

**CONVENTIONAL ON-SITE WASTEWATER TREATMENT SYSTEM
FINAL INSPECTION FORM**

P

On-site ID: ON00503298

Tax schedule(APN) #: 5717007030

Permit Type: New

Environmental Health Specialist: Kevin Bolinsky

Final Inspection Date: 04.09.2020

Approved: Yes

Residential Property Information:

Owner: Powell Homes LLC

Address: 7486 Van Whye Ct Fountain, CO 80817

Approved No. Bedrooms: 4

Water supply: Municipal

Well Installation verified: N/A

Well Location GPS: N/A

Approval will be revoked if in the future any well is found to be within 50 feet of the septic tank and/or 100 feet of the soil treatment area.

Minimum System Requirements:

Soil (in-situ) Type: 3

LTAR (In-situ soil): 0.35

Limiting Layer:

Groundwater: None

Bedrock: None

OWTS Tank: Capacity (gallons): 1250

OWTS Pump Tank: Capacity (gallons): N/A

Soil Treatment Area (STA): Sq. Ft. (10-1): 1500

Sq. Ft. (10-2): 1500

Sq. Ft. (10-3): 1050

Sq. Ft. (with Diverter Valve): NA

Final system installation:

Licensed Installer: Tier II

Installer: All Seasons Excavating

Treatment Level: 1

OWTS Tank: GPS Location: 38° 34' 12" N, 104° 41' 18" W

Tank Type: New Poly

Capacity (gallon): 1500

OWTS Pump Tank:

Tank Type: NA

Capacity (gallon): N/A

Audio/Visual Alarm: NA

OWTS Pump: N/A

Soil Treatment Area (STA):

GPS Location: 38° 34' 13" N, 104° 41' 18" W

Configuration: Trench

Distribution Media: Chambers

Distribution Area Length: 88'

Media Type: Q4 Chambers (12 sq/ft)

Total Sq. Ft installed: 1056

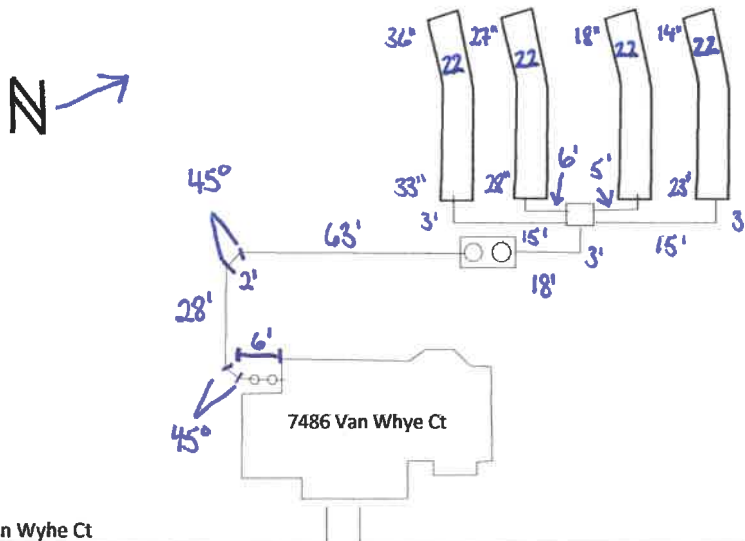
Distribution: Gravity

Infiltrative Surface Depth: 14-36"

Distribution Area Width: 38'

Total installed: 88

Notes: Not to scale, Sch 40 pipe.



Attn: POWELL HOMES LLC
7486 VAN WHYE CT
FOUNTAIN, CO 80817

Notify Environmental Health of any change of ownership, type of business activity, business name, or billing address by calling (719) 578-3199. Failure to notify Environmental Health may result in late penalties, Permit/License denial or revocation, and business closure. PERMITS/LICENSES TO OPERATE AND ANNUAL FEE PAYMENTS ARE NOT TRANSFERABLE. Permits become void on change of ownership. New owners must apply and pay for a new Permit(s)/License(s) prior to beginning operation.



**EL PASO COUNTY PUBLIC HEALTH
ENVIRONMENTAL HEALTH DIVISION**
1675 W. GARDEN OF THE GODS ROAD, SUITE 2044
COLORADO SPRINGS, CO 80907
PHONE: (719) 578-3199 FAX: (719) 578-3188
www.elpasocountyhealth.org

NEW SYSTEM PERMIT - OWTS

Valid From 1/22/2020 To 1/22/2021

PERMITEE :

**POWELL HOMES LLC
7486 VAN WHYE CT
FOUNTAIN, CO 80817**

Onsite ID: ON0050298

Tax Schedule # : 5717007030

Permit Issue Date: 01/22/2020

Dwelling Type: RESIDENTIAL

OWNER NAME :

POWELL HOMES LLC

of Bedrooms (if Res): 4

Proposed Use (if Comm):

Designed Gallons/Day:

Water Source: PUBLIC WATER

System Installation Requirements:

- A Conventional non-engineered OWTS system to be installed on site, requiring a minimum of Tier I licensed installer to be named prior to final approval.
- System installation includes gravity fed system with d-box to chamber in trenches. Minimum tank requirements 1250 gallon and 1050 sq ft of soil treatment area (88 Q4 / 70 Arc 36 chambers required).
- The system must be installed per approved Jesik Consulting non-engineered design document #18-7635-16 signed and dated 12.30.2019, changes to the approved design document must be submitted and approved by Public Health prior to installation.
- All horizontal setbacks must be maintained through system installation. In addition, system must remain completely uncovered, including the tank size, for final inspection.
- The well must be installed at time of final inspection, or final approval will not be given until well installation is verified.
- Ensure that all work is completed prior to contacting and requesting final line for inspection, otherwise additional fees may be incurred.

This permit is issued in accordance with 25-10-106 Colorado Revised Statutes. The PERMIT EXPIRES upon completion/installation of the Onsite Wastewater Treatment System, or at the end of twelve (12) months from date of issue, whichever occurs first. If both a Building Permit and an Onsite Wastewater Treatment System Permit are issued for the same property and construction has not commenced prior to the expiration date of the Building Permit, the Onsite Wastewater Permit shall expire at the same time as the Building Permit. This permit is revocable if all stated requirements are not met. The Onsite Wastewater Treatment System must be installed by an El Paso County Licensed System Contractor, or the property owner.

The Health Officer shall assume no responsibility in case of failure or inadequacy of an Onsite Wastewater Treatment System, beyond consulting in good faith with the property owner or representative. Access to the property shall be authorized at reasonable time for the purpose of making such inspections as are necessary to determine compliance with the requirements of this law (permit).

Inspection request line: Call (719) 575-8699 before 3:30 p.m. the business day prior to the requested inspection date.

Neil May for Kevin

Attn: POWELL HOMES LLC
7486 VAN WHYE CT
FOUNTAIN, CO 80817

Notify Environmental Health of any change of ownership, type of business activity, business name, or billing address by calling (719) 578-3199. Failure to notify Environmental Health may result in late penalties, Permit/License denial or revocation, and business closure. PERMITS/LICENSES TO OPERATE AND ANNUAL FEE PAYMENTS ARE NOT TRANSFERABLE. Permits become void on change of ownership. New owners must apply and pay for a new Permit(s)/License(s) prior to beginning operation.



EL PASO COUNTY PUBLIC HEALTH
ENVIRONMENTAL HEALTH DIVISION
1675 W. GARDEN OF THE GODS ROAD, SUITE 2044
COLORADO SPRINGS, CO 80907
PHONE: (719) 578-3199 FAX: (719) 578-3188
www.elpasocountyhealth.org


Authorized By: Environmental Health Specialist

El Paso County, CO

Public Health

Prevent • Promote • Protect

Environmental Health Division

1675 W. Garden of the Gods Rd., Suite 2044
Colorado Springs, CO 80907
(719) 578-3199 phone
(719) 578-3188 fax
www.elpasocountyhealth.org

SR0014659 AR0017082 ON0050298

APPLICATION FOR AN ON-SITE WASTEWATER TREATMENT SYSTEM PERMIT

Property Information:

Property Address: 7486 Van Wyke Ct. City and Zip: Fountain 80817

Legal Description: Lot 45 El Dorado Village fil No 1

Tax Schedule #: 57170-07-030

Lot size: 2.73 Acres

Is the property gated: ☐ Yes ☒ No Please provide a gate code if necessary: _____

Site Located Inside City Limits: ☐ Yes ☒ No Proposed Use: ☒ Residential ☐ Commercial

Water Supply: ☐ Well ☐ Cistern ☒ Municipal Potential Number of Bedrooms: 4

Has a Conditional Acceptance Document been issued for this property: ☐ Yes ☒ No ☐ Unsure

Owner Information: ☒ Primary Contact

Owner: Powell Homes LLC Daytime Phone: 719-491-0514

Owners Mailing Address: 396 S Forty Rd Woodland Park, CO 80803

Email Address: sdclarkconstruction@gmail.com Fax #: 719-362-4075

General Contractor: SDC Clark Construction, Inc Phone/Email: 719-491-0514

OWTS Installer Information: ☐ Primary Contact

System Installer: All Seasons Excavating LLC Daytime Phone: 719-240-3893

Email Address: excavation75@msn.com Licensed installer: ☐ Tier 1 ☒ Tier 2

All engineer-design systems must be installed by a Tier 2 licensed installer

CURRENT FEES AS APPROVED BY THE EL PASO COUNTY BOARD OF HEALTH

All Payments are due at the time of application submittal; by cash, check or major credit card (Visa / MC)

- ☒ **New Permit:** \$750.00 (EPCPH Charge) + \$147.00 (EPC Planning Dept. Surcharge) + \$23.00 (CDPHE Surcharge) = \$920.00
- ☐ **Modification Permit:** \$675.00 (EPCPH Charge) + \$23.00 (CDPHE Surcharge) = \$698.00
- ☐ **Major Repair Permit:** \$535.00 (EPCPH Charge) + \$23.00 (CDPHE Surcharge) = \$558.00
- ☐ **Minor Repair Permit:** \$245.00 (EPCPH Charge) + \$23.00 (CDPHE Surcharge) = \$268.00

Permits expire one year from date of issuance, unless otherwise noted

REQUIRED: Provide a complete written scope of work to be performed on the property.

New septic system for new single family home.

The following documents MUST be included with your application.

- A soils report: including at least 1 soil profile excavation pit, in accordance with section 8.5 A-7 of OWTS regulations
- A clear and legible design document: including the proposed and alternate locations, as well as system layout, labeled with all setbacks to pertinent structures and features in table 7-1.
- Provide directions to property, from a main highway, on the backside of application.

Failure to provide the above listed documents may result in denial of the permit application

I certify that the information provided on this application is in compliance with Section 8.3, Chapter 8 of the Onsite Wastewater System (OWS) Regulations of the El Paso County Board of Health. I also authorize the assigned representative of El Paso County Public Health to enter onto this property in order to obtain information necessary for the issuance of a permit.

Applicants Signature: Sarah J. Clark

Date: 12/26/19

Kevin

- Property address or lot number must be clearly marked and visible from the road.
- Profile excavation test pit and/or soil profile holes must be clearly marked
- Proposed and alternate soil treatment areas must be protected from compaction and disturbance
- Locked gates require the gate code or lock combination be provided on front of application
- Please provide directions to the property from a main highway, by text or picture, below.

From I-25 heading South take exit 122 then head West on Midway Ranch Road, then take a Right onto Boca Raton Heights, then a left onto La Questa Dr, and then a Right turn onto Van Wyke Ct. Address is on the corner of Van Wyke Ct. and La Questa Dr.

Failure to comply with the above information may result in an additional charge for a return trip.

Permit #: _____	Site Inspection date: _____
Date Approvals Rcvd: Development Services: _____	Floodplain/enumerations: _____
Design: <input type="checkbox"/> Conventional <input type="checkbox"/> Engineer	Design Engineer: _____
Engineer Job #: _____	Engineer Date Stamped: _____
LTAR/Soil Type: _____	Groundwater: _____ PP1/ _____ PP2 Bedrock: _____ PP1/ _____ PP2
Minimum Requirements: Tank Capacity: _____	Soil Treatment Area: _____
System Feed: <input type="checkbox"/> Gravity <input type="checkbox"/> Pump to Gravity <input type="checkbox"/> Pressure Dosed <input type="checkbox"/> Other: _____	
System Media: <input type="checkbox"/> Chambers <input type="checkbox"/> Rock and Pipe <input type="checkbox"/> Other	Soil Treatment Area: <input type="checkbox"/> Trenches <input type="checkbox"/> Bed
Pump specs: Tank capacity: _____ gal	Gal/dose: _____ Flow: _____ gpm Total Dynamic Head: _____'
Additional Comments: _____	

E.H. Specialist: _____	Date: _____ <input type="checkbox"/> Approved <input type="checkbox"/> Denied

El Dorado Village Fil. No. 1

ClarkElDoradoLot45-7486Van-WhyeSitePlan.dwg



Jesik Consulting
Geotechnical, Water, Testing

102-D Oneida Street
Pueblo, Colorado 81003
(719) 582-5588
www.jesik.us

ONSITE WATER TREATMENT SYSTEM SITE AND SOIL EVALUATION AND OWTS DESIGN

FOR PROPERTY AT
7486 Van Wyhe Court
Lot 45, El Dorado Ranch
El Paso County, Colorado

PREPARED FOR:
Powell Homes

PREPARED BY JESIK
PROJECT NUMBER: 18-7635-16

Joseph A. Jesik, P.E.

TABLE OF CONTENTS

1. INTRODUCTION.....	1
2. PRELIMINARY SITE REVIEW	1
2.1. HEALTH DEPARTMENT RECORDS	1
2.2. EXISTING SITE PLAN, TOPOGRAPHY AND SOIL INFORMATION.....	1
3. SITE AND SOIL CONDITIONS	1
3.1. EXISTING FACILITIES	1
3.2. SITE CONDITIONS.....	1
3.3. SOIL EVALUATION	2
4. OWTS CONSTRUCTION	2
5. LAND USE CHANGES.....	2
6. SITE EVALUATION DIFFICULTIES	2
7. MAINTENANCE AND CARE OF YOUR OWTS SYSTEM.....	2
7.1. DO'S & DONT'S	2
7.2. OWTS MAINTENANCE	3
8. LIMITATIONS	5
9. REFERENCES.....	ERROR! BOOKMARK NOT DEFINED.
<u>TABLES</u>	<u>A</u>
<u>DRAWINGS</u>	<u>B</u>
<u>APPENDIX A: PRELIMINARY STUDY.....</u>	<u>C</u>
<u>APPENDIX B: DETAILED SOIL EVALUATION.....</u>	<u>D</u>

1. INTRODUCTION

Jesik Consulting has completed an onsite wastewater treatment system (OWTS) site and soil evaluation for the subject property at the request of Sarah Clark of SDC Clark Construction. Evaluation results and on-site wastewater treatment system recommendations are included for this site.

2. PRELIMINARY SITE REVIEW

A review of available pertinent information including but not limited to property, existing septic system records, and published site data was completed prior to the on-site reconnaissance and detailed evaluation.

2.1. HEALTH DEPARTMENT RECORDS

There was no evidence of a historical OWTS, and Health department records are not likely to exist for the site.

2.2. EXISTING SITE PLAN, TOPOGRAPHY AND SOIL INFORMATION

Available site plans and topographic information was reviewed in addition to. Soils information from the Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS). The WSS septic tank absorption field rating report is presented in Appendix A. Soil survey data is commonly mapped at a scale much larger than the area of an individual OWTS site and the accuracy of this data should be considered limited for this application.

The preliminary site review did not indicate any specific areas are better suited for an OWTS within the project boundaries.

3. SITE AND SOIL CONDITIONS

Chris IronWing and Andy Jesik of Jesik Consulting completed the site reconnaissance and a detailed soil evaluation on 08/20/19.

3.1. EXISTING FACILITIES

The site was vacant and there were no drinking water wells observed at the time of the site visit.

3.2. SITE CONDITIONS

The site slopes downward to the northeast with a slope of approximately 3%. Vegetation consists of native grasses and weeds. Thick green vegetation or plant species indicative of shallow water were not observed.

The site was vacant during our site investigation. Historically, the site appears to have been vacant land.

3.3. SOIL EVALUATION

Chris IronWing and Andy Jesik of Jesik Consulting completed a visual and tactile evaluation of 2 or more soil profile test pits at the proposed soil treatment area.

Test pits were excavated with an excavator by the owner or owner's representative. Redoximorphic features or other indicators of groundwater were not encountered within 8-feet (ft) of the existing ground surface. Bedrock was not encountered within 8-feet (ft) of the existing ground surface.

Test pit logs and details are presented in Appendix B.

OWTS site and soil evaluation results are summarized below:

- Treatment Level 1
- Recommended OWTS System Type: Non-Engineered
- LTAR: 0.30 gal/day/sf.
- Infiltrative soil/formation: Sandy Clay Loam
- Infiltrative surface depth: 24 – 48 inches

4. OWTS CONSTRUCTION

Hard rock or shallow water conditions are not anticipated at the site. It is not likely that special construction methods or equipment will be required at the site.

Minimum setback distances from OWTS system components to buildings, ponds, drainages and other pertinent features are shown in Table 1.

5. LAND USE CHANGES

A single-family home will be constructed on the site with minor changes to the existing grading. Any additions to the home in the future will require the OWTS system to be evaluated for increased capacity and performance criteria.

6. SITE EVALUATION DIFFICULTIES

There were no site evaluation difficulties.

7. MAINTENANCE AND CARE OF YOUR OWTS SYSTEM

7.1. DO'S & DONT'S

- DO inspect your septic system every year
- DO pump out septic tank every four years
- DO keep records of pumping, inspections and other maintenance
- DO repair leaking faucets and toilets
- DO conserve water to reduce wastewater

- DO divert roof drains and surface water away from the absorption field
- DO call a professional when you have questions
- DON'T drive or park over any part of your septic system
- DON'T use commercial septic tank additives
- DON'T dig or build on top of your septic system
- DON'T plant anything over the absorption field (non-irrigated, native grasses are ok)
- DON'T flush non-biodegradable items into your system, such as diapers, tampons, etc.
- DON'T irrigate the soil treatment area.

7.2. OWTS MAINTENANCE

1. Control the amount of water discharged into the system. Your system is designed to handle a specific amount of water. Larger volumes of water will overload the absorption field. To control the amount of water discharged into the system you should:
 - Repair any leaking faucet or toilet immediately.
 - Divert run-off water from roof eaves, drainpipes and foundation drains away from the absorption field.
2. Normal amounts of these household products will not harm a septic system:
 - Soaps, detergents, and bleaches.
 - Wastewater from a home water softener may cause a slight shortening of the life of the absorption field because of the extra volume of water that's used. The salts from water softeners will not harm the septic system.
3. DO NOT dispose of these items in your system:

These materials do not decompose in the septic tank: Household items such as facial tissues, tampons, sanitary napkins, cigarette butts, coffee grounds, egg shells, oily waste or grease from cooking, bones, paper towels, newspaper, wrapping paper, rags and disposable diapers.

Materials such as strong acids, photographic chemicals, and above normal amounts of drain cleaners may upset the biological process in the septic tank.

Latex paint, wastewater from a pottery hobby and sheet rock mud remain in suspension in the septic tank, and then flow into the absorption field and clog the pores of the soil.

Note: There are many chemical products for sale that claim to improve the digestion process in the septic tank. Jesik Consulting does not endorse any of these products. With proper care and maintenance, the system should work well without added chemicals.
4. Regularly inspect the level of sludge and scum in the septic tank.

Jesik Consulting recommends that tanks be inspected once a year.

The rate at which sludge and scum accumulate in the septic tank varies greatly from one household to the next. It is important to have your tank inspected regularly (once per year) or if you wish to do this inspection yourself, follow these instructions:

- Before the septic is pumped, measure scum depth
 - a. Attach a 6-inch square board to the bottom of a stick about 6 feet long.
 - b. At the outlet end of your tank, extend the stick through the scum layer to find the bottom of the baffle or effluent pipe.
 - c. Mark your stick to indicate that point.
 - d. Raise the stick until you "feel" or see the bottom of the scum layer.
 - e. Mark your stick again to indicate that point.
 - f. If the two pencil marks are 3 inches apart or less, or if the scum surface is within 1-inch of the top of the outlet baffle, the tank requires cleaning.
 - Measuring sludge depth
 - a. Wrap 3-feet of white rag or toweling around a long stick.
 - b. Place the stick into the sludge, behind the outlet baffle if possible.
 - c. Hold the stick there for several minutes.
 - d. Remove the stick noting the sludge line.
 - e. If the sludge line is within 12-inches of the outlet baffle, or within 18 inches of the outlet fitting, the tank requires cleaning
 - After the septic is pumped
 - a. Inspect the Tank for any visible cracking, leaking or worn out parts. It is important that the tank is watertight so that no ground water is getting into the tank nor water from the tank is seeping into the ground.
 - b. It is also important to inspect the inlet and outlet pipes for presence of water entering the tank.
 - c. The effluent filter (if being used) should also be inspected. Pull out the filter and hose the contents back into the tank.
5. Regularly remove the sludge and scum from the septic tank.

Sludge and scum must be pumped out of the septic tank before they reach the outlet tee or baffle, or they will flow out into the absorption field and clog the pores of the soil so it can no longer absorb liquid.

At a minimum, Jesik Consulting recommends that tanks be pumped every four years. Check with your local health department for special requirements.

Keep your absorption field in good condition.

Cut grass and weeds growing on the absorption field often.

Absorption fields usually are installed at very shallow depths. Because of this; (1) vehicles must be kept off absorption fields (2) buildings, corrals for livestock, fences and trenches should not be constructed on top of absorption fields and (3) trees and shrubbery should not be planted within or immediately adjacent to the field.

Some septic systems have two or more absorption fields. Valves connect these fields so the wastewater flow can be alternated between fields. If you have such a system, you should switch the diverter valve every summer.

8. LIMITATIONS

In any site evaluation, limited data is available from which to formulate soil descriptions and generate recommendations for onsite wastewater system and related construction components. The observations and testing taken are indicative of the subsurface materials at the time and at the location the samples were taken. Precipitation, seasonal changes, and excavating are just a few of the factors that may create changes in the composition of the site. If conditions are encountered which are significantly different from those described in this report, contact this office before proceeding.

By acceptance of this report all parties agree that the purpose of this report is to provide site and soil data and OWTS recommendations only and does not address nor was intended to address any environmental issues, hazardous materials, mold issues, toxic waste issues or other subsurface situations or conditions other than those described within this report. This report is intended for the sole use of the above-named client and their approved agents. This office cannot be responsible for any conclusions or recommendations made by other parties based upon the data contained herein.

TABLES

Table 1 – Minimum OWTS Setback Distances (ft)

	Spring, Well	Potable Water Line	Potable Water Cistern	Occupied Building	Property Line, Piped or Lined Irrigation Ditch	Subsurface Drain, Intermittent Irrigation Lateral, Drywell, Storm water Infiltration Structure	Lake, Water Course, Irrigation Ditch, Stream, Wetland	Dry Gulch, Cut Bank, Fill Area (from Crest)	Septic Tank
Tanks, Vaults Treatment Units	50	10	25	5	10	10	50	10	----
Building Sewer Lines Effluent Lines	50	10	25	0	10	10	50	10	----
STA Trench or STA Bed, Unlined Sand Filter, Sub-surface Dispersal System, Seepage Pit	100 ¹ 150 ² 200 ³	25	25	20	10	25	50 ^{1,2}	25	5
Lined Sand Filter	60	10	25	15	10	10	25	10	5
Vault Privy	50	10	25	15	10	10	25	10	----
Slit Trench Latrine, Pit Privy	100 ¹ 150 ²	50	25	----	25	25	100	25	----
Aerosol Methods – No STA	100 ¹ 150 ²	10	50	125	10	0	25 ^{1,2}	10	10

Notes:

1. Applies to systems in El Paso, Elbert, Douglas, Adams, and Arapahoe counties. Add 8 feet for each 100 gallons/day of design flows between 1,000 and 2,000 gallons per day.
2. Applies to systems in Pueblo County. Add 8 feet for each 100 gallons/day of design flows between 1,000 and 2,000 gallons per day.
3. Applies to systems in Jefferson County. Add 8 feet for each 100 gallons/day of design flows between 1,000 and 2,000 gallons per day.

DRAWINGS

NOTES AND SPECIFICATIONS:

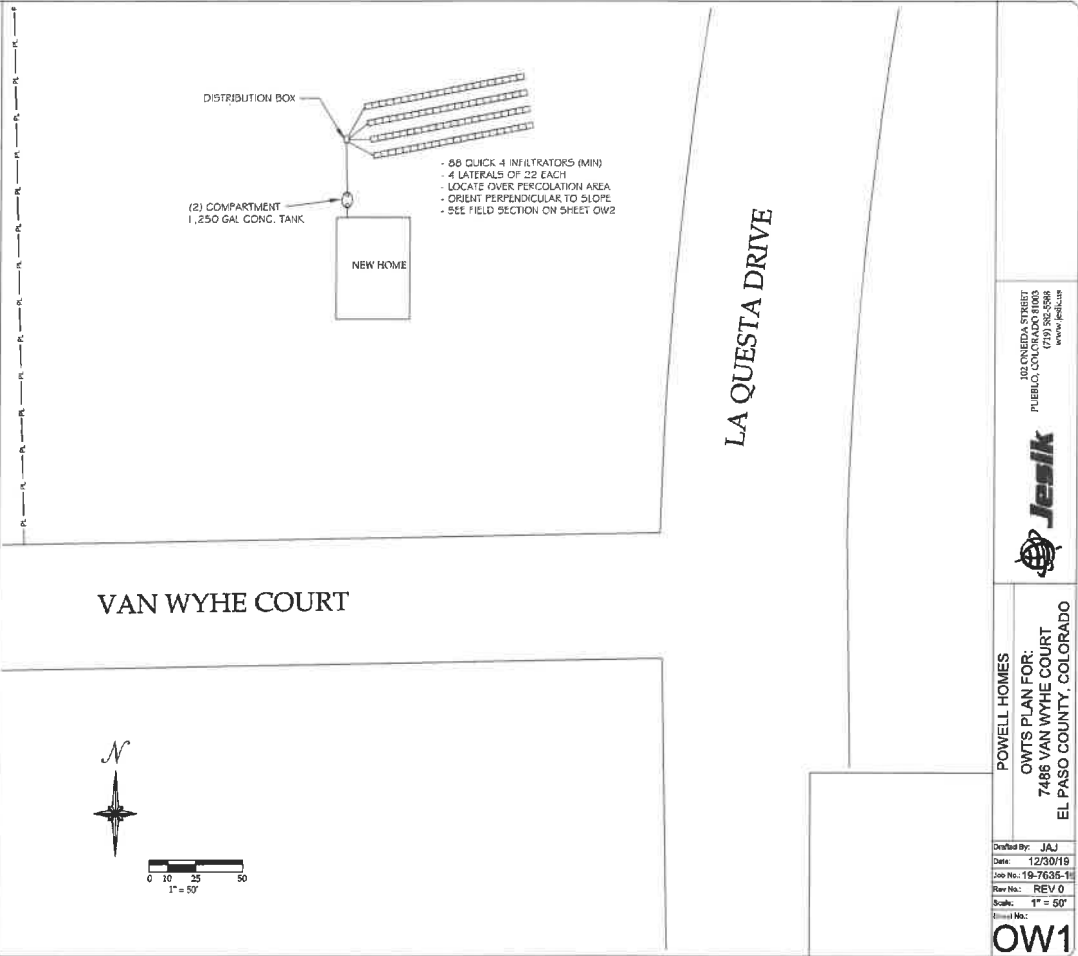
FIELD SIZE AND CALCULATIONS:
BASED ON NUMBER OF BEDROOMS: 4 (LGAD 525 gal / day)
LONG TERM ACCEPTANCE RATE: 0.35 gal / sq. ft / day
SITE AND SOIL EVALUATION BY: JESIK CONSULTING
COMPLETED AUGUST 20, 2019
ENGINEERED FIELD TYPE: TRENCH WITH INFILTRATORS
REQUIRED # OF QUICK 4's: 88

GENERAL SYSTEM NOTES:
REFER TO LOCAL CODES AND REQUIREMENTS BEFORE INSTALLATION
SYSTEM MUST BE INSTALLED BY QUALIFIED AND LICENSED INSTALLER
ANY PORTION OF THE ABSORPTION FIELD MUST BE AT LEAST 150' FROM ANY WATER WELL
SYSTEM MUST BE INSTALLED WITH THE INDICATED NUMBER OF INFILTRATORS, ZONES, AND PIPE LENGTH UNLESS SPECIFIC WRITTEN APPROVAL IS OBTAINED BY THE DESIGN ENGINEER
ALL LATERALS MUST BE INSTALLED LEVEL. INDIVIDUAL ZONES MAY BE INSTALLED AT DIFFERENT ELEVATIONS. SEE FIELD CROSS SECTION FOR ADDITIONAL INFORMATION.
A SEWER CLEAN-OUT MUST BE INSTALLED OUTSIDE THE STRUCTURE AND WITHIN FIVE FEET OF THE SEWER EXIT FROM THE FOUNDATION.
NOT ALL COMPONENTS ARE SPECIFICALLY SHOWN ON THESE PLANS (ELBOWS, VENTS, VALVES, ETC.) AND IT IS ASSUMED THE INSTALLER IS FAMILIAR WITH THE STANDARDS FOR SYSTEM INSTALLATIONS FOR THESE NON-SPECIFIED COMPONENTS.
THE ABSORPTION FIELD MAY NOT BE USED FOR ANY ACTIVITIES THAT MAY COMPACT THE SOILS, FLOOD THE FIELD, DAMAGE THE PIPES, OR NEGATIVELY IMPACT THE OPERATION OF THE FIELD IN ANY MANNER (LIVESTOCK AREAS, VEHICLE TRAFFIC, CONSTRUCTION AREAS, STORAGE AREAS, ETC.)
PROPER OPERATION OF THIS SYSTEM IS DEPENDANT ON SENSIBLE WATER AND SYSTEM USAGE. EXCESSIVE WATER USAGE MAY TEMPORARILY, AND EVEN PERMANENTLY DAMAGE THE SYSTEM. IN ADDITION, EXCESSIVE USE OF CHEMICALS AND NON-DEGRADABLE PRODUCTS CAN HAVE NEGATIVE EFFECTS ON THE BIOLOGICAL BALANCE IN THE STORAGE TANKS. SEE THE "MAINTENANCE AND CARE OF YOUR SEPTIC SYSTEM" FOR ADDITIONAL INFORMATION.

TANK NOTES AND SPECIFICATIONS:

CERTIFICATION:
TANKS SHOULD BE APPROVED BY THE COLORADO DEPARTMENT OF HEALTH AND ENVIRONMENT (CDPHE).

GENERAL TANK NOTES & SPECIFICATIONS:
TANKS MUST BE NO DEEPER THAN 4 FT FROM THE TOP OF TANK TO THE GROUND SURFACE.
TOP OF TANKS MUST BE DESIGNED AND CONSTRUCTED TO SUPPORT A MIN 400 PSF UNIFORM LOAD PLUS 2,500 POUND AXLE LOAD. WHEN BURIED MORE THAN 2 FT DEEP, THE TANK SHALL SUPPORT AN ADDITIONAL 100 PSF PER EA FT OF SOIL DEEPER THAN 2 FT.
TANKS MUST BE INSTALLED PER LOCAL CODE AND THE MANUFACTURERS INSTRUCTIONS.



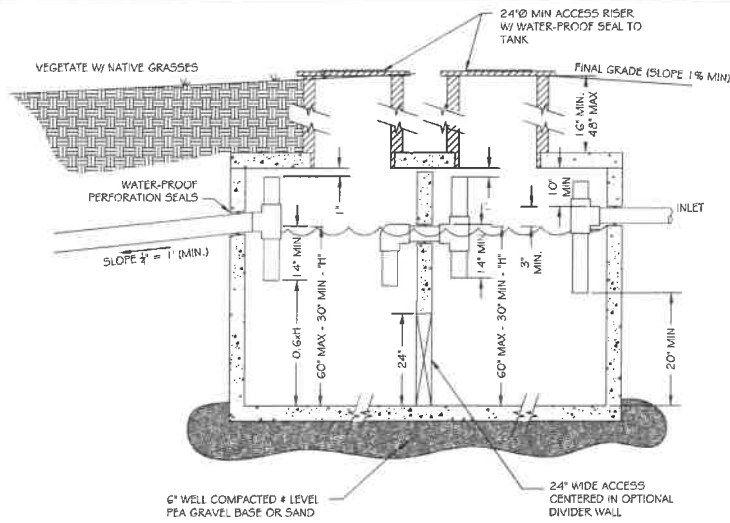
103 CANEDA STREET
FLEETO, COLORADO 81003
(719) 382-5584
www.jesik.com



POWELL HOMES
OWTS PLAN FOR:
7486 VAN WYHE COURT
EL PASO COUNTY, COLORADO

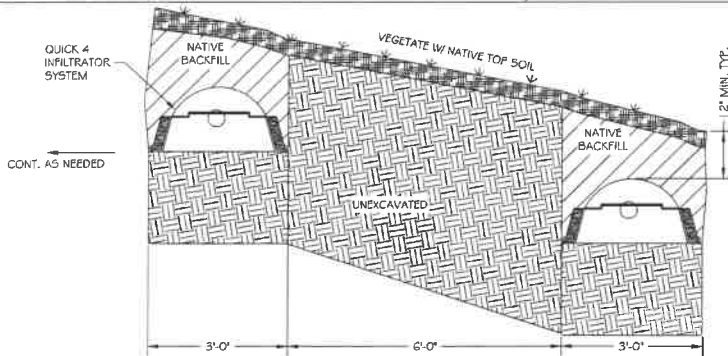
Drawn By: JAJ
Date: 12/30/19
Job No.: 19-7635-11
Rev No.: REV 0
Scale: 1" = 50'

OW1



2 COMPARTMENT TANK

SCALE: 3/8" = 1'



FIELD CROSS SECTION

SCALE: 3/8" = 1'

102 CINEBIDA STREET
PUEBLO, COLORADO 81003
773.963.888
www.jesik.com



POWELL HOMES
OWTS PLAN FOR:
7486 VAN WYHE COURT
EL PASO COUNTY, COLORADO

Drawn By: JAJ
Date: 12/30/19
Job No: 19-7635-11
Rev No: REV 0
Scale: 1" = 50'
Sheet No:

OW2

APPENDIX A: PRELIMINARY STUDY

Soil Map—El Paso County Area, Colorado
(18-7635-16)



Natural Resources
Conservation Service


Web Soil Survey
National Cooperative Soil Survey

12/26/2019
Page 1 of 3

Soil Map—El Paso County Area, Colorado
(18-7635-16)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons


 Soil Map Unit Lines

 Soil Map Unit Points


Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow


 Marsh or swamp


 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop


 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Paso County Area, Colorado
Survey Area Data: Version 17, Sep 13, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 14, 2018—Sep 23, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

12/26/2019
Page 2 of 3

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
107	Willid silt loam, 0 to 3 percent slopes	2.8	100.0%
Totals for Area of Interest		2.8	100.0%

APPENDIX B: DETAILED SOIL EVALUATION



OWTS TEST PIT LOG

Project No: 18-7635-16

Project Name: Powell

Test Pit No: 1

Date of Logging: 08/20/19

0-8

Soil Depth (BGS)	USDA Soil Texture	USDA Soil Structure Shape	Structure Grade	Redoximorphic Features (Y/N)	Soil Type
Sandy clay loam		Granular	Macerate	N	3

GPS Coordinates: N 38° 22.724 W 104° 39.799

Soil Treatment Area Slope % 2%

Is there a limiting condition such as low permeability, bedrock, groundwater, or other condition that restricts the treatment capability of the soil? ☐ Yes ☒ No

If yes, explain how the limiting condition should be add

Is there evidence of past groundwater (Redoximorphic features)? ☐ Yes ☒ No

Excavation equipment used: Mini EX

CERTIFICATION

I certify that the information on this form is correct and complete to the best of my knowledge and that I have the required training and/or experience.

Signature: [Signature]

Print Name: Chris Iron Wing

Date: 08/20/19





OWTS TEST PIT LOG

Project No: 18-7635-14

Project Name: Powell

Test Pit No: 2

Date of Logging: 08/20/19

Soil Depth (BGS)	USDA Soil Texture	USDA Soil Structure Shape	Structure Grade	Redoximorphic Features (Y/N)	Soil Type
0-8	sandy clay 10cm	Granular	Moderate	N	3

GPS Coordinates: N38° 22.721 W104° 39.799

Soil Treatment Area Slope % 2%

Is there a limiting condition such as low permeability, bedrock, groundwater, or other condition that restricts the treatment capability of the soil? ☐ Yes ☒ No

If yes, explain how the limiting condition should be add

Is there evidence of past groundwater (Redoximorphic features)? ☐ Yes ☒ No

Excavation equipment used: Mini Ex

CERTIFICATION

I certify that the information on this form is correct and complete to the best of my knowledge and that I have the required training and/or experience.

Signature: [Signature]

Print Name: Chris Ironwing

Date: 08/20/19



Site Plan

7486 Van Wyhe Court
Lot 45
El Dorado Village Fil. No. 1

Lot 44

D=9°44'43"
R=1935.17'
L=329.15'

La Questa Dr
100' Row

Scale: 1"=100 feet

Foundation Detail
No scale

Lot Data:
Tax # 57170-07-030
Zoning RR-2.5
7486 Van Wyhe Court
Lot size: 2.73 acres +/-
118,919 sq ft +/-
Building area: 1825 square feet
Building coverage: 1.53%

Owners:
Powell Homes, LLC
396 S. Forty Road
Woodland Park, CO 80863

1/6
1/3/2020

Legal Description:

Lot 45, Eldorado Village Filing No. 1, County of El Paso, State of Colorado as shown on plat recorded in El Paso County recorded 1/5/2009 under Reception No. 209712918, Map ID No. 12918.

NOTES:

All points found indicated by
--♦-- are Surveyor's cap marked PLS 26965.
unless otherwise shown on this drawing.

Measured, used or pro-rated information indicated
by: (S89°48'41"W 154.31').

All record information indicated by:
S89°48'41"W-154.31'.

All bearings are relative to the Westerly lot line,
as monumented and shown on this drawing, and
was assumed N00°11'20"W.

John Keilers & Associates LLC
9920 Otero Ave.
Colorado Springs, Colorado 80920
719-599-5938 cell 719-649-9243
JackKeilers@gmail.com

"NOTICE: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discovered such defect. In no event, may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon."

12/5/2019

ClarkElDoradoLot45-7486Van-WhyeSitePlan.dwg

All bearings are relative to the Westerly lot line, as monumented and shown on this drawing, and was assumed N00°11'20"W.

ClarkElDoradoLot45-7486Van-WhyeSitePlan.dwg

1. INTRODUCTION

Jesik Consulting has completed an onsite wastewater treatment system (OWTS) site and soil evaluation for the subject property at the request of Sarah Clark of SDC Clark Construction. Evaluation results and on-site wastewater treatment system recommendations are included for this site.

2. PRELIMINARY SITE REVIEW

A review of available pertinent information including but not limited to property, existing septic system records, and published site data was completed prior to the on-site reconnaissance and detailed evaluation.

2.1. HEALTH DEPARTMENT RECORDS

- ✓ There was no evidence of a historical OWTS, and Health department records are not likely to exist for the site.

2.2. EXISTING SITE PLAN, TOPOGRAPHY AND SOIL INFORMATION

Available site plans and topographic information was reviewed in addition to. Soils information from the Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS). The WSS septic tank absorption field rating report is presented in Appendix A. Soil survey data is commonly mapped at a scale much larger than the area of an individual OWTS site and the accuracy of this data should be considered limited for this application.

The preliminary site review did not indicate any specific areas are better suited for an OWTS within the project boundaries.

3. SITE AND SOIL CONDITIONS

Chris IronWing and Andy Jesik of Jesik Consulting completed the site reconnaissance and a detailed soil evaluation on 08/20/19.

3.1. EXISTING FACILITIES

The site was vacant and there were no drinking water wells observed at the time of the site visit.

3.2. SITE CONDITIONS

The site slopes downward to the northeast with a slope of approximately 3%. Vegetation consists of native grasses and weeds. Thick green vegetation or plant species indicative of shallow water were not observed.

The site was vacant during our site investigation. Historically, the site appears to have been vacant land.

3.3. SOIL EVALUATION

Chris IronWing and Andy Jesik of Jesik Consulting completed a visual and tactile evaluation of 2 or more soil profile test pits at the proposed soil treatment area.

Test pits were excavated with an excavator by the owner or owner's representative. Redoximorphic features or other indicators of groundwater were not encountered within 8-feet (ft) of the existing ground surface. Bedrock was not encountered within 8-feet (ft) of the existing ground surface.

Test pit logs and details are presented in Appendix B.

OWTS site and soil evaluation results are summarized below:

- Treatment Level 1
- Recommended OWTS System Type: Non-Engineered
- LTAR: 0.35 gal/day/sf.
- Infiltrative soil/formation: Sandy Clay Loam
- Infiltrative surface depth: 24 – 48 inches

4. OWTS CONSTRUCTION

Hard rock or shallow water conditions are not anticipated at the site. It is not likely that special construction methods or equipment will be required at the site.

Minimum setback distances from OWTS system components to buildings, ponds, drainages and other pertinent features are shown in Table 1.

5. LAND USE CHANGES

A single-family home will be constructed on the site with minor changes to the existing grading. Any additions to the home in the future will require the OWTS system to be evaluated for increased capacity and performance criteria.

6. SITE EVALUATION DIFFICULTIES

There were no site evaluation difficulties.

7. MAINTENANCE AND CARE OF YOUR OWTS SYSTEM

7.1. DO'S & DONT'S

- DO inspect your septic system every year
- DO pump out septic tank every four years
- DO keep records of pumping, inspections and other maintenance
- DO repair leaking faucets and toilets
- DO conserve water to reduce wastewater

1LB
1/15/2020
pm

NOTES AND SPECIFICATIONS:

FIELD SIZE AND CALCULATIONS:

- BASED ON NUMBER OF BEDROOMS: 4 (LOAD 525 gal / day)
- LONG TERM ACCEPTANCE RATE: 0.35 gal / sq. ft. / day
- SITE AND SOIL EVALUATION BY: JESIK CONSULTING
- ENGINEERED FIELD TYPE: COMPLETED AUGUST 20, 2018
- REQUIRED # OF QUICK 4s: 88
- TRENCH WITH INFILTRATORS

GENERAL SYSTEM NOTES:

- REFER TO LOCAL CODES AND REQUIREMENTS BEFORE INSTALLATION
- SYSTEM MUST BE INSTALLED BY QUALIFIED AND LICENSED INSTALLER
- ANY PORTION OF THE ABSORPTION FIELD MUST BE AT LEAST 150 FT FROM ANY WATER WELL.
- SYSTEM MUST BE INSTALLED WITH THE INDICATED NUMBER OF INFILTRATORS, ZONES, AND PIPE LENGTH UNLESS SPECIFIC WRITTEN APPROVAL IS OBTAINED BY THE DESIGN ENGINEER
- ALL LATERALS MUST BE INSTALLED LEVEL. INDIVIDUAL ZONES MAY BE INSTALLED AT DIFFERENT ELEVATIONS. SEE FIELD CROSS SECTION FOR ADDITIONAL INFORMATION.
- A SEWER CLEAN-OUT MUST BE INSTALLED OUTSIDE THE STRUCTURE AND WITHIN FIVE FEET OF THE SEWER EXIT FROM THE FOUNDATION.
- NOT ALL COMPONENTS ARE SPECIFICALLY SHOWN ON THESE PLANS (ELBOWS, VENTS, VALVES, ETC.) AND IT IS ASSUMED THE INSTALLER IS FAMILIAR WITH THE STANDARDS FOR SYSTEM INSTALLATIONS FOR THESE NON-SPECIFIED COMPONENTS.
- THE ABSORPTION FIELD MAY NOT BE USED FOR ANY ACTIVITIES THAT MAY COMPACT THE SOILS, FLOOD THE FIELD, DAMAGE THE PIPES, OR NEGATIVELY IMPACT THE OPERATION OF THE FIELD IN ANY MANNER (LIVESTOCK AREAS, VEHICLE TRAFFIC, CONSTRUCTION AREAS, STORAGE AREAS, ETC.)
- PROPER OPERATION OF THIS SYSTEM IS DEPENDANT ON SENSIBLE WATER AND SYSTEM USAGE. EXCESSIVE WATER USAGE MAY TEMPORARILY, AND EVEN PERMANENTLY DAMAGE THE SYSTEM. IN ADDITION, EXCESSIVE USE OF CHEMICALS AND NON-DEGRADABLE PRODUCTS CAN HAVE NEGATIVE EFFECTS ON THE BIOLOGICAL BALANCE IN THE STORAGE TANKS. SEE THE "MAINTENANCE AND CARE OF YOUR SEPTIC SYSTEM" FOR ADDITIONAL INFORMATION.

TANK NOTES AND SPECIFICATIONS:

CERTIFICATION:

- TANKS SHOULD BE APPROVED BY THE COLORADO DEPARTMENT OF HEALTH AND ENVIRONMENT (CDPHE).

GENERAL TANK NOTES & SPECIFICATIONS:

- TANKS MUST BE NO DEEPER THAN 4 FT FROM THE TOP OF TANK TO THE GROUND SURFACE.
- TOP OF TANKS MUST BE DESIGNED AND CONSTRUCTED TO SUPPORT A MIN 400 PSF UNIFORM LOAD PLUS 2,500 POUND AXLE LOAD WHEN BURIED MORE THAN 2 FT DEEP. THE TANK SHALL SUPPORT AN ADDITIONAL 100 PSF PER EA FT OF SOIL DEEPER THAN 2 FT.
- TANKS MUST BE INSTALLED PER LOCAL CODE AND THE MANUFACTURERS INSTRUCTIONS.



NOTES AND SPECIFICATIONS:

FIELD SIZE AND CALCULATIONS:

- BASED ON NUMBER OF BEDROOMS: 4 (LOAD 525 gal / day)
- LONG TERM ACCEPTANCE RATE: 0.35 gal / sq. ft. / day
- SITE AND SOIL EVALUATION BY: JESIK CONSULTING
- ENGINEERED FIELD TYPE: COMPLETED AUGUST 20, 2018
- REQUIRED # OF QUICK 4s: 88
- TRENCH WITH INFILTRATORS

GENERAL SYSTEM NOTES:

- REFER TO LOCAL CODES AND REQUIREMENTS BEFORE INSTALLATION
- SYSTEM MUST BE INSTALLED BY QUALIFIED AND LICENSED INSTALLER
- ANY PORTION OF THE ABSORPTION FIELD MUST BE AT LEAST 150' FROM ANY WATER WELL
- SYSTEM MUST BE INSTALLED WITH THE INDICATED NUMBER OF INFILTRATORS, ZONES AND PIPE LENGTH UNLESS SPECIFIC WRITTEN APPROVAL IS OBTAINED BY THE DESIGN ENGINEER
- ALL LATERALS MUST BE INSTALLED LEVEL. INDIVIDUAL ZONES MAY BE INSTALLED AT DIFFERENT ELEVATIONS. SEE FIELD CROSS SECTION FOR ADDITIONAL INFORMATION.
- A SEWER CLEAN-OUT MUST BE INSTALLED OUTSIDE THE STRUCTURE AND WITHIN FIVE FEET OF THE SEWER EXIT FROM THE FOUNDATION.
- NOT ALL COMPONENTS ARE SPECIFICALLY SHOWN ON THESE PLANS (ELBOWS, VENTS, ETC.) AND IT IS ASSUMED THE INSTALLER IS FAMILIAR WITH THE STANDARDS FOR SYSTEM INSTALLATIONS FOR THESE NON-SPECIFIED COMPONENTS.
- THE ABSORPTION FIELD MAY NOT BE USED FOR ANY ACTIVITIES THAT MAY COMPACT THE SOILS, FLOOD THE FIELD, DAMAGE THE PIPES, OR NEGATIVELY IMPACT THE OPERATION OF THE FIELD IN ANY MANNER (LIVESTOCK AREAS, VEHICLE TRAFFIC, CONSTRUCTION AREAS, STORAGE AREAS, ETC.)
- PROPER OPERATION OF THIS SYSTEM IS DEPENDANT ON SENSIBLE WATER AND SYSTEM USAGE. EXCESSIVE WATER USAGE MAY TEMPORARILY, AND EVEN PERMANENTLY DAMAGE THE SYSTEM. IN ADDITION, EXCESSIVE USE OF CHEMICALS AND NON-Biodegradable PRODUCTS CAN HAVE NEGATIVE EFFECTS ON THE BIOLOGICAL BALANCE IN THE STORAGE TANKS. SEE THE "MAINTENANCE AND CARE OF YOUR SEPTIC SYSTEM" FOR ADDITIONAL INFORMATION.

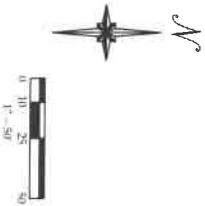
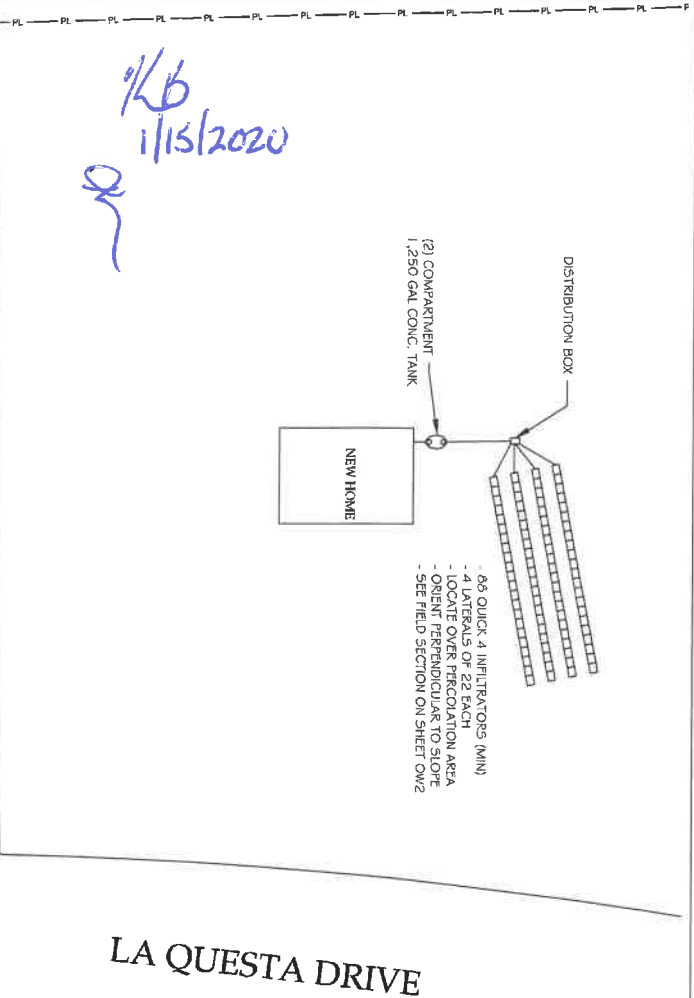
TANK NOTES AND SPECIFICATIONS:

CERTIFICATION:

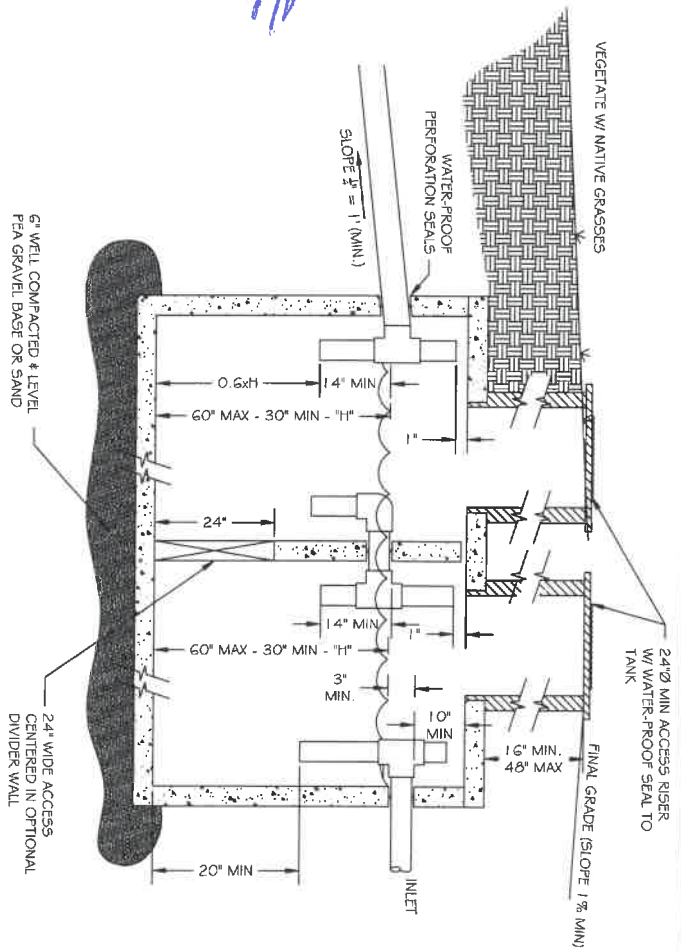
- TANKS SHOULD BE APPROVED BY THE COLORADO DEPARTMENT OF HEALTH AND ENVIRONMENT (CDPHE).

GENERAL TANK NOTES & SPECIFICATIONS:

- TANKS MUST BE NO DEEPER THAN 4 FT FROM THE TOP OF TANK TO THE GROUND SURFACE.
- TOP OF TANKS MUST BE DESIGNED AND CONSTRUCTED TO SUPPORT A MIN 400 PSF UNIFORM LOAD PLUS 2,500 POUND AXLE LOAD WHEN BURIED MORE THAN 2 FT DEEP. THE TANK SHALL SUPPORT AN ADDITIONAL 100 PSF PER EA FT OF SOIL DEEPER THAN 2 FT.
- TANKS MUST BE INSTALLED PER LOCAL CODE AND THE MANUFACTURERS INSTRUCTIONS.

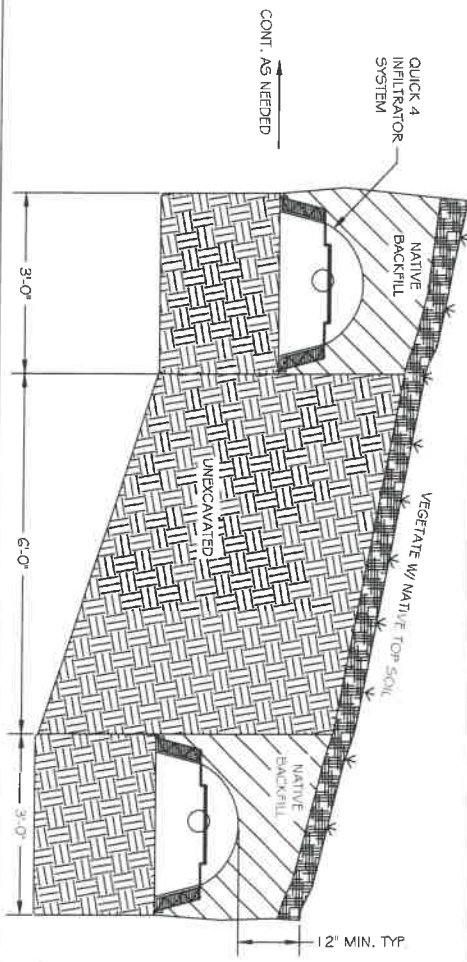


1/5/2020
1/5



2 COMPARTMENT TANK

SCALE: $\frac{1}{2}'' = 1'$



FIELD CROSS SECTION

SCALE: $\frac{1}{2}'' = 1'$

OW2

OWTS PLAN FOR:
7486 VAN WYHE COURT
EL PASO COUNTY, COLORADO

POWELL HOMES



102 ONEIDA STREET
PUEBLO, COLORADO 81003
(719) 582-5588
www.jesik.us



OWTS TEST PIT LOG

Project No: 18-7635-16

Project Name: Powell

Test Pit No: 1

Date of Logging: 08/20/19

Soil Depth (BGS)	USDA Soil Texture	USDA Soil Structure Shape	Structure Grade	Redoximorphic Features (Y/N)	Soil Type
0-8 Sandy clay loam		Granular	Moderate	N	3

GPS Coordinates: N 38° 22.724 W 104° 39.799

Soil Treatment Area Slope % 2%

Is there a limiting condition such as low permeability, bedrock, groundwater, or

other condition that restricts the treatment capability of the soil? ☐ Yes ☒ No ✓

If yes, explain how the limiting condition should be add

Is there evidence of past groundwater (Redoximorphic features)? ☐ Yes ☒ No ✓

Excavation equipment used: Mini EX

CERTIFICATION

I certify that the information on this form is correct and complete to the best of my knowledge and that I have the required training and/or experience.

Signature: [Signature]

Print Name: Chris Iron Wing

Date: 08/20/19



KB
11/15/2020



OWTS TEST PIT LOG

Project No: 18-7635-16

Project Name: Powell

Test Pit No: 2

Date of Logging: 08/20/19

Soil Depth (BGS)	USDA Soil Texture	USDA Soil Structure Shape	Structure Grade	Redoximorphic Features (Y/N)	Soil Type
<u>0-8</u>	<u>Sandy clay loam</u>	<u>Granular</u>	<u>Moderate</u>	<u>N</u>	<u>3</u>

GPS Coordinates: N 38° 22.721 W 104° 39.799

Soil Treatment Area Slope % 2%

Is there a limiting condition such as low permeability, bedrock, groundwater, or other condition that restricts the treatment capability of the soil? ☐ Yes ☒ No ✓

If yes, explain how the limiting condition should be add

Is there evidence of past groundwater (Redoximorphic features)? ☐ Yes ☒ No ✓

Excavation equipment used: Mini EX

CERTIFICATION

I certify that the information on this form is correct and complete to the best of my knowledge and that I have the required training and/or experience.

Signature: [Signature]

Print Name: Chris Ironwing

Date: 08/20/19



KB
11/15/2020