



ENTECH
ENGINEERING, INC.

505 ELKTON DRIVE
COLORADO SPRINGS, CO 80907
PHONE (719) 531-5599
FAX (719) 531-5238

September 18, 2020

El Paso County Parks & Recreation
2002 Creek Crossing Street
Colorado Springs, CO 80905

Attn: Greg Stachon

Re: OWTS Site Evaluation – Oak Meadows
Fox Run Regional Park
2110 Stella Drive
Colorado Springs, Colorado

Dear Mr. Stachon:

As requested, personnel of Entech Engineering, Inc. have observed the excavation of two test pits in the area of the proposed on-site wastewater treatment system (OWTS) absorption field location at the above referenced site. This letter presents the results of our testing.

The general location of the site is shown in the Vicinity Map, Figure 1. The locations of the test pits are shown in the Test Pit Location Map, Figure 2. The test pits were excavated on September 10, 2020, to approximate depths of 8 to 8.5 feet. Soils encountered in the test pits consisted of sandy clay overlying loamy sand. The Test Pit Logs and Laboratory Test Results are shown in Figures 2 through 5. Bedrock was not encountered in the test pits. Signs of seasonally occurring groundwater were not encountered in the test pits.

Visual and tactile evaluation of the soils was performed. The limiting layer encountered in the test pits is the sandy clay, which classified as USDA Soil Type 4. For design purposes a LTAR Value of 0.20 gallons per day per square foot is recommended, for Treatment Level 1. An engineer designed system will be required for this site due to Type 4 Soil encountered in both of test pits. The absorption field should be installed in accordance with El Paso County Health Department regulations.

We trust that this has provided you with the information you required. If you have any questions or need additional information, please do not hesitate to contact us.

Respectfully Submitted,

ENTECH ENGINEERING, INC.

Reviewed by:


Robert P. Jaquet, E.I.


Joseph C. Good,
President



JG/rj

Encl.

Entech Job No. 201776
AA projects/2020/201776 owts site eval



TP - APPROXIMATE TEST PIT LOCATION AND NUMBER

- TP-1 39°3'25.65"N, 104°47'22.05"W
- TP-2 39°3'25.12"N, 104°47'21.91"W



ENTECH
ENGINEERING, INC.
 505 ELKTON DRIVE
 COLORADO SPRINGS, CO. 80907 (719) 531-5399

VICINITY MAP - FOX RUN REGIONAL PARK
 2110 STELLA DRIVE
 COLORADO SPRINGS, COLORADO
 FOR: EL PASO COUNTY PARKS & RECREATION

DRAWN:
 RPJ

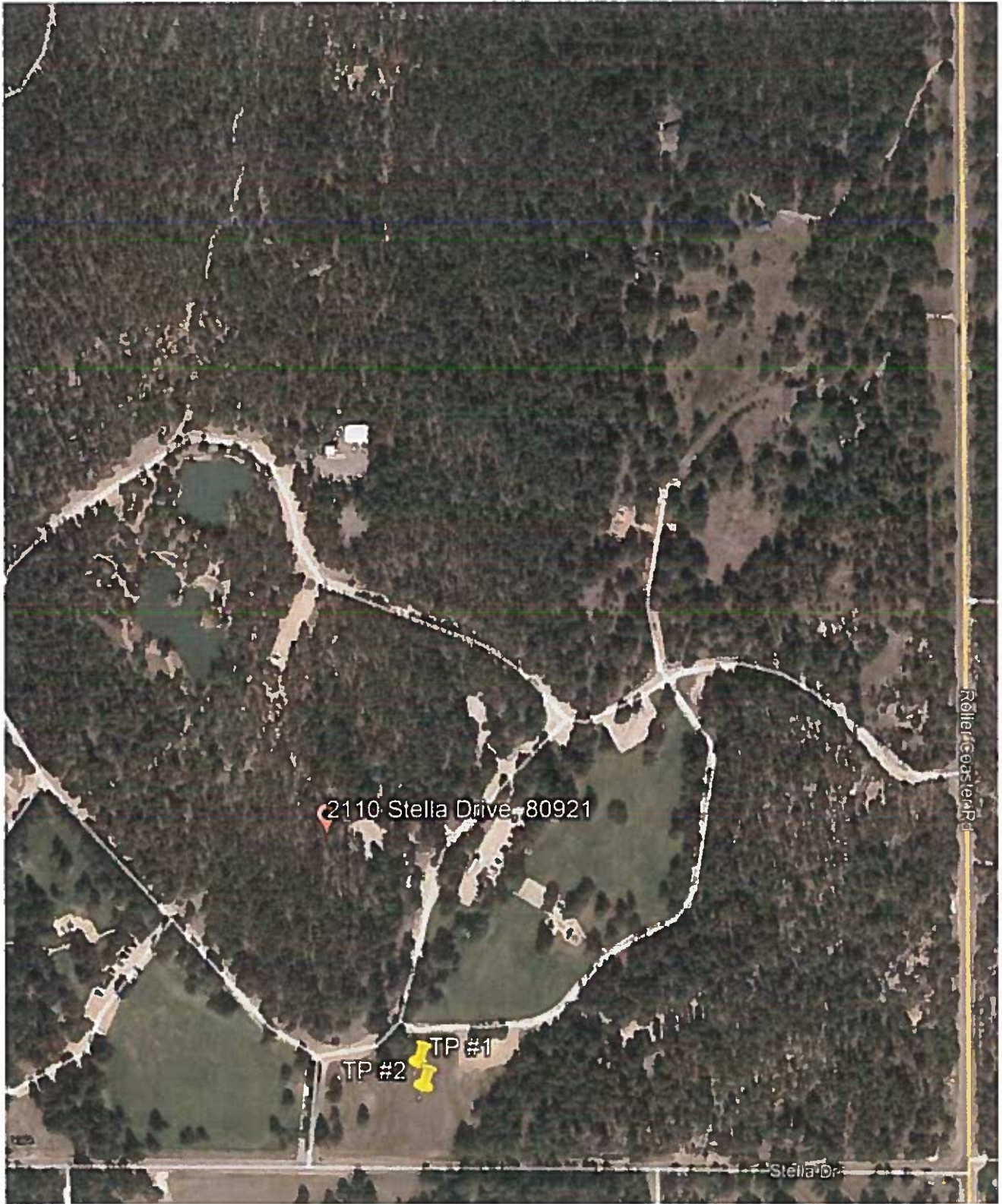
DATE:
 09/18/20

CHECKED:
 JCG

DATE:
 09/18/20

JOB NO.:
 201776

FIG NO.:
 1



TP - APPROXIMATE TEST PIT LOCATION AND NUMBER

- TP-1 39°3'25.65"N, 104°47'22.05"W
- TP-2 39°3'25.12"N, 104°47'21.91"W



ENTECH
ENGINEERING, INC.
 505 ELKTON DRIVE
 COLORADO SPRINGS, CO. 80907 (719) 538-3599

TEST PIT LOCATION MAP
 2110 STELLA DRIVE
 COLORADO SPRINGS, COLORADO
 FOR: EL PASO COUNTY PARKS & RECREATION

DRAWN:
 RPJ

DATE:
 09/18/20

CHECKED:
 JCG

DATE:
 09/18/20

JOB NO.:
 201776

FIG NO.:
 2

TEST PIT NO. 1
 DATE EXCAVATED 9/10/2020
 Job # 201776

TEST PIT NO. 2
 DATE EXCAVATED 9/10/2020
 CLIENT El Paso County Parks & Recreation
 LOCATION 2110 Stella Drive - Oak Meadows

REMARKS	Depth (ft)	Symbol	Samples	Soil Structure Shape	Soil Structure Grade	USDA Soil Type	REMARKS	Depth (ft)	Symbol	Samples	Soil Structure Shape	Soil Structure Grade	USDA Soil Type
topsoil sandy clay, fine grained, moist, dark brown	1			gr	s	4	topsoil sandy clay, fine grained, moist, dark brown	1			gr	s	4
	2							2					
	3							3					
	4							4					
loamy sand, coarse grained, moist, tan	5			sg	m	1		5					
	6							6					
	7						sandy loam, coarse grained, moist, tan	7			gr	m	2
	8							8					
	9							9					
	10							10					

Soil Structure Shape
 granular - gr
 platy - pl
 blocky - bl
 prismatic - pr
 single grain - sg
 massive - ma

Soil Structure Grade
 weak - w
 moderate - m
 strong - s
 loose - l



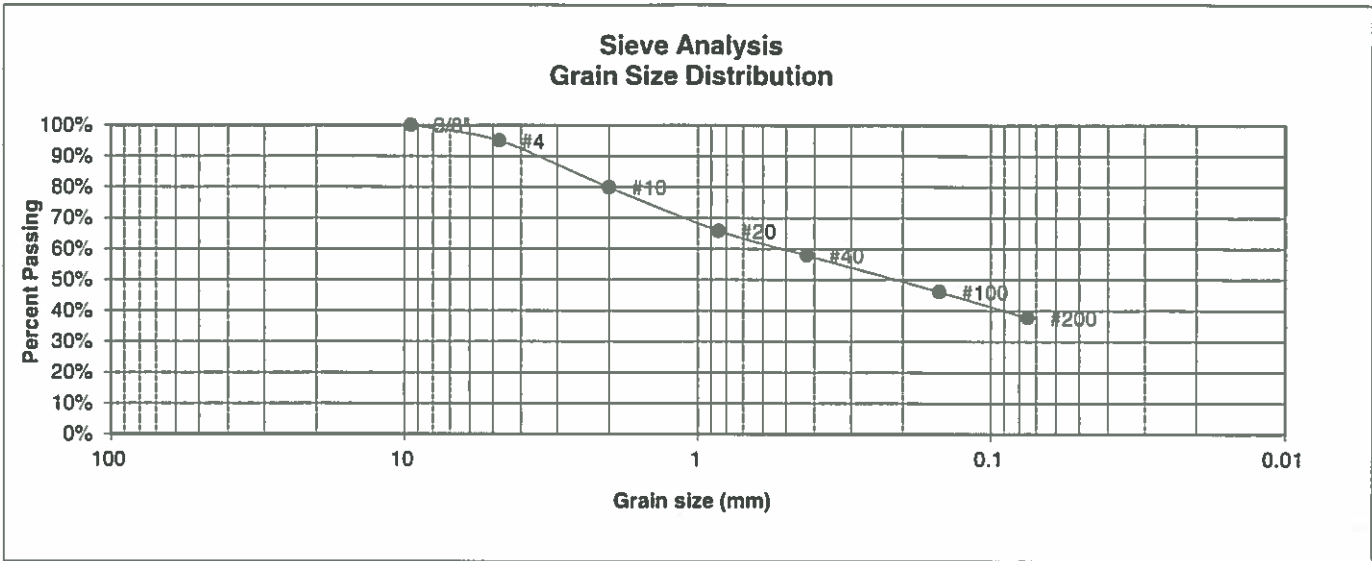
ENTECH
ENGINEERING, INC.
 505 ELKTON DRIVE
 COLORADO SPRINGS, COLORADO 80907

TEST PIT LOG

DRAWN:	DATE:	CHECKED:	DATE:
		<i>[Signature]</i>	9/15/20

JOB NO.:
 201776
 FIG NO.:
 3

BORING NO.	TP-1	UNIFIED CLASSIFICATION	SC	TEST BY	BL
DEPTH(ft)	3	AASHTO CLASSIFICATION		JOB NO.	201776
CLIENT	EL PASO COUNTY PARKS				
PROJECT	FOX RUN				



U.S. Sieve #	Percent Finer
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	100.0%
4	95.0%
10	79.9%
20	65.8%
40	57.9%
100	46.1%
200	37.7%

Atterberg Limits
 Plastic Limit
 Liquid Limit
 Plastic Index

Swell
 Moisture at start
 Moisture at finish
 Moisture increase
 Initial dry density (pcf)
 Swell (psf)



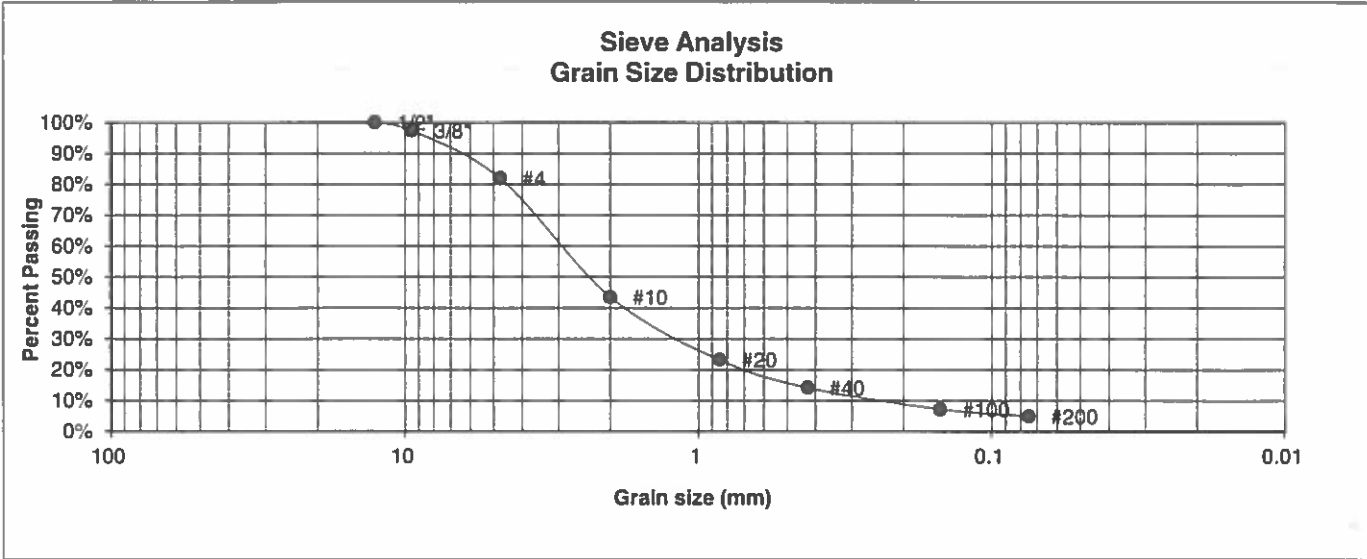
**ENTECH
ENGINEERING, INC.**
 505 ELKTON DRIVE
 COLORADO SPRINGS, COLORADO 80907

**LABORATORY TEST
RESULTS**

DRAWN:	DATE:	CHECKED:	DATE:
		<i>[Signature]</i>	9/15/20

JOB NO.:
201776
 FIG NO.:
4

BORING NO.	TP-1	<u>UNIFIED CLASSIFICATION</u>	SM-SW	<u>TEST BY</u>	BL
DEPTH(ft)	6.5	<u>AASHTO CLASSIFICATION</u>		<u>JOB NO.</u>	201776
CLIENT	EL PASO COUNTY PARKS				
PROJECT	FOX RUN				



U.S. Sieve #	Percent Finer
3"	
1 1/2"	
3/4"	
1/2"	100.0%
3/8"	97.4%
4	81.9%
10	43.5%
20	23.2%
40	14.2%
100	7.3%
200	5.0%

Atterberg Limits
 Plastic Limit
 Liquid Limit
 Plastic Index

Swell
 Moisture at start
 Moisture at finish
 Moisture increase
 Initial dry density (pcf)
 Swell (psf)



**ENTECH
ENGINEERING, INC.**
 505 ELKTON DRIVE
 COLORADO SPRINGS, COLORADO 80907

**LABORATORY TEST
RESULTS**

DRAWN:	DATE	CHECKED:	DATE
		<i>[Signature]</i>	9/15/20

JOB NO.:
201776
 FIG NO.:
5