

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: SUSANNE HOFFMAN
14445 HOLMES RD REHB B
COLORADO SPRINGS, CO 80908



**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 11/18/2019 To 11/18/2020

PERMITEE : SUSANNE HOFFMAN
14445 HOLMES RD REHB B
COLORADO SPRINGS, CO 80908

OWNER NAME : SUSANNE HOFFMAN

Onsite ID: ON0050253
Tax Schedule # : 520600040
Permit Issue Date: 11/18/2019
Dwelling Type: COMMERCIAL
of Bedrooms (if Res): 0
Proposed Use (if Comm): REHAB FACILITY
Designed Gallons/Day:
Water Source: PRIVATE WELL

System Installation Requirements:

- An Engineered OWTS system to be installed on site due to commercial building, requiring a Tier II licensed installer.
- System installation to include a gravity fed system with d-box to chamber in a bed configuration. Minimum tank requirements 1000 gallon and 840 sq ft of soil treatment area (70 Q4 / 56 Arc 36 chambers required).
- The system must be installed per approved Geoquest, LLC design document #19-0983 stamped and dated 10.15.2019, 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.
- Engineered systems require the as built drawing and certification letter from the engineer be submitted to Public Health prior to final approval and Regional Building sign off
- 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.

A handwritten signature in black ink, appearing to read "A. Powell", written over a horizontal line.

Authorized By: Environmental Health Specialist

CALCULATIONS (New Commercial OWTIS):

Proposed Retail Facility
Max. 10 People

L/TAR = 0.15 Gallons per Day per Square Foot (GPD/SF, USDA Soil Type 4A per Profile PR 9/26/2019.

Q = (10 People)(15 GPD/Person) = 150.0 GPD

Q = 150.0 Gallons per Day (GPD)

A = $\frac{Q}{L/TAR} = \frac{150.0 \text{ GPD}}{0.15 \text{ GPD/SF}} = 1,000.0 \text{ SF}$

Gently Fed Chamber Bed:
A = (1,000.0 SF)(1.2)(0.7)
A = 840.0 SF Required

CHAMBER BED SYSTEM (Genetic Feed):

Inhibitor Systems Inc. Quick 4 Standard Chambers
Chambers = SF ROD / 12.0 SF per Chamber
Chambers = 840.0 SF / 12.0 SF = Min. 70 Chambers
Inlet 2 Zones: 4 Rows x 8 Chambers Long
Chambers Provided = 72 Total
Total Contact Area = 864.0 SF Actual
Total Contact Area = 840.0 SF Required

Note: Use of Alternative Chambers is Acceptable.
For ARC 36 Standard Chambers (15.0 SF / Chamber, Min. 66 Chambers), Inlet 2 Zones with 4 Rows of 7 Chambers (66 Total), Contact Engineer for Certification.

MAXIMUM DEPTH:

48" As Measured on the Up-Hill Side of the Excavation

TANK SIZES:

Main Tank Size = Min. 1,000 Gallons (Two-Compartment)
EPC-0 Approved Effluent Filter on Outlet

INSPECTIONS REQUIRED ARE AS FOLLOWS:

- 1.) Engineer will inspect the installation of All OWTIS Components (i.e. All Plumbing, Tanks, Pump Chamber, STA, etc.) Prior to Backfill.
- 2.) Engineer to inspect the Soil Treatment Area After Backfill to insure Min. Cover and Proper Drainage Away from Soil Treatment Area.
Please Notify the Office Min. 24 Hours Prior to Inspection.

PIPE NOTES:

Provide 2.0% Min. Grade on Pipe to Septic Tank. Provide 2.0% Min. Grade on Pipe to the Soil Treatment Area.

All Bonds Limited to 45 Degree Elts or Long Sweep Quarter Bonds. Areas Under Driveways Shall Be Protected as Per El Paso County Health Department Regulations.

Building Sewer Clean-Outs Shall Be Installed within 5 FT of the Structure and at Intervals Not to Exceed 100' in Straight Runs and When the Cumulative Change in Direction Exceeds 135 Degree.

FINAL GRADING NOTES:

Soil Treatment Area Shall Be Crowned and Covered with a Minimum of 6" of Select Topsoil to Provide a Base for Good Vegetative Cover.

Contact Soil Conservation Service or County Extension Agent for Vegetation Best Suited for the Area. Grasses are Best. Trees and Shrubs May Damage/Rock Pipes. Vegetation Shall Be Maintained and Allowed to Prevent Formation of Bio-Matting. Do Not Pave Over the Soil Treatment Area.

Provide Drainage Swales Around Uphill Side of the Soil Treatment Area.

HOMESOWNER RESPONSIBILITY:

- Have Septic Tank Pump Every 3-5 Years (or As Needed, Contact Licensed Pumpers)
- Have OWTIS Inspected Annually
- Clean Effluent Filter
- Check Water Levels in Inspection Ports
- Plant Native Grass Over STA (No Plants with Roots or that Require Irrigation)
- Don't Pour Chemicals Down Drain
- Don't Throw Trash in Toilet
- (Minimize Toilet Paper Consumption)
- Use of Garbage Disposal is Discouraged
- Conserve Water and Repair Leaking Fixtures
- This is NOT a Complete List (Contact Local Health Department and EPA List of Septic "Do's and Don'ts"

GENERAL NOTES:

All Work per El Paso County Board of Health Regulations Chapter 6: On-Site Wastewater Treatment Systems (OWTIS) Charts.

All Subcontractors Shall Conform to El Paso County Regulations (See Table 7-1 in the Regulations for Additional Information). Contractors/Homesowner Must Verify All Subsoils and Obtain Utility Clearances Prior to Construction.

Contractor/Homesowner is Responsible for Permit. Contractor/Homesowner Must Obtain Approval of Engineered OWTIS from the El Paso County Health Department.


All Bonds Limited to 45 Degree Elts or Long Sweep Quarter Bonds. Areas Under Driveways Shall Be Protected as Per El Paso County Health Department Regulations.

Building Sewer Clean-Outs Shall Be Installed within 5 FT of the Structure and at Intervals Not to Exceed 100 FT in Straight Runs. Upstream at Each Change of Direction Greater Than 45°, and at Any Combination of Bends Greater Than 45° within a 40 FT Section of Building Sewer. Grade Surrounding Area to Drain Away from the Soil Treatment Area (STA).

Parking, Stacking of Trees/Branches, Irrigation, Vehicle/Traffic or Hoisted Animal Trails of Any Kind Over the STA may Cause Premature Failure and is Prohibited.

Refer to Sheet 2, 3, and 4 for Additional Details and Information.

GEOQUEST, LLC.
6825 SILVER PONDS HEIGHTS
SUITE 101
COLORADO SPRINGS, CO
80906
OFFICE: (719) 481-4580
FAX: (719) 481-9204



Project Name and Address	
Sheet: 1 of 4	Suzanna Hoffman
Date: 14 Oct 2019	14448 Hobson Road,
Revised:	Sch. No. 6230000040
Drawn by: wsm	El Paso County, Colorado
Checked by: dp	

Paul J. Meyer
11/15/19

Geoquest, LLC, has Provided this Design in Accordance with the Standards of Practice Common to the Area. However, as with All Underground Absorption Fields, Guarantee from Failure is Impossible. Even with Proper Installation, as Outlined for this Proposed Construction, There Can Remain Many Uncertainties, and Difficulties Can Still Arise in the Operation of the System in the Future. Proper Design, Construction, and Maintenance can Assist in Minimizing Uncertainties, but Cannot Entirely Eliminate Them. Homesowner Should be Advised of Maintenance and Special Considerations for Septic Systems. Refer to El Paso County Public Health Division: "Maintaining Your Septic System" for Additional Information. Due to the Possibility of Unknown Water Usage Factors, Geoquest, LLC, Provides No Warranty of this Design or Installation Against Failure or Damage of Any Type.

CHAMBERS BED SYSTEM (Gravity Feed):

Infiltrator Systems Inc. Quick 4 Standard Chambers
 # Chambers = SF ROD / 120 SF per Chamber
 # Chambers = 840.0 SF / 120 SF = Min. 70 Chambers
 Install 2 Zones: 4 Rows x 9 Chambers Long
 # Chambers Provided = 72 Total
 Total Contact Area = 864.0 SF Actual
 Total Contact Area = 840.0 SF Required

Note: Use of Alternative Chambers is Acceptable:
 For ARC 36 Standard Chambers (15.0 SF / Chamber, Min. 66 Chambers) install 2 Zones with 4 Rows of 7 Chambers (39 Total). Contact Engineer for Clarification.

OWTS to be Roped Off (Caution Tape or Temporary Construction Fencing is Acceptable) Prior To and During Construction to Prevent Construction Traffic from Compacting Surface Soils and Protect the STA from Traffic After Installation.

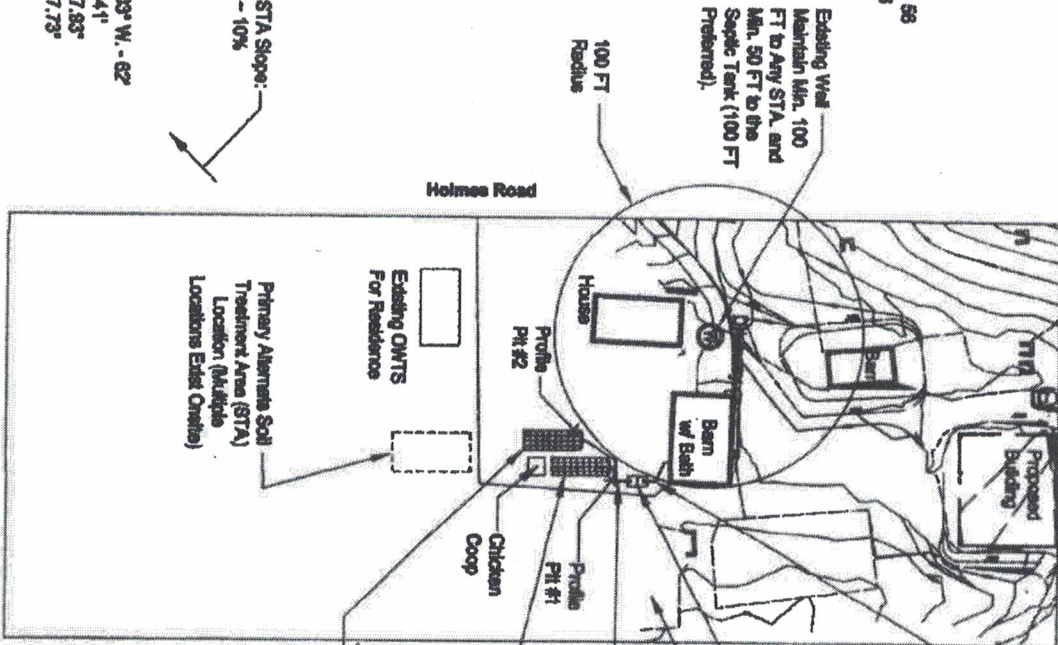
Minor Reduction or Curvature (i.e. Less Than 15') of the Soil Treatment Area (STA) Beds to Best Fit the Site Topography is Acceptable (i.e. Parallel to Site Contour). STA shall Maintain the Approximate Orientation Shown w/ Respect to Buildings and Lot Lines. Contact Engineer for Clarification.

Install Drainage Swales Between the House and Soil Treatment Area to Ensure Surface Runoff is Directed Around the STA. Downspouts near the STA Shall Discharge into the Swale or Extended Beyond the STA.

OWTS and STA to be protected at ALL times from Hooped Animals including Goats and Horses.

* Indicates Gequest, LLC, Profile Pit Test Locations
 Location from Northwest Lot Corner to Profile Pit # 1: S. 03° W. - 62'
 Location from Profile Pit # 1 to Profile Pit # 2: S. 53° W. - 41'
 GPS Coordinates Pit # 1: N. 39° 02' 28.11" W. 104° 43' 7.53"
 GPS Coordinates Pit # 2: N. 39° 02' 27.69" W. 104° 43' 7.73"

Native STA Slope:
 SW @ - 10%



Existing Well
 Maintain Min. 100
 FT to Any STA, and
 Min. 50 FT to the
 Septic Tank (100 FT
 Preferred).

4" Ø PVC Solid Pipe from the Proposed House to the Septic Tank, with Cleanout within 5 FT of House and at Intervals Not to Exceed 100 FT in Straight Runs. Upstream at Each Change of Direction Greater Than 45°, and at Any Combination of Bends Greater Than 45° within a 40 FT Section of Building Sewer. Maintain 2.0% Min. Grade on Pipe Feeding the Septic Tank. Exact Location of the Discharge Line from the House per Plumbing Design by Others.

Min. 1,000 Gal. Precast Concrete Two Compartment Septic Tank w/ EPCPH Approved Eminent Filter on Outlet (Requires Regular Maintenance). Inlet Approx. 24" Below Existing Grade. Pans to Grade with Secure Access Cover (Water Tight, Min. 3" Above Finish Grade, Typ. All Septic Tank Access Locations). Exact Location to be Field Determined.

Distribution Box w/ Speed Levelers to Ensure Equal Distribution. Install a Secure Access Riser to Allow for Future Speed Leveler Adjustment.

Outlet Plus Standard Chambers:
 34" W x 48" L x 12" H Each
 2 Zones: 4 Rows x 9 Chambers Long (72 Total).
 Max. Depth of Installation 48" Below Native Grade (As Measured on the Uplift Side). See STA Layout and Cross-Section for Additional Detail and Clarification.

Inspection Port / Vent at Each Corner of Each Bed (Typ. of 8 Total). See Detail on Page 3 for Additional Information.

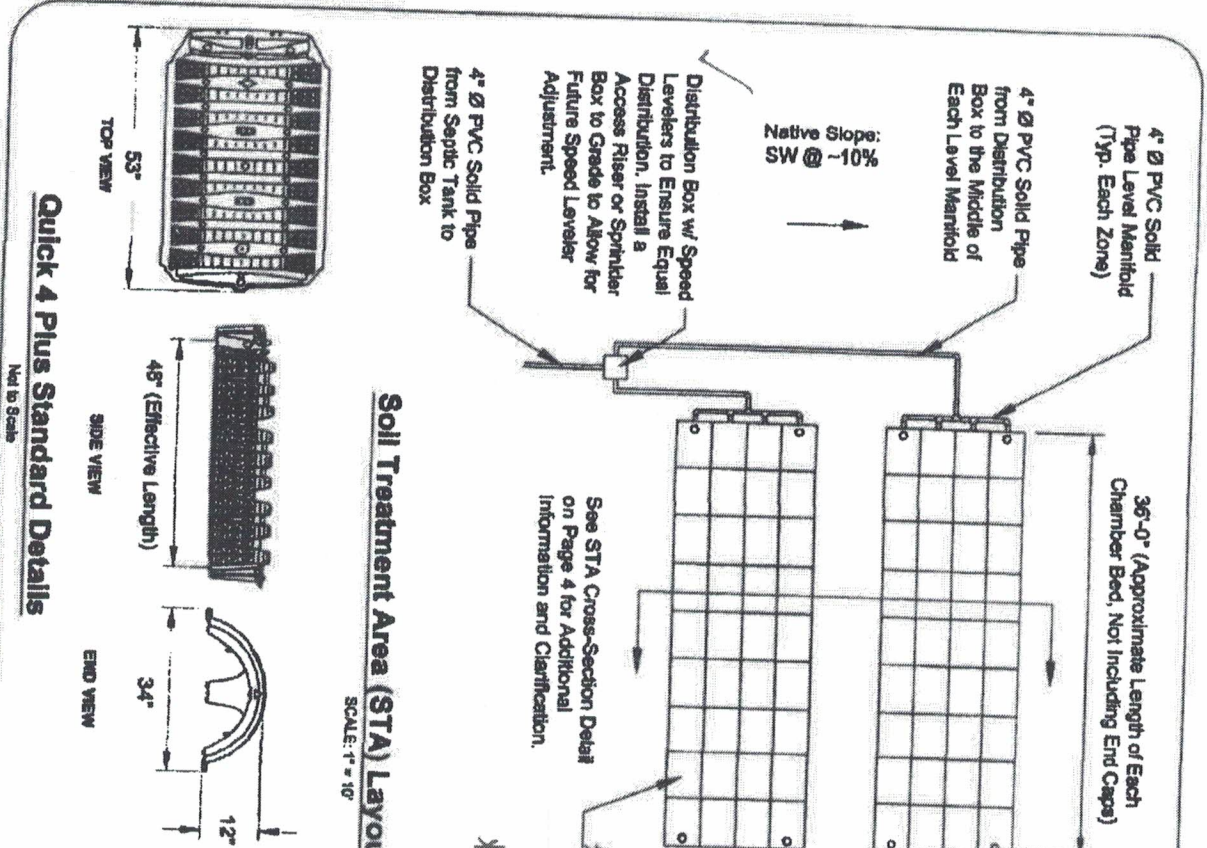
Site Plan



GEQUEST, LLC.
 8828 SILVER PONDS HEIGHTS
 SUITE 101
 COLORADO SPRINGS, CO
 80908
 OFFICE: (719) 481-4590
 FAX: (719) 481-9204

Project: 19-0083	Project Name and Address
Sheet: 2 of 4	Suzanne Hoffman
Date: 14 Oct 2019	14446 Holmes Road,
Revised:	So. No. 802800040
Drawn by: wsm	El Paso County, Colorado
Checked by: djp	

[Handwritten Signature]
 11/15/19



4" Ø PVC Solid Pipe Level Manifold (Typ. Each Zone)

4" Ø PVC Solid Pipe from Distribution Box to the Middle of Each Level Manifold

Native Slope: 1-10% SW

Distribution Box w/ Speed Levelers to Ensure Equal Distribution. Install a Access Riser or Sprinkler Box to Grade to Allow for Future Speed Leveler Adjustment.

4" Ø PVC Solid Pipe from Septic Tank to Distribution Box

36'-0" (Approximate Length of Each Chamber Bed, Not Including End Caps)

Inspection Port / Vent (Typ. Each Corner of Each Bed, 8 Total, See Detail at Below)

Min. 6'-0" Undisturbed Native Soil Between Zones

Min. / Max. 12'-0" Wide Bed Excavation (Typ.)

30'-0" (Approximate Min. Soil Treatment Area Width)

See STA Cross-Section Detail on Page 4 for Additional Information and Clarification.

Quick 4 Plus Standard Chamber Modules
34" W x 48" L x 12" H Each (Typ.)
Install 2 Beds: 4 Rows x 7 Chambers Long (56 Total Chambers)
Install 4 Beds: 4 Rows x 9 Chambers Long (72 Total Chambers)

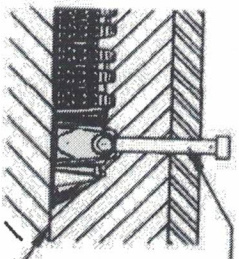
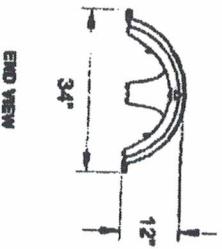
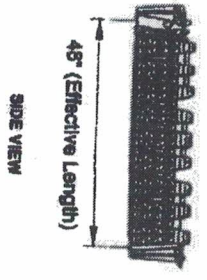
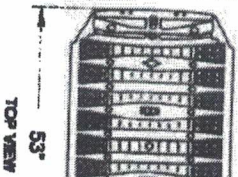
Note: Use of Alternative Chambers is Acceptable. For ARC 36 Chambers (15.0 SF / Chamber, Min. 56 Chambers) Install 2 Beds: 4 Rows x 7 Chambers Long (56 Total Chambers). Contact Engineer for Clarification.

Soil Treatment Area (STA) Layout (Chamber Beds)

SCALE: 1" = 10'

Quick 4 Plus Standard Details

Not to Scale



Inspection Port / Vent Detail

Not to Scale

4" Ø Solid Pipe w/ Removable Cap (Min. 6" Above Finish Grade), Drill Min. (4) 1/8" Ø Holes Above Grade to Allow System to Vent. Install per Chamber Manufacturers Recommendations.

Special Note: STA Layout illustrates the General Design Layout. Minor Rotation or Curvature (i.e. Less Than 15°) of the Soil Treatment Area (STA) Beds to Best Fit the Site Topography is Acceptable.

Approx. 24" Native Material in the Area Each Chamber Bed. Scarify Bottom of Each Bed and Eliminate Bucket Smear on All Excavation Sidewalls (Prior to Placing Chambers, Typ. Each Bed). Max. 4 FT to the Bottom of the Chambers from Finished Grade as Measured on the Uphill Side of Each Chamber Bed.

Note: Min. 6 FT Undisturbed Native Soil Between Zones. Each Bed Shall be Level End to End and Side to Side. Step Beds as Required by Native Slope. Max. 4 FT to the Bottom of the Chambers from Finished Grade as Measured on the Uphill Side of Each Chamber Bed.

GEOQUEST, LLC 8825 SILVER POND HEIGHTS SUITE 101 COLORADO SPRINGS, CO 80906 OFFICE: (719) 481-4800 FAX: (719) 481-4204		
Project Name and Address Susana Hestman 14445 Highway Road, Sth. No. 850800040 El Paso County, Colorado		Project #2824 Date: 11/04/2018 Drawn by: vsm Checked by: dg

Susan Hestman
11/15/19