

FHA SWELL

Moisture at start 7.8%
Moisture at finish 16.2%
Moisture increase 8.3%
Initial dry density (pcf) 110
Swell (psf) 610

SOIL CLASSIFICATION

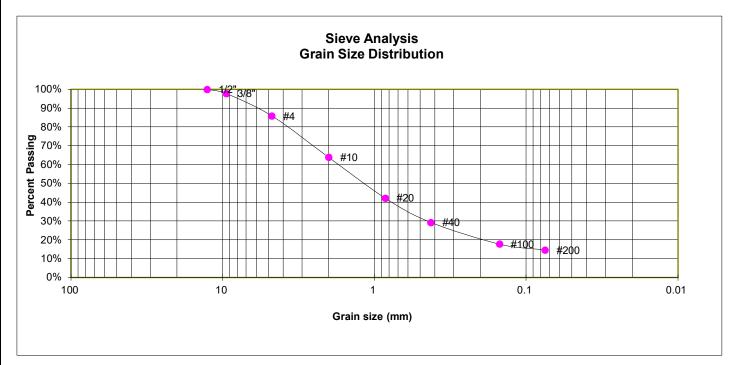
USCS CLASSIFICATION: SC



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





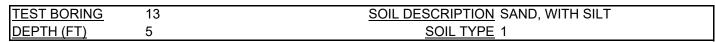
U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	100.0%
3/8"	97.8%
4	85.9%
10	63.8%
20	42.2%
40	29.3%
100	17.8%
200	14.6%

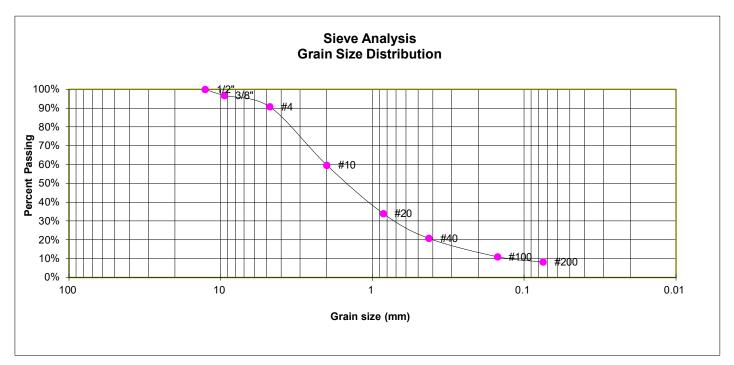
SOIL CLASSIFICATION

USCS CLASSIFICATION: SM



LABORATORY TEST RESULTS





U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	100.0%
3/8"	96.8%
4	90.7%
10	59.7%
20	34.1%
40	20.8%
100	11.1%
200	8.2%

SOIL CLASSIFICATION

USCS CLASSIFICATION: SW-SM

ATTERBERG LIMITS

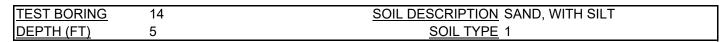
Plastic Limit	NP
Liquid Limit	NV
Plastic Index	NP

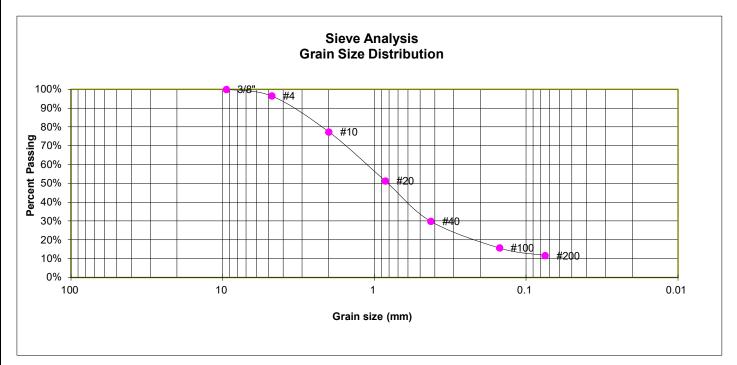


LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

220404





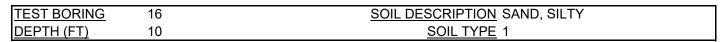
U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	100.0%
4	96.5%
10	77.4%
20	51.3%
40	29.9%
100	15.7%
200	11.7%

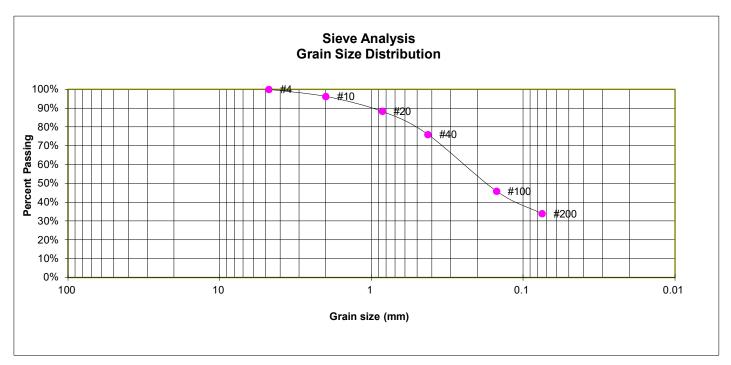
SOIL CLASSIFICATION

USCS CLASSIFICATION: SW-SM



LABORATORY TEST RESULTS





U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	
4	100.0%
10	96.3%
20	88.3%
40	76.1%
100	45.9%
200	33.9%

SOIL CLASSIFICATION

USCS CLASSIFICATION: SM

ATTERBERG LIMITS

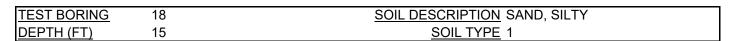
Plastic Limit	20
Liquid Limit	21
Plastic Index	1

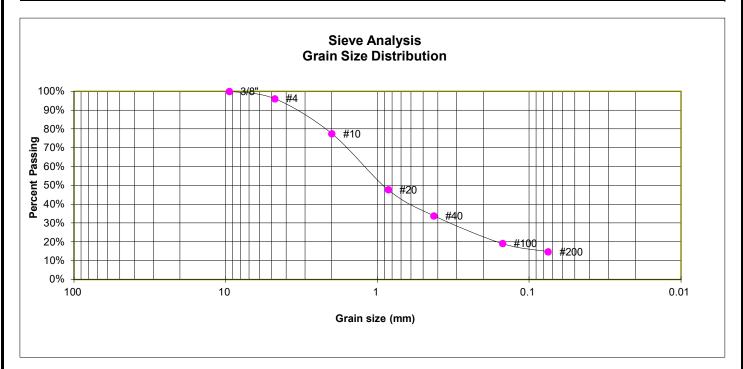


LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

220404





		Percent	0.5.
		<u>Finer</u>	Sieve #
			3"
			1 1/2"
			3/4"
			1/2"
<u>-</u>	FHA SWELL	100.0%	3/8"
6.2%	Moisture at start	96.1%	4
19.7%	Moisture at finish	77.5%	10
13.5%	Moisture increase	47.8%	20
103	Initial dry density (pcf)	33.9%	40
270	Swell (psf)	19.1%	100
		14.8%	200

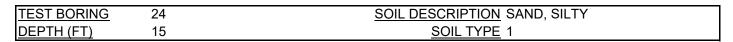
SOIL CLASSIFICATION

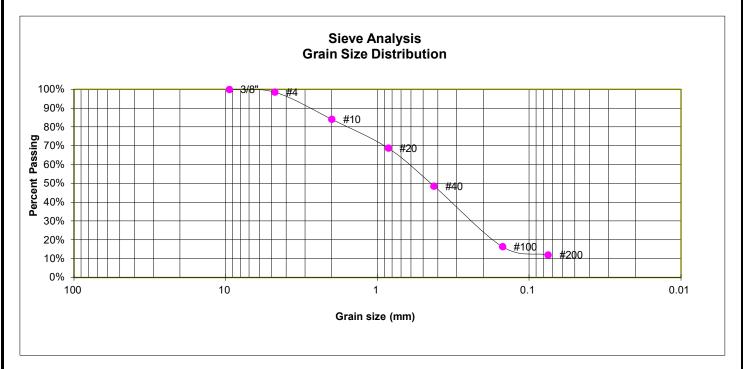
USCS CLASSIFICATION: SM



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	100.0%
4	98.6%
10	84.2%
20	68.8%
40	48.7%
100	16.5%
200	12.1%

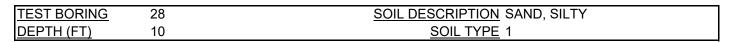
SOIL CLASSIFICATION

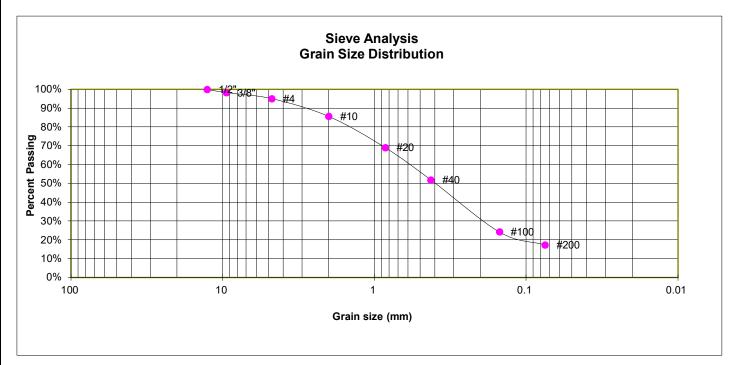
USCS CLASSIFICATION: SM



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	100.0%
3/8"	98.3%
4	95.1%
10	85.6%
20	69.1%
40	51.9%
100	24.3%
200	17.3%

SOIL CLASSIFICATION

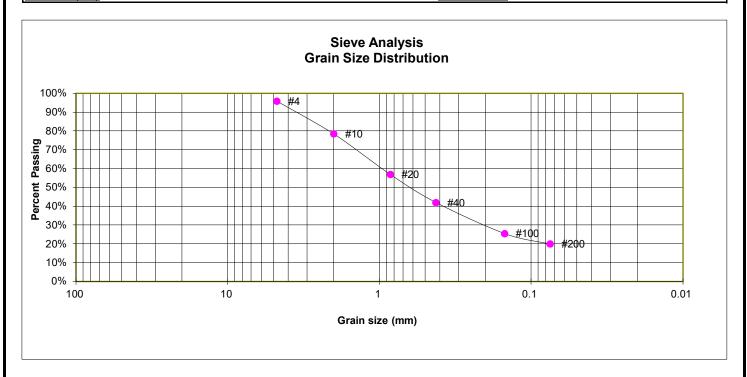
USCS CLASSIFICATION: SM



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404

TEST BORING29SOIL DESCRIPTION
SOIL TYPESAND, SILTYDEPTH (FT)2-3SOIL TYPE1



GRAIN SIZE ANALYSIS

U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	
4	95.9%
10	78.5%
20	57.0%
40	42.0%
100	25.6%
200	20.0%

SOIL CLASSIFICATION

USCS CLASSIFICATION: SM

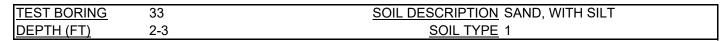
ATTERBERG LIMITS

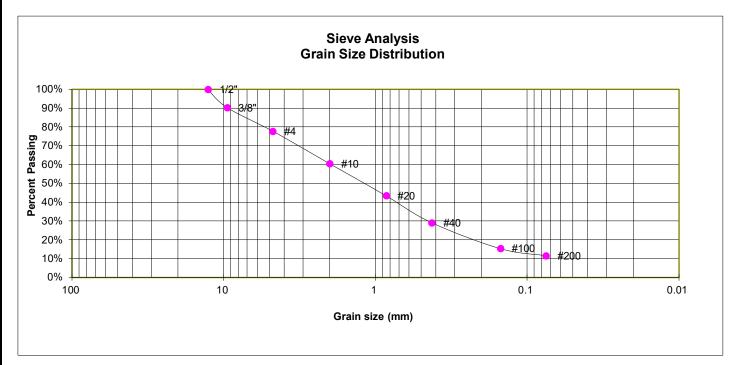
Plastic Limit	NP
Liquid Limit	NV
Plastic Index	NP



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	100.0%
3/8"	90.3%
4	77.8%
10	60.5%
20	43.5%
40	29.1%
100	15.4%
200	11.6%

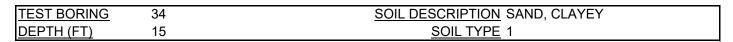
SOIL CLASSIFICATION

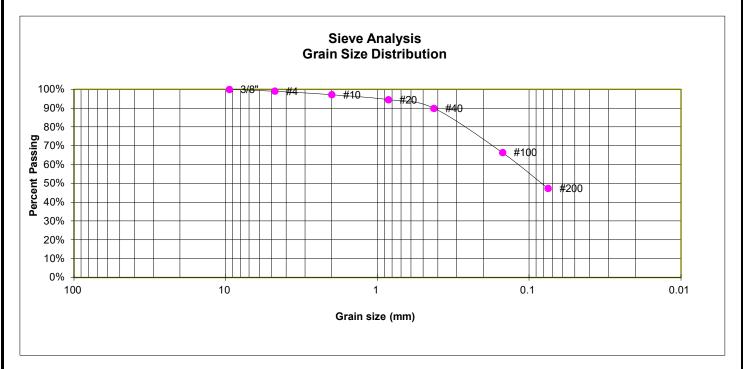
USCS CLASSIFICATION: SW-SM



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





Percent
<u>Finer</u>
100.0%
99.0%
97.2%
94.6%
90.0%
66.4%
47.3%

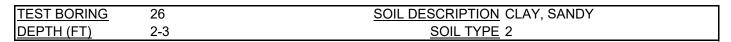
SOIL CLASSIFICATION

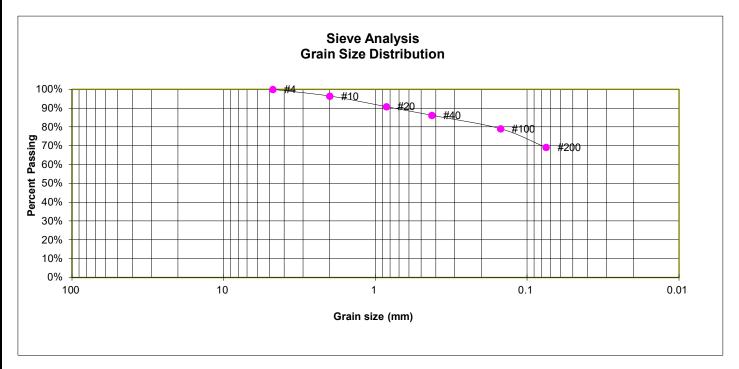
USCS CLASSIFICATION: SC



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





Percent
<u>Finer</u>
100.0%
96.4%
90.9%
86.3%
79.1%
69.2%

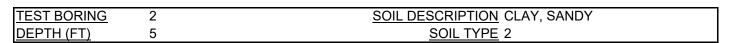
SOIL CLASSIFICATION

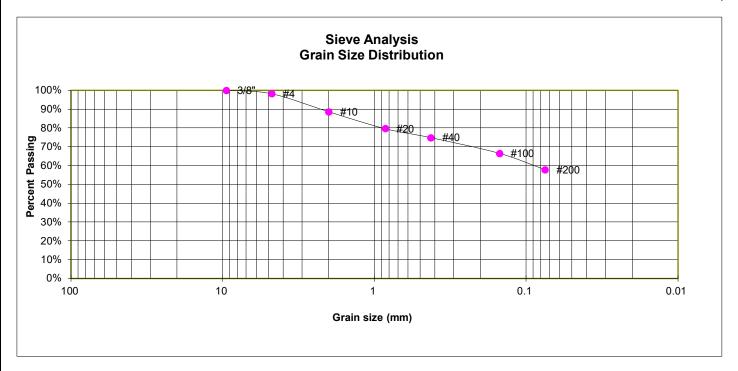
USCS CLASSIFICATION: CL



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	100.0%
4	98.3%
10	88.6%
20	79.7%
40	74.9%
100	66.5%
200	57.9%

SOIL CLASSIFICATION

USCS CLASSIFICATION: CL

ATTERBERG LIMITS

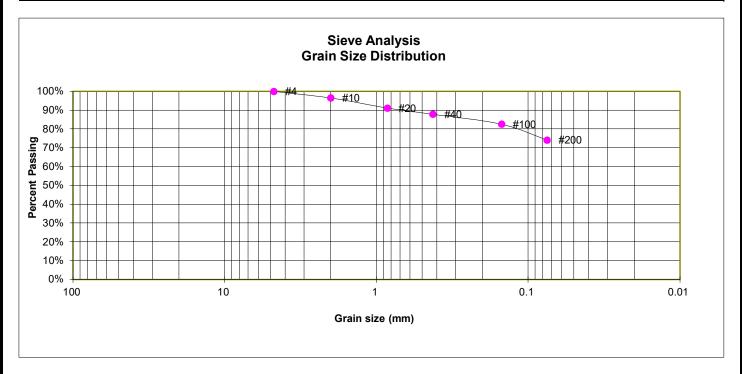
Plastic Limit	17
Liquid Limit	30
Plastic Index	13



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404

TEST BORING5SOIL DESCRIPTION
SOIL TYPECLAY, WITH SAND
2DEPTH (FT)2-3SOIL TYPE
2



GRAIN SIZE ANALYSIS

U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	
4	100.0%
10	96.5%
20	91.2%
40	87.9%
100	82.6%
200	74.2%

SOIL CLASSIFICATION

USCS CLASSIFICATION: CL

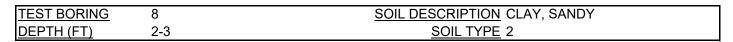
ATTERBERG LIMITS

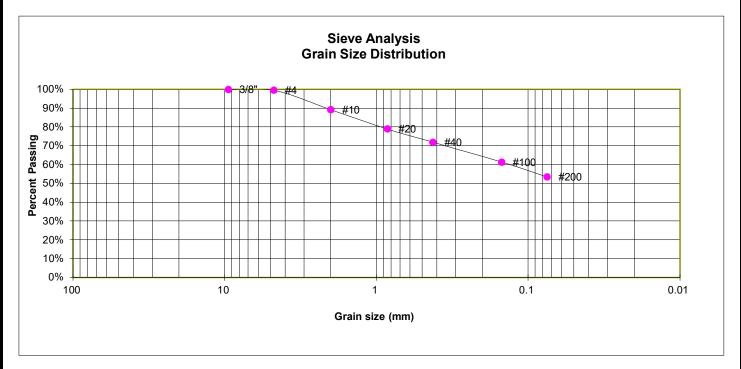
Plastic Limit	18
Liquid Limit	29
Plastic Index	11



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





Percent
<u>Finer</u>
100.0%
99.6%
89.2%
79.0%
71.9%
61.4%
53.5%

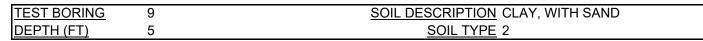
SOIL CLASSIFICATION

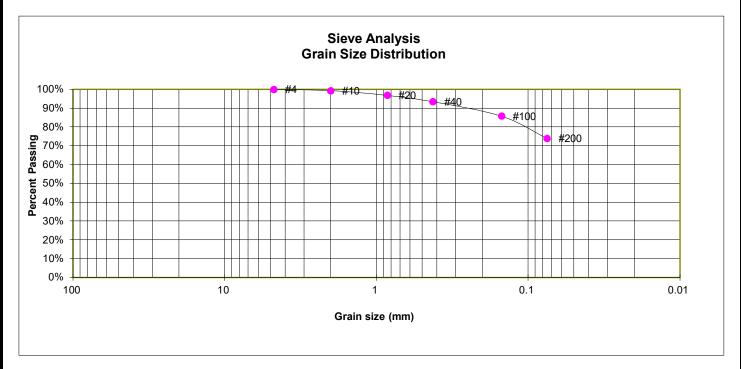
USCS CLASSIFICATION: CL



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	
4	100.0%
10	99.3%
20	96.9%
40	93.5%
100	85.8%
200	73.9%

SOIL CLASSIFICATION

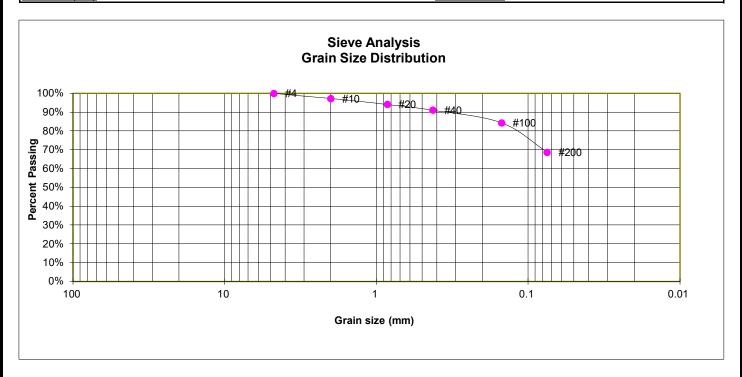
USCS CLASSIFICATION: CL



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404

TEST BORING12SOIL DESCRIPTION
SOIL TYPESILT, SANDYDEPTH (FT)2-3SOIL TYPE2



GRAIN SIZE ANALYSIS

U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	
4	100.0%
10	97.3%
20	94.2%
40	91.1%
100	84.4%
200	68.8%

SOIL CLASSIFICATION

USCS CLASSIFICATION: ML

ATTERBERG LIMITS

Plastic Limit	NP
Liquid Limit	NV
Plastic Index	NP

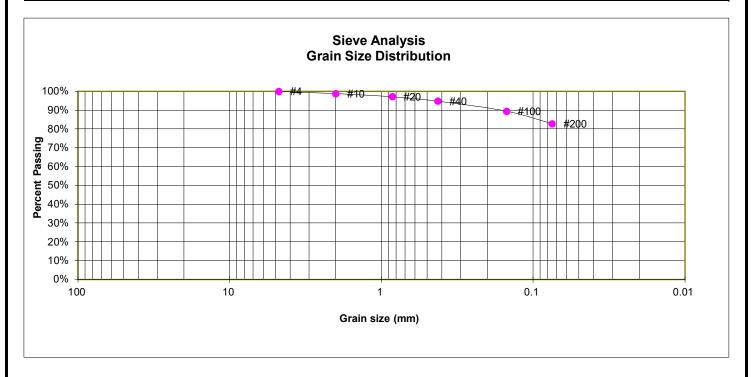


LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING31SOIL DESCRIPTION CLAY, WITH SANDDEPTH (FT)5SOIL TYPE 2



GRAIN SIZE ANALYSIS

Plastic Limit	Percent	U.S.
Liquid Limit	<u>Finer</u>	Sieve #
Plastic Index		3"
		1 1/2"
		3/4"
		1/2"
<u>FHA SWELL</u>		3/8"
Moisture at start	100.0%	4
Moisture at finish	98.8%	10
Moisture increase	97.2%	20
Initial dry density (pcf)	94.9%	40
Swell (psf)	89.5%	100
	82.8%	200

SOIL CLASSIFICATION

USCS CLASSIFICATION: CL



LABORATORY TEST RESULTS

ATTERBERG LIMITS

17

38

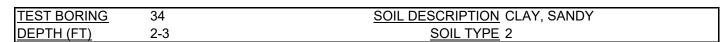
21

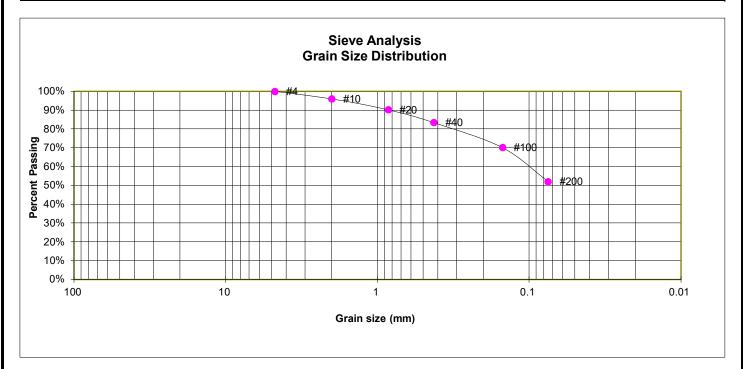
7.5%

18.5% 11.1%

105930

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





U.S.	Percent		
Sieve #	<u>Finer</u>		
3"			
1 1/2"			
3/4"			
1/2"			
3/8"		<u>FHA SWELL</u>	
4	100.0%	Moisture at start	11.5%
10	96.0%	Moisture at finish	21.3%
20	90.3%	Moisture increase	9.8%
40	83.4%	Initial dry density (pcf)	101
100	70.2%	Swell (psf)	270
200	52.1%		

SOIL CLASSIFICATION

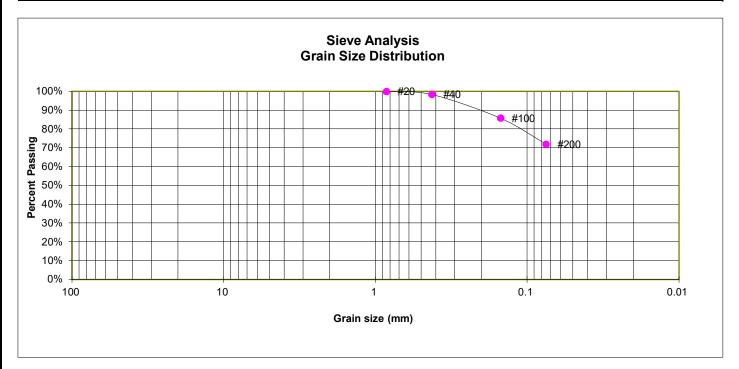
USCS CLASSIFICATION: CL



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404

TEST BORING17SOIL DESCRIPTION CLAY, WITH SANDDEPTH (FT)2-3SOIL TYPE 2



GRAIN SIZE ANALYSIS

U.S.	Percent		
Sieve #	<u>Finer</u>		
3"			
1 1/2"			
3/4"			
1/2"			
3/8"		<u>FHA SWELL</u>	
4		Moisture at start	11.1%
10		Moisture at finish	21.4%
20	100.0%	Moisture increase	10.3%
40	98.4%	Initial dry density (pcf)	99
100	85.8%	Swell (psf)	880
200	71.9%		

SOIL CLASSIFICATION

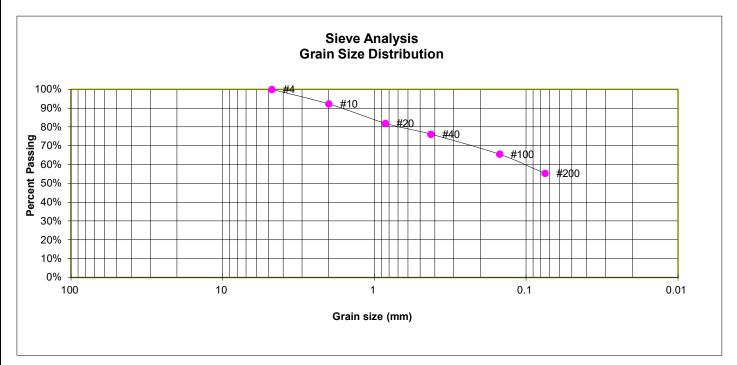
USCS CLASSIFICATION: CL



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	
4	100.0%
10	92.3%
20	82.0%
40	76.2%
100	65.6%
200	55.4%

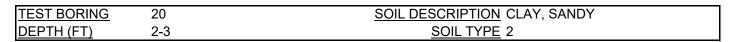
SOIL CLASSIFICATION

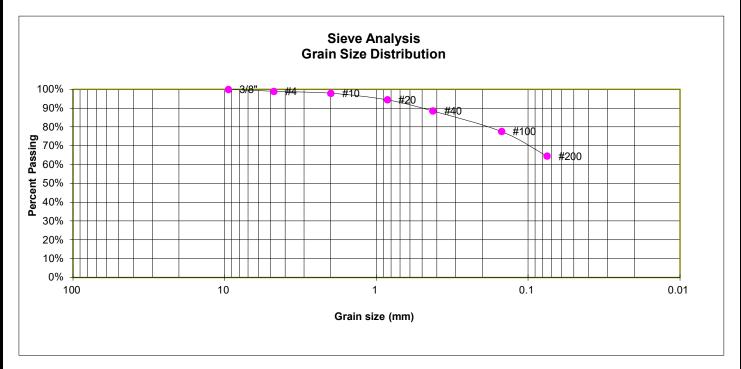
USCS CLASSIFICATION: CL



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





Percent
<u>Finer</u>
100.0%
99.0%
98.0%
94.5%
88.6%
77.7%
64.6%

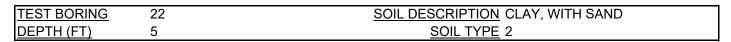
SOIL CLASSIFICATION

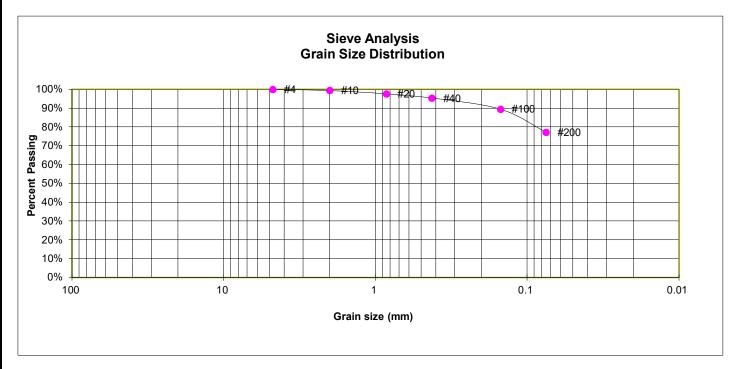
USCS CLASSIFICATION: CL



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





Percent
<u>Finer</u>
100.0%
99.4%
97.6%
95.4%
89.5%
77.2%

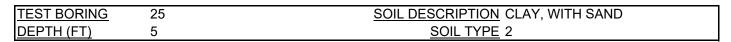
SOIL CLASSIFICATION

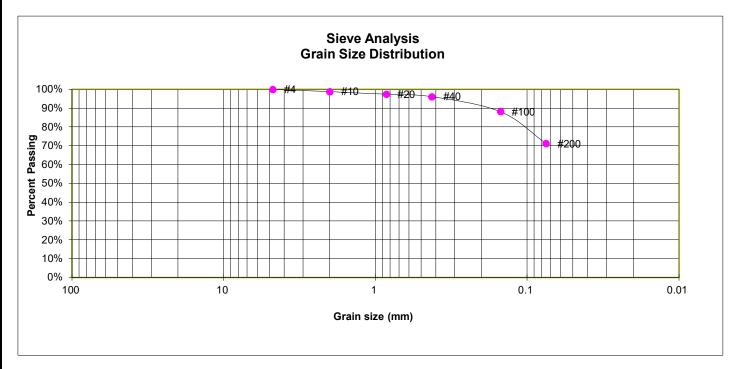
USCS CLASSIFICATION: CL



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





Percent
<u>Finer</u>
100.0%
98.9%
97.4%
96.1%
88.2%
71.2%

SOIL CLASSIFICATION

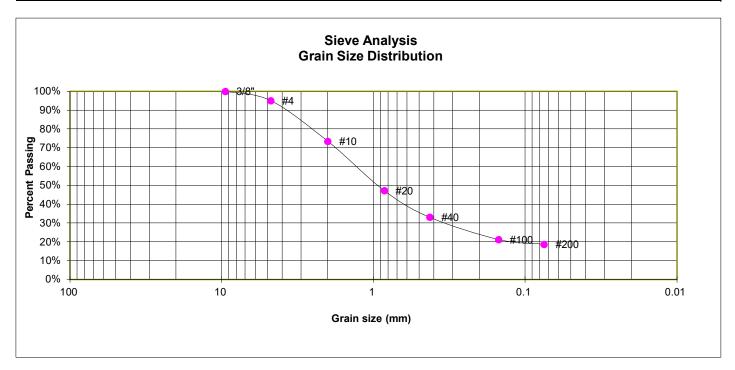
USCS CLASSIFICATION: CL



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404

TEST BORING
DEPTH (FT)30SOIL DESCRIPTION
SOIL TYPE
3SANDSTONE (SAND, SILTY)
3



GRAIN SIZE ANALYSIS

U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	100.0%
4	95.1%
10	73.4%
20	47.3%
40	33.1%
100	21.3%
200	18.8%

SOIL CLASSIFICATION

USCS CLASSIFICATION: SM

ATTERBERG LIMITS

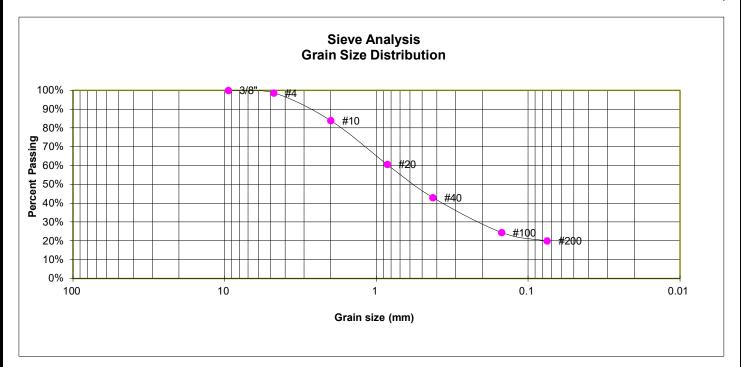
Plastic Limit	NP
Liquid Limit	NV
Plastic Index	NP



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	100.0%
4	98.6%
10	84.0%
20	60.7%
40	43.0%
100	24.5%
200	20.0%

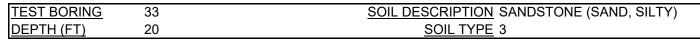
SOIL CLASSIFICATION

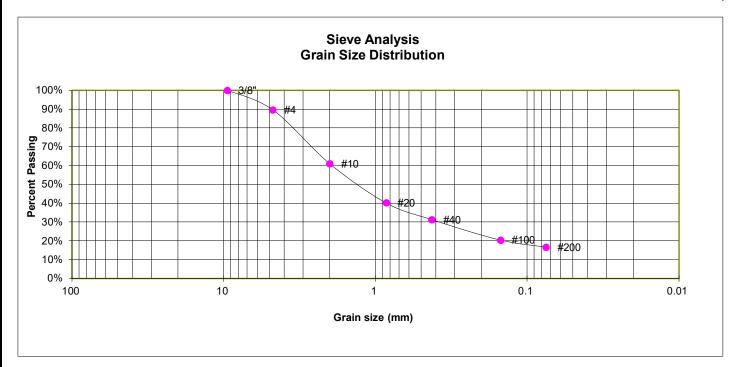
USCS CLASSIFICATION: SM



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





Percent
<u>Finer</u>
100.0%
89.7%
61.0%
40.3%
31.3%
20.5%
16.7%

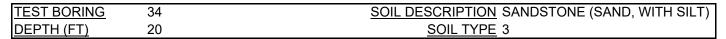
SOIL CLASSIFICATION

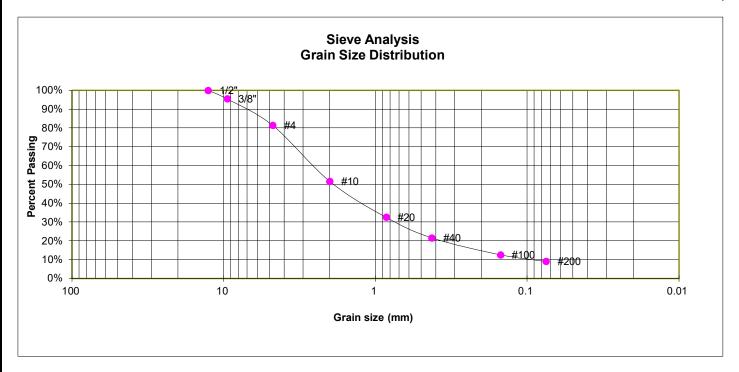
USCS CLASSIFICATION: SM



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	100.0%
3/8"	95.5%
4	81.4%
10	51.6%
20	32.5%
40	21.6%
100	12.6%
200	9.1%

SOIL CLASSIFICATION

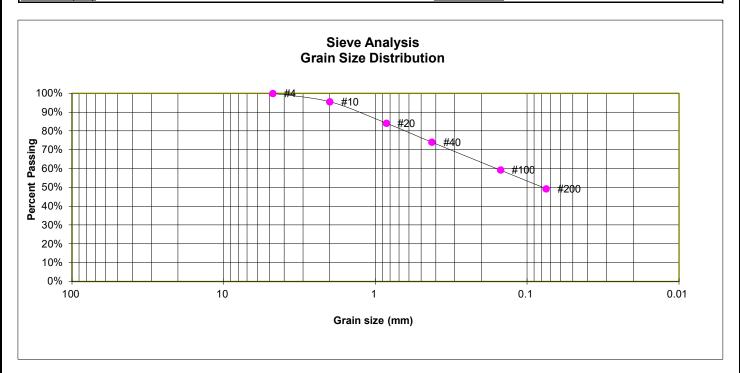
USCS CLASSIFICATION: SW-SM



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404

TEST BORING7SOIL DESCRIPTION SANDSTONE (SAND, CLAYEY)DEPTH (FT)20SOIL TYPE 3



GRAIN SIZE ANALYSIS

U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	
4	100.0%
10	95.6%
20	84.2%
40	74.1%
100	59.3%
200	49.3%

SOIL CLASSIFICATION

USCS CLASSIFICATION: SC

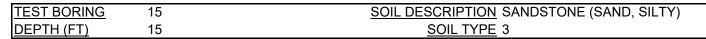
ATTERBERG LIMITS

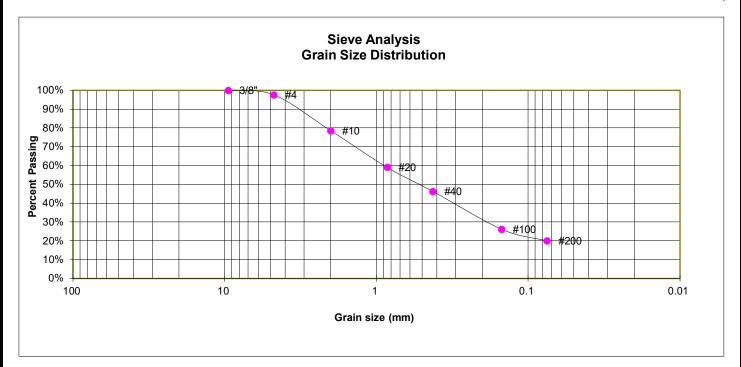
Plastic Limit	19
Liquid Limit	32
Plastic Index	13



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	100.0%
4	97.7%
10	78.6%
20	59.1%
40	46.3%
100	26.2%
200	20.0%

SOIL CLASSIFICATION

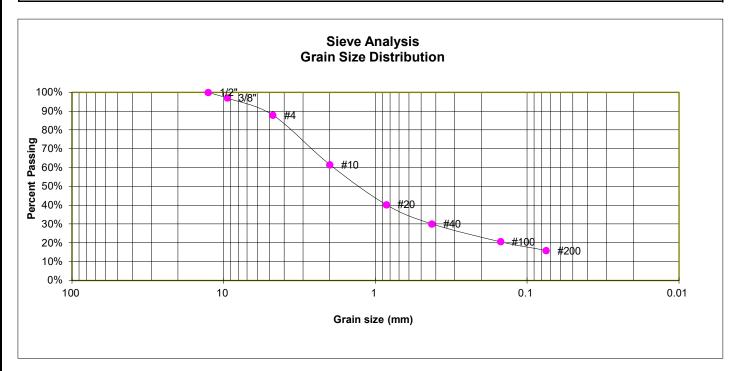
USCS CLASSIFICATION: SM



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404

TEST BORING
DEPTH (FT)21SOIL DESCRIPTION
SOIL TYPE
3SANDSTONE (SAND, SILTY)



GRAIN SIZE ANALYSIS

U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	100.0%
3/8"	97.0%
4	87.9%
10	61.6%
20	40.4%
40	30.1%
100	20.6%
200	16.0%

SOIL CLASSIFICATION

USCS CLASSIFICATION: SM

ATTERBERG LIMITS

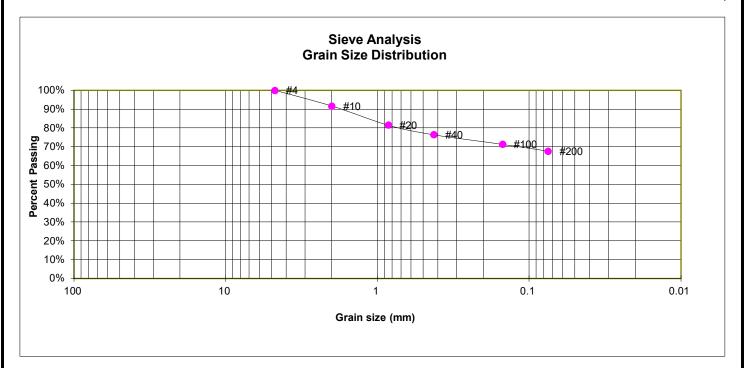
Plastic Limit	NP
Liquid Limit	NV
Plastic Index	NP



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	
4	100.0%
10	91.7%
20	81.6%
40	76.4%
100	71.4%
200	67.7%

SOIL CLASSIFICATION

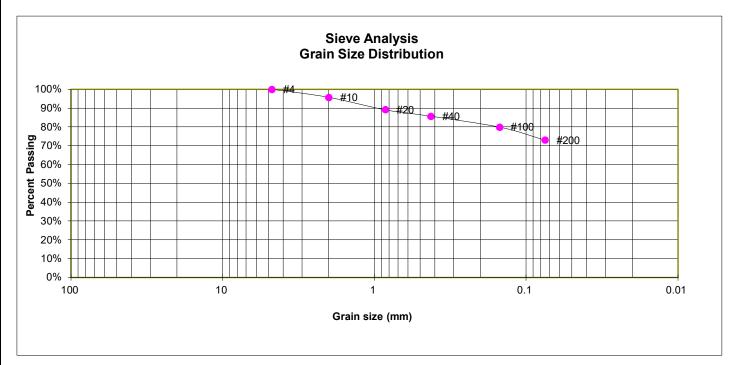
USCS CLASSIFICATION: CL



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





U.S.	Percent
Sieve #	<u>Finer</u>
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	
4	100.0%
10	95.8%
20	89.2%
40	85.8%
100	80.0%
200	73.0%

SOIL CLASSIFICATION

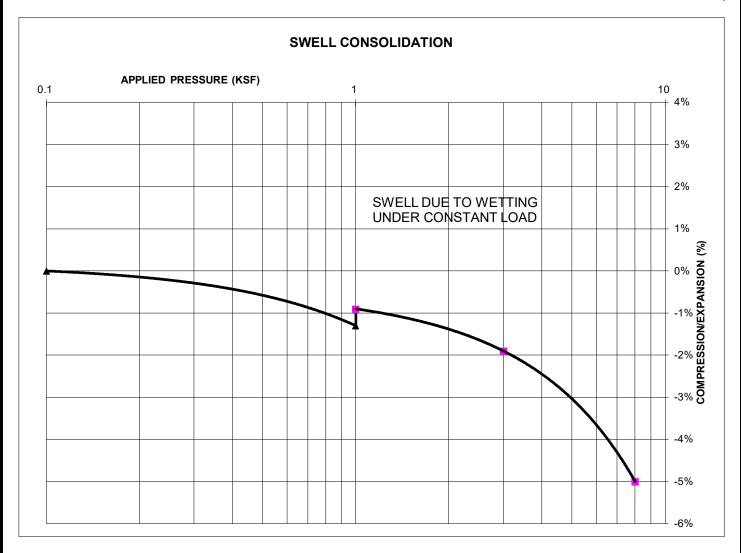
USCS CLASSIFICATION: CL



LABORATORY TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404

TEST BORING26SOIL DESCRIPTION CLAY, SANDYDEPTH (FT)2-3SOIL TYPE 2



SWELL/CONSOLIDATION TEST RESULTS

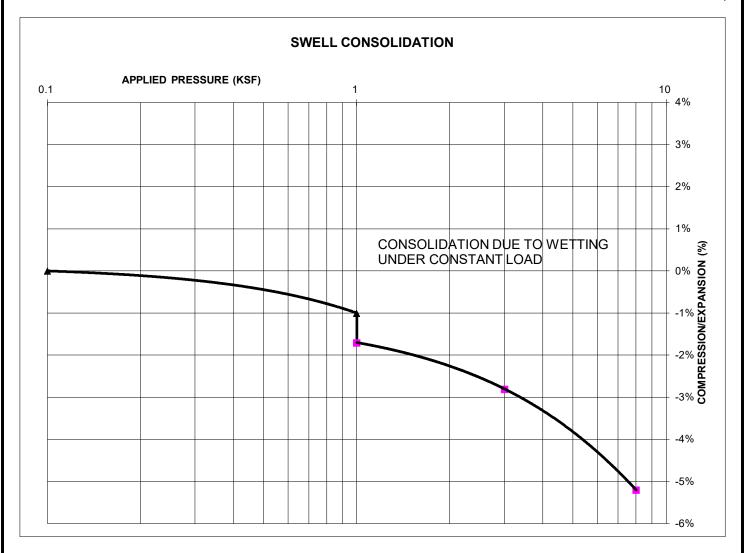
NATURAL UNIT DRY WEIGHT (PCF): 102 NATURAL MOISTURE CONTENT: 14.5% SWELL/CONSOLIDATION (%): 0.4%



SWELL/CONSOLIDATION TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404

TEST BORING	2	SOIL DESCRIPTION CLAY, SANDY
DEPTH (FT)	5	SOIL TYPE 2



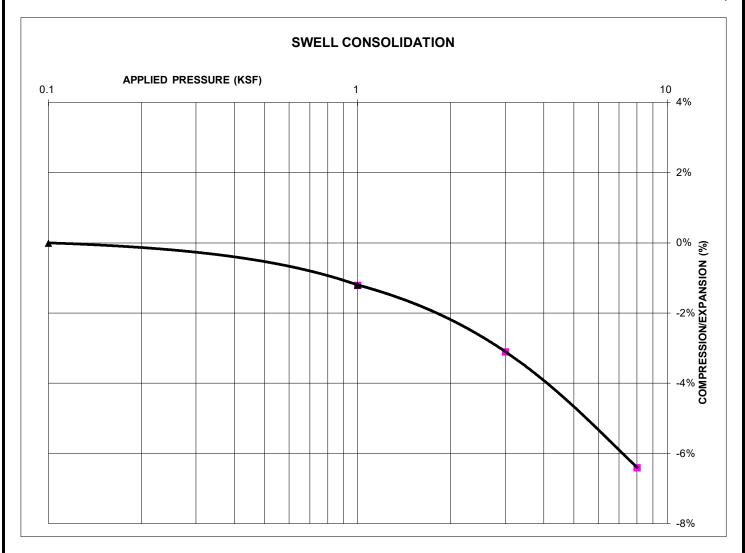
NATURAL UNIT DRY WEIGHT (PCF): 110
NATURAL MOISTURE CONTENT: 13.3%
SWELL/CONSOLIDATION (%): -0.7%



SWELL/CONSOLIDATION TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404

TEST BORING	5	SOIL DESCRIPTION CLAY, SANDY
DEPTH (FT)	2-3	SOIL TYPE 2

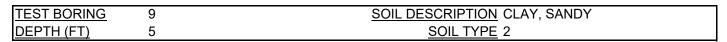


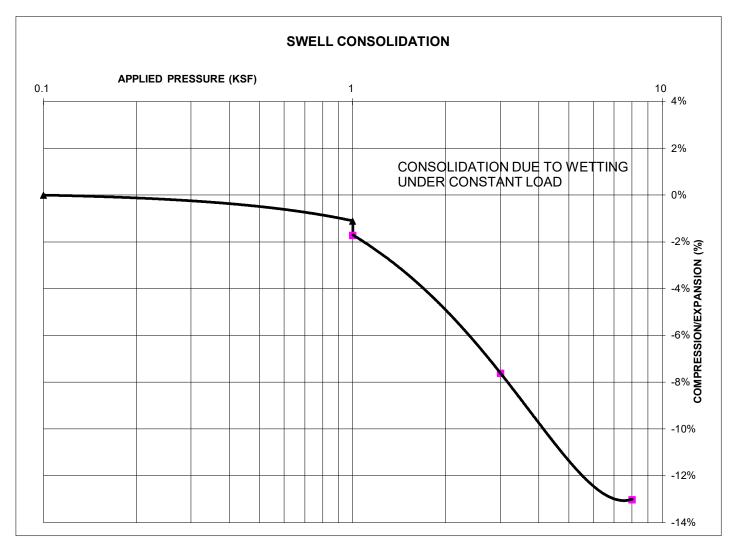
NATURAL UNIT DRY WEIGHT (PCF): 104 NATURAL MOISTURE CONTENT: 11.9% SWELL/CONSOLIDATION (%): 0.0%



SWELL/CONSOLIDATION TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404





NATURAL UNIT DRY WEIGHT (PCF): 95
NATURAL MOISTURE CONTENT: 11.8%
SWELL/CONSOLIDATION (%): -0.6%

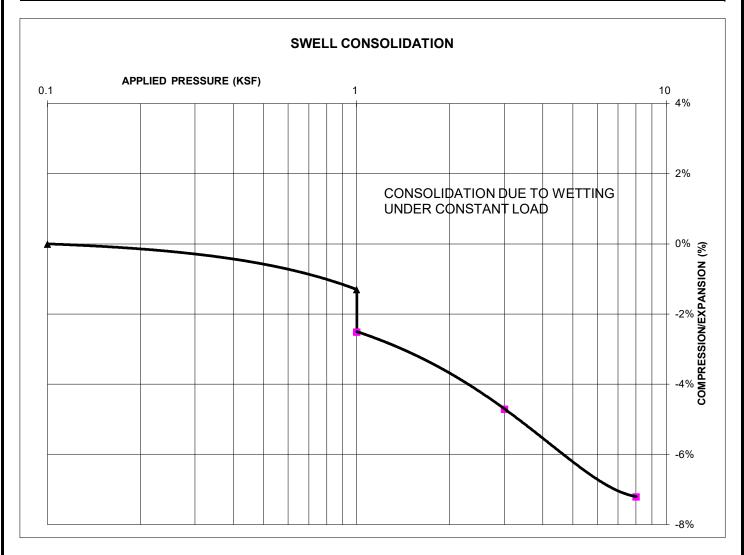


SWELL/CONSOLIDATION TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING12SOIL DESCRIPTION SILT, SANDYDEPTH (FT)2-3SOIL TYPE 2



SWELL/CONSOLIDATION TEST RESULTS

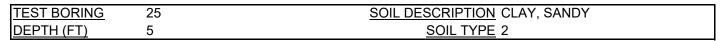
NATURAL UNIT DRY WEIGHT (PCF): 94
NATURAL MOISTURE CONTENT: 6.9%
SWELL/CONSOLIDATION (%): -1.2%

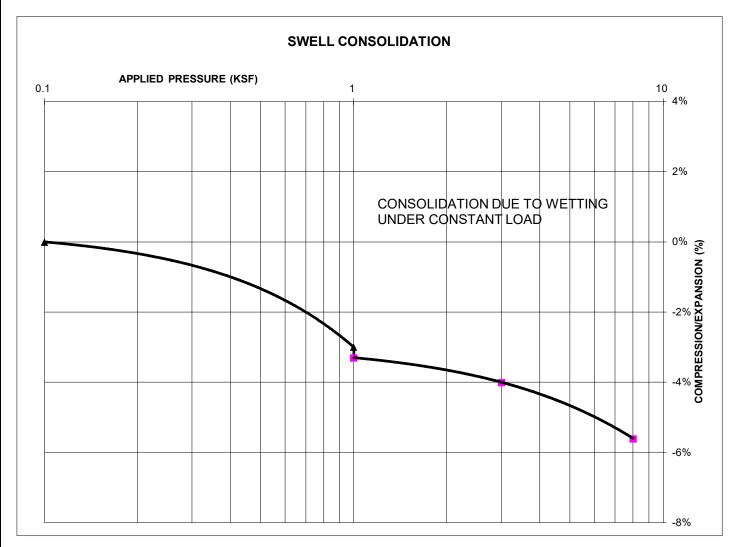


SWELL/CONSOLIDATION TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404





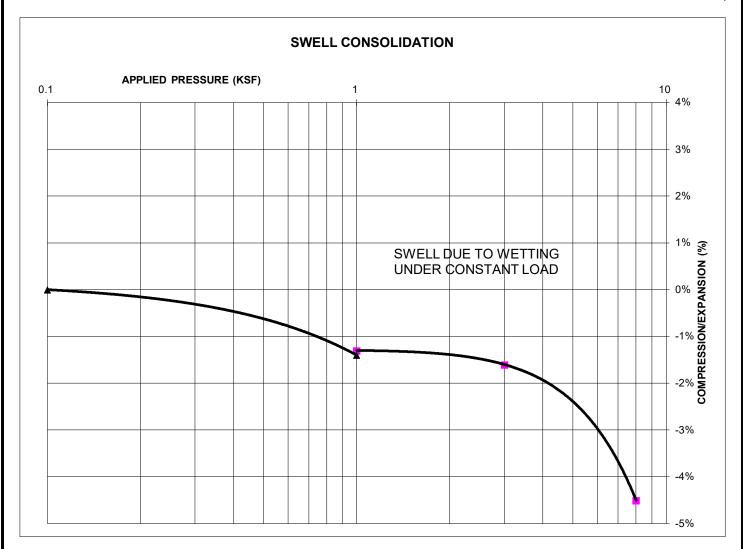
NATURAL UNIT DRY WEIGHT (PCF): 111
NATURAL MOISTURE CONTENT: 16.8%
SWELL/CONSOLIDATION (%): -0.3%



SWELL/CONSOLIDATION TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT JOB NO. 220404

TEST BORING14SOIL DESCRIPTION CLAY, SANDYDEPTH (FT)2-3SOIL TYPE 2



SWELL/CONSOLIDATION TEST RESULTS

NATURAL UNIT DRY WEIGHT (PCF): 109 NATURAL MOISTURE CONTENT: 14.2% SWELL/CONSOLIDATION (%): 0.1%

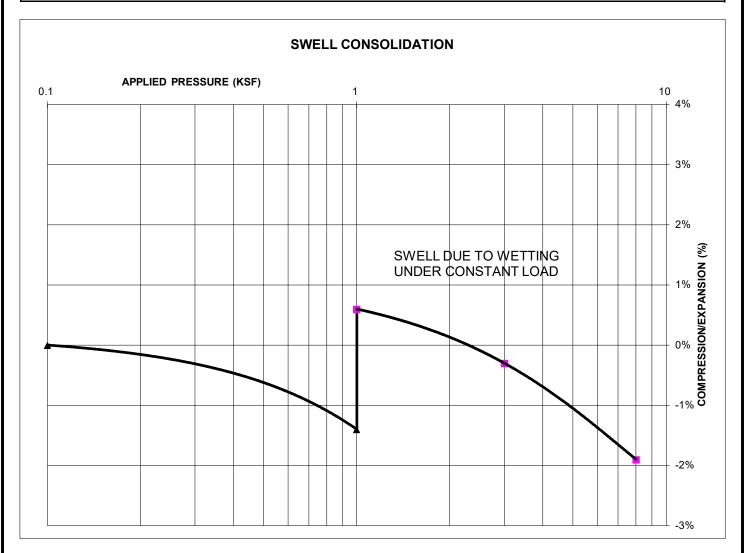


SWELL/CONSOLIDATION TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404

TEST BORING	27	SOIL DESCRIPTION CLAYSTONE (CLAY, WITH SAND)
DEPTH (FT)	20	SOIL TYPE 4



NATURAL UNIT DRY WEIGHT (PCF): 114
NATURAL MOISTURE CONTENT: 16.1%
SWELL/CONSOLIDATION (%): 2.0%



SWELL/CONSOLIDATION TEST RESULTS

FLYING HORSE NORTH SKETCH PLAN FLYING HORSE DEVELOPMENT

JOB NO. 220404



APPENDIX D: Profile Hole Logs and Lab Testing Summary, Entech Job No. 160118/141588

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SOIL TYPE	TEST BORING NO.	DEPTH (FT)	WATER (%)	DRY DENSITY (PCF)	PASSING NO. 200 SIEVE (%)	LIQUID LIMIT (%)	PLASTIC INDEX (%)	SULFATE (WT %)	FHA SWELL (PSF)	SWELL/ CONSOL (%)	UNIFIED CLASSIFICATION	SOIL DESCRIPTION
1	1	2-3			23.9		_				SM	SAND, SILTY
1	11	2-3			17.6	NV	NP	<0.01			SM	SAND, SILTY
1	14	2-3			30.8						SM	SAND, SILTY
1	5	2-3			22.3	22	3				SM	SAND, SILTY
1	9	10			19.8				152		SM	SAND, SILTY
1	12	10			36.5			0.01			SM	SAND, SILTY
2	8	10	10.8	111.7	55.5	36	12		-	0.3	CL	CLAY, VERY SANDY
2	2	5			61.4						CL	CLAY, VERY SANDY
2	3	2-3	11.1	116.2	84.8	32	13			0.7	CL	CLAY, SANDY
2	4	5			74.5				1485	-	CL	CLAY, SANDY
2	6	2-3	10.7	112.3	96.5	39	17			0.6	CL	CLAY, SANDY
2	10	5	14.3	113.6	62.5					2.7	CL	CLAY, SANDY
3	13	5			20.0						SM	SANDSTONE, SILTY
3	1 1	15			24.0						SM	SANDSTONE, SILTY
3	3	10			23.8	NV	NP				SM	SANDSTONE, SILTY
3	6	15			12.7						SM	SANDSTONE, SILTY
3	7	10			26.3						SM	SANDSTONE, SILTY

Table 2: Summary of Profile Boring Test Results

Percolation Test No.	Depth to Bedrock (ft.)	Depth to Groundwater (ft.)
1	9/11*	>15
2	>15	>15
3	9/>15*	>15
4	>15	>15
5	3/>15*	>15
6	8/10*	>15
7	11/>15*	>15
8	>15	>15
9	14	>15
10	>15	>15
11	9/11*	>15
12	11	>15
13	1	>15
14	11	>15

^{*} Weathered bedrock/Formational bedrock

PROFILE HOLE NO. PROFILE HOLE NO. 2 DATE DRILLED 1/23/2015 DATE DRILLED 1/23/2015 Job# 141588 CLIENT NES, INC. LOCATION SHAMROCK RANCH REMARKS REMARKS Watercontent % Watercontent foot Samples Depth (ft) Blows per Symbol Samples Soil Type Symbol DRY TO 15', 1/24/15 DRY TO 15', 1/24/15 CLAY, SANDY, BROWN CLAY, SANDY TO VERY SANDY, SAND, SILTY, FINE TO COARSE BROWN TO TAN, STIFF TO FIRM, GRAINED, TAN, MEDIUM 19 6.1 1 MOIST DENSE, MOIST 25 7.2 2 21 4.7 1 7.8 2 SAND, SILTY, FINE TO COARSE WEATHERED SANDSTONE, SILTY, 10 35 11.1 GRAINED, TAN, MEDIUM DENSE, 10 22 4.9 FINE TO COARSE GRAINED, GRAY MOIST BROWN, DENSE, MOIST SANDSTONE, SILTY, FINE TO COARSE GRAINED, GRAY, VERY DENSE, MOIST 7:::: 15 <u>50</u> | 15.9 3 15 291 5.8 10" 20



	PROFILE BORING LOG				
DRAWN:	DATE:	<u> </u>	CHECKED:	PATE:	
	-	· ·	10	2/14/15	



PROFILE HOLE NO. PROFILE HOLE NO. 4 DATE DRILLED 1/23/2015 DATE DRILLED 1/23/2015 Job# 141588 CLIENT NES, INC. LOCATION SHAMROCK RANCH REMARKS REMARKS Watercontent % Blows per foot Blows per foot Watercontent Depth (ft) Samples Symbol Soil Type DRY TO 15', 1/24/15 DRY TO 15', 1/24/15 CLAY, SANDY, BROWN, STIFF TO CLAY, SANDY, TAN, STIFF, MOIST FIRM, MOIST 24 8.2 2 16 8.6 2 13 6.8 2 15 9.1 2 SAND, SILTY, TAN 1 WEATHERED SANDSTONE, SILTY, 10 11: 40 4.1 3 SAND, CLAYEY, FINE TO COARSE 10 18 8.8 1 FINE TO COARSE GRAINED, TAN, GRAINED, TAN, MEDIUM DENSE. DENSE, MOIST MOIST 15 42 8.3 3 CLAY, SANDY, BROWN, FIRM, 15 12 18,2 2 MOIST 20 20



	PROFILE BORING LOG				
DRAWN:		· · · · · · · · · · · · · · · · · · ·			
DIOWYN.	DATE:	CHECKED:	29/15/15		



PROFILE HOLE NO. PROFILE HOLE NO. DATE DRILLED 2/2/2015 DATE DRILLED 1/26/2015 Job# 141588 CLIENT NES, INC. LOCATION SHAMROCK RANCH REMARKS REMARKS % Blows per foot Watercontent foot Watercontent Blows per Samples € Soil Type Samples Symbol Depth (DRY TO 15', 2/3/15 DRY TO 15', 1/27/15 SAND, SILTY, FINE TO COARSE CLAY, SANDY, TAN, STIFF. GRAINED, TAN, MEDIUM DENSE MOIST TO DENSE, MOIST TO VERY MOIST 16 2.7 1 21 22.4 2 WEATHERED SANDSTONE, SILTY, CLAYEY, FINE TO COARSE 42 11.5 3 16 2 8.9 GRAINED, TAN, DENSE, MOIST WEATHERED SANDSTONE, SILTY. 10 42 14.3 FINE TO COARSE GRAINED, TAN, 10 42 8.7 3 DENSE, MOIST SANDSTONE, SILTY, FINE TO COARSE GRAINED, TAN, VERY DENSE, MOIST 15] ::: 45 4.4 <u>50</u> 4.9 3 11" 20



)Aq	OFILE BORING L	.OG
Nation as a second	and a second and a	and the second s	a provincia de la compania de la co
DRAWN	OATE:	CHECKED:	29/2/15

JOB NO.: 141588 FIG NO.:

PROFILE HOLE NO. PROFILE HOLE NO. 8 DATE DRILLED 1/26/2015 DATE DRILLED 2/2/2015 Job# 141588 CLIENT NES. INC. LOCATION SHAMROCK RANCH REMARKS REMARKS Watercontent % Watercontent % Blows per foot foot Depth (ft) Blows per Depth (ft) Symbol Samples B DRY TO 15', 2/3/15 DRY TO 15', 1/27/15 CLAY, SANDY, TAN, FIRM, MOIST CLAY, SANDY TO VERY SANDY. TAN, STIFF, MOIST 12 6.6 15 9.0 2 SAND, CLAYEY, FINE TO COARSE 5 7.3 44 2 28 9.2 2 GRAINED, BROWN, DENSE, MOIST SAND, SILTY, FINE TO COARSE GRAINED, TAN, MEDIUM DENSE, 10 14 7.5 1 10 24 5.7 2 MOIST WEATHERED SANDSTONE. SILTY, FINE TO COARSE GRAINED, TAN, DENSE, MOIST 15 46 8.8 15 29 6.9 2 20 20



	PR	OFILE BORING L	og
DRAWN:	DATE:	CHECKED;	DAJE:
		u	2/12/15

JOBNO.: 141588 FIGNO.: B-4

PROFILE HOLE NO. PROFILE HOLE NO. 10 DATE DRILLED 2/3/2015 DATE DRILLED 2/2/2015 Job# 141588 CLIENT NES, INC. LOCATION SHAMROCK RANCH REMARKS REMARKS Watercontent % Blows per foot Blows per foot Watercontent Depth (ft) Samples Symbol Samples Soil Type Symbol DRY TO 15', 2/4/15 DRY TO 15', 2/5/15 SAND, SILTY WITH CLAYEY LENSES. SAND, SILTY, FINE TO COARSE FINE TO COARSE GRAINED, TAN, GRAINED, TAN, DENSE, MOIST MEDIUM DENSE TO LOOSE, MOIST 24 5.6 1 32 3.8 1 CLAY, SANDY, TAN, VERY STIFF, 18 6.2 1 MOIST 42 9.2 2 SAND, SILTY, FINE TO COARSE 10 6 8.9 GRAINED, TAN, MEDIUM DENSE TO 10 17 3.7 1 LOOSE, MOIST SANDSTONE, SILTY, FINE TO 15 50 11.2 3 15 6 3.3 1 COARSE GRAINED, GRAY, VERY DENSE, MOIST 20 20



PROFILE BORING LOG

DRAWN: DATE: CHECKED: DATE: 2/12/15

JOB NO.: 1.4/588 FIG NO.:

PROFILE HOLE NO. 11 PROFILE HOLE NO. 12 DATE DRILLED 12/1/2014 DATE DRILLED 12/1/2014 Job# 141588 CLIENT NES, INC. LOCATION SHAMROCK RANCH REMARKS REMARKS % Watercontent % Blows per foot Watercontent Blows per foot Samples Type Samples Symbol Symbol Depth (Soil DRY TO 15', 12/2/14 DRY TO 15', 12/2/14 SAND, SILTY, FINE TO COARSE SAND, SILTY, FINE TO COARSE GRAINED, TAN, MEDIUM DENSE. GRAINED, TAN, LOOSE TO MEDIUM MOIST 27 6,7 DENSE, MOIST 7 10.5 1 25 4.8 5 1 22 5.6 1 WEATHERED SANDSTONE, SILTY, 10 32 7.8 3 10 25 8.8 1 FINE TO COARSE GRAINED, TAN. DENSE, MOIST SANDSTONE, SILTY, FINE TO SANDSTONE, SILTY, FINE TO COARSE GRAINED, TAN, VERY COARSE GRAINED, TAN, VERY DENSE, MOIST DENSE, MOIST 15 50 10.0 3 15 50 7.7 3 6" 20 20



	PROFILE BORING LOG				
DRAWN:	DATE:	CHECKED:	DATE: 2/15		

JOB NO.: 14158 FIG NO.: B - 6

PROFILE HOLE NO. 13 PROFILE HOLE NO. 14 12/1/2014 DATE DRILLED DATE DRILLED 1/26/2015 Job# 141588 CLIENT NES, INC. LOCATION SHAMROCK RANCH REMARKS REMARKS % Blows per foot Wafercontent Blows per foot Watercontent Depth (ft) Type Samples Symbol Samples Soil Type DRY TO 15', 12/2/14 DRY TO 15', 12/2/14 SAND, SILTY, TAN SAND, SILTY TO CLAYEY, FINE TO SANDSTONE, SILTY, FINE TO COARSE GRAINED, TAN, LOOSE, COARSE GRAINED, TAN, VERY 50 8.0 3 MOIST 12.2 1 DENSE, MOIST 10" 5 <u>50</u> 8.3 3 CLAY, SANDY, TAN, FIRM, MOIST 15.2 2 10" SAND, SILTY, FINE TO COARSE GRAINED, TAN, MEDIUM DENSE. MOIST 10 50 9.9 3 10 12 14.4 1 6" SANDSTONE, SILTY, FINE TO COARSE GRAINED, TAN, DENSE TO VERY DENSE, MOIST 15 50 8.2 3 50 8.8 3 20 20



	PRO	FILE BORING L	OG
DRAWN:	DATE:	CHECKED:	DATE:

JOB NO.:) 4/588 FIG NO.:



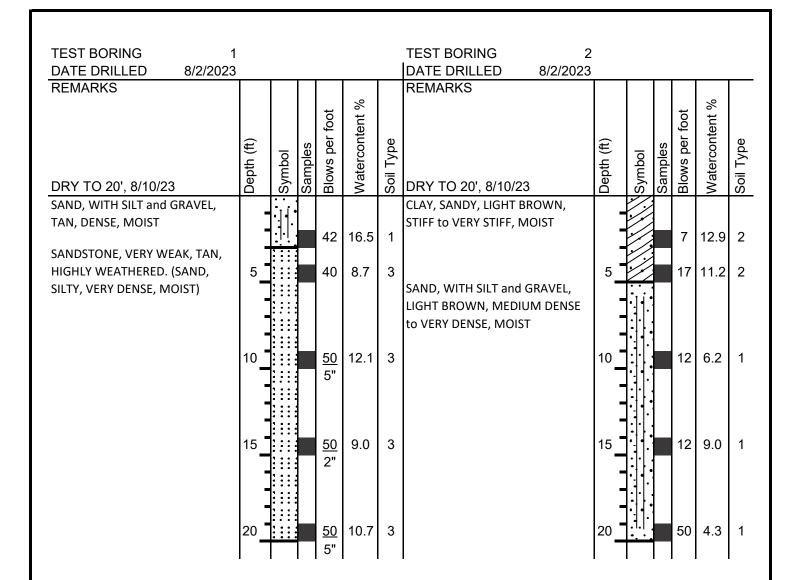
APPENDIX E: Flying Horse North Filing 3, Test Boring Logs and Lab Testing Summary, Entech Job No. 231192



TABLE B-1
DEPTH TO BEDROCK & GROUNDWATER

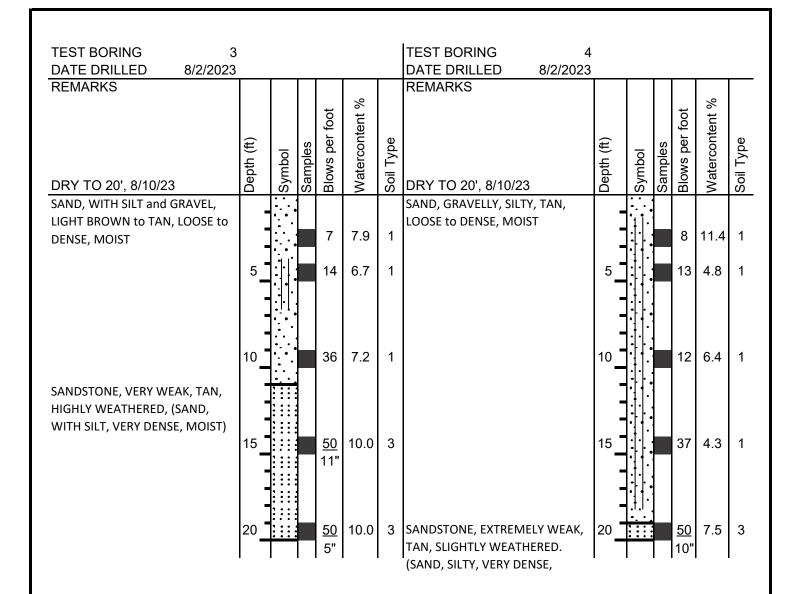
TEST BORING	DEPTH TO BEDROCK (ft.)	DEPTH TO GROUNDWATER (ft.)
1	3	>20
2	>20	>20
3	11	>20
4	19	>20
5	4	>20
6	>20	>20

Project: Flying Horse North, Filing 3 Client: Flying Horse North, LLC Job No: 231192





TEST BORING LOGS





TEST BORING LOGS

FLYING HORSE NORTH, FILING 3 FLYING HORSE NORTH, LLC

JOB NO. 231192

FIG. B-2

				%		REMARKS					%	
Depth (ft)	Symbol	Samples	Blows per foot	Watercontent '	Soil Type	DRY TO 20', 8/10/23	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent º	Soil Type
_	11.					CLAY, SANDY, LIGHT BROWN,	-					
-			15	4.6		WEDIOW STILL to STILL, WOIST	-			6	8.3	2
5_			<u>50</u> 7"	7.3	3	SAND, GRAVELLY, SILTY, LIGHT	5_			13	7.2	2
-							-					
10_			<u>50</u> 4"	7.6	3		10_			16	4.2	1
							-					
15_			<u>50</u> 7"	7.3	4		15_			10	7.5	1
-			'				-					
20			<u>50</u>	7.5	4		20			20	8.4	1
	10 15	(ft) (ft) Depth (ft)	15 Depth (ft)	10 15 Samples 15 Sold (ft) 16 Samples 15 Sold (ft) 16 Samples 15 Sold (ft) 16 Sold	(t)	(t) https://www.new.new.new.new.new.new.new.new.new.	DATE DRILLED 8/2/2023 REMARKS 1	DATE DRILLED 8/2/2023 REMARKS (it)	DATE DRILLED 8/2/2023 REMARKS (t) to	DATE DRILLED 8/2/2023 REMARKS (i) y too too be down on the work of the property of the prope	DATE DRILLED 8/2/2023 (1)	DATE DRILLED 8/2/2023 (1)



TEST BORING LOGS

FLYING HORSE NORTH, FILING 3 FLYING HORSE NORTH, LLC

JOB NO. 231192

FIG. B-3



TABLE C-1 SUMMARY OF LABORATORY TEST RESULTS

SOIL TYPE	TEST BORING NO.	DEPTH (FT)	WATER (%)	DRY DENSITY (PCF)	PASSING NO. 200 SIEVE (%)	LIQUID LIMIT	PLASTIC LIMIT	PLASTIC INDEX	SULFATE (WT %)	SWELL/ CONSOL (%)	USCS	SOIL DESCRIPTION
1	1	2-3			11.8	NV	NP	NP	<0.01		SW-SM	SAND, WITH SILT
1	4	5			41.0				<0.01		SM	SAND, SILTY
2	2	5	7.8	115.2	51.5				0.01	-0.2	CL	CLAY, SANDY
2	6	2-3			51.1						CL	CLAY, SANDY
3	3	15			9.1				<0.01		SW-SM	SANDSTONE, (SAND, WITH SILT)
4	5	15	14.9	110.6	64.9	35	11	24		1.2	CL	CLAYSTONE, (CLAY, SANDY)



APPENDIX F: USDA Soil Survey Descriptions

El Paso County Area, Colorado

14—Brussett loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 367j Elevation: 7,200 to 7,500 feet Frost-free period: 115 to 125 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Brussett and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of

the mapunit.

Description of Brussett

Setting

Landform: Flats

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear Parent material: Eolian deposits

Typical profile

A - 0 to 8 inches: loam
BA - 8 to 12 inches: loam
Bt - 12 to 26 inches: clay loam
Bk - 26 to 60 inches: silt loam

Properties and qualities

Slope: 1 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0

mmhos/cm)

Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3c

Hydrologic Soil Group: B

Ecological site: R048AY222CO - Loamy Park

Hydric soil rating: No



Minor Components

Other soils

Percent of map unit: Hydric soil rating: No

Data Source Information

Soil Survey Area: El Paso County Area, Colorado Survey Area Data: Version 19, Aug 31, 2021

El Paso County Area, Colorado

26—Elbeth sandy loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 367y Elevation: 7,300 to 7,600 feet

Farmland classification: Not prime farmland

Map Unit Composition

Elbeth and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of

the mapunit.

Description of Elbeth

Setting

Landform: Hills

Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Alluvium derived from arkose

Typical profile

A - 0 to 3 inches: sandy loam
E - 3 to 23 inches: loamy sand
Bt - 23 to 68 inches: sandy clay loam
C - 68 to 74 inches: sandy clay loam

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.1

inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B

Ecological site: F048AY908CO - Mixed Conifer

Hydric soil rating: No

Minor Components

Pleasant

Percent of map unit:



Landform: Depressions Hydric soil rating: Yes

Other soils

Percent of map unit: Hydric soil rating: No

Data Source Information

Soil Survey Area: El Paso County Area, Colorado Survey Area Data: Version 19, Aug 31, 2021

El Paso County Area, Colorado

66—Peyton sandy loam, 1 to 5 percent slopes

Map Unit Setting

National map unit symbol: 369c Elevation: 6,800 to 7,600 feet

Farmland classification: Prime farmland if irrigated and the product of

I (soil erodibility) x C (climate factor) does not exceed 60

Map Unit Composition

Peyton and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of

the mapunit.

Description of Peyton

Setting

Landform: Hills, flats

Landform position (three-dimensional): Side slope, talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Arkosic alluvium derived from sedimentary rock and/or arkosic residuum weathered from sedimentary rock

Typical profile

A - 0 to 12 inches: sandy loam

Bt - 12 to 25 inches: sandy clay loam

BC - 25 to 35 inches: sandy loam

C - 35 to 60 inches: sandy loam

Properties and qualities

Slope: 1 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.3

inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: B

Ecological site: R049XY216CO - Sandy Divide

Hydric soil rating: No

Minor Components

Pleasant

Percent of map unit: Landform: Depressions Hydric soil rating: Yes

Other soils

Percent of map unit: Hydric soil rating: No

Data Source Information

Soil Survey Area: El Paso County Area, Colorado Survey Area Data: Version 19, Aug 31, 2021

El Paso County Area, Colorado

67—Peyton sandy loam, 5 to 9 percent slopes

Map Unit Setting

National map unit symbol: 369d Elevation: 6,800 to 7,600 feet

Mean annual air temperature: 43 to 45 degrees F

Frost-free period: 115 to 125 days

Farmland classification: Not prime farmland

Map Unit Composition

Peyton and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of

the mapunit.

Description of Peyton

Setting

Landform: Hills

Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Arkosic alluvium derived from sedimentary rock and/or arkosic residuum weathered from sedimentary rock

Typical profile

A - 0 to 12 inches: sandy loam

Bt - 12 to 25 inches: sandy clay loam

BC - 25 to 35 inches: sandy loam

C - 35 to 60 inches: sandy loam

Properties and qualities

Slope: 5 to 9 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained Runoff class: Medium

Capacity of the most limiting layer to transmit water

(Ksat): Moderately high (0.20 to 0.60 in/hr) Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.3

inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B

Ecological site: R049XY216CO - Sandy Divide

Hydric soil rating: No

Minor Components

Pleasant

Percent of map unit: Landform: Depressions Hydric soil rating: Yes

Other soils

Percent of map unit: Hydric soil rating: No

Data Source Information

Soil Survey Area: El Paso County Area, Colorado Survey Area Data: Version 19, Aug 31, 2021

El Paso County Area, Colorado

68—Peyton-Pring complex, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 369f Elevation: 6,800 to 7,600 feet

Farmland classification: Not prime farmland

Map Unit Composition

Peyton and similar soils: 40 percent Pring and similar soils: 30 percent

Estimates are based on observations, descriptions, and transects of

the mapunit.

Description of Peyton

Setting

Landform: Hills

Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Arkosic alluvium derived from sedimentary rock and/or arkosic residuum weathered from sedimentary rock

Typical profile

A - 0 to 12 inches: sandy loam

Bt - 12 to 25 inches: sandy clay loam

BC - 25 to 35 inches: sandy loam

C - 35 to 60 inches: sandy loam

Properties and qualities

Slope: 3 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.3

inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: B

Ecological site: R049XY216CO - Sandy Divide

Hydric soil rating: No

Description of Pring

Setting

Landform: Hills

Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Arkosic alluvium derived from sedimentary rock

Typical profile

A - 0 to 14 inches: coarse sandy loam
C - 14 to 60 inches: gravelly sandy loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): High

(2.00 to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Ecological site: R048AY222CO - Loamy Park

Hydric soil rating: No

Minor Components

Other soils

Percent of map unit: Hydric soil rating: No

Pleasant

Percent of map unit: Landform: Depressions Hydric soil rating: Yes

Data Source Information

Soil Survey Area: El Paso County Area, Colorado Survey Area Data: Version 19, Aug 31, 2021





MONSON, CUMMINS, SHOHET & FARR, LLC

ATTORNEYS AT LAW

CHRIS D. CUMMINS* DAVID M. SHOHET RYAN W. FARR W. JAMES TILTON PAUL J. RAYMOND SEDONA E. CHAVEZ TELEPHONE: (719) 471-1212 FAX: (719) 471-1234 www.cowaterlaw.com cdc@cowaterlaw.com

* Also licensed in Wyoming

Of Counsel:

STEVEN T. MONSON

March 21, 2024

PRI II, LLC c/o Drew Balsick, President Flying Horse Development 2138 Flying Horse Club Drive Colorado Springs, CO 80921

via email: <u>DrewB@classichomes.com</u>

Re: Triview Metropolitan District provision of wastewater services to Flying Horse North Metropolitan District

Dear Drew:

As you know, this firm represents the Triview Metropolitan District ("Triview"), and I have been asked to provide you with the Triview's commitment to provision of wastewater services to Flying Horse North Metropolitan District ("FHNMD"), subject to development of an intergovernmental agreement ("IGA") documenting the specific terms of such wastewater service. I understand that PRI II, LLC is associated with FHNMD and at present proceeding on behalf of development which will occur within that special district.

Triview provides wastewater services to its approximately 2,000 households, as well as commercial and industrial users, within Triview's municipal service area. Triview currently shares a Waste Water Treatment Facility (the "WWTF") with the Forest Lakes Metropolitan District ("Forest Lakes") and the Donala Water & Sanitation District ("Donala"). Triview is also a participant, with Colorado Springs Utilities ("Utilities") and Forest Lakes, in the engineering and design studies for the proposed North Monument Creek Interceptor ("NMCI") project, which would extend collection infrastructure from Utilities facilities and allow both Triview and Forest Lakes to cease use of the WWTF, and instead deliver raw wastewater flows to Utilities for treatment.

FHNMD has identified a potential maximum development requiring wastewater service of approximately 250,000 gallons per day, and Triview has determined that it has excess capacity in its own wastewater collection system, or can develop such excess capacity through



improvements to be paid for by FHNMD, to provide waste water services on a contractual basis pursuant to an IGA to FHNMD, whether Triview continues to utilize the WWTF, or participate in the NMCI project. Triview has had significant and productive discussions with you as a representative of FHNMD as to the anticipated costs of such contractual service, the schedule upon which such services would be required, and the timing for completion of any improvements necessary for provision of such services, and the parties are in agreement to the general terms thereof.

FHNMD would be responsible for construction of its own wastewater collection system, including any lift stations, and for construction of a wastewater interceptor main along Hodgen/Baptist Road for delivery of wastewater through the FHNMD collection system to Triview. Such point of connection is anticipated to initially be at a point near the intersection of Baptist Road and Gleneagle Drive, though as development proceeds within FHNMD it is likely that a parallel force main will be required to be constructed in Baptist Road to a secondary point of connection near the intersection with Struthers Road for connection to an existing Triview 21" gravity main. All such infrastructure shall be engineered and constructed at FHNMD's expense, though with Triview's input and approval for integration of collection systems. Triview calculates that it has sufficient capacity in the existing WWTF to accept and treat FHNMD's wastewater flows initially, though should Triview opt not to participate in the NMCI project, FHNMD will be responsible for reimbursing Triview for all cost and expense associated with any necessary improvements, whether related to quantity or quality, at the WWTF. Should Triview opt to participate in the NMCI project, FHNMD will be responsible for its pro rata share of the costs thereof in relation to Triview's own wastewater flows. The Parties are in agreement on these core terms.

The specific terms and conditions of the IGA detailing the rights and responsibilities of the parties in this regard must, however, be conditioned upon Triview's determination as to which treatment presents the best alternative for Triview to utilize in the future, and completion of the NMCI design study allowing such determination to be made is not anticipated until late-2024. As such, Triview provides this "service commitment letter" documenting the conceptual agreements of the parties as to Triview's ability, willingness, and commitment to provide contractual wastewater services for up to 250,000 gallons per day of wastewater deliveries associated with development by PRI II within the FHNMD, subject only to memorialization of appropriate terms and conditions within an IGA to be completed as soon as practicable upon completion of the NMCI design study and Triview's determination of its future wastewater treatment plan.

Sincerely,

MONSON, CUMMINS, SHOHET & FARR, LLC

<u>Chris D. Cummins</u>

Chris D. Cummins Special Counsel to the Triview Metropolitan District

cc: James McGrady
District, Manager
Triview Metropolitan District