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) 575-8664 *fax*
www.elpasocountyhealth.org

CONVENTIONAL ON-SITE WASTEWATER TREATMENT SYSTEM
FINAL INSPECTION FORM

P

On-site ID: ON0020008 Tax schedule(APN) #: 4207004013 Permit Type: Major repair
Environmental Health Specialist: Kevin Bolinsky (BEX Petro) Final Inspection Date: 06.14.2018 Approved: Yes

Residential Property Information:

Owner: Thornton Jeffrey N SR Address: 12730 Halleluiah Trl Elbert, CO 80106 Approved No. Bedrooms: 4
Water supply: Well Well Installation verified: Yes Well Location GPS: Over 50' to Tank

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.

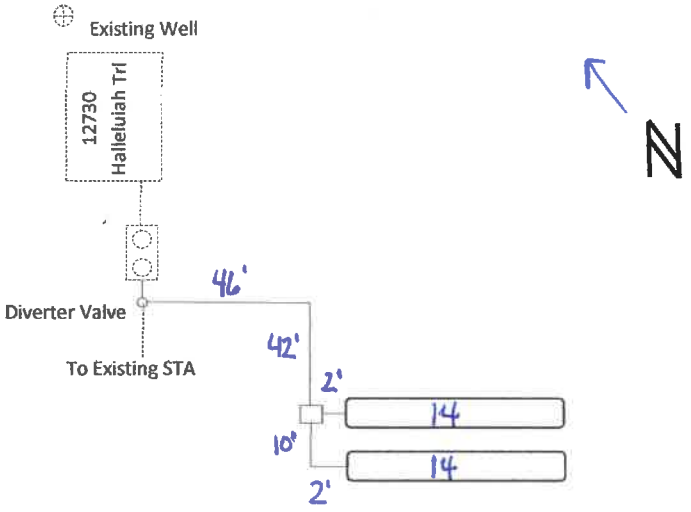
Minimum System Requirements:

Soil (in-situ) Type: 1 **LTAR (In-situ soil):** 0.8 **Limiting Layer:** Groundwater: None Bedrock: 78"
OWTS Tank: Capacity (gallons): 1250 **OWTS Pump Tank:** Capacity (gallons): N/A
Soil Treatment Area (STA): Sq. Ft. (10-1): 656 Sq. Ft. (10-2): 656 Sq. Ft. (10-3): 460 Sq. Ft. (with Diverter Valve): NA

Final system installation:

Licensesd Installer: Tier II Installer: Bugenhagen Excavating
Treatment Level: 1
OWTS Tank: GPS Location: N/A
Tank Type: Existing Concrete Capacity (gallon): 1250
OWTS Pump Tank:
Tank Type: NA Capacity (gallon): N/A Audio/Visual Alarm: NA
OWTS Pump: N/A
Soil Treatment Area (STA):
GPS Location: 39° 1' 4" N, 104° 35' 28" W Total Sq. Ft installed: 420
Configuration: Trench Distribution: Gravity
Distribution Media: Chambers Infiltrative Surface Depth: 24"
Distribution Area Length: 70' Distribution Area Width: N/A
Media Type: Arc 36 Chambers (15 sq/ft) Total installed: 28

Notes: Not to scale, SDR 35 pipe.



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.

Attn: THORNTON JEFFREY N SR
12730 HALLELUIAH TRL
ELBERT, CO 80106-9015

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MAJOR REPAIR PERMIT - OWTS

Valid From 6/7/2018 To 6/7/2019

PERMITEE : THORNTON JEFFREY N SR
12730 HALLELUIAH TRL
ELBERT, CO 80106-9015

OWNER NAME : THORNTON JEFFREY N SR

Onsite ID: ON0020008
Tax Schedule # : 4207004013
Permit Issue Date: 06/07/2018
Dwelling Type: RESIDENTIAL
# of Bedrooms (if Res): 4
Proposed Use (if Comm):
Designed Gallons/Day:
Water Source: PRIVATE WELL

System Installation Requirements:

- A Conventional non-engineered OWTS system to be installed on site.
- New STA is sized as a stand alone system, but a diverter valve might be installed.
- System installation includes gravity fed system with (possible) diverter valve to chambers in trenches, max installation depth of 2' 6" due to type 4 soil at 6' 6".
- Minimum tank requirement of 1250 gallons and 460 sq ft of soil treatment area (39 Q4 / 31 Arc 36 chambers required).
- The system must be installed per approved design document signed and dated 6.6.2018, 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.

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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.

Authorized By: Environmental Health Specialist

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SR0009483 AR0013633 ON0020008

APPLICATION FOR AN ON-SITE WASTEWATER TREATMENT SYSTEM PERMIT

Property Information:
Property Address: 12730 Hallelujah trail City and Zip: Ekert 80106
Legal Description: _____
Tax Schedule #: 4207004013 Lot size: 5 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: Jeff Thornton Daytime Phone: _____
Owners Mailing Address: _____
Email Address: _____ Fax #: _____
General Contractor: _____ Phone/Email: _____

OWTS Installer Information: ☒ Primary Contact
System Installer: Bugenhagen Excavating Daytime Phone: 719 355-0082
Email Address: Theseptictspecialist@Gmail.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**
☒ **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.**
Install new STA with Diverter to old field if possible. New STA designed to be stand alone system. Add 32 chambers in two rows of 16 in each row. Max install depth is 2.5 feet

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-F 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 back side 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 On-site 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.

Applicant Signature: _____ Date: 6/5/18

Reviewed 2018 approved fee (12/04/2017)

Chelsea

- 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.

East on Woodmen Rd. North on Meridian. East on Latigo Blvd. North on Hallelujah tr. to address 12730.

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

Permit #: _____ Site Inspection date: 6-6-18

Date Approvals Rcvd: Development Services: ✓ Floodplain/enumerations: ✓

Design: ☒ Conventional ☐ Engineer Design Engineer: ✓

Engineer Job #: ✓ Engineer Date Stamped: 6-6-18

LTAR/Soil Type: 0.80 / type 1 Groundwater: ✓ PP1/ ✓ PP2 Bedrock: ✓ PP1/ ✓ PP2

Minimum Requirements: Tank Capacity: 1250 Soil Treatment Area: 460 ft²

System Feed: ☒ Gravity ☐ Pump to Gravity ☐ Pressure Dosed ☐ Other: _____

System Media: ☒ Chambers ☐ Rock and Pipe ☐ Other Soil Treatment Area: ☒ Trenches ☐ Bed

Additional Comments: System sized as stand alone. Diverter valve must be installed.
525/0.8=656(1.0)=656(0.7)=460, 460/12=39.04 or 460/15=31 to 36
Type 4 soil found at 6'6". Max install depth of 2'6"

E.H. Specialist: Rebecca Flores Date: 6-6-18 ☒ Approved ☐ Denied

PARR ENGINEERING & CONSULTING, INC.

Christopher L. Parr, P.E. Principal
11590 Black Forest Road, Suite 10, Colorado Springs, CO 80908
Office: 719-494-0404 Cell: 719-659-1313

STA SOIL EVALUATION

Date: May 31, 2018 **Job:** JN: 18.233

Site Location: 12730 Halleluiah Trail, Elbert, CO 80106

Purpose of Investigation: To determine general subsurface soil conditions at the site location & to formulate design criteria for the proposed On-Site Wastewater Treatment system (OWTS)

Field Procedure: The materials in the various strata of the soil profile pit were visually classified in accordance with the U.S. Department of Agriculture (USDA) standards.

COLORADO LICENSED DANIEL J. MIZICKO 52484 05-31-18 PROFESSIONAL ENGINEER

Profile Pit	Yes
Perc Test	-

Date: (Profile Eval) May 25, 2018
Excavator P.Bugenhagen
Evaluator S.Dunfee

Depth to Groundwater (permanent or seasonal) Pit #1: Not Reached
Depth to Groundwater (permanent or seasonal) Pit #2: Not Reached

Depth to Bedrock - Pit #1: Not Reached
Depth to Bedrock - Pit #2: Not Reached

Other Terrain Features or Soil Conditions: See Attached Site Map

Endorsement: Daniel J. Mizicko P.E.

Profile Pit 1	
Latitude:	39° 14.37"N
Longitude:	104°39'27.66"W
Layer	Soil Type & LTAR
0 - 0'-6"	Topsoil
0'-6" - 6'-6"	**Type 1 (0.80)**
6'-6" - 8'-6"	**Type 4 (0.20)**
-	-

Profile Pit 2	
Latitude:	39° 14.36"N
Longitude:	104°39'27.17"W
Layer	Soil Type & LTAR
0 - 0'-6"	Topsoil
0'-6" - 6'-6"	**Type 1 (0.80)**
6'-6" - 8'	**Type 4 (0.20)**
-	-

				Location	
				Latitude:	Longitude:
Perc #1	N/A		Min./In.	-	-
Perc #2	N/A		Min./In.	-	-
Perc #3	N/A		Min./In.	-	-
	Average:	N/A	Min./In.		

Recommendations: **(1) An Engineered On-Site Wastewater Treatment system (OWTS) is required for this location due to: (a) Soil Type 4 identified in the treatment zones of Profile Pit #1 & Profile Pit #2.**

6-6-18

Parr Engineering & Consulting, Inc.
11590 Black Forest Road, Suite 10
Colorado Springs, Colorado 80908
Phone: 719-494-0404

Profile Pit - Log

Job Number:	18.233
Date Evaluated:	05/25/18
Profile Pit#:	Pit #1

Excavator:	P.Bugenhagen	Total Depth:	8'-6"
Logged By:	S.Dunfee	STA Slope & Direction:	Generally Flat
Method:	Profile Pit	Latitude:	39° 1'4.37"N
Equipment:	Backhoe	Longitude:	104°35'27.66"W

12730 Halleluiah Trail, 80106

Depth (ft.)	Sample Interval	USDA Soil Texture	USDA Soil Structure - Shape	Soil Structure Grade	Redoximorphic Features Present? (Y/N)	Soil Type (from Table 9 in O-14)	% Rock Frag.	Color
		Topsoil						
2		Sand	--	Single Grain	No	**Type 1 (LTAR = 0.80) Treatment Level 1**	<35%	10YR 5/3 (MOIST)
4								
6								
		Sandy Clay	Granular	Strong	No	**Type 4 (LTAR = 0.20) Treatment Level 1**	<35%	2.5Y 5/4 (MOIST)
8								
		Total Depth = 8'-6"						
10								

Evidence of Groundwater:	**Not Reached**
Depth to Bedrock:	**Not Reached**

Additional Notes:

6-6-18
CS

Parr Engineering & Consulting, Inc.
11590 Black Forest Road, Suite 10
Colorado Springs, Colorado 80908
Phone: 719-494-0404

Profile Pit - Log

Job Number:	18.233
Date Evaluated:	05/25/18
Profile Pit#:	Pit #2

Excavator:	P.Bugenhagen	Total Depth:	8'-0"
Logged By:	S.Dunfee	STA Slope & Direction:	Generally Flat
Method:	Profile Pit	Latitude:	39° 1'3.96"N
Equipment:	Backhoe	Longitude:	104°35'27.17"W

12730 Halleluiah Trail, 80106

Depth (ft.)	Sample Interval	USDA Soil Texture	USDA Soil Structure - Shape	Soil Structure Grade	Redoximorphic Features Present? (Y/N)	Soil Type (from Table 9 in O-14)	% Rock Frag.	Color
		Topsoil						
2		Sand	--	Single Grain	No	**Type 1 (LTAR = 0.80) Treatment Level 1**	<35%	10YR 5/3 (MOIST)
4								
6								
8		Sandy Clay	Granular	Strong	No	**Type 4 (LTAR = 0.20)**	<35%	2.5Y 5/4 (MOIST)
10		Total Depth = 8'-0"						

Evidence of Groundwater:	**Not Reached**
Depth to Bedrock:	**Not Reached**

Additional Notes:

6-6-18

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& CONSULTING, INC.

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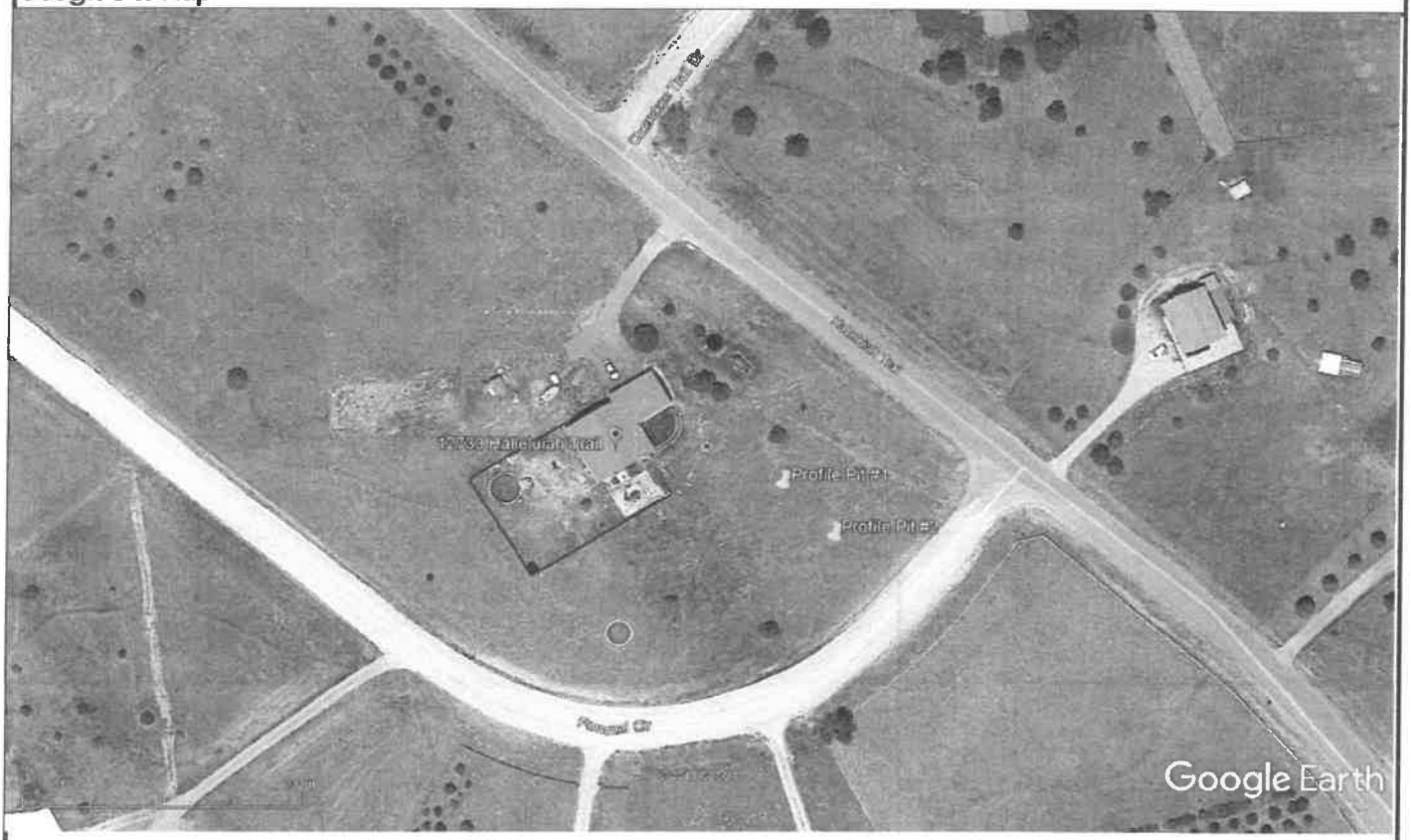
Google Site Map



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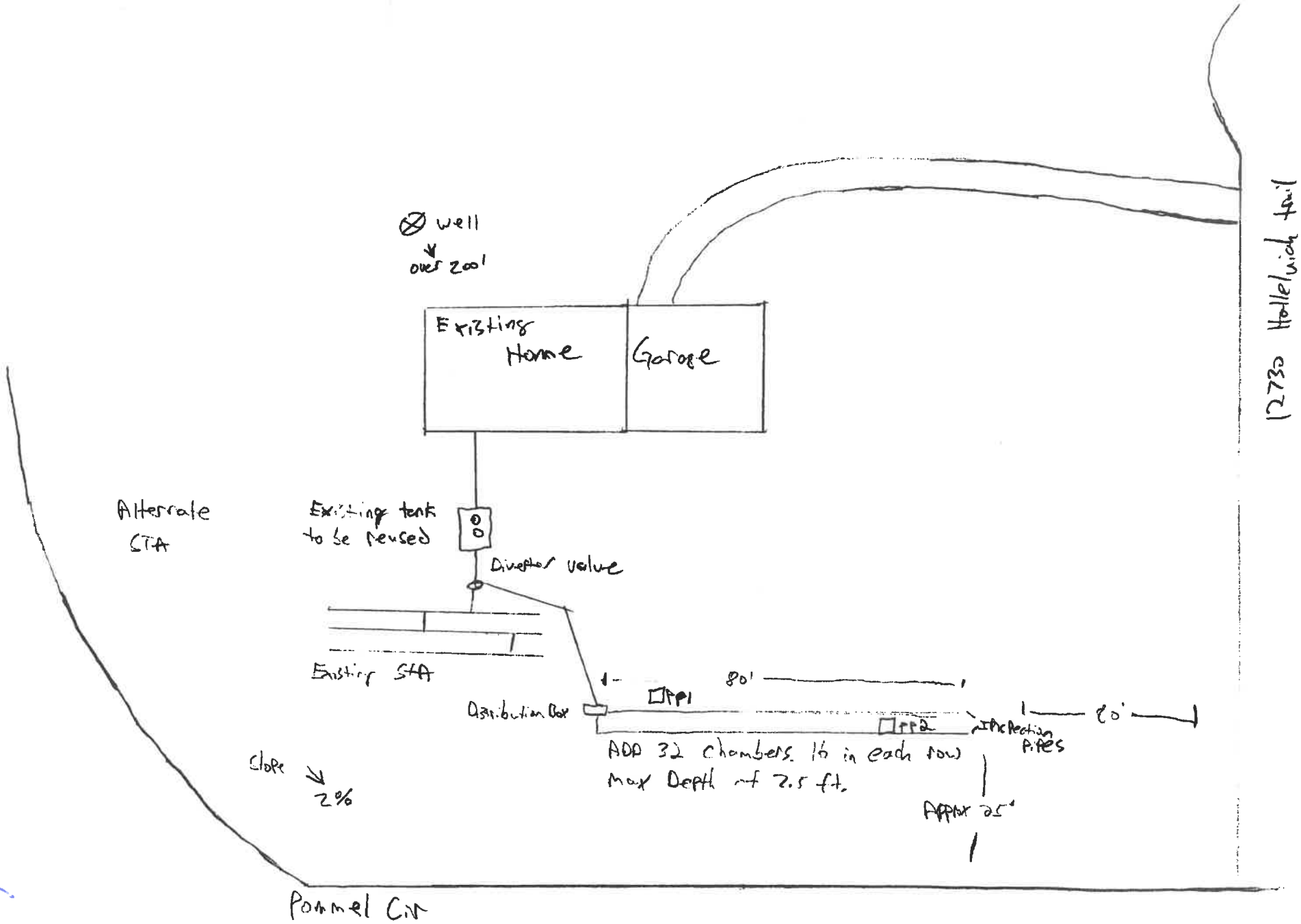
well
over 200'
Existing
Home
Garage
Alternate
STA
Existing tank
to be reused
Diverter valve
Existing STA
Distribution Box
1-
80'
TP1
TP2
Inspection Pipes
ADD 32 chambers 16 in each row
max Depth of 2.5 ft.
Approx 25'
Slope
2%
Pommel Cir
1" = 25'
N

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CONVENTIONAL (NON-ENGINEERED) ON-SITE WASTEWATER TREATMENT SYSTEM (OWTS) DESIGN WORKSHEET

(MUST BE COMPLETED FOR ALL CONVENTIONAL DESIGNS)

Wastewater Flow

Total number of bedrooms: 4

Design wastewater flow (gallons/day) from Table 6-1: 525

Septic Tank

Septic tank size (in gallons) from Table 9-1: 1250 Existing

Tank burial depth (from top of tank, in inches) 10"
(***NOTE***: Shall not exceed 48 inch depth by regulation)

Will groundwater affect tank? Yes ☐ No ☒

Will an effluent screen be installed? Yes ☐ No ☒
(***Note:*** Effluent screens are required for all new systems or replacement of the septic tank)

Soil Treatment Area (STA)

Long Term Acceptance Rate (LTAR) From Table 10-1: .8

Unadjusted STA size (see 8.10.C.4) – show calculation: 525 ÷ .8 = 656.25

Design flow (gallons per day) / LTAR (gallons/day/sq.ft.) = 656.25 Sq Ft

Depth of STA (cannot exceed 48"):

Max depth of 2.5 ft Trenches are preferred. If bed system is selected, the selection reason must be specified:

Type of STA (check which applies):
☒ Trench ☐ Bed

FOR REPAIRS ONLY (check which applies):
- ☐ Wide Bed (more than 12 feet wide)
- ☐ Deep Gravel Trenches
- ☐ Seepage Pit
- ☐ None of the Above

Method of Septic Tank Effluent Application (check which applies):

- [x] Gravity
- [ ] Pump to gravity
- [ ] Dispersed by siphon

Type of Distribution Media (check which applies):

- [ ] Rock
- [ ] Tire chips
- [x] Chambers
- [ ] Other _____ Other type _____

Adjusted STA size, using factors from Table 10-2 & 10-3 (show calculation, with adjustment factors utilized):

525 ÷ .8 = 656.25 x .7 (trenches/chambers) = 459.375 460 ÷ 15 = 30.6 = 32

Install 32 chambers in two rows of 16 each

A scale drawing *shall* be provided with each design document (see attached example design documents), showing:

- Layout of entire OWTS, including the STA configuration (trench, bed, etc.)
- Dimensions of the trench(s) or the bed(s)
- Location of all OWTS components and distances to all applicable physical features in Table 7-1
- Depths of all components (or elevations relative to a designated benchmark)
- Location of the soil profile test pit excavation(s), or percolation test holes, if required
- Location of the alternate STA site
- North direction arrow
- Graphic scale (1"= 20', 1"= 30', etc.)
- Contours, OR slope direction and % slope

Note: It is recommended that the design document is completed by a professional in the OWTS industry. EPCPH does not complete, or alter design documents. Contact EPCPH with any questions.

The proposed STA sites must be protected from disturbance, compaction, or other damage by staking, fencing, posting or other effective methods.

Certification

Signature	Company Name: Bugenhagen Excavating
Print Name: Phillip Bugenhagen	Address: 11555 Oil Well Rd. Colbran 80828
Date: 6/5/18	Phone: 719 355-0082
Property Address: 12730 Hallelujah St. Elbert 80106	Email: theseptic.specialist@Gmail.Com

(See attached Tables and Design Document examples)