Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

160 Partridge Lane
Property Address

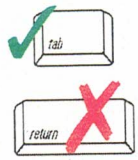
Betsy Dangel
Owner's Name

Owner information is required for every page.

Concord	MA	01742	8/7/2023
City/Town	State	Zip Code	Date of Inspection

Inspection results must be submitted on this form. Inspection forms may not be altered in any way. Please see completeness checklist at the end of the form.

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A. Inspector Information

Gerardo Valentin
Name of Inspector

ABC Cesspool
Company Name

292 Old High St
Company Address

Acton	MA	01720
City/Town	State	Zip Code

978-263-5802	SI 13834
Telephone Number	License Number

B. Certification

I certify that: **I am a DEP approved system inspector in full compliance with Section 15.340 of Title 5 (310 CMR 15.000);** I have personally inspected the sewage disposal system at the property address listed above; the information reported below is true, accurate and complete as of the time of my inspection; and the inspection was performed based on my training and experience in the proper function and maintenance of on-site sewage disposal systems. After conducting this inspection I have determined that the system:

1. ☐ Passes
2. ☑ Conditionally Passes
3. ☐ Needs Further Evaluation by the Local Approving Authority
4. ☐ Fails

G Valentin — Inspector's Signature

8/7/23 — Date

The system inspector shall submit a copy of this inspection report to the Approving Authority (Board of Health or DEP) within 30 days of completing this inspection. If the system has a design flow of 10,000 gpd or greater, the inspector and the system owner shall submit the report to the appropriate regional office of the DEP. The original form should be sent to the system owner and copies sent to the buyer, if applicable, and the approving authority.

Please note: This report only describes conditions at the time of inspection and under the conditions of use at that time. This inspection does not address how the system will perform in the future under the same or different conditions of use.

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C. Inspection Summary

Inspection Summary: Complete 1, 2, 3, or 5 and all of 4 and 6.

1) System Passes:

☐ I have not found any information which indicates that any of the failure criteria described in 310 CMR 15.303 or in 310 CMR 15.304 exist. Any failure criteria not evaluated are indicated below.

Comments:

2) System Conditionally Passes:

☒ One or more system components as described in the "Conditional Pass" section need to be replaced or repaired. The system, upon completion of the replacement or repair, as approved by the Board of Health, will pass.

Check the box for "yes", "no" or "not determined" (Y, N, ND) for the following statements. If "not determined," please explain.

The septic tank is metal and over 20 years old* **or** the septic tank (whether metal or not) is structurally unsound, exhibits substantial infiltration or exfiltration or tank failure is imminent. System will pass inspection if the existing tank is replaced with a complying septic tank as approved by the Board of Health.

* A metal septic tank will pass inspection if it is structurally sound, not leaking and if a Certificate of Compliance indicating that the tank is less than 20 years old is available.

☐ Y ☐ N ☐ ND (Explain below):

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C. Inspection Summary (cont.)

2) System Conditionally Passes (cont.)**:**

☐ Pump Chamber pumps/alarms not operational. System will pass with Board of Health approval if pumps/alarms are repaired.

☒ Observation of sewage backup or break out or high static water level in the distribution box due to broken or obstructed pipe(s) or due to a broken, settled or uneven distribution box. System will pass inspection if (with approval of Board of Health):

☐	broken pipe(s) are replaced	☐ Y	☐ N	☐ ND	(Explain below):
☐	obstruction is removed	☐ Y	☐ N	☐ ND	(Explain below):
☒	distribution box is leveled or replaced	☐ Y	☐ N	☐ ND	(Explain below):

☐ The system required pumping more than 4 times a year due to broken or obstructed pipe(s). The system will pass inspection if (with approval of the Board of Health):

☐	broken pipe(s) are replaced	☐ Y	☐ N	☐ ND	(Explain below):
☐	obstruction is removed	☐ Y	☐ N	☐ ND	(Explain below):

3) Further Evaluation is Required by the Board of Health:

☐ Conditions exist which require further evaluation by the Board of Health in order to determine if the system is failing to protect public health, safety or the environment.

a. System will pass unless Board of Health determines in accordance with 310 CMR 15.303(1)(b) that the system is not functioning in a manner which will protect public health, safety and the environment:

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C. Inspection Summary (cont.)

☐ Cesspool or privy is within 50 feet of a surface water

☐ Cesspool or privy is within 50 feet of a bordering vegetated wetland or a salt marsh

b. System will fail unless the Board of Health (and Public Water Supplier, if any) determines that the system is functioning in a manner that protects the public health, safety and environment:

☐ The system has a septic tank and soil absorption system (SAS) and the SAS is within 100 feet of a surface water supply or tributary to a surface water supply.
☐ The system has a septic tank and SAS and the SAS is within a Zone 1 of a public water supply.
☐ The system has a septic tank and SAS and the SAS is within 50 feet of a private water supply well.
☐ The system has a septic tank and SAS and the SAS is less than 100 feet but 50 feet or more from a private water supply well**.
Method used to determine distance: _____

** This system passes if the well water analysis, performed at a DEP certified laboratory, for fecal coliform bacteria indicates absent and the presence of ammonia nitrogen and nitrate nitrogen is equal to or less than 5 ppm, provided that no other failure criteria are triggered. A copy of the analysis must be attached to this form.

c. Other:

_____

_____

_____

_____

4) System Failure Criteria Applicable to All Systems:

You must indicate "Yes" or "No" to each of the following for all inspections:

Yes	No	
☐	☒	Backup of sewage into facility or system component due to overloaded or clogged SAS or cesspool
☐	☒	Discharge or ponding of effluent to the surface of the ground or surface waters due to an overloaded or clogged SAS or cesspool

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C. Inspection Summary (cont.)

4) System Failure Criteria Applicable to All Systems: (cont.)

Yes	No	
☐	☒	Static liquid level in the distribution box above outlet invert due to an overloaded or clogged SAS or cesspool
☐	☒	Liquid depth in cesspool is less than 6" below invert or available volume is less than ½ day flow
☐	☒	Required pumping more than 4 times in the last year ***NOT*** due to clogged or obstructed pipe(s). Number of times pumped: _____.
☐	☒	Any portion of the SAS, cesspool or privy is below high ground water elevation.
☐	☒	Any portion of cesspool or privy is within 100 feet of a surface water supply or tributary to a surface water supply.
☐	☒	Any portion of a cesspool or privy is within a Zone 1 of a public water supply well.
☐	☒	Any portion of a cesspool or privy is within 50 feet of a private water supply well.
☐	☒	Any portion of a cesspool or privy is less than 100 feet but greater than 50 feet from a private water supply well with no acceptable water quality analysis. **[This system passes if the well water analysis, performed at a DEP certified laboratory, for fecal coliform bacteria indicates absent and the presence of ammonia nitrogen and nitrate nitrogen is equal to or less than 5 ppm, provided that no other failure criteria are triggered. A copy of the analysis and chain of custody must be attached to this form.]**
☐	☒	The system is a cesspool serving a facility with a design flow of 2000 gpd-10,000 gpd.
☐	☒	**The system <u>fails</u>.** I have determined that one or more of the above failure criteria exist as described in 310 CMR 15.303, therefore the system fails. The system owner should contact the Board of Health to determine what will be necessary to correct the failure.

5) Large Systems: To be considered a large system the system must serve a facility with a design flow of 10,000 gpd to 15,000 gpd.
For large systems, you must indicate either "yes" or "no" to each of the following, in addition to the questions in Section C.4.

Yes	No	
☐	☐	the system is within 400 feet of a surface drinking water supply
☐	☐	the system is within 200 feet of a tributary to a surface drinking water supply
☐	☐	the system is located in a nitrogen sensitive area (Interim Wellhead Protection Area – IWPA) or a mapped Zone II of a public water supply well

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C. Inspection Summary (cont.)

If you have answered "yes" to any question in Section C.5 the system is considered a significant threat, or answered "yes" to any question in Section C.4 above the large system has failed. The owner or operator of any large system considered a significant threat under Section C.5 or failed under Section C.4 shall upgrade the system in accordance with 310 CMR 15.304. The system owner should contact the appropriate regional office of the Department.

6. **You must indicate "yes" or "no" for each of the following for *all* inspections:**

Yes	No	
☒	☐	Pumping information was provided by the owner, occupant, or Board of Health
☐	☒	Were any of the system components pumped out in the previous two weeks?
☒	☐	Has the system received normal flows in the previous two week period?
☐	☒	Have large volumes of water been introduced to the system recently or as part of this inspection?
☒	☐	Were as built plans of the system obtained and examined? (If they were not available note as N/A)
☒	☐	Was the facility or dwelling inspected for signs of sewage back up?
☒	☐	Was the site inspected for signs of break out?
☒	☐	Were all system components, excluding the SAS, located on site?
☒	☐	Were the septic tank manholes uncovered, opened, and the interior of the tank inspected for the condition of the baffles or tees, material of construction, dimensions, depth of liquid, depth of sludge and depth of scum?
☒	☐	Was the facility owner (and occupants if different from owner) provided with information on the proper maintenance of subsurface sewage disposal systems?
		The **size and location of the Soil Absorption System (SAS)** on the site has been determined based on:
☒	☐	Existing information. For example, a plan at the Board of Health.
☐	☒	Determined in the field (if any of the failure criteria related to Part C is at issue approximation of distance is unacceptable) [310 CMR 15.302(5)]

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D. System Information

1. **Residential Flow Conditions:**

Number of bedrooms (design): 4 Number of bedrooms (actual): 4

DESIGN flow based on 310 CMR 15.203 (for example: 110 gpd x # of bedrooms): 660 GPD garbage

Description:

Number of current residents: 2

Does residence have a garbage grinder? ☒ Yes ☐ No

Does residence have a water treatment unit? ☐ Yes ☒ No

If yes, discharges to:

Is laundry on a separate sewage system? (Include laundry system inspection information in this report.) ☐ Yes ☒ No

Laundry system inspected? ☐ Yes ☒ No

Seasonal use? ☐ Yes ☒ No

Water meter readings, if available (last 2 years usage (gpd)): 30.6 GPD

Detail:
See report attached

Sump pump? ☐ Yes ☒ No

Last date of occupancy: Current Date

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D. System Information (cont.)

2. **Commercial/Industrial Flow Conditions:**

Type of Establishment:

Design flow (based on 310 CMR 15.203): Gallons per day (gpd)

Basis of design flow (seats/persons/sq.ft., etc.):

Grease trap present? ☐ Yes ☐ No

Water treatment unit present? ☐ Yes ☐ No

If yes, discharges to:

Industrial waste holding tank present? ☐ Yes ☐ No

Non-sanitary waste discharged to the Title 5 system? ☐ Yes ☐ No

Water meter readings, if available:

Last date of occupancy/use: Date

Other (describe below):

3. **Pumping Records:**

Source of information: ABC Cesspool last pump 2022

Was system pumped as part of the inspection? ☒ Yes ☐ No

If yes, volume pumped: 1500 gallons

How was quantity pumped determined? Pump Truck

Reason for pumping: To check structural integrity

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D. System Information (cont.)

4. **Type of System:**

- ☒ Septic tank, distribution box, soil absorption system
- ☐ Single cesspool
- ☐ Overflow cesspool
- ☐ Privy
- ☐ Shared system (yes or no) (if yes, attach previous inspection records, if any)
- ☐ Innovative/Alternative technology. Attach a copy of the current operation and maintenance contract (to be obtained from system owner) and a copy of latest inspection of the I/A system by system operator under contract
- ☐ Tight tank. Attach a copy of the DEP approval.
- ☐ Other (describe):

Approximate age of all components, date installed (if known) and source of information:
1998 per record on file at Concord Board of Health.

Were sewage odors detected when arriving at the site? ☐ Yes ☒ No

5. **Building Sewer** (locate on site plan):

Depth below grade: 22" feet

Material of construction:

☐ cast iron ☒ 40 PVC ☐ other (explain):

Distance from private water supply well or suction line:

Comments (on condition of joints, venting, evidence of leakage, etc.):
All visible joints look ok, venting is good, no leakage observed.

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D. System Information (cont.)

6. **Septic Tank** (locate on site plan):

Depth below grade: 13" feet

Material of construction:

☒ concrete ☐ metal ☐ fiberglass ☐ polyethylene ☐ other (explain)

1500 gallon tank with cast iron cover on center 10" below grade

If tank is metal, list age: years

Is age confirmed by a Certificate of Compliance? (attach a copy of certificate) ☐ Yes ☐ No

Dimensions: 10'x5'x5'

Sludge depth: 4"

Distance from top of sludge to bottom of outlet tee or baffle 32"

Scum thickness 0" - 2"

Distance from top of scum to top of outlet tee or baffle N/A

Distance from bottom of scum to bottom of outlet tee or baffle N/A

How were dimensions determined? Tape measure

Comments (on pumping recommendations, inlet and outlet tee or baffle condition, structural integrity, liquid levels as related to outlet invert, evidence of leakage, etc.):
Recommend yearly service. Inlet tee in place, outlet baffle fell off and needs to be replaced. Tank is structurally sound, liquid level to oulet invert good. No leakage observed.

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D. System Information (cont.)

7. **Grease Trap** (locate on site plan):

Depth below grade: _____ feet

Material of construction:

☐ concrete ☐ metal ☐ fiberglass ☐ polyethylene ☐ other (explain): _____

Dimensions: _____

Scum thickness _____

Distance from top of scum to top of outlet tee or baffle _____

Distance from bottom of scum to bottom of outlet tee or baffle _____

Date of last pumping: _____ Date

Comments (on pumping recommendations, inlet and outlet tee or baffle condition, structural integrity, liquid levels as related to outlet invert, evidence of leakage, etc.):

8. **Tight or Holding Tank** (tank must be pumped at time of inspection) (locate on site plan):

Depth below grade: _____

Material of construction:

☐ concrete ☐ metal ☐ fiberglass ☐ polyethylene ☐ other (explain): _____

Dimensions: _____

Capacity: _____ gallons

Design Flow: _____ gallons per day

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D. System Information (cont.)

8. **Tight or Holding Tank** (cont.)

Alarm present: ☐ Yes ☐ No

Alarm level: _____ Alarm in working order: ☐ Yes ☐ No

Date of last pumping: _____
Date

Comments (condition of alarm and float switches, etc.):

* Attach copy of current pumping contract (required). Is copy attached? ☐ Yes ☐ No

9. **Distribution Box** (if present must be opened) (locate on site plan):

Depth of liquid level above outlet invert @0"

Comments (note if box is level and distribution to outlets equal, any evidence of solids carryover, any evidence of leakage into or out of box, etc.):
Dbox cover is 2' below grade. Box is level with just one line, some carryover, no leakage observed. Box has heavy corrosion and needs to be replaced.

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D. System Information (cont.)

10. **Pump Chamber** (locate on site plan):

Pumps in working order: ☐ Yes ☐ No*

Alarms in working order: ☐ Yes ☐ No*

Comments (note condition of pump chamber, condition of pumps and appurtenances, etc.):

* If pumps or alarms are not in working order, system is a conditional pass.

11. **Soil Absorption System** (SAS) (locate on site plan, excavation not required):

If SAS not located, explain why:

Type:

☒	leaching pits	number:	1@ 14' x 6'
☐	leaching chambers	number:	
☐	leaching galleries	number:	
☐	leaching trenches	number, length:	
☐	leaching fields	number, dimensions:	
☐	overflow cesspool	number:	
☐	innovative/alternative system		

Type/name of technology:

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D. System Information (cont.)

11. **Soil Absorption System** (SAS) (cont.)

Comments (note condition of soil, signs of hydraulic failure, level of ponding, damp soil, condition of vegetation, etc.):
Clean sandy soil, no signs of hydraulic failure, no ponding or damp soil. Normal grass on SAS area. Leaching pit with 3' of air space.

12. **Cesspools** (cesspool must be pumped as part of inspection) (locate on site plan):

Number and configuration

Depth – top of liquid to inlet invert

Depth of solids layer

Depth of scum layer

Dimensions of cesspool

Materials of construction

Indication of groundwater inflow ☐ Yes ☐ No

Comments (note condition of soil, signs of hydraulic failure, level of ponding, condition of vegetation, etc.):

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D. System Information (cont.)

13. **Privy** (locate on site plan):

Materials of construction:

Dimensions

Depth of solids

Comments (note condition of soil, signs of hydraulic failure, level of ponding, condition of vegetation, etc.):

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D. System Information (cont.)

14. **Sketch Of Sewage Disposal System:**
Provide a view of the sewage disposal system, including ties to at least two permanent reference landmarks or benchmarks. Locate all wells within 100 feet. Locate where public water supply enters the building. Check one of the boxes below:

☐ hand-sketch in the area below
☒ drawing attached separately

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D. System Information (cont.)

15. **Site Exam**:

- ☒ Check Slope
- ☒ Surface water
- ☒ Check cellar
- ☒ Shallow wells

Estimated depth to high ground water: 14.6' feet

Please indicate all methods used to determine the high ground water elevation:

- ☒ Obtained from system design plans on record
  If checked, date of design plan reviewed: 9/16/1987 Date
- ☐ Observed site (abutting property/observation hole within 150 feet of SAS)
- ☐ Checked with local Board of Health - explain:
- ☐ Checked with local excavators, installers - (attach documentation)
- ☐ Accessed USGS database - explain:

You **must** describe how you established the high ground water elevation:

Test hole data per construction permit done on Oct 1984.

Before filing this Inspection Report, please see Report Completeness Checklist on next page.

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E. Report Completeness Checklist

Complete all applicable sections of this form inclusive of:

☒ A. Inspector Information: Complete all fields in this section.

☒ B. Certification: Signed & Dated and 1, 2, 3, or 4 checked

☒ C. Inspection Summary:

1, 2, 3, or 5 completed as appropriate

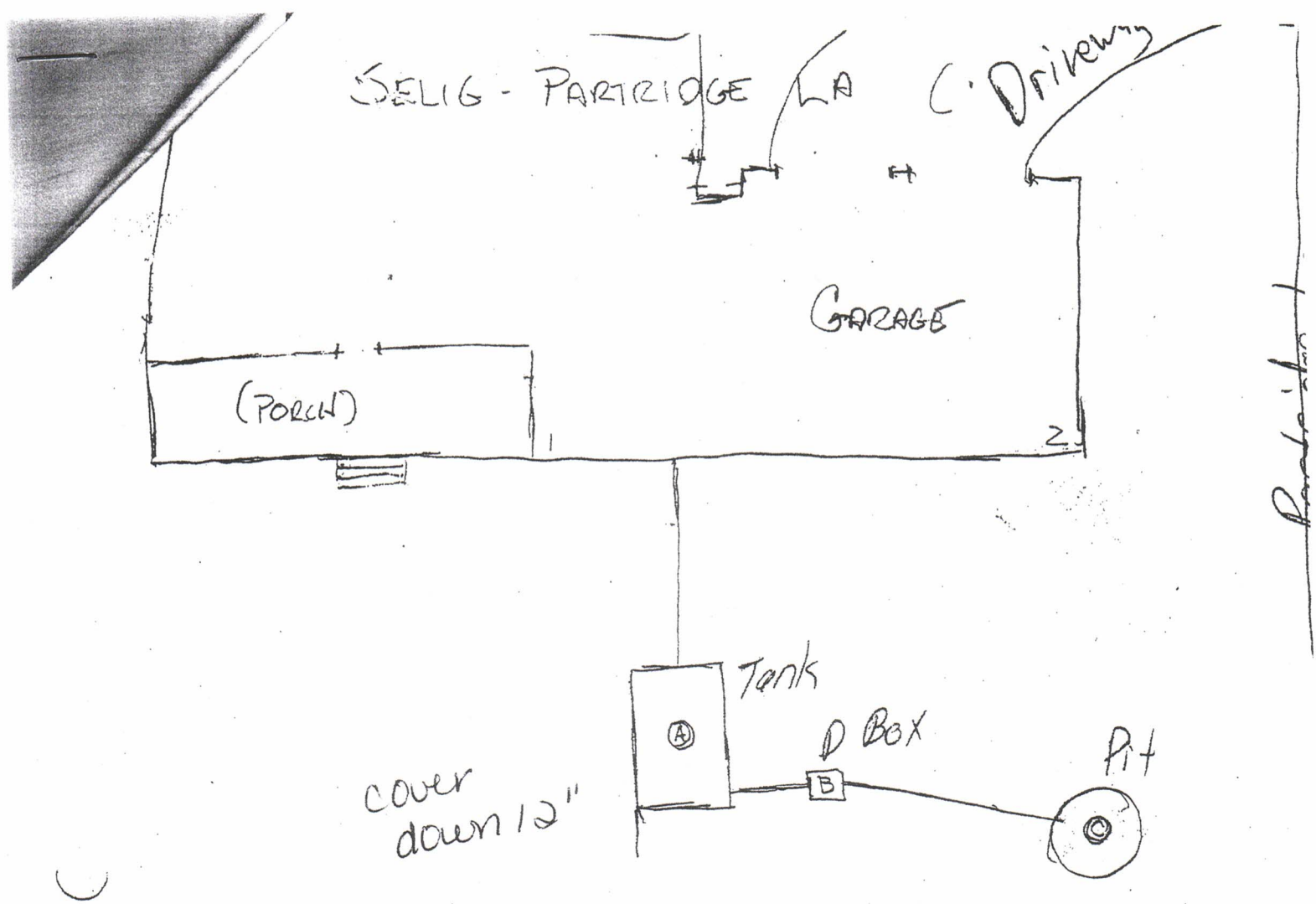
4 (Failure Criteria) and 6 (Checklist) completed

☒ D. System Information:

For 8: Tight/Holding Tank – Pumping contract attached

For 14: Sketch of Sewage Disposal System drawn on pg. 16 or attached

For 15: Explanation of estimated depth to high groundwater included



1500gal

	A	B	C
1	21'7"	32'4"	54'8"
2	46'3"	34'4"	24'10"

160 PARTRIDGE LN
CONCORD

Installer
Ed Freeman

As Built For #160
Lot 17 Partridge Lane
Concord Ma.

160 Partridge Ln

USAGE HISTORY

7.48 gal / cubic foot

Provider: 2WTR - Water Service

Customer: 5880 **Name:** DANGEL BETSY L
Account: 5880003 **Cycle:** 20
Service: WATER **Provider:** 2WTR
Revenue Class: 1 **Service Status:** 1
Srv Loc Nbr: 14022 **Substation:**

Rate	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
RES	2021	0	0	0	0	0	0	0	0	2,200	1,000	700	800	4,700
RES	2022	1,100	900	800	700	800	2,100	2,700	2,800	2,200	1,200	600	700	16,600
RES	2023	600	300	200	400	600	2,200	700	800	0	0	0	0	5,800

Subtotals for Provider 2WTR:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1,700	1,200	1,000	1,100	1,400	4,300	3,400	3,600	4,400	2,200	1,300	1,500	27,100

Grand Totals:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1,700	1,200	1,000	1,100	1,400	4,300	3,400	3,600	4,400	2,200	1,300	1,500	27,100

USAGE HISTORY

PARAMETERS ENTERED:

Format:	Detail
Primary Group:	Provider
Customer Number:	0
Account Number:	5880003
Months of History:	24
Include DVC Usage:	No
Service:	WATER
Provider:	2WTR
Service Status:	All
Rate Schedule:	All
BillingCycle:	All
Revenue Class:	All
Substation:	All
Register Mode:	All