

1787 17th Trail - Cotopaxi, CO 81223 - Fremont County

MLS: 2516463 - SFB - Active - \$460,000

MLS #: 2516463 **File #:**
Status: Active **Status Changed:** 10/16/2023
List Price: **\$460,000** **Org. List Price:** \$460,000
Listing Type: For Sale **Property Type:** Single Family Building
Style: 1 story above ground **Zoning:** Rural residential
Subtype: CC&R's-No, Manufactured/Modular, HOA-No
HOA/Month: 0.00 -- Includes:

**General Listing Information:**

Beds: 2 **Sq Ft Total:** 1,854 **Acres:** 2.36
Full Baths: 1 **Sq Ft Main:** 1,854 **Lot Sq Ft:** 102,802
1/2 Baths: 0 **Sq Ft Upstairs:** 0 **Lot Dim:**
3/4 Baths: 1 **Sq Ft Downstairs:** 0 **Frontage:**
Garage: 0 **Depth:**
Garage Sq. Ft.: **Sq Ft Other:** 0 **Yr Built:** 2019
Carport: 0 **Sq Ft Unfinished:** 0 **Yr Remodeled:**
Levels: 1 (0 above ground) **Sq Ft Source:** Assessor **Total Rooms:**
Finance Terms: Cash, Conv. **Bsmt Type:** None **Main Bdrm Lvl:** Main

Floorplan & Room Dimensions:

Level	Name	Dims	Ceil.	Remarks	Level	Name	Dims	Ceil.	Remarks
Main	Bath 3/4	9.11x11.4			Main	Laundry	7x10		
Main	Bath Full	4.11x13.11			Main	Living	21x13.11		
Main	Bedroom	18x13			Main	Main Bedroom	17x13		
Main	Dining	9x13			Main	Pantry	6x13		
Main	Kitchen	14x13							

Location Information:

Address: 1787 17th Trail - Cotopaxi, CO 81223 **Elem. School:** Cotopaxi
Area: Fremont County **Section:**
County: Fremont **Range:** **Middle School:**
Subdivision: Florida-Colo Acres **Township:** **Jr High School:**
Gate #: **Tax APN #:** 76014444 **High School:**
Legal Desc.: SE4SE4NE4NW4 SEC 26-20-73 FLA-COLO ACRES TR-42 **Taxes Annual:** \$934.68 **GPS:** N38° 17.334' W105° 30.63'
Directions: Hwy 69N, right on Copper Gulch Rd for 8 miles, left on Reed Rd. for 0.5 mile, right on 17th Trail, home is 0.3 miles on left. 38.28889330 -105.51050320

Construction Information:

Exterior Constr: Lap, Siding **Roof Type:** Composition, Shingle **Foundation:** Crawl Space
Heating: Propane- FA **Air Cond.:** Central Air

Comments/Remarks: Pride of Ownership Can Be Yours

Public Remarks: When the list of quality features and improvements exceeds 2 typed pages, you know you're witnessing a lovingly designed and cared-for home. This is definitely not your average manufactured home, as evidenced by the expansive interior, cathedral ceilings, extra insulation in both the foundation and the home, double-pane windows, covered deck with recessed lighting, central air conditioning, HUGE shower in main bedroom's bath, tankless water heater, dual convection ovens, custom backsplashes, two refrigerators, a stand-alone freezer, walk-in pantry and closets, and tons of storage space. Additional property enhancements include 20 solar panels with separate electrical panel to connect to the generator or batteries, an RV dumping site, conditioned crawl space and two sheds. Enjoy the energy-saving use of passive sunlight during the colder months, and shielding the intense summer sunshine with 2" blinds throughout the house. Situated on 2.36 acres accessed a short distance from county-maintained Reed Road, the home boasts 360-degree views of the surrounding hills and mountains. A list of improvements is available, call for your showing today!

Utilities Services:

Utilities: Legal Access: Yes, Phone: Cell Service, Power Source: Solar, Power: Line On Meter, Propane: Hooked-up, Septic: Has Tank, Water: Private Well (Drilled)

Features:

Features Prop.: Access- All Year, Corner Lot, Deck(s), Dog Run, Out Buildings, Outdoor Lighting, Patio- Covered, Porch, RV Hookups, Storage Shed, View of Mountains
Features Int.: Ceiling Fans, Flooring: Carpet, Flooring: Laminate/Vinyl, Vaulted Ceilings, Walk-in Closets, Window Coverings
Appliances: Dishwasher, Freezer, Garbage Disposal, Microwave, Oven/Range, Refrigerator, W/D Hookups, Washer & Dryer

Listed By: Kimberly Powers - Summit & Main Realty Group

For more information contact: Summit & Main Realty Group - Office: (719) 792-9108



MLS #: 2516463 continued...

If you have any questions or would like more information about this listing or any other listings in the MLS, please contact:



Summit & Main Realty Group
95 Main Street Suite A, PO Box 867
Westcliffe, CO 81252

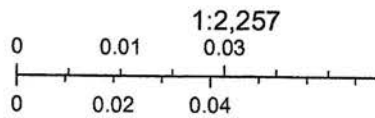
Office: (719) 792-9108
www.summitandmain.com

Fremont County Regional GIS Web Map



11:18 AM

FC Parcels



Google Maps

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Equal Housing Opportunity: All listings are offered in compliance with the Federal Fair Housing Act. The accuracy of this information is not guaranteed. It is not to be relied upon and should be verified by the buyer.

House Custom Designed Enhancements

1. House design

Increased length of house by 6 ft to allow for 6 x 13 ft pantry

- a. Refrigerator/freezer combo in pantry
- b. Added additional cabinets and shelving for food and other storage of small food preparation appliances in pantry
- c. Converted 2 small bedrooms into one large room with murphy bed and two 6 ft tall cabinets for small TV and extra storage. Can be used as bedroom and office space.
- d. Cathedral ceiling in large front room with 6 trapezoid windows for extra light
- e. Master bedroom has 13 by 6 ft closet with shelving and rods on three sides
- f. Master Bedroom has 8 x 4 ft shower with seating and grab bar, rain shower head and separate adjustable and hand-held shower head above seat. Shower has custom tiled walls
- g. Custom back splash in both bathrooms, utility room and kitchen
- h. Coffered ceiling inserts in both bedrooms with lighting
- i. 2" blinds throughout the house

2. Foundation

- a. Insulated concrete forms (ICF) foundation
- b. Conditioned 4 ft high crawl space
- c. Water pressure tank, electrical and plumbing connections easy to reach
- d. Plastic cover on dirt floor
- e. Lights in crawl space and ladder to access
- f. Can be used as storage area
- g. Outside wrap on ICF foundation to prevent erosion by sun
- h. Extra batten insulation around inside of crawlspace

3. Insulation

House was built to withstand a northern state colder weather environment

- a. R50 insulation in attic (ceiling access through master bedroom closet)
- b. R25 insulation in walls
- c. Windows – Double pane with argon gas for extra protection from UV and heat loss

4. Electric/Heating

- a. 20 panel solar 6.3 KW PV system – currently connected to grid
- b. Separate electric panel to connect a generator or batteries for off-grid system
- c. Current cost for connecting to grid 9 +/- months at \$39, reimbursement pays for other months
- d. Property is considered by LP company as low energy user
*Note this is due to the extra insulation and foundation construction,
LP company offers a year-round monthly payment
- e. Outside electric outlets on deck, next to front door and on north side of house
- f. Second 20-amp breaker for stand-alone freezer
- g. CAT5 and phone connections in living room, pantry, both bedrooms
- h. Outlets every 6 feet in each room

- i. Electrical panel is fully labeled
 - j. Outlets on center aisle, with breaker reset button
 - k. Energy efficient furnace located in small closet in utility room
5. Deck
- a. Steel beam under the front deck for extra stability
 - b. Deck was roofed and has recessed lighting
 - c. 7'8" wide stairs off deck, fencing has gate on south side for easy access to stairs
 - d. Gate added for child safety at top of deck
 - e. Both sides under deck framed in
 - f. Fencing connected to deck
6. Fire resistant Hardie Board siding
7. Owen Corning Shingles with six nail pattern
8. Water
- a. Tankless water heater located behind electric panel and accessed through coat closet in utility room
 - b. Dura tub sink in utility room where washer/dryer located
 - c. Additional cupboards above sink and washer/dryer
 - d. Outside water connections on south side by deck and on north side of house
 - e. One rain barrel (can have up to four)
9. Appliances were all purchased in spring of 2019, except refrigerator/freezer combo in kitchen which in 2020 replaced original stand-alone refrigerator that had a factory defect.
10. Kitchen
- a. Recessed lights (2 different banks)
 - b. Three pendent lights directly over center aisle
 - c. Center aisle
 - 1. 4 place seating on one side
 - 2. Bookcases/shelving at each end
 - 3. Lower cabinets on one side
 - 4. Veggie sink
 - d. Pot filler over the 5-burner stove top
 - e. In-wall Dual convection ovens

Additional information

- Two sheds, tall shed was built mouse proof.
- Thermostat is programable by day and time.
- Air conditioner is rarely used due to house maintaining 68-74 temperature even when it is 90+ degrees outside.
- Heat is usually not turned on until November and turned off in late March. House maintains 64-68 temperature during fall and spring when outside temperatures are still varying.
- We practice passive heating/cooling rules of opening windows at night during summer to cool house down then closing blinds and windows during day. Blinds open during the day in the winter to naturally heat rooms. Also, we reverse ceiling fans rotation to draw up or down the heat depending of season.

"Form No.
GWS-31
9/2016

WELL CONSTRUCTION AND YIELD ESTIMATE REPORT

State of Colorado, Office of the State Engineer
1313 Sherman St., Room 821, Denver, CO 80203 303.866.3581
and

For Office Use Only
RECEIVED

MAY 15 2019

**WATER RESOURCES
STATE ENGINEER
COLO**

1. Well Permit Number: 312451 Receipt Number: 3689842

2. Owner's Well Designation:

3. Well Owner Name: ZUIDEMA, MYRON

4. Well Location Street Address:

5. GPS Well Location Zone 12 Zone 13 Easting: 455332 Northing: 4238042 County: FREMONT

6. Legal Well Location: NE 1/4, NW 1/4, Sec., 26 Twp 20. N or S Range 73 E or W 6TH P.M.

Distances from Section Lines: _____ ft. from _____ N or S _____ section line, and _____ ft. from _____ E or W _____ section line

Subdivision: FLORIDA COLORADO ACRES Lot 42 Block _____ Filing (Unit) _____

7. Ground Surface Elevation: _____ feet Date Completed: 5/6/2019 Drilling Method: AIR PERCUSSION

8. Completed Aquifer Name: _____ Total Depth: 180 feet Depth Completed: 180 feet

9. Advance Notification: Was Notification Required Prior To Construction? Yes No, Date Notification Given: _____

10. Aquifer Type: Type I (One Confining Layer) Type I (Multiple Confining Layers) Laramie-Fox Hills
(Check one) Type II (Not overlain by Type III) Type III (overlain by Type III) Type III (alluvial/colluvial)

11. Geologic Log:					12. Hole Diameter (in.)		
Depth	Type	Grain Size	Color	Water Loc.		From (ft)	To (ft)
0-4	TOPSOIL		BROWN		8 3/4	0	39
4-18	GRANITE		RED		6 1/8	39	180
18-110	GRANITE		TAN				
110-143	GRANITE		GRAY				
143-180	GRANITE		RED	90/160			

13. Plain Casing				
OD (in)	Kind	Wall Size (in)	From (ft)	To (in)
6 5/8	STEEL	0.188	1+	39
4 1/2	PVC	0.237	20	140
4 1/2	PVC	0.237	160	180

Perforated Casing				
OD (in)	Kind	Wall Size (in)	From (ft)	To (in)
4 1/2	PVC	0.237	140	160

14. Filter Pack: Material _____ Size _____ Interval _____

15. Packer Placement: Type _____ Depth _____

16. Grouting Record:

Material	Amount	Density	Interval	Placement
CEMENT	4SACKS	15.3	0-39	POSITIVE
				VIBRATED

Remarks:

17. Disinfection: Type CHLORINE Amt. Used 1 GALLON WATER INJECTED

18. Well Yield Estimate Data: Check box if Test Data is submitted on Form GWS - 39, Well Yield Test Report.

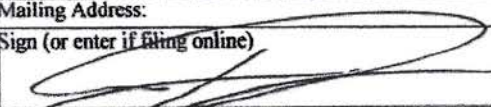
Well Yield Estimate Method: AIR LIFT

Static Level; 60 Estimated Production Rate 10 gpm.

Date/Time measured: 5/6/2019 1:00 Estimate Length (hrs) 1

Remarks:

19. I have read statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of Water Well Construction Rules, 2 CCR 402.2. The filing of a document that contains false statements is a violation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.

Company Name: <u>ARKANSAS VALLEY DRILLING</u>	Email: <u>TLJBGRS@AOL.COM</u>	Phone w/area code: <u>(719) 276-6847</u>	License Number: <u>1305</u>
Mailing Address:			Date: <u>5/6/2019</u>
Sign (or enter if filing online) 		Print Name and Title <u>TODD A. MOORE</u>	



Form No. GWS-32 10/2016	PUMP INSTALLATION AND PRODUCTION EQUIPMENT TEST REPORT State of Colorado, Office of the State Engineer 1313 Sherman St., Room 821, Denver, CO 80203 303.866.3581 www.water.state.co.us and dwrpermitsonline@state.co.us		For Office Use Only RECEIVED AUG 22 2019 WATER RESOURCES STATE ENGINEER COLO
1. Well Permit Number: 312451		Receipt Number: 3689842	
2. Owner's Well Designation:			
3. Well Owner Name: ZUIDEMA, MYRON & SHARON			
4. Well Location Street Address: 1787 17TH TRAIL, COTOPAXI, CO 81223			
5. GPS Well Location: <input type="checkbox"/> Zone 12 <input checked="" type="checkbox"/> Zone 13 Easting: 455332 Northing: 4238042 County: FREMONT			
6. Legal Well Location: NE 1/4, NW 1/4, Sec. 26 Twp. 20 <input type="checkbox"/> N or S <input type="checkbox"/> Range 73 <input type="checkbox"/> E or W <input checked="" type="checkbox"/>			
Distances from Section Lines: _____ ft. from <input type="checkbox"/> N or S <input checked="" type="checkbox"/> sec. line, and _____ ft. from <input type="checkbox"/> E or W <input checked="" type="checkbox"/> sec. line			
Subdivision: FLORIDA COLORADO ACRES _____, Lot 42, Block _____, Filing (Unit) _____			
7. Check Installation Type: <input checked="" type="checkbox"/> Initial Pump Installation <input type="checkbox"/> Replacement Pump <input type="checkbox"/> Change in Depth Only <input type="checkbox"/> Repair			
8. Pump Data: Type: SUBMERSIBLE Date Installed(mm/dd/yyyy): 08/12/2019			
Pump Manufacturer: FRANKLIN Pump Model No. 7FA05S4-3W230			
Design GPM: 7 at RPM 3450 HP 1/2 Volts 230 Full Load Amps 6.0			
Pump Intake Depth: 160 Feet, Drop/Column Pipe Size Inches, 1 Kind of Drop Pipe SCH 80			
Additional Information for Pumps Greater Than 50 GPM: Turbine Driver Type: <input type="checkbox"/> Electric <input type="checkbox"/> Engine <input type="checkbox"/> Other _____			
Design Head: _____ feet Number of Stages: _____ Shaft size: _____ inches			
9. Other Equipment:			
Airline Installed: <input type="checkbox"/> Yes <input type="checkbox"/> No, Orifice Depth ft. _____ Monitor Tube Installed: <input type="checkbox"/> Yes <input type="checkbox"/> No, Depth ft. _____			
Flow Meter Mfg. _____ Meter Serial No. _____			
Meter Readout: <input checked="" type="checkbox"/> Gallons, <input type="checkbox"/> Thousand Gallons, <input type="checkbox"/> Acre feet Beginning Reading: _____			
10. Cistern Information: Material: _____ Capacity: _____ gallons Date Installed: _____			
11. Production Equipment Test Data: <input type="checkbox"/> check box if data is submitted on Form Number GWS-39 Well Yield Test Report.			
Date: 8/12/19 _____			
Total Well Depth: 180 ft. Time: 11:00 _____			
Static Level: 60 ft. Rate (gpm): 9 _____			
Date Measured: 08/12/2019 Pumping Level (ft): 160 _____			
12. Disinfection: Type: CHLORINE Amt. Used: 1 CUPS			
13. Notification: Was Advanced Notification Required Prior to Installation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, Date Notification Given: _____			
14. Water Quality analysis available: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please submit with this report.			
15. Remarks:			
16. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402-2. The filing of a document that contains false statements is a violation of section 37-91-108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online, the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.			
Company Name: RICKS PUMP SERVICE INC		Email: rickspumpservice@yahoo.com	Phone w/area code: (719) 275-7384
		License Number: 1331	
Mailing Address: 1316 Elm Ave., Canon City, CO 81212			
Sign (or enter name if filing online) Rick Greenstreet		Print Name and Title Rick Greenstreet - Owner	Date: 08/21/2019





Date Applied: 10/16/2018
 Permit Fee: \$ 283.00
 Use Tax: \$ 33.55
 Colorado State Surcharge: \$ 23.00
 Total: \$ 339.55

Septic Permit #: S19-027
 Expiration Date: 3/20/2020
 Paid By: CK # 2274
 Receipt #: 819866

Inspection Request Line (719) 276-7373

Building Permit # (if applicable): _____

FREMONT COUNTY ON-SITE WASTEWATER TREATMENT SYSTEM PERMIT

Owner: Myron Zuidema

Applicant: RME, LLC.

Mailing Address: 3244 La Avenida De San Marcos

Mailing Address: 2976 L Path

City, State, Zip Code: Santa Fe, NM. 87507

City, State, Zip Code: Cotopaxi, CO. 81223

Phone Number: 1-505-310-1925

Phone Number: 719-371-2426

OWTS Contractor: RME, LLC.

Contractor Phone: 719-942-4311 License #: 336

Construction Address: 1787 17th Trail, Cotopaxi

Gate/Combination Lock #: _____ Directions From Major Thoroughfare: (Include Legible Map & Directions)

Legal Description: Sch# 76014444

Type/Use of Structure: Single Family Dwelling

Lot Size: 2.36 Acres Source, Type of Water: Well

Maximum Potential # of Bedrooms: 2 Basement: NO Washer: YES Garbage Disposal: NO

Engineering Firm: GT Structural Engineering

Project Number: _____

Type of System: OWTS - New System

Absorption Tank Size: _____ Gallons

Absorption: 420 Square Feet Perc Rate: 2 P. Holes

Min./Inch _____

NOTES: Keep excavation shallow - Locate in designated area - Make all separations

Is Site Within 400 Feet of Sewer Main? Yes No

If YES, Is A Letter of Refusal To Connect Attached? N/A

Is Site In A Designated Flood Plain? Yes No

I certify that the On-Site Waste Water Treatment System (OWTS) described in this permit will be installed in compliance with the attached permit and the Fremont County and State of Colorado Regulations. I understand that I will be responsible for the operation, maintenance, and performance of the OWTS. I am also aware that this permit does not constitute approval by the local health department or its employees of liability for failure of any OWTS. Request for inspection will be required after installation of pipe and gravel, not including fill of hay, straw or similar porous material) unless otherwise specified by engineer. The system must be properly protected from off site drainage, vehicular traffic, and livestock. This system and its running order is the sole responsibility of the owner. After this system has been inspected and approved by the inspector it shall be assumed that this system is in proper working order. Approval of this permit does not constitute a guarantee or assurance that the proposed use is permitted within the zone district for the property, nor does it guarantee or assure that any proposed building complies with applicable land use and requirements for the zone district, such as setbacks, height restrictions, or other similar issues. You will be the responsible party to obtain and verify that all proposed uses are allowed in the zone district and conform to the requirements of the zone district for the property.

Owner or Applicant's Signature: Signature on File Date: 10/16/2018

FINAL OWTS INSPECTION

Tank Information: Size: 1000 Gallons Number of Compartments: TWO
 Is Entrance and Exit Sealed: Yes No Is Tank Level? Yes No
 Pipe Inlet-Outlet?: Sch 40 Distance From Building: 13 1/2 Feet Distance From Well: 50+ feet
 Absorption Bed Information: Type of System Installed: Chambers in Trenches
 Pipe & Rock: Chamber: Absorption Bed: Absorption Trench:
 Number Of Trenches: 3 Total Square Feet: 432 Width: 25 Length: 50'
 Is Pipe Level?: Yes No If Bed, Is Pipe Been Connected?: Yes No Gravel Depth: _____ Inches
 Distance From Building: 37 feet Distance From Well: 100+ feet
 Is System Located In Recommended Area?: Yes No

DEPARTMENT USE ONLY:

Installation Has Been: Approved Disapproved

NOTES: 36 Chambers in a bed

Approved By: Wendy Sanchez

Date Approved: 4-21-2019

Prepared By: Danielle Adamic

Date Prepared: 3/20/2019



R.O.C. SITE VISIT MEETING TELEPHONE

CLIENT MYRON & SHARON ZUIDEMA PAGE 1 CONT. ON +
PROJECT 1787 17TH TRAIL PROJ. NO. 18.1135 PREP JR DATE 9.15.18
AREA COTOPAXI, CO SUB NO. _____ CHECK _____ DATE _____
SUBJECT _____ REF. DWG. NO. _____

SEPTIC SYSTEM DESIGN FOR A 2-BEDROOM HOME.

THE DESIGN IS BASED ON A SOIL CLASSIFICATION OF '2' FOR A SANDY LOAM SOIL. THERE WAS NO SIGN OF SOLID BEDROCK OR HIGH WATER IN THE TWO SOIL PROFILE TRENCHES.

FLOW RATE = 75 GALLONS / PERSON / DAY

TOTAL FLOW = $2_{BR} \times 75_{GPD} \times 2_{PERSONS} = 300 \text{ GPD}$

$A_{REQD} = \frac{300}{0.6} \times 1.2_{GRAVITY} \times 0.7_{10\%} = 420 \text{ SF}$

NO OF INFILTRATORS = $\frac{420}{12} = 35$ } SAY 36

FIELD ORIENTATION = 4 ROWS; 12' WIDE x 40' LONG

G/T Structural Engineering
8435 CR 144
Salida, Colorado 81201
719-539-3950
bolte@gt8435.com

September 17, 2018
Project No. 18-1135

Myron & Sharon Zuidema
1787 17th Trail
Cotopaxi, CO 81223
Sent via email to csconstructionllc.co@gmail.com

RE: Septic system design
1787 17th Trail
Cotopaxi, CO

Dear Myron & Sharon:

The following is a design summary for the construction of an OWTS for a new home at the above captioned address. The OWTS is not designed to treat water produced by the back-flushing of a water softener; a separate method of disposal is required when a water softener is located in the dwelling. The design is based on a 2 bedroom residence and is in compliance with state Regulation #43 and applicable county ordinances and regulations.

If additional site visits are required, by the engineer of record, during the construction of the system and/or before the system is covered, notification by the installer or general contractor is required at least 24 hours prior to any site visits. The fee for additional services is not included in the original septic system design.

This design is based on soil type '2'; sandy loam which gives an LTAR of 0.60. The soil samples were taken in the 8'-0" deep soil profile trenches. The soil gradation at the depth of the bottom of the infiltrators was determined by sieve analysis to be primarily 6% small gravel (retained on a #4 sieve), 18% coarse sand (retained on a #10 sieve), 43% medium sand (retained on a #40 sieve) and 25% fine sand (retained on a #200 sieve) and 8% silt (passing a #200 sieve). There were no signs of high water at the time of my site visit on September 1, 2018. Also, there was no sign of bedrock or an impervious soil horizon.

Based on this criterion, the installed system will be a gravity system for treatment level 1. The required tank capacity is 1000 gallon capacity, denoted as Valley Precast item #1000M-2CP or equal. The leach field will be comprised of 36 "Quick4 Standard Chamber" infiltrators with an absorption field size of 12'-0" wide x 40'-0" long minimum. The bottom of the infiltrators will then be installed at 2'-0" below original grade. Any

detail or specification that is not shown herein is to be constructed in compliance with applicable state and county regulations. Attached hereto are the design calculations, site plan and construction details.

This design is based on information made available to us at this time. Should additional information become available, we reserve the right to determine the impact, if any, of the new information on the design and to revise the design if necessary and warranted by the discovery of additional information.

Please contact our office if you have any questions regarding this letter.

Sincerely,

Gary L. Bolte, P.E.
GLB/mdt

Encl: Calculations, specifications & drawings



GRAVITY SEPTIC INSTALLATION RECOMMENDATIONS

ALL WORK AND OUR RECOMMENDATIONS ARE IN COMPLIANCE WITH STATE, COUNTY REGULATIONS & MANUFACTURES RECOMMENDATIONS. IF NOT SPECIFIED HEREIN, SUBSTITUTIONS USING "OR EQUAL" ITEMS CAN BE MADE.

DESIGN DATA:

- A. REQUIREMENTS: THIS SPECIFICATION IS FOR A SINGLE FAMILY RESIDENCE. THE SIZING OF THE SYSTEM IS BASED ON THE NUMBER OF BEDROOMS.
- B. THE CLASSIFICATION OF THE ON-SITE SOIL WILL BE DETERMINED PER SAMPLE TAKEN AT SITE VISIT.
- C. SAND FILTER SYSTEMS REQUIRE A PRESSURIZED SYSTEM PER STATE AND COUNTY REGULATIONS.
- D. SIZE ADJUSTMENT FACTORS USED ARE PER TABLES IN THE COUNTY REGULATIONS.
- E. MINIMUM ABSORPTION AREA IS STATED ON DESIGN DRAWING.
- F. INFILTRATOR QUICK4 STANDARD CHAMBERS; 12.0 SQ. FT. ABSORPTION AREA PER CHAMBER.

SEPTIC TANK:

- A. MINIMUM TWO CHAMBER TANK SIZE IS STATED ON DESIGN DRAWING. AN EFFLUENT PUMP IF REQUIRED IS TO BE INSTALLED IN THE SECOND COMPARTMENT.
- B. TANK SHALL BE A WATERTIGHT MONOLITHIC PRECAST CONCRETE MEETING ASTM, C-1227 SPECIFICATIONS, WITH MINIMUM 3,000 PSI CONCRETE CONTAINING TYPE II, SULFATE RESISTANT CEMENT, OR APPROVED EQUAL. THE TANK SHALL BE SIZED PER COUNTY REGULATIONS.
- C. THE TANK SHALL HAVE ACCESS PORTS WITH A 20 INCH MINIMUM DIMENSION AND FITTED WITH A TIGHT COVER & LIFTING RINGS. PVC OR CONCRETE RISERS WITH TIGHT COVERS SHALL BE INSTALLED ABOVE THE ACCESS PORTS AS NECESSARY SO ACCESS IS NO MORE THAN 8" BELOW FINISHED GRADE. IF THE ACCESS PORTS ARE NOT VISIBLE FROM GRADE, A PHYSICAL MARKER VISIBLE FROM THE SURFACE SHALL BE INSTALLED ON TOP OF EACH RISER.
- D. LIQUID DEPTH WITHIN THE TANK SHALL BE NO LESS THAN 30" & SHALL NOT EXCEED THE TANK LENGTH OR 60".
- E. PROVIDE FOR FREE AIR VENTILATION IMMEDIATELY BELOW TANK CEILING & AT LEAST 2" ABOVE THE MAXIMUM LIQUID LEVEL.
- F. PROVIDE SANITARY TEE INLETS, OR OTHER APPROVED BAFFLING. THE INLET INVERT SHOULD BE AT LEAST 3" HIGHER THAN THE OUTLET INVERT.
- G. TRANSFER OF LIQUID FROM THE FIRST COMPARTMENT TO THE SECOND COMPARTMENT OF THE TANK SHALL BE AT LEAST 14" BELOW THE OUTLET INVERT, BUT NOT IN THE SLUDGE ZONE.
- H. THE TANK SHOULD BE COVERED WITH A MINIMUM OF 24" OF SUITABLE GRANULAR MATERIAL FREE OF ORGANICS, BOULDERS OR DEBRIS. FROZEN MATERIAL SHOULD NOT BE USED. TANK BACKFILL SHOULD BE PLACED & COMPACTED IN 12" LIFTS TO REDUCE THE POTENTIAL FOR SETTLEMENT.

SEWAGE/EFFLUENT DISTRIBUTION SYSTEM:

- A. ALL PIPING COMPONENTS OF THE SYSTEM SHALL BE 4" SCHEDULE 40 OR EQUIVALENT PIPE. ALL COMPONENTS OF THE PIPING SYSTEM (I.E PIPE, BONDING AGENT, FITTINGS) SHALL BE COMPATIBLE. NO ELBOWS SHALL EXCEED 45 DEGREES UNLESS LONG SWEEPING ELBOWS ARE USED.
- B. PIPING SHALL HAVE A MINIMUM OF 36" COVER, EXCEPT IN THE AREA OF THE EFFLUENT PUMP OUTLET & BEDDED WITH AT LEAST 4" OF CLEAN, GRANULAR SOIL FREE OF ORGANICS AND ROCKS LARGER THAN 1 INCH IN DIAMETER. FILL BENEATH ANY PIPING SHALL BE COMPACT.
- C. SEWAGE PIPING SHOULD BE SCHEDULE 40 & PROVIDED WITH CLEANOUTS AT A MAXIMUM SPACING OF 100 FEET WITH A MINIMUM OF ONE CLEAN-OUT AT THE DWELLING.
- D. INSTALL A 4" SCHEDULE 40 MANIFOLD HEADER AT THE ENTRY END OF THE FIELD TO ROUTE THE FLOW TO THE INFILTRATOR CHAMBERS.

SUBSURFACE ABSORPTION SYSTEM:

- A. CONSTRUCTION EQUIPMENT & OTHER VEHICLES ARE TO BE KEPT OFF THE ABSORPTION FIELD.
- B. STRIP TOPSOIL FROM THE ABSORPTION FIELD & STOCKPILE.
- C. EXCAVATE THE ABSORPTION FIELD AREA PER DESIGN DRAWING. IF SAND IS REQUIRED, PLACE THE SAND FILTER MATERIAL IN 12" LIFTS. THE SAND SHALL MEET ASTM 33 SPECIFICATION.
- D. THE CHAMBERS SHOULD BE INSTALLED PER DESIGN & THE MANUFACTURER'S RECOMMENDED PROCEDURES.
- E. THE CHAMBERS SHOULD HAVE A MINIMUM COVER OF 12 INCHES.
- F. INSPECTION PORTS CONSISTING OF 4" DIAMETER PVC PIPE SHOULD BE SECURED TO THE CHAMBER WITH A COLLAR & EXTENDED FROM THE CHAMBER TO 1'-0" ABOVE GRADE. THE LOWER END OF THE PORT SHOULD BE SUSPENDED APPROXIMATELY 6" ABOVE THE SAND BED. THE PORTS SHOULD BE CAPPED WITH A SCREW CAP & VENTED WITH 4-1/8" DIAMETER HOLES DRILLED BELOW THE CAP.
- G. CONSTRUCTION OF THE OSWS SHOULD BE OBSERVED BY THE COUNTY HEALTH DEPARTMENT PRIOR TO FINAL BACKFILLING.
- H. THE SYSTEM CONTRACTOR IS RESPONSIBLE FOR PREPARING & PROVIDING THE AS-BUILT PLANS OF THE INSTALLED SYSTEM TO THE BUILDING AUTHORITY WHEN REQUIRED.

OPERATION AND MAINTENANCE:

- A. THE SEPTIC TANK SHOULD BE INSPECTED AS LEAST EVERY 2 YEARS & PUMPED WHEN THE SLUDGE DEPTH IN ANY COMPARTMENT REACHES 30% TO 40% OF THE TOTAL TANK DEPTH OR WITHIN 8" OF THE BOTTOM OF THE LIQUID TRANSFER PORT (TYP. 3-5 YEARS). THE PUMP HOUSING SCREEN SHOULD BE WASHED AND CLEANED AT THE TIME OF THIS INSPECTION.
- B. ELECTRIC TANK HEATERS ARE AVAILABLE & SHOULD BE CONSIDERED FOR USE AT LEAST IN THE SECOND COMPARTMENT DURING PERIODS OF STARTUP, AFTER CLEANING & DURING WINTER MONTHS.

- C. A MILD DETERGENT OR BAKING SODA IS RECOMMENDED TO CLEAN TOILETS, SINKS, SHOWERS, ETC. INSTEAD OF COMMERCIAL BATHROOM CLEANERS.
- D. BOILING WATER OR A DRAIN SNAKE IS RECOMMENDED TO CLEAR A CLOGGED DRAIN INSTEAD OF CAUSTIC DRAIN OPENERS.
- E. DO NOT PUT GREASE, DISPOSABLE DIAPERS, PLASTICS, LATEX PAINT, PESTICIDES, SOLVENTS, OVEN CLEANERS, DEGREASERS OR HAZARDOUS CHEMICALS INTO THE SYSTEM.



Item #
1000M-2CP

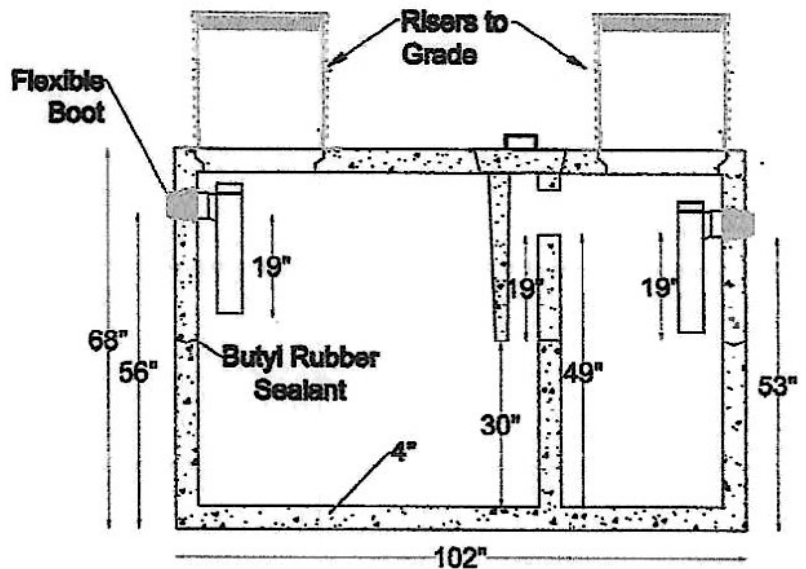
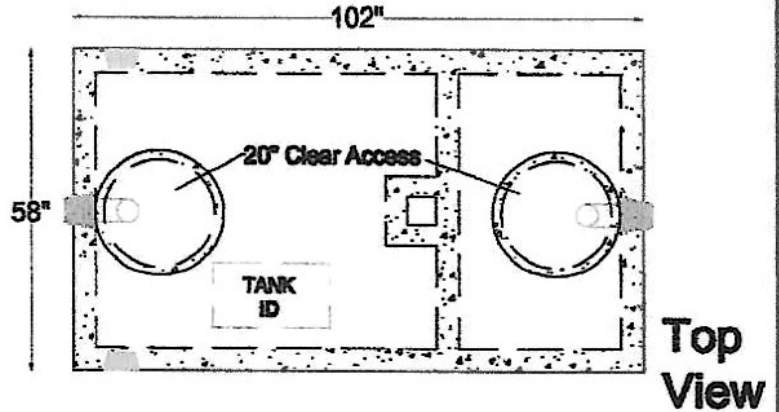
1000 Gallon Mid-Seam - 2CP

DESIGN NOTES

- Design per performance test per ASTM C1227
- Top surface area 46.25 ft²
- f'c @ 28 days; concrete = 6,000 PSI Min.

Installation:

- Tank to be set on 5" min. sand bed or pea gravel
- Tank to be backfilled uniformly on all sides in lifts less than 24" and mechanically compacted
- Excavated material may be used for backfill, provided large stones are removed
- Excavation should be dewatered and tank filled with water prior to being put in service for installation with water table less than 2' below grade
- Meets C1644-06 for resilient connectors
- Inlet and Outlet identified above pipe
- Delivered complete with internal piping
- 4' Maximum bury depth



ALLOWABLE BURY (Based on Water Table)	
WATER TABLE	ALLOWABLE EARTH FILL
0' - 0"	2' - 0"
1' - 0"	3' - 0"
2' - 0"	3' - 0"
3' - 0"	4' - 0"
DRY	4' - 0"

Digging Specs	Invert		Dimensions			Net Capacity			Net Weight		
	Inlet	Outlet	Length	Width	Height	Inlet Side	Outlet	Total	Top	Bottom	Total
11' Long x 7' Wide											
56" below inlet	56"	53"	102"	58"	68"	677 gal	331 gal	1008 gal	5160 lbs	5160 lbs	10320 lbs

VALLEY PRECAST, Inc.
Buena Vista, Colorado

Phone: 719-395-6764
Fax: 719-395-3727
Website: www.valleyprecast.com
Email: frontdesk@valleyprecast.com

MINIMUM SETBACKS FOR OWTS SYSTEM

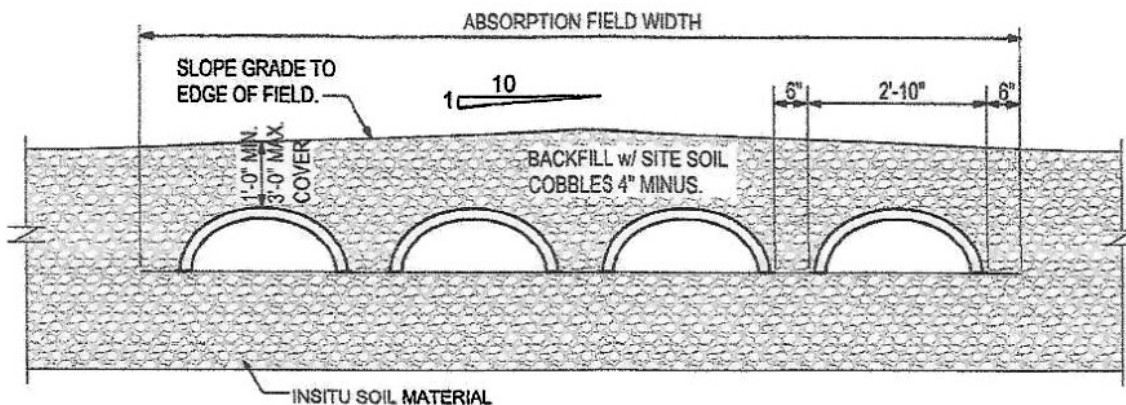
	ABSORPTION BED	SEPTIC TANK	EFFLUENT LINES
SPRING OR WELL	100'	50'	50'
WATER LINE	25'	10'	10'
CISTERN	25'	25'	25'
OCCUPIED BUILDING	20'	5'	0'
PROPERTY LINE	10'	10'	10'
IRRIGATION DITCH	50'	50'	50'
WATER COURSE	50'	50'	50'
DRY GULCH	25'	10'	10'
SEPTIC TANK	6'	0'	0'

GENERAL NOTES:

1. ALL WORK TO BE DONE IN COMPLIANCE WITH COUNTY ENVIRONMENTAL DEPARTMENT DESIGN REGULATIONS & STATE REG. #43.
3. ABSORPTION FIELD TO BE CROWNED & COVERED WITH 6" MINIMUM TOPSOIL TO PROVIDE BASE FOR VEGETATION COVER.
4. PROVIDE 2% MINIMUM SLOPE ON PIPE TO SEPTIC FIELD.

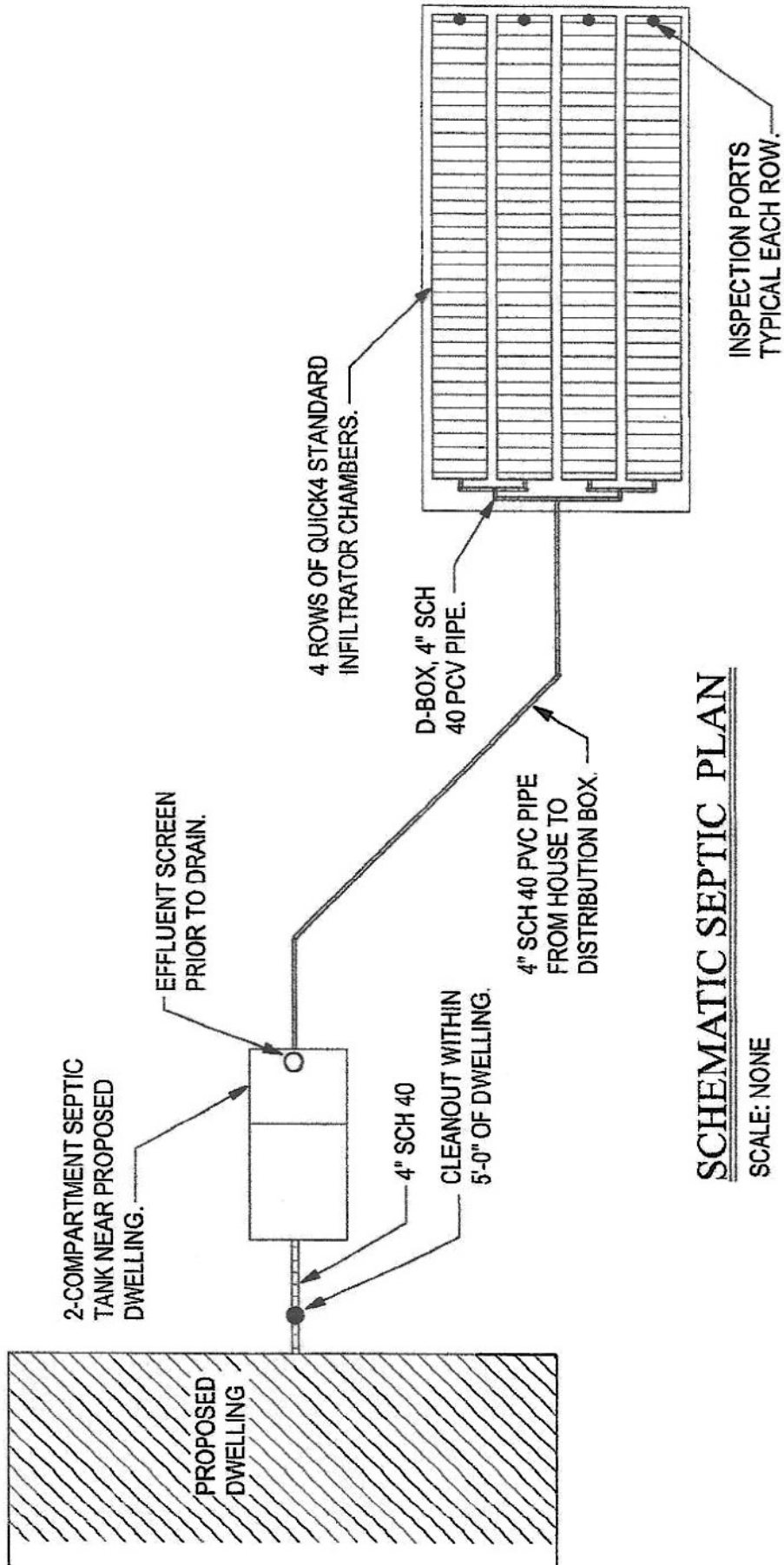
SYSTEM NOTES:

1. THIS TANK IS SIZED PER COUNTY & STATE REGULATIONS.
2. TOP OF TANK TO BE 2'-0" BELOW GRADE.
3. INSPECTION RISER @ DOWNSTREAM END OF EACH ROW OF INFILTRATORS IN FIELD.



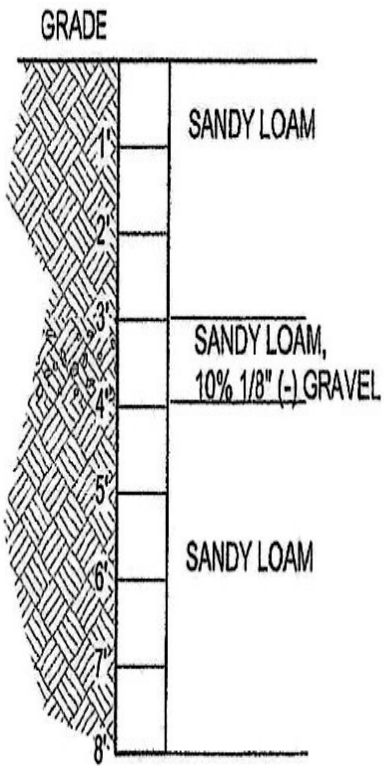
LATERAL SECTION ABSORPTION BED

SCALE: NONE

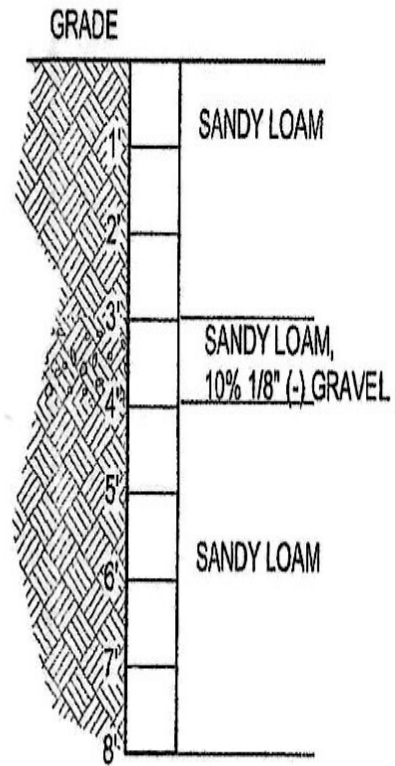


SCHEMATIC SEPTIC PLAN

SCALE: NONE



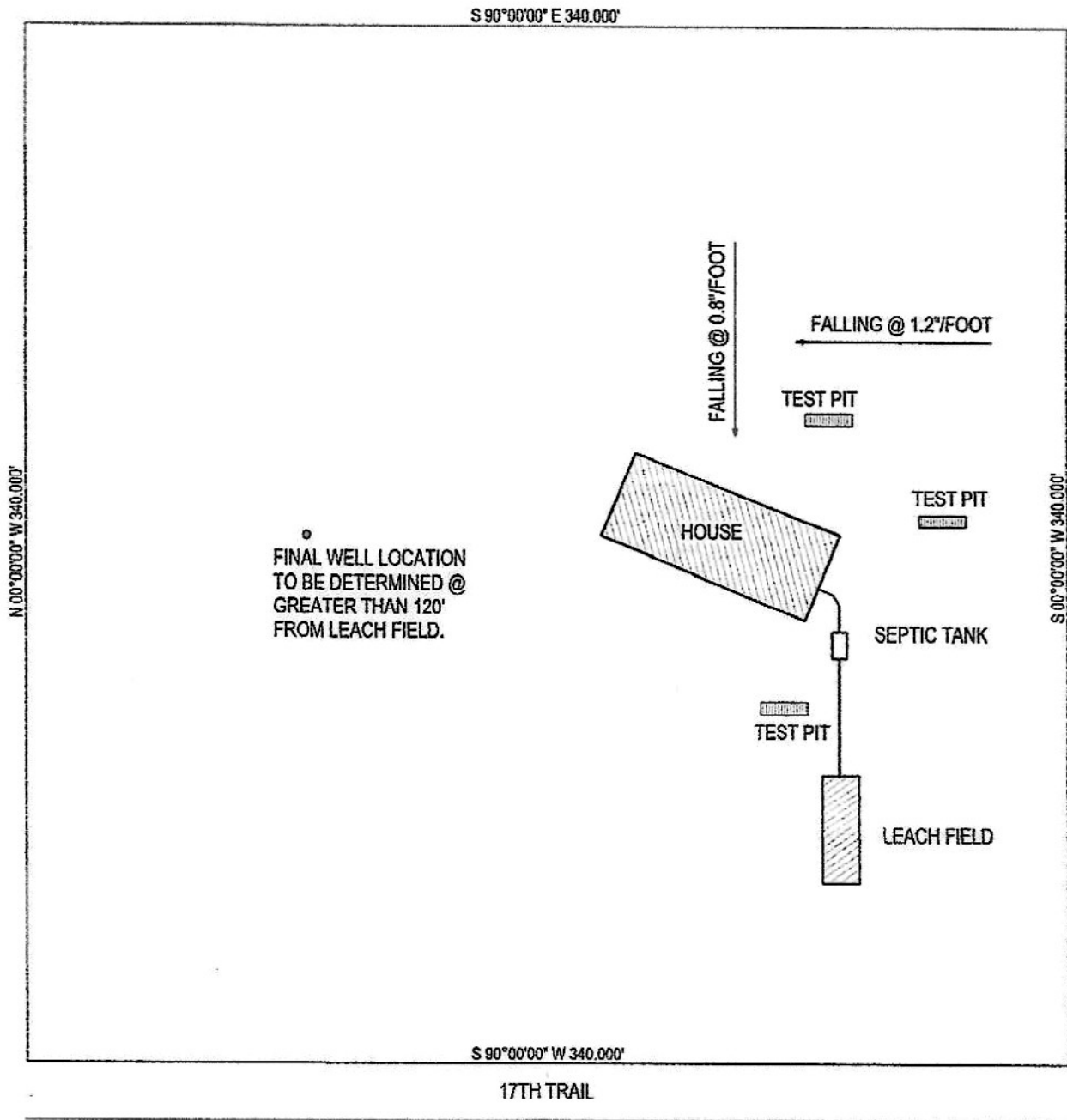
SOIL PROFILE HOLE #1



SOIL PROFILE HOLE #2

SOIL PROFILE HOLES

1787 17TH TRAIL
COTOPAXI, CO



SITE PLAN FOR 1787 17th TRAIL
COTOPAXI, CO

SCALE: 1" = 40.00'



Equal Housing Opportunity: All listings are offered in compliance with the Federal Fair Housing Act. The accuracy of this information is not guaranteed. It is not to be relied upon and should be verified by the buyer.