541 Bay Rd.

No. 99-26

541

FEE _____

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, *MA.*

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT

Application for a Permit to Construct( ) Repair( ) Upgrade( ) Abandon( ) - ☐ **Complete System** ☐ **Individual Components**

Location # 541 BAY ROAD	Owner's Name MARJORIE COWLES
Map/Parcel# 26D / 13	Address 541 BAY ROAD
Lot# # 13	Telephone# 413-253-7594
Installer's Name	Designer's Name ALAN WEISS
Address	Address BELCHERTOWN
Telephone#	Telephone# 413-323-5957

Type of Building RES Lot Size 37,800 +/- sq. ft.

Dwelling - No. of Bedrooms 3 Garbage grinder (N)

Other - Type of Building _____ No. of persons _____ Showers ( ), Cafeteria ( )

Other Fixtures _____

Design Flow (min. required) 330 gpd Calculated design flow 362 Design flow provided 362 gpd

Plan: Date 12/99 Number of sheets 4 Revision Date _____

Title PLAN FOR SEPTIC SYSTEM REPAIR FOR MARJORIE COWLES

Description of Soil(s) CLASS I

Soil Evaluator Form No. _____ Name of Soil Evaluator A. WEISS Date of Evaluation 11/04/99

DESCRIPTION OF REPAIRS OR ALTERATIONS NEW S. TANK + L. FELD.

The undersigned agrees to install the above described Individual Sewage Disposal System in accordance with the provisions of TITLE 5 and further agrees to not to place the system in operation until a Certificate of Compliance has been issued by the Board of Health.

Signed Marjorie E Cowles Date 12/7/99

Inspections _____

No. 99-26

FEE 160.00 PD. CK 1326

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, *MA.*

CERTIFICATE OF COMPLIANCE

Description of Work: ☐ **Individual Component(s)** ☒ **Complete System**

The undersigned hereby certify that the Sewage Disposal System; Constructed ( ), Repaired (✓), Upgraded ( ), Abandoned ( )

by: _____

at 541 Bay Road

has been installed in accordance with the provisions of 310 CMR 15.00 (Title 5) and the approved design plans/as-built plans relating to application No. 99-26, dated _____. Approved Design Flow _____(gpd)

Installer _____

Designer: _____ Inspector: _____ Date: 03/15/00

The issuance of this permit shall not be construed as a guarantee that the system will function as designed.

No. 99-26

FEE 160.00 PD

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, *MA.*

DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct( ) Repair(✓) Upgrade( ) Abandon( ) an individual sewage disposal system at 541 Bay Road as described in the application for Disposal System Construction Permit No. 99-26, dated 12-9-99

Provided: Construction shall be completed within three years of the date of this permit. All local conditions must be met.

Form 1255 Rev. 5/96 A.M. Sulkin Co. Boston, MA

Date 12-9-99 Board of Health _____ (NOTE)

COLD SPRING ENVIRONMENTAL CONSULTANTS, INC.

- 21E Site Investigations
- Subsurface Investigations
- Pollution Remediation
- LSP on Staff
- Percolation Tests and Septic Designs
- Regulatory Compliance
- Recycling and Solid Waste

December 6, 1999

Mr. David Zarozinski, Inspection Services
Amherst Board of Health
Amherst, MA. 01007

RE: Septic System Repair & Local Upgrade Approval
Cowles Residence, 541 Bay Road, Amherst

Dear Mr. Zarozinski:

With the intent of full compliance with 310 CMR 15.000, (Sanitary Septic Code, Title V), and the understanding that maximum feasible upgrade should be achieved to maximize protection of public health and safety and the environment, a Local Upgrade Approval is requested for the repair of the system at the above mentioned property. It has been determined by the writer that strict enforcement of the code would be manifestly unjust (310 CMR 15.410). The following Local Upgrade Approval is noted:

-lack of 5 feet of minimum groundwater separation to the bottom of the stone of the absorption system (310 CMR 15.405), 4.0' proposed. (The situation requires this approval in order to minimize fill placement and improper runoff patterns toward the road.)

It is understood that the system was sized using an appropriate percolation test and soil identification technique approved by the Massachusetts DEP that utilizes the most conservative/appropriate loading factor for that soil type (I). It is also noted that the site is served by town water and there are no wells within 100 feet of the proposed system. This request approval will allow proper surface drainage from the dwelling toward the new SAS and minimize the intrusion of fill and raised surface in the frontyard.

It is my opinion that given all the possible scenarios for a new disposal system, and due to spatial constraints, this plan best meets the intent on the Sanitary Code.

It is understood that my client must provide you this letter. In addition a copy of the Local Upgrade Approval from your board and a Plan copy must be sent to Mass. DEP, 436 Dwight St., Springfield, 01103, prior to the start of construction.

Please feel free to contact me should you have any questions.
Sincerely,

Cold Spring Environmental Consultants, Inc.

Alan E. Weiss, M.S.
President
Principal Hydrogeologist
Registered Sanitarian Lic. #933

350 Old Enfield Road • Belchertown, MA 01007 • (413) 323-5957
Fax: 323-4916

Commonwealth of Massachusetts
AMHERST , Massachusetts

Application for Local Upgrade Approval
Title 5, 310 CMR 15.000
DEP Approved form required by 310 CMR 15.403(1)

To be submitted to Local Approving Authority/Board of Health: For the upgrade of a failed or nonconforming system with a design flow of < 10,000 gpd, where full compliance, as defined in 310 CMR 15.404(1), is not feasible.

To be submitted to DEP: For the upgrade of a failed or nonconforming system with a design flow of 10,000 up to 15,000 gpd and/or for upgrade of a state or federal facility, where full compliance, as defined in 310 CMR 15.404(1), is not feasible.

NOTE: Local upgrade approval **shall not be granted** for an upgrade proposal that includes the addition of new design flow to a cesspool or privy or the addition of new design flow above the existing approved capacity of a system constructed in accordance with either the 1978 Code or 310 CMR 15.000.

1) Facility/system owner
   Name MARJORIE COWLES
   Address 541 BAY ROAD
   Phone # 413-253-7594
   Address of facility 541 BAY RD.

2) Applicant (if different from above)
   Name SAME
   Address
   Phone #

3) Type of facility
   ✓ residential ___ commercial ___ school
   ___ institutional
   (Specify)

4) Type of existing system

_____privy _____cesspool(s) ✓ conventional system

_____Other (describe)_____

Type of soil absorption system (trenches, chambers, pits,etc.)

FIELD

5) Design flow based on 310 CMR 15.203

a) Design flow of existing system 330 gpd
Approved? ____yes approval date ?
____no why? _____

b) Design flow of proposed upgraded system 362 gpd
c) Design flow of facility 362 gpd

6) Proposed upgrade of existing system is

a) _____ Voluntary
_____ Required by order, letter, etc. (attach copy)
✓ Required following inspection required by 310 CMR 15.301 (provide date inspection form was submitted to the approving authority) 10/27/99 (date)

b) Describe the proposed upgrade to the system

NEW L. FIELD + S. TANK

c) Which of the following are applicable to the proposed upgrade?

___ Reduction of setback(s) (list setbacks to be reduced with proposed setback distances)

___ Percolation rate of 30-60 minutes per inch (state actual perc rate)

___ Up to 25% reduction in subsurface disposal area design requirements (state required & proposed size)_____

___ Relocation of water supply well (identify well, describe relocation)

_____

_____

_____

_____

_____

✓ Reduction of required separation between bottom of SAS & high groundwater (specify proposed reduction & perc rate) (4') (60 MIN/IN)

___ Other requirements of 310 CMR 15.000 that cannot be met (specify sections of the Code)

_____

_____

System upgrades that cannot be performed in accordance with 310 CMR 15.404 & 15.405, or in full compliance with the requirements of 310 CMR 15.000, require a variance pursuant to 310 CMR 15.410-15.417.

7) If the proposed upgrade involves a reduction in the required separation between the bottom of the soil absorption system and the high groundwater elevation, an Approved Soil Evaluator must determine the high ground water elevation pursuant to 310 CMR 15.405(1)(i)(1). The evaluator must be a member or agent of the local approving authority:

Distance from soil absorption system to high groundwater
4 feet

As determined by:

Evaluator's name ALAN WEISS + DAVID ZAKOZINSKI
Evaluator's signature _____
Date of evaluation 11/04/99

8) Notice to Abutters

No application for upgrade approval in which the setback from property lines or a private water supply well is reduced shall be complete until the applicant has notified all abutters whose property or well is affected by certified mail at least ten days before the Board of Health meeting at which the upgrade approval will be on the agenda. Such notice shall include the date, time and place where the upgrade approval will be discussed.

If the Department is the approving authority, then such notice to abutters must be completed prior to the date of submission of the application to the Department.

The notices to abutters shall include a copy of the completed application form and shall reference the standards set forth in 310 CMR 15.402 through 15.405.

List of affected Abutters:

Abutter Name N/A Date notified ____
Address _____

Abutter Name _____ Date notified ____
Address _____

Abutter Name _____ Date notified ____
Address _____

Abutter Name _____ Date notified ____
Address _____

9) Explain why full compliance, as defined in 310 CMR 15.404(1), is not feasible (each section must be completed):

a) an upgraded system in full compliance with 310 CMR 15.000 is not feasible:
Fill should be minimized next to Road for runoff control.

b) an alternative system approved pursuant to 310 CMR 15.283-15.288 is not feasible:
Not appropriate to Situation.

c) a shared system is not feasible:

d) connection to a sewer is not feasible:

10) An application for a disposal system construction permit, including all required attachments (e.g. plans & specifications, site evaluation forms), must accompany this application. Is the DSCP application attached? ✓ yes ___ no

11) Certification

"I, the facility owner, certify under penalty of law that this document and all attachments, to the best of my knowledge and belief, are true, accurate, and complete. I am aware that there may be significant consequences for submitting false information, including, but not limited to, penalties or fine and/or imprisonment for knowing violations."

* Marjorie E Cowles 12/7/99 *
Facility owner's signature Date

MARJORIE COWLES
Print Name

ALAN WEISS 12/6/99
Name of preparer Date

350 Old Enfield Rd., Belchertown
Telephone # & address of preparer

NOTE: Title 5, 310 CMR 15.403(4), requires the system owner or operator to submit to the Department a copy of the local upgrade approval upon issuance by the Board of Health and prior to commencement of construction.

COLD SPRING ENVIRONMENTAL CONSULTANTS, INC.

- 21E Site Investigations
- Subsurface Investigations
- Pollution Remediation
- LSP on Staff
- Percolation Tests and Septic Designs
- Regulatory Compliance
- Recycling and Solid Waste

December 6, 1999

Mr. Peter Westover
Amherst Conservation Commission
Amherst Town Hall
Amherst, Massachusetts 01002

RE: Cowles Property, Septic Repair &
Determination of Applicability
541 Bay Road, Amherst
Cold Spring # 99-1137-1027

Enclosed please find the Repair Plan for the subsurface Disposal System for the above mentioned property. The no work line is to be delineated using properly buried (6"), staked silt fence. All above noted locations are referenced on the Figure 1: Site Locus Map and Figure 2: Site Plan, attached.

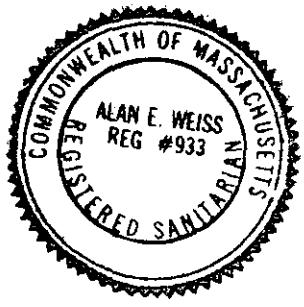
The Health Department will be contacted for proper septic repair permits. Wetland delineation was based on our own observation of topography, typical hydrophytic species, and hydrology observed in the field on November 4, 1999. The plan intention is to utilize the best part of the property with the least disturbance of the resource area.

Mitigative measures include a silt fence that establishes a no work zone (50') as well as follow-up mulching and seeding of yard margins. The leachfield exceeds the Title V (310 CMR 15.00) setback of 50 feet (60' feet noted to leaching trench). The disturbance area (work area) in the buffer zone would be limited to about 2,500 square feet.

Please note that because of the "limited impact", our experience with most communities is that this type of repair work can be completed with the a **Negative Determination** (with the noted mitigative measures followed as contingencies). The attached plan and form has been filed with the Springfield, DEP. Please notify me at your earliest convenience if you have any questions or wish for me to attend the hearing.

Sincerely,
Cold Spring Environmental Consultants, Inc.

Alan E. Weiss, M.S.
Principal Hydrogeologist
Registered Sanitarian Lic. #933
President



PC: Ms. Marjorie Cowles 541 Bay Road, Amherst
Mass. DEP-Wetlands Div.
Mr. David Zarozinski, Inspection Services

RECEIVED NOV 0 5 1999

1326

MARJORIE E. COWLES
PH. 413-253-7594
541 BAY RD.
AMHERST, MA 01002

DATE Nov. 4 '99

53-7233/2118

PAY TO THE ORDER OF Town of Amherst. $ 160 00/

One Hundred Sixty and no/100 DOLLARS

NORTHAMPTON COOPERATIVE BANK

COOP GOLD ACOUNT

FOR Perc. Test (Initial) Plans

Marjorie E. Cowles

⑆211872331⑆ 02 20 052035⑈ 1326

© HARLAND

R#1032

Pd

No. _____ Date: 11-4-99

Commonwealth of Massachusetts
, Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: AL Weiss Date: 11-5-99
Witnessed By: David Znorowski

Location Address or Lot # 541 Bay Road 253-7594	Owner's Name, Address, and Telephone # Marjorie Cowles 541 Bay Rd 253-7594

New Construction ☐ Repair ☑

Office Review

Published Soil Survey Available: No ☐ Yes ☐

Year Published ..... Publication Scale ..... Soil Map Unit .....

Drainage Class ..... Soil Limitations .....

Surficial Geologic Report Available: No ☐ Yes ☐

Year Published ..... Publication Scale .....

Geologic Material (Map Unit) .....

Landform .....

Flood Insurance Rate Map:

Above 500 year flood boundary No ☐ Yes ☐

Within 500 year flood boundary No ☐ Yes ☐

Within 100 year flood boundary No ☐ Yes ☐

Wetland Area:

National Wetland Inventory Map (map unit) _____

Wetlands Conservancy Program Map (map unit) _____

Current Water Resource Conditions (USGS): Month _____

Range :Above Normal ☐ Normal ☐ Below Normal ☐

Other References Reviewed: _____

FORM 12 - PERCOLATION TEST

Location Address or Lot No. 5741 Bay Road

COMMONWEALTH OF MASSACHUSETTS

, Massachusetts

Percolation Test*		
Date: 11-5-99	Time:	
Observation Hole #	1	
Depth of Perc	50"	
Start Pre-soak	can't	
End Pre-soak	hold	
Time at 12"	water	
Time at 9"	↓	
Time at 6"	↓	
Time (9"-6")	↓	
Rate Min./Inch	>2	

* Minimum of 1 percolation test must be performed in both the primary area AND reserve area.

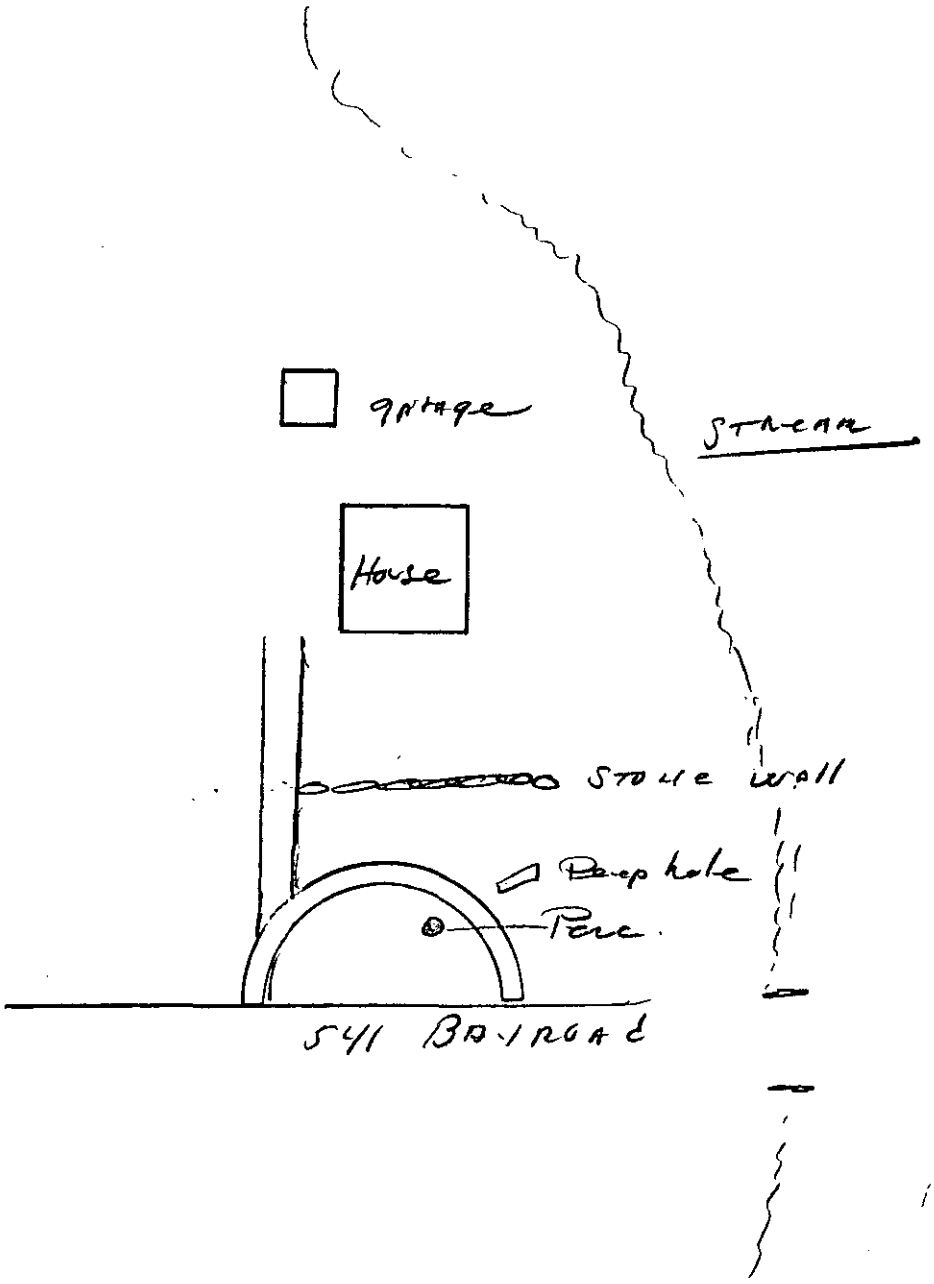
Site Passed ☑ Site Failed ☐

Performed By: AL Weiss

Witnessed By: David Zaroblewski

Comments:

DEP APPROVED FORM - 12/07/95


garage
STREAM
House
STONE WALL
Dump hole
Pipe
541 BYPASS

c4 # 1326
Pd 160 OSS
11-4-99

FORM 11 - SOIL EVALUATOR FORM

Location Address or Lot No. 541 Bay Rd

On-site Review

Deep Hole Number 1 Date: 11-4-99 Time: 11:00 Weather
Location (identify on site plan)
Land Use Slope (%) Surface Stones
Vegetation
Landform
Position on landscape (sketch on the back)
Distances from:

Open Water Body	feet	Drainage way	feet
Possible Wet Area	feet	Property Line	feet
Drinking Water Well	feet	Other	

DEEP OBSERVATION HOLE LOG*

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
A	6"	FSL	10YR 3/2		
B	24"	FSL	10YR 4/6	54"	Loose Fine Sand
C	106"	Sand	10YR 5/6	10YR 5/8	Some Cobbles
				N.S. 5/2	

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) Outwash Depth to Bedrock: 106"
Depth to Groundwater: Standing Water in the Hole: 106" Weeping from Pit Face: 78"
Estimated Seasonal High Ground Water: 54"

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON MA 02108 (617) 292-5500

ARGEO PAUL CELLUCCI
Governor

TRUDY COXE
Secretary

DAVID B. STRUHS
Commissioner

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART A
CERTIFICATION

Property Address: 541 BAY Rd., AM HERST **Name of Owner** MARY COLLES
Address of Owner: 541 BAY RD, AMHERST, MA - 01002
Date of Inspection: 10/27/99
Name of Inspector: (Please Print) Alan E. Weiss, R.S.
I am a DEP approved system inspector pursuant to Section 15.340 of Title 5 (310 CMR 15.000)
Company Name: Cold Spring Environmental, Inc.
Mailing Address: 350 Old Enfield Rd., Belchertown, MA 01007
Telephone Number: 413-323-5957

CERTIFICATION STATEMENT
I certify that I have personally inspected the sewage disposal system at this address and that the information reported below is true, accurate and complete as of the time of inspection. The inspection was performed based on my training and experience in the proper function and maintenance of on-site sewage disposal systems. The system:

___ Passes
___ Conditionally Passes
___ Needs Further Evaluation By the Local Approving Authority
✓ Fails

COMMONWEALTH OF MASSACHUSETTS
ALAN E. WEISS
REG. #933
REGISTERED SANITARIAN

Inspector's Signature: _____ **Date:** 10/27/99

The System Inspector shall submit a copy of this inspection report to the Approving Authority (Board of Health or DEP) within thirty (30) days of completing this inspection. If the system is a shared system or 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 Department of Environmental Protection. The original should be sent to the system owner and copies sent to the buyer, if applicable, and the approving authority.

NOTES AND COMMENTS

* Sump pump should be disconnected from septic.

* G.W. w/in 10" of L.field. (~~was~~ field in est. Hi. G.W.).

Rec 11-2-99 DJ.

revised 9/2/98

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART A
CERTIFICATION (continued)

Property Address: 541 BAY RD.
Owner: COULES
Date of Inspection: 10/27/99

INSPECTION SUMMARY: Check *A, B, C, or D*:

A. SYSTEM PASSES:

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

COMMENTS: _____

B. 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.

Indicate yes, no, or not determined (Y, N, or ND). Describe basis of determination in all instances. If "not determined", explain why not.

__ The septic tank is metal, unless the owner or operator has provided the system inspector with a copy of a Certificate of Compliance (attached) indicating that the tank was installed within twenty (20) years prior to the date of the inspection; or the septic tank, whether or not metal, is cracked, structurally unsound, shows substantial infiltration or exfiltration, or tank failure is imminent. The system will pass inspection if the existing septic tank is replaced with a complying septic tank as approved by the Board of Health.

__ Sewage backup or breakout or high static water level observed in the distribution box is due to broken or obstructed pipe(s) or due to a broken, settled or uneven distribution box. The system will pass inspection if (with approval of the Board of Health).

_____ broken pipe(s) are replaced
_____ obstruction is removed
_____ distribution box is levelled or replaced

__ The system required pumping more than four 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
_____ obstruction is removed

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART A
CERTIFICATION (continued)

Property Address: 541 BAY RD.
Owner: COWLES
Date of Inspection: 10/27/95

C. 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 the public health, safety and the environment.

1) **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 THE PUBLIC HEALTH AND SAFETY AND THE ENVIRONMENT:**

__ Cesspool or privy is within 50 feet of surface water
__ Cesspool or privy is within 50 feet of a bordering vegetated wetland or a salt marsh.

2) **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 AND SAFETY AND THE 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 soil absorption system and the SAS is within a Zone I of a public water supply well.
__ The system has a septic tank and soil absorption system and the SAS is within 50 feet of a private water supply well.
__ The system has a septic tank and soil absorption system and the SAS is less than 100 feet but 50 feet or more from a private water supply well, unless a well water analysis for coliform bacteria and volatile organic compounds indicates that the well is free from pollution from that facility and the presence of ammonia nitrogen and nitrate nitrogen is equal to or less than 5 ppm. Method used to determine distance _____ **(approximation not valid).**

3) OTHER

__ _____
_____
_____

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART A
CERTIFICATION (continued)

Property Address: 541 BAY RD
Owner: COWLES
Date of Inspection: 10/27/99

D. **SYSTEM FAILS:**
You must indicate either "Yes" or "No" to each of the following:

✓ I have determined that one or more of the following failure conditions exist as described in 310 CMR 15.303. The basis for this determination is identified below. The Board of Health should be contacted to determine what will be necessary to correct the failure.

Yes	No	
—	—	Backup of sewage into facility or system component due to an 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.
—	—	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 1/2 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 Soil Absorption System, cesspool or privy is below the high groundwater elevation.
—	—	Any portion of a 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 I of a public 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. If the well has been analyzed to be acceptable, attach copy of well water analysis for coliform bacteria, volatile organic compounds, ammonia nitrogen and nitrate nitrogen.

E. **LARGE SYSTEM FAILS:**
You must indicate either "Yes" or "No" to each of the following:
The following criteria apply to large systems in addition to the criteria above:

____ The system serves a facility with a design flow of 10,000 gpd or greater (Large System) and the system is a significant threat to public health and safety and the environment because one or more of the following conditions exist:

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)

The owner or operator of any such system shall upgrade the system in accordance with 310 CMR 15.304(2). Please consult the local regional office of the Department for further information.

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART B
CHECKLIST

Property Address: 256-4053
Owner: Cowles
Date of Inspection: 10/24/99

Check if the following have been done: You must indicate either "Yes" or "No" as to each of the following:

Yes	No	
✓		Pumping information was provided by the owner, occupant, or Board of Health.
✓		None of the system components ~~have been pumped for at least two weeks and the system has been receiving normal~~ flow rates during that period. Large volumes of water have not been introduced into the system recently or as part of this inspection.
N/A		As built plans have been obtained and examined. Note if they are not available with N/A.
✓		The facility or dwelling was inspected for signs of sewage back-up.
✓		The system does not receive non-sanitary or industrial waste flow.
✓		The site was inspected for signs of breakout.
✓		All system components, excluding the Soil Absorption System, have been located on the site.
✓		The septic tank manholes were uncovered, opened, and the interior of the septic tank was inspected for condition of baffles or tees, material of construction, dimensions, depth of liquid, depth of sludge, depth of scum.
		The size and location of the Soil Absorption System on the site has been determined based on:
✓		Existing information. For example, Plan at B.O.H.
✓		Determined in the field (if any of the failure criteria related to Part C is at issue, approximation of distance is unacceptable) [15.302(3)(b)]
✓		The facility owner (and ~~occupants, if different from owner~~) were provided ~~with information on the proper maintenance of~~ SubSurface Disposal Systems.

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION

Property Address: 541 BAY RD
Owner: COWLES
Date of Inspection: 10/27/99

FLOW CONDITIONS

RESIDENTIAL: ?
Design flow: 220 g.p.d./bedroom.
Number of bedrooms (design): 2 Number of bedrooms (actual): 2
Total DESIGN flow 220
Number of current residents: 1
Garbage grinder (yes or no): N
Laundry (separate system) (yes or no): N ; If yes, separate inspection required
Laundry system inspected (yes or no)
Seasonal use (yes or no): N
Water meter readings, if available (last two year's usage (gpd): _____
Sump Pump (yes or no): Y - * SHOULD BE DISCONNECTED
Last date of occupancy: Current

COMMERCIAL/INDUSTRIAL:
Type of establishment: N/A
Design flow: _____ gpd (Based on 15.203)
Basis of design flow _____
Grease trap present: (yes or no)___
Industrial Waste Holding Tank present: (yes or no)___
Non-sanitary waste discharged to the Title 5 system: (yes or no)___
Water meter readings, if available: _____
Last date of occupancy: _____

OTHER: (Describe) _____
Last date of occupancy: _____

GENERAL INFORMATION

PUMPING RECORDS and source of information:
"NEVER PUMPED" (35 YRS.)
System pumped as part of inspection: (yes or no)___
If yes, volume pumped: _____ gallons
Reason for pumping: _____

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)
_____ I/A Technology etc. Attach copy of up to date operation and maintenance contract
_____ Tight Tank _____ Copy of DEP Approval

Other _____

APPROXIMATE AGE of all components, date installed (if known) and source of information: 35 Yrs +

Sewage odors detected when arriving at the site: (yes or no) N

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: 541 BAY RD
Owner: COWLES
Date of Inspection: 10/27/95

BUILDING SEWER:
(Locate on site plan)

Depth below grade: 24"
Material of construction: __ cast iron __ 40 PVC ✓ other (explain) Black Orangeburg

Distance from private water supply well or suction line 10' +
Diameter 4"
Comments: (condition of joints, venting, evidence of ~~leakage~~, etc.)
OK

SEPTIC TANK: ✓
(locate on site plan)

Depth below grade: 20" ✓
Material of construction: __concrete __metal __Fiberglass __Polyethylene __other(explain)

If tank is metal, list age ____ Is age confirmed by Certificate of Compliance ____ (Yes/No)

Dimensions: 8'x4'x4' (800 gal.)
Sludge depth: 25"
Distance from top of sludge to bottom of outlet tee or baffle: unable to distinguish.
Scum thickness: 12"
Distance from top of scum to top of outlet tee or baffle: - IN SCUM
Distance from bottom of scum to bottom of outlet tee or baffle: IN SCUM
How dimensions were determined: measured

Comments:
(recommendation for pumping, condition of inlet and outlet tees or baffles, depth of liquid level in relation to outlet invert, structural ~~integrity~~, evidence of leakage, etc.) SLIDE BAFFLES OK. , full of sludge, Never pumped 35 yrs.

GREASE TRAP: N
(locate on site plan)

Depth below grade: ____
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: ____

Comments:
(recommendation for pumping, condition of inlet and outlet tees or baffles, depth of liquid level in relation to outlet invert, structural integrity, evidence of leakage, etc.) ____

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: 516 BAY RD
Owner: CAULES
Date of Inspection: 10/27/97

TIGHT OR HOLDING TANK: N (Tank must be pumped prior to, or 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/day
Alarm present____
Alarm level:_____ Alarm in working order: Yes ___ No__
Date of previous pumping: _____
Comments:
(condition of inlet tee, condition of alarm and float switches, etc.)
_____
_____
_____
_____

DISTRIBUTION BOX: ✓
(locate on site plan)

Depth of liquid level above outlet invert: at invert

Comments:
(note if level and distribution is equal, evidence of solids carryover, evidence of leakage into or out of box, etc.)_____
Box corroded. Needs replacement
_____
_____
_____

PUMP CHAMBER: N
(locate on site plan)

Pumps in working order: (Yes or No)____
Alarms in working order (Yes or No)____
Comments:
(note condition of pump chamber, condition of pumps and appurtenances, etc.) _____
_____
_____
_____
_____

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: 541 GAY RD
Owner: COWLES
Date of Inspection: 10/27/97

SOIL ABSORPTION SYSTEM (SAS): ✓
(locate on site plan, if possible; excavation not required, location may be approximated by non-intrusive methods)

If not located, explain:
W. Table in Test Pit ~10-12" from Lines (56") (Lines at 48")

Type:
leaching pits, number:___
leaching chambers, number:___
leaching galleries, number:___
leaching trenches, number, length:___
leaching fields, number, dimensions: ✓ (20'X20') 3 PIPES.
overflow cesspool, number:___
Alternative system: ___
Name of Technology: ___

Comments:
(note condition of soil, signs of hydraulic failure, level of ponding, damp soil, condition of vegetation, etc.)
FIELD TO CLOSE... (<1') FROM ESHWT.

CESSPOOLS: N
(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 (cesspool must be pumped as part of inspection)___

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

PRIVY: N
(locate on site plan)

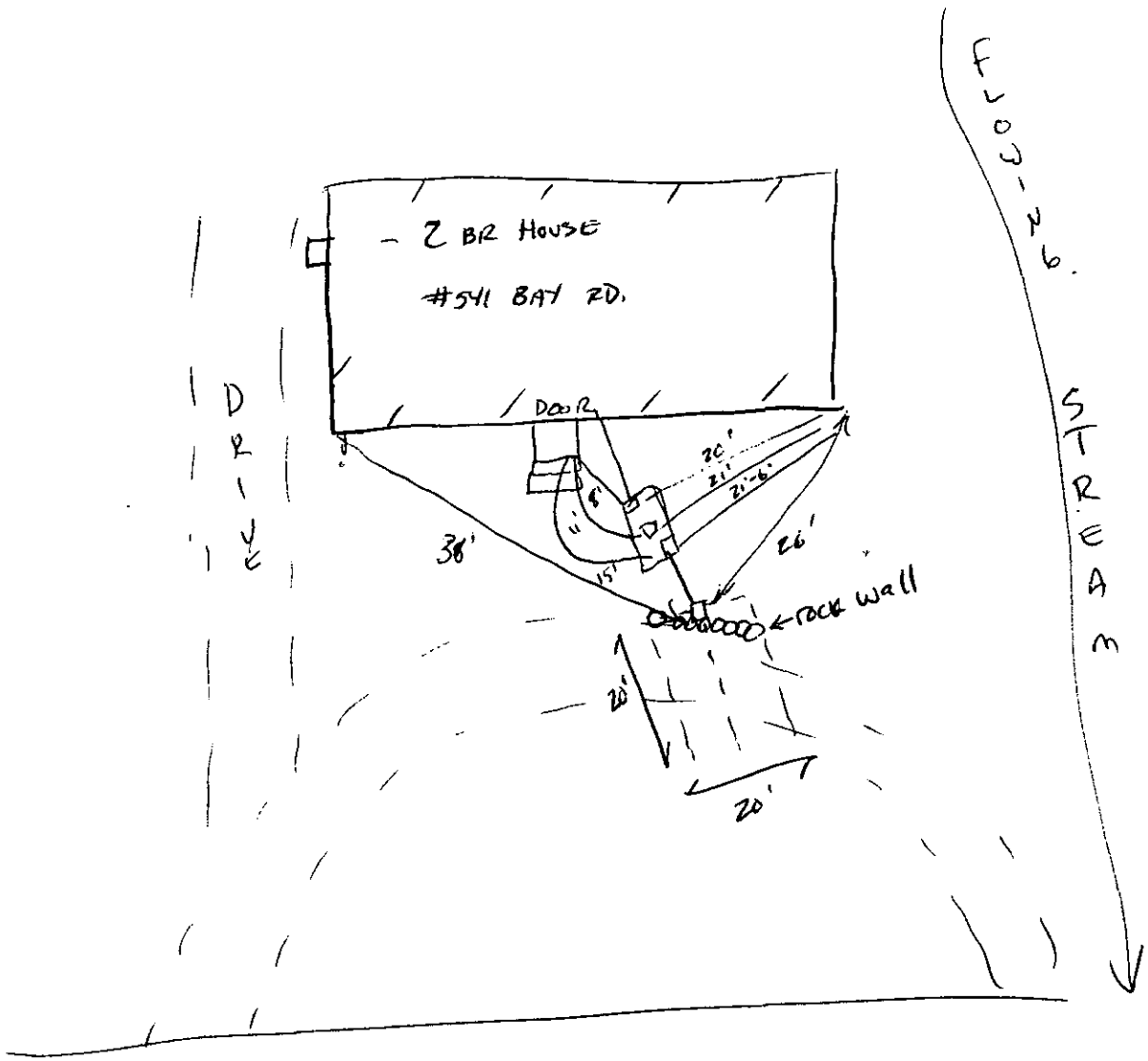
Materials of construction:___ Dimensions:___
Depth of solids:___
Comments:
(note condition of soil, signs of hydraulic failure, level of ponding, condition of vegetation, etc.)

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: 541 BAY RD
Owner: COULES
Date of Inspection: 10/27/99

SKETCH OF SEWAGE DISPOSAL SYSTEM:

include ties to at least two permanent reference landmarks or benchmarks
locate all wells within 100' (Locate where public water supply comes into house)



SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: 511 BAY RD
Owner: COWLES
Date of Inspection: 10/27/99

NRCS Report name _____
Soil Type _____
Typical depth to groundwater _____

USGS Date website visited
Observation Wells checked
Groundwater depth: Shallow _____ Moderate _____ Deep _____

SITE EXAM ✓ Slope
Surface water
Check Cellar
Shallow wells

Estimated Depth to Groundwater 4-5+ Feet (STREAM 50' AWAY ~ 4' BELOW GRADE)

Please indicate all the methods used to determine High Groundwater Elevation:

____ Obtained from Design Plans on record

____ Observed Site (Abutting property, observation hole, basement sump etc.)

___✓ Determined from local conditions

____ Checked with local Board of health

____ Checked FEMA Maps

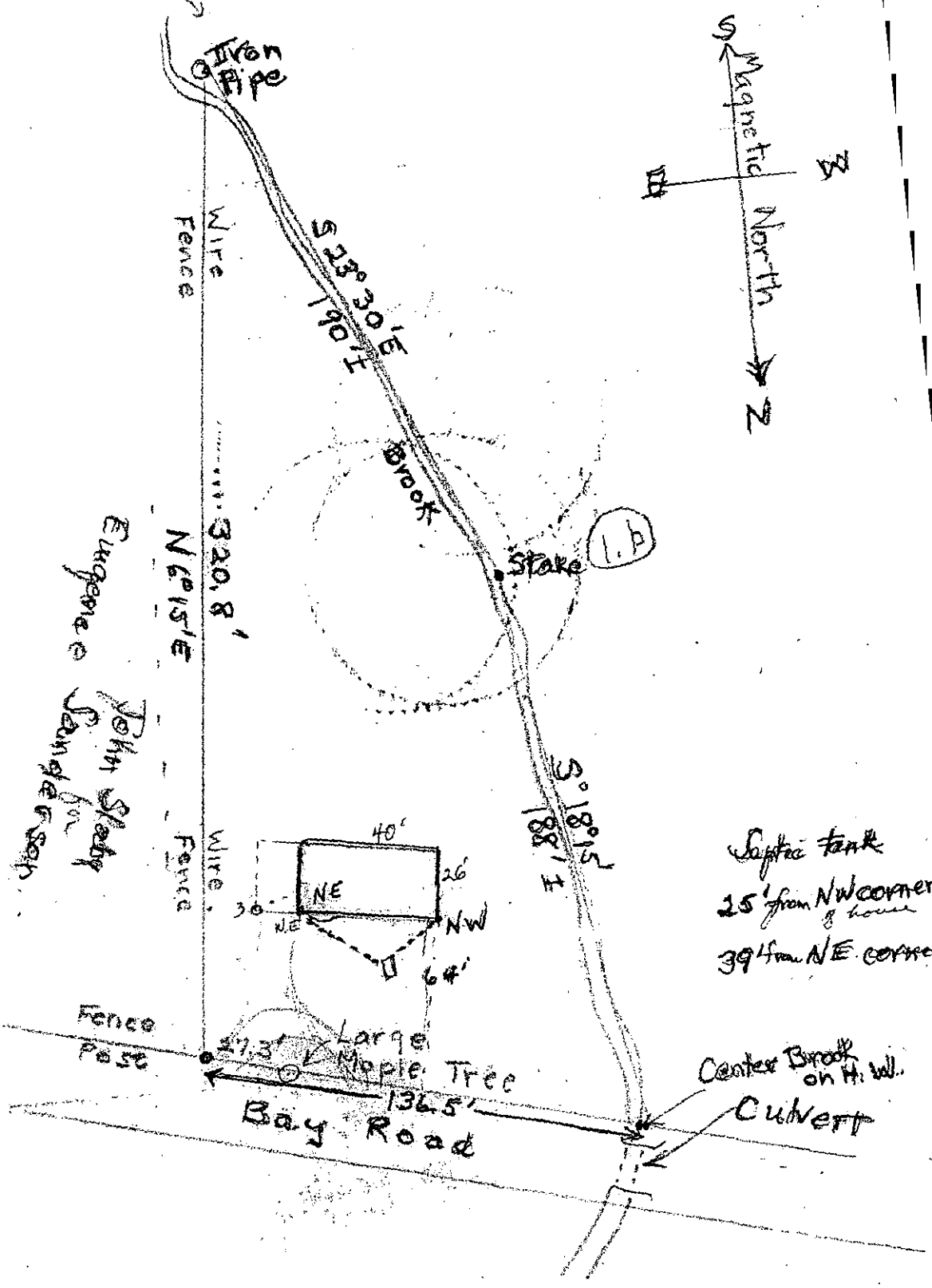
____ Checked pumping records

____ Checked local excavators, installers

____ Used USGS Data

Describe how you established the High Groundwater Elevation. (**Must** be completed)

* FROM NEARBY WORK. TOPO + VEGITATION.



present

former R. S. Schoonmaker

Town of AMHERST Massachusetts

TOWN HALL
4 BOLTWOOD AVENUE
AMHERST, MA. 01002-2351

INSPECTION SERVICES DEPARTMENT
Fax (413) 256-4041
Phone (413) 256-4030

DATE: December 10, 1999
TO: Board of Health
FROM: David Zarozinski, Sanitarian
RE: Reducing the groundwater separation from a five-foot (5') to a four-foot (4') separation. (Regulation 15.405 (I) copy enclosed)

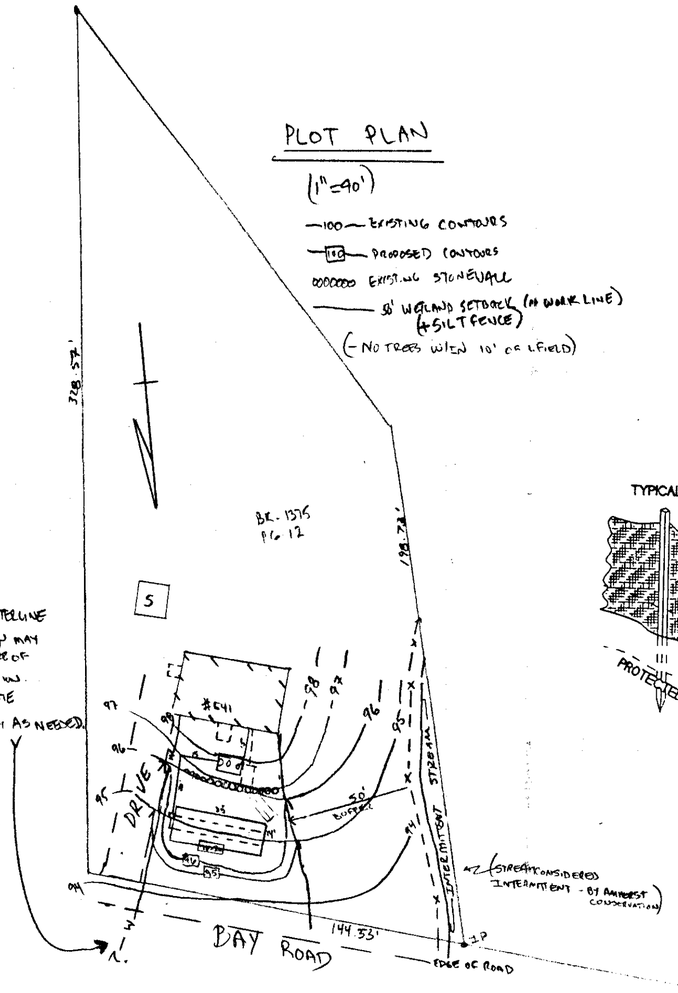
On November 5, 1999, Mr. Alan Weiss from Cold Spring Environmental, and I conducted a percolation test at the home of Ms. Marjorie Cowles of 541 Bay Road, Amherst.

The perc rate was less than two (2) minutes an inch with a water table at seventy-eight (78) inches. The oxide stain was noted at fifty-four (54) inches, and the soil conditions were loose to fine sand with cobbles.

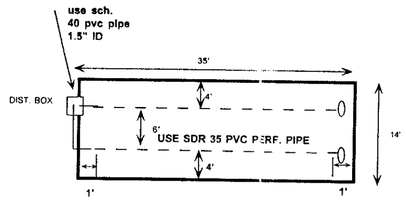
I would recommend approval of this variance for the following reasons:

1. Garbage grinder will be removed
2. Town water is available and there are no wells within 100 feet of system
3. System will be designed with a four (4) foot separation

Finally, the system is designed to allow for both the best feasible upgrade within the borders of this lot, and have the least effect on public health, safety and the environment.

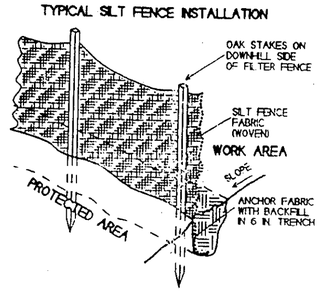


LAYOUT OF LEACH BED.

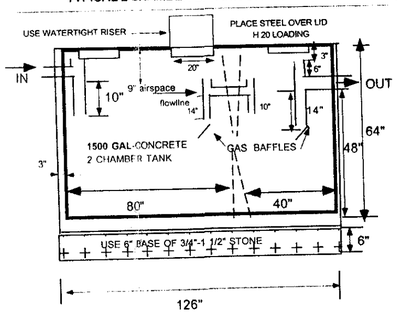


FILL, TO MEET REQUIREMENTS OF 310 CMR 15.255S.3, strip sub & inspect

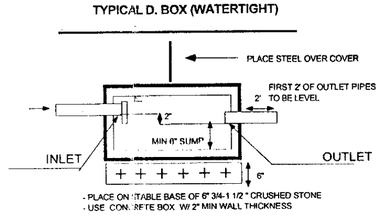
TYPICAL SILT FENCE INSTALLATION



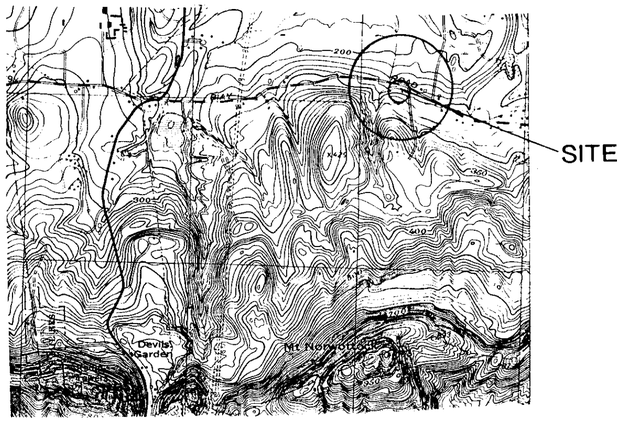
TYPICAL 2 CHAMBER S. TANK OR EQUIV. (WATERTIGHT)



TYPICAL D. BOX (WATERTIGHT)



SITE LOCUS



SCALE: 1"=2,083 FT. USGS 7.5 MIN. QUAD.

0 FEET 2000

TEST PIT LOGS

TP-2 EL. 94.85'

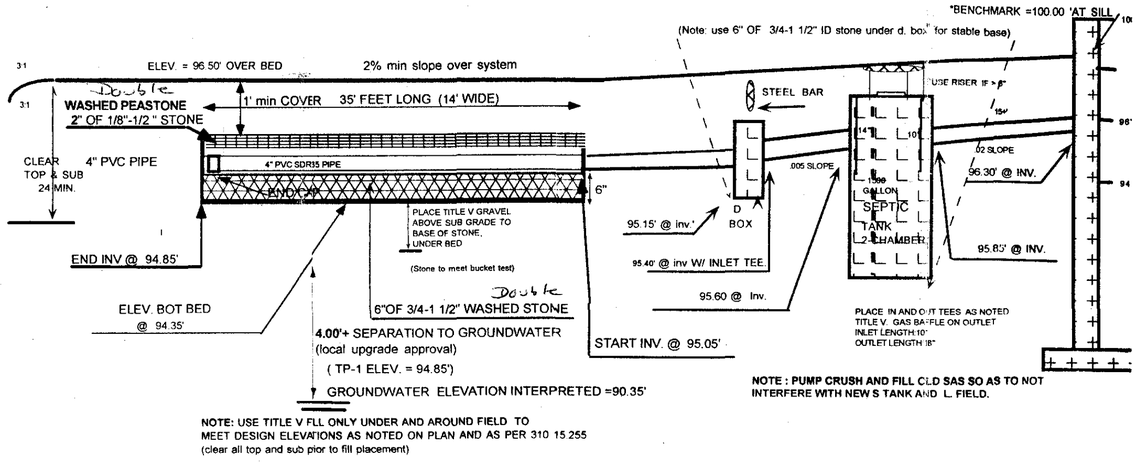
0-6"	FINE SANDY LOAM TOPSOIL (10YR 2/3),	A
6-24"	FINE SANDY LOAMY SUBSOIL	BW
24-106"	C. SAND, W/ GRAVEL (10YR.5/6)	C 1

EOP 106"

ESHWT= 54"= 90.35

78."	SEEPS
106"	STATIC H20
106"+	BEDROCK
54"	OXIDES (7.5Y 5/8, 10YR 5/8)

CROSS SECTION OF SEPTIC SYSTEM



NOTE: USE TITLE V FLL ONLY UNDER AND AROUND FIELD TO
MEET DESIGN ELEVATIONS AS NOTED ON PLAN AND AS PER 310 15.255
(clear all top and sub prior to fill placement)

COMMONWEALTH OF MASSACHUSETTS
ALAN J. WEISS #533
REGISTERED SANITARIAN

DESIGN NOTES:

1. 3 BR. x 110 gal/day = 330 gal./day,
2. Use ONE Leach FIELD 14' wide x 35' LONG W/6" stone below invert.
   Bot. Area: 14' wide x 35' long = 490 sf.
   Side Area: NA.
   Tot. Area: 490sf x 0.74 gal.sf. = 362gal./day.
3. NO GARBAGE DISPOSAL ALLOWED
4. ALL D. BOX OUTLET PIPES LEVEL FOR 2', ALL PERF./PIPE MIN. SDR . 35.
5. NO WELLS NOTED WITHIN 100 FEET OF SAS SYSTEM ,.
6. NO WETLANDS NOTED WITHIN 50 FEET OF SYSTEM
   6a wetland /Intermittant stream 60' FROM LEACH FIELD. FILE CONSERVATION RFD.
7. PRE & POST CONTOURS NOTED AS NECESSARY.
8. RESERVE AREA NOT REQUIRED
9. SLOPE CALCS NOT APPLIC .(SEE CONTOURS) 3:1 SLOPE MET.
10. 2% MIN. SLOPE OVER SAS., SLOPE FINAL GRADE AWAY FROM SILL FOR RUNOFF
    PUMP/REMOVE/FILL OLD SYSTEM TO NOT INTERFERE WITH NEW SYSTEM.
11. USIE NEW 1500 GAL. S. TANK . PUMP. CRUSH AND FILL OLD S. TANK.
12. INSTALL SILTFENCE PRIOR TO WORK.

MAXIMUM FEASIBLE UPGRADE REQUEST TO 4 FOOT SEPARATION

-PERC TEST BY A. WEISS., ON 11/04/99, (D. ZAROZINSKI INSP..).
-CLASS I SOILS IDENTIFIED. PERC. RATE <2 MIN/IN. FOR LOADING FACTOR
-CLASS I SOIL, SAND @ 0.74 GAL/SF., BM=100 @ SILL TOP

SEPTIC SYSTEM REPAIR DESIGN FOR MARJORIE COWLES
541 BAY ROAD AMHERST

SCALE: NOTED	APPROVED BY: AW	DRAWN BY AW
DATE: 12/6/99		REVISED
COLD SPRING ENVIRONMENTAL, INC		DRAWING NUMBER 99-1137-1027