1 Elf Hill Rd.

new

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

TITLE 5
OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM FORM
PART A
CERTIFICATION

Property Address: #1 Elf Hill Rd. Amherst, MASS
Owner's Name: Edward R. Market
Owner's Address: #1 Elf Hill Rd Amherst, MASS
Date of Inspection: 8-28-04

Name of Inspector: (please print) Gregory M. MISH
Company Name: Gregory M. MISH
Mailing Address: P.O. Box 165, 33 Middle St. Hadley, MASS.
Telephone Number: 413-584-0088

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 the inspection. The inspection was performed based on my training and experience in the proper function and maintenance of on site sewage disposal systems. **I am a DEP approved system inspector pursuant to Section 15.340 of Title 5 (310 CMR 15.000).** The system:

- X Passes
- ___ Conditionally Passes
- ___ Needs Further Evaluation by the Local Approving Authority
- ___ Fails

Inspector's Signature: Gregory M. Mish **Date:** 8-31-04

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 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 DEP. The original should be sent to the system owner and copies sent to the buyer, if applicable, and the approving authority.

Notes and Comments Owner provided good records, system & soils appear to be in excellent shape, well built system

****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.**

THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BE IT KNOWN THAT

Gregory Mish

Has satisfied the Department's qualifications as required and is hereby authorized to use the title

CERTIFIED TITLE 5 SYSTEM INSPECTOR

as provided in 310 CMR 15.340 and Section 13 of Chapter 21A of the General Laws. Issued by The Department of Environmental Protection.

March 16, 1995

Acting Director of the Division of Water Pollution Control

OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART A
CERTIFICATION (continued)

Property Address: #1 Elf Hill Rd Amherst MASS.
Owner: Edward R. Market
Date of Inspection: 8-28-04

Inspection Summary: Check A,B,C,D or E / ALWAYS complete all of Section D

A. System Passes:

X 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: System well built, good local soils, slope

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.

N/A

Answer yes, no or not determined (Y,N,ND) in the ____ 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.

ND explain:

_____ 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
____ obstruction is removed
____ distribution box is leveled or replaced

ND explain:

_____ 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
____ obstruction is removed

ND explain:

OFFICIAL INSPECTION FORM - NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART A
CERTIFICATION (continued)

Property Address: #1 Elf Hill Rd Amherst, MASS.
Owner: Edward R. Marker +
Date of Inspection: 8-28-04

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 public health, safety or 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 public health, safety and the environment:** N/A

___ 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

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, 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. N/A

___ 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 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, provided that no other failure criteria are triggered. A copy of the analysis must be attached to this form.

3. **Other:**

_____
_____
_____

OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART A
CERTIFICATION (continued)

Property Address: #1 Elf Hill Rd. Amherst MASS
Owner: Edward R. Marker +
Date of Inspection: 8-28-04

D. System Failure Criteria applicable to all systems:
You **must** indicate "yes" or "no" to each of the following for **all** inspections:

Yes	No	
___	X	Backup of sewage into facility or system component due to overloaded or clogged SAS or cesspool
___	X	Discharge or ponding of effluent to the surface of the ground or surface waters due to an overloaded or clogged SAS or cesspool
___	X	Static liquid level in the distribution box above outlet invert due to an overloaded or clogged SAS or cesspool
___	X	Liquid depth in cesspool is less than 6" below invert or available volume is less than ½ day flow
___	X	Required pumping more than 4 times in the last year **NOT** due to clogged or obstructed pipe(s). Number of times pumped ____.
___	X	Any portion of the SAS, cesspool or privy is below high ground water elevation.
___	X	Any portion of cesspool or privy is within 100 feet of a surface water supply or tributary to a surface water supply.
___	X	Any portion of a cesspool or privy is within a Zone 1 of a public well.
___	X	Any portion of a cesspool or privy is within 50 feet of a private water supply well.
___	X	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 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, provided that no other failure criteria are triggered. A copy of the analysis must be attached to this form.]**

NO (Yes/No) **The system fails.** 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.

E. 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.
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) N/A

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

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

OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART B
CHECKLIST

Property Address: #1 Elf Hill Rd Amherst Mass
Owner: Edward R. Marker +
Date of Inspection: 8-28-04

Check if the following have been done. You **must** indicate "yes" or "no" as to each of the following:

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:

Yes no

✓ ___ Existing information. For example, a plan at the Board of Health.
Observe

✓ ___ 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(3)(b)]

OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION

Property Address: #1 E 18 Hill Rd Amherst MASS
Owner: Edward R. MARKert
Date of Inspection: 8-28-04

FLOW CONDITIONS

RESIDENTIAL
Number of bedrooms (design): 3 Number of bedrooms (actual): 3
DESIGN flow based on 310 CMR 15.203 (for example: 110 gpd x # of bedrooms): 330
Number of current residents: 1
Does residence have a garbage grinder (yes or (no)): ___
Is laundry on a separate sewage system (yes or (no)): ___ [if yes separate inspection required]
Laundry system inspected (yes or no): ___
Seasonal use: (yes or (no)): ___
Water meter readings, if available (last 2 years usage (gpd)): _____
Sump pump (yes or (no)): ___
Last date of occupancy: Current

COMMERCIAL/INDUSTRIAL
Type of establishment: _____
Design flow (based on 310 CMR 15.203): _____gpd
Basis of design flow (seats/persons/sqft,etc.): _____
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/use: _____

OTHER (describe): _____

GENERAL INFORMATION

Pumping Records
Source of information: Owner
Was system pumped as part of the inspection (yes or (no)): ___
If yes, volume pumped: _____gallons -- How was quantity pumped determined? _____
Reason for pumping: _____

TYPE OF SYSTEM
X 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)
___ Tight tank ___ Attach a copy of the DEP approval

___ Other (describe): _____

Approximate age of all components, date installed (if known) and source of information:
APPROX. 26 years

Were sewage odors detected when arriving at the site (yes or (no)) NO

OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: #1 Elf Hill Rd Amherst MASS
Owner: Edward R. Markert
Date of Inspection: 8-28-04

BUILDING SEWER (locate on site plan)

Depth below grade: 36"-42"
Materials of construction: X cast iron X 40 PVC ___other (explain): _____
Distance from private water supply well or suction line: N/A
Comments (on condition of joints, venting, evidence of leakage, etc.):
_____

SEPTIC TANK: ___ (locate on site plan)

Depth below grade: 42"
Material of construction: X concrete ___metal ___fiberglass ___polyethylene
___other(explain)_____
If tank is metal list age: ___ Is age confirmed by a Certificate of Compliance (yes or no): ___ (attach a copy of certificate)
Dimensions: 10'x5'6"x6'
Sludge depth: 3"
Distance from top of sludge to bottom of outlet tee or baffle: 31"
Scum thickness: 4"
Distance from top of scum to top of outlet tee or baffle: 4"
Distance from bottom of scum to bottom of outlet tee or baffle: 11"
How were dimensions determined: Observation w/ copy of plan by owner
Comments (on pumping recommendations, inlet and outlet tee or baffle condition, structural integrity, liquid levels as related to outlet invert, evidence of leakage, etc.):
All components on TANK O.K., liquid levels O.K. NO evidence of leakage

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

OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: #1 Elf Hill Rd Amherst MA.
Owner: Edward R. Markert
Date of Inspection: 8-28-04

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/day
Alarm present (yes or no): _____
Alarm level: _____ Alarm in working order (yes or no): ____
Date of last pumping: _____
Comments (condition of alarm and float switches, etc.):
_____
_____

DISTRIBUTION BOX: X (if present must be opened)(locate on site plan) ALL Levels O.K. TO ALL LEGS

Depth of liquid level above outlet invert: N/A
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.): None
Top of 'D' box cover chipped when uncovered, to be replaced before soil replaced

PUMP CHAMBER: ____ (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.):
_____
_____

OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: #1 Elf Hill Rd Amherst Mass
Owner: Edward R. Markert
Date of Inspection: 8-28-04

SOIL ABSORPTION SYSTEM (SAS): X **(locate on site plan, excavation not required)** observed from D-Box, 5 Lines referenced to As built

If SAS not located explain why:

Type
____ leaching pits, number: ___
____ leaching chambers, number: ____
____ leaching galleries, number: ____
__X__ leaching trenches, number, length: 5 lines Approx. 40'
____ leaching fields, number, dimensions: _____
____ overflow cesspool, number: ____
____ innovative/alternative system Type/name of technology: _____
Comments (note condition of soil, signs of hydraulic failure, level of ponding, damp soil, condition of vegetation, etc.):

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 or no): ____
Comments (note condition of soil, signs of hydraulic failure, level of ponding, condition of vegetation, etc.):

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.):

OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: #1 Elf Hill Rd Amherst, MASS
Owner: Edward R. Mavker 7
Date of Inspection: 8-28-04

SKETCH OF SEWAGE DISPOSAL SYSTEM
Provide a sketch 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.

see copy of as built as provided by owner, confirmed by site inspection 8.28.04 w/ owner, components uncovered and observed all match as built

OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: #1 Elf Hill Rd. Amherst, MASS
Owner: Edward R. Marker +
Date of Inspection: 8-28-04

SITE EXAM
Slope ✓
Surface water
Check cellar
Shallow wells

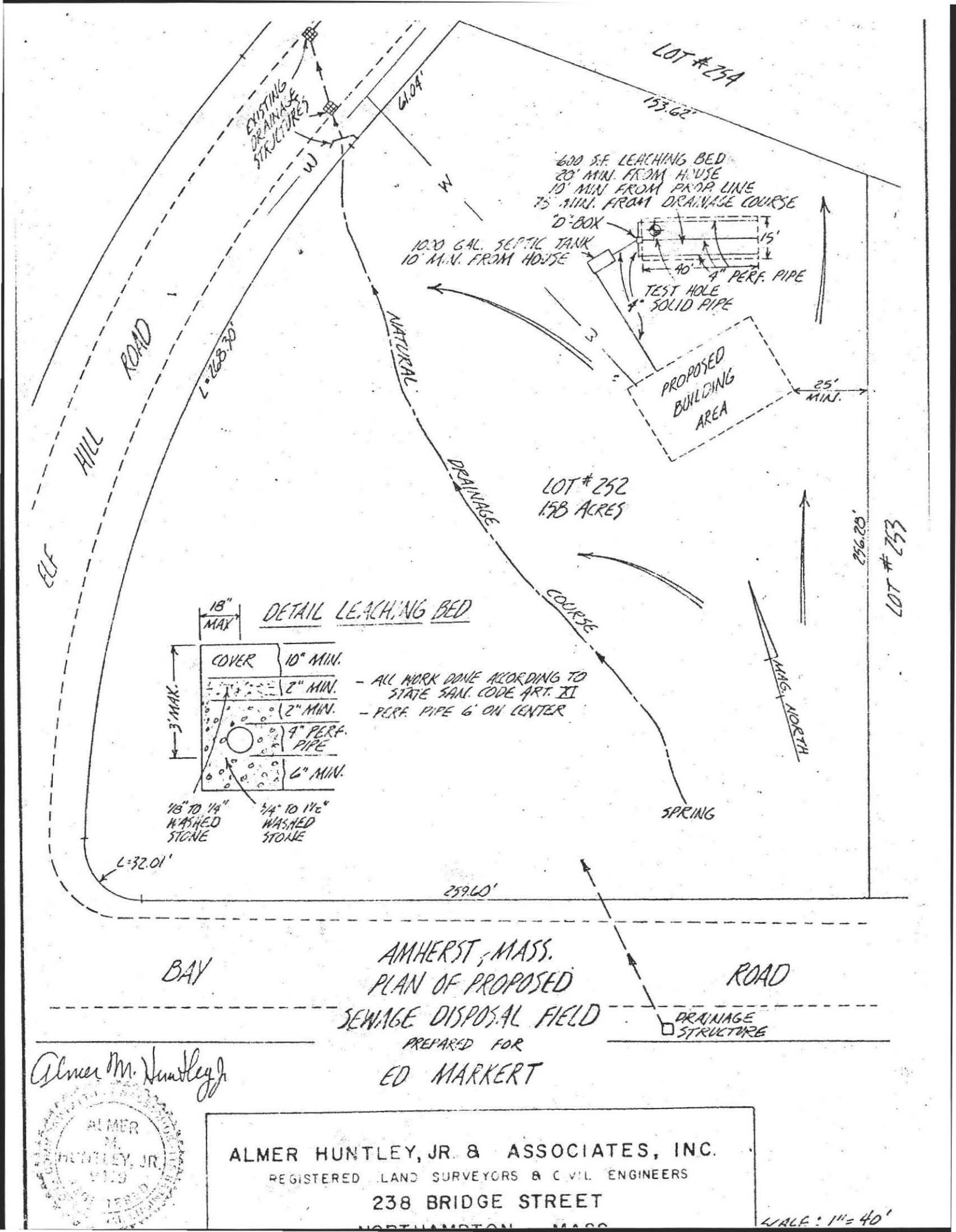
Estimated depth to ground water 18' feet

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

X Obtained from system design plans on record - If checked, date of design plan reviewed: Approx. 1977
___ Observed site (abutting property/observation hole within 150 feet of SAS)
X Checked with local Board of Health-explain: Agent provided area H2O levels re: soils
___ Checked with local excavators, installers- (attach documentation)
___ Accessed USGS database-explain: _____

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

_____
_____
_____
_____



AMHERST, MASS.

PLAN OF PROPOSED

SEWAGE DISPOSAL FIELD

PREPARED FOR

ED MARKERT

Almer M. Huntley Jr

ALMER M. HUNTLEY, JR. 5113 REGISTERED LAND SURVEYOR

ALMER HUNTLEY, JR. & ASSOCIATES, INC.

REGISTERED LAND SURVEYORS & CIVIL ENGINEERS

238 BRIDGE STREET

NORTHAMPTON MASS

SCALE: 1" = 40'

SKETCH
FOUNDATION PLAN
No. 1 ELF HILL RD
AMHERST, MASS.
E. R. MARKERT
OCT. 1976
SCALE 1" = 4'

Lot 252
Chalet
#1 Elf Hill

Edward R. Markert
Reg. Professional Engineer
Mass. No. 20603

46'0"

8"

6'6"

4'0"

2'0"

15'6"

16"

4'0"

electric lines come from Elf Hill Rd at the corner with lot #25F (19 Edgewood Rd) #2 aluminum wire. Our wires at 2 - #2 copper cables in parallel for the 3 legs.

10"

10"

19"

1000 gals.

tank 48"Dx 10'8" long
Gasoline tank

(these two " pipes were turned 180° when tank was installed at the new location at the easterly end of the covered bridge) Oct 21/77

Aug 13, 2004

Tank removed - also the 1000 gal tank in ground. Covered Bridge observation - Karl's excavating

Tanks removed under supervision of Amherst Fire Dept - William Klaus Jr

4"

4'0"

12"

Vent

2 copper oil lines

4" hole

plugged

Top of tank 16" below surface

1000 gal. old tank
48" diam 11½ ft long

Vent straight up

35

32" deep

45°

16"

27'6"

1" plastic water line on easterly side of driveway

170'

WATER LINE

2'

Amount installed later

Iron rod corner found

A

Corporation

B

16" copper

1" plastic 6 ft deep

Coupling

100 ft from curb box

adapter copper to plastic

C

Curb box 5' deep

7 ft of 1" copper

Bay Road

West

min 4½ ft deep

AB - 6'6"
AC - 6'19"
BD - 74'
CD - 78"

er of drop inlet
terly)

No. 1 Elf Hill Rd. Edward Mowkert Sr.

✓ request info. re: pumping plans N.A. 8-22

✓ N.A. 8-22

A note condition of property O.K.

B locate all components O.K.
Tank 1500 gal. concrete
Approx. 1976-78 const.

C Expose tank & covers - O.K.
check baffles O.K.

D D-Box - expose & remove cover
check level

E note leach field area O.K.