147 Bay Road

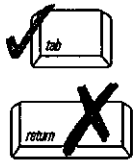
Commonwealth of Massachusetts
City/Town of Amherst

Certificate of Compliance

Form 3

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

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



This is to Certify that the following work on an On-Site Sewage Disposal System

- ☐ Construction of a new system
- ☐ Repair or replacement of an existing system
- ☒ Repair or replacement of an existing system component

Has been done in accordance with Title 5 and the Disposal System Construction Permit (DSCP):

DSCP Number	DSCP Date
12-07	8.17.2011

Amaro R. Ferreira and Dulcineia M. Dos Santos
Facility Owner

147 Bay Road
Street Address or Lot #

City/Town	State	Zip Code
Amherst	MA	01002

Designer Information:

Name	Name of Company
Paul M. Styspeck, PE / Robert Stover	Amherst Environmental Services

Signature: Robert J Stover

Date: 10.17.2012

Edward R Smith 10/17/12

Installer Information:

Name	Name of Company
GRAVEY SEPTIC	GREG EVERSON

Signature

Date

Use of this system is conditioned on compliance with the provisions set forth below:

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

AMHERST BD. OF HEALTH
Approving Authority

Edward R Smith
Signature

9.21.2011
Date

Commonwealth of Massachusetts
City/Town of Amherst
Certificate of Compliance
Form 3

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

This is to Certify that the following work on an On-Site Sewage Disposal System

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

- ☐ Construction of a new system
- ☐ Repair or replacement of an existing system
- ☒ Repair or replacement of an existing system component

Has been done in accordance with Title 5 and the Disposal System Construction Permit (DSCP):

12-07 — DSCP Number
8-18-2011 — DSCP Date

Amaro R. Ferreira and Dulcineia M. Dos Santos — Facility Owner

147 Bay Road — Street Address or Lot #

Amherst — City/Town
MA — State
01002 — Zip Code

Designer Information:

Paul M. Styspeck, PE ~~Robert Stover~~ — Name
Amherst Environmental Services — Name of Company
Signature
Date

Installer Information:

GRAWSY SEPTIC — Name
GREG EVERSON — Name of Company
Signature
10-19-12 — Date

Use of this system is conditioned on compliance with the provisions set forth below:

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

Amherst Bd. of Health — Approving Authority
Signature
9-21-2011 — Date

FAX

10/16/2012

Number of pages including cover sheet 2

TO

Greg
Everson

Phone

Fax Phone *413.536.4564*

FROM *Edmund Smith*
Amherst Health Department
Bangs Community Center
70 Boltwood Walk
Amherst, MA 01002

Phone *(413) 259-3153*

Fax Phone *(413) 259-2404*

E-Mail *smithe@amherstma.gov*

REMARKS: ☐ *Urgent* ☐ *For your review* ☒ *Reply ASAP* ☐ *Please Comment*

Hi Greg –

Please sign off on this form and fax it back to me (259-2404)

Thanks,
Ed

* * * Communication Result Report (Oct. 16. 2012 12:32PM) * * *

1) Amherst Public Health
2)

Date/Time: Oct. 16. 2012 12:31PM

File No.	Mode	Destination	Pg(s)	Result	Page Not Sent
2334	Memory TX	914135364564	P. 2	OK	

Reason for error
E. 1) Hang up or line fail
E. 2) Busy
E. 3) No answer
E. 4) No facsimile connection
E. 5) Exceeded max. E-mail size

FAX

10/16/2012

Number of pages including cover sheet 2

TO
Greg
Everson

Phone
Fax Phone 413.536.4564

FROM *Edmund Smith*
Amherst Health Department
Bangs Community Center
70 Boltwood Walk
Amherst, MA 01002
Phone (413) 259-3153
Fax Phone (413) 259-2404
E-Mail smithe@amherstma.gov

REMARKS: ☐ *Urgent* ☐ *For your review* ☒ *Reply ASAP* ☐ *Please Comment*

Hi Greg –

Please sign off on this form and fax it back to me (259-2404)

Thanks,
Ed

July 2011 INVOICE

AMHERST PUBLIC HEALTH DEPARTMENT

Bangs Community Center
70 Boltwood Walk
Amherst, MA 01002

DATE: July 6, 2011

TO Amaro Ferreira & Dulcineia Dos Santos
147 Bay Road
Amherst, MA 01002

RE: Invoice for **Septic Title V witness**

Services provided by **Edmund Smith**

PAYMENT TERMS: Due Upon Receipt

QUANTITY	DESCRIPTION	UNIT PRICE	LINE TOTAL
1.00	Septic Title V witness performed 6/29/2011 w/Clean Septics insp.	$ 200.00	$ 200.00
1.00	Plan Review	$ 150.00	$ 150.00
	this invoice is paid in full: your check #1679 recd. 8/16/2011		
	thank you; questions call (413)259-3153		
		SUBTOTAL	$ 350.00
		SALES TAX	
		TOTAL	$ 350.00

MUNIS # 10335
10357

PARCEL 25B-27 25B0000 27

Epoch 686

PERMITS/INSP PAYMENT RECPT#: 12017391
TOWN OF AMHERST
TOWN HALL
4 BOLTWOOD AVENUE
AMHERST MA 01002

DATE: 08/19/11 TIME: 14:04
CLERK: publichea DEPT:

PAID BY:
PAYMENT METH: CHECK 1679

REFERENCE:

AMT TENDERED: 200.00
AMT APPLIED: 200.00
CHANGE: .00

SITE ADDRESS: 147 BAY ROAD

FEES:
HEA058 200.00

TOTAL PAID: 200.00

PERMITS/INSP PAYMENT RECPT#: 12017392
TOWN OF AMHERST
TOWN HALL
4 BOLTWOOD AVENUE
AMHERST MA 01002

DATE: 08/19/11 TIME: 14:23
CLERK: publichea DEPT:

PAID BY:
PAYMENT METH: CHECK 1679

REFERENCE:

AMT TENDERED: 150.00
AMT APPLIED: 150.00
CHANGE: .00

SITE ADDRESS: 147 BAY ROAD

FEES:
HEA017 150.00

TOTAL PAID: 150.00

Commonwealth of Massachusetts
City/Town of Amherst

Local Upgrade Approval

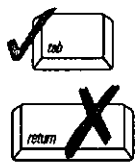
Form 9B

DEP has provided this form for use by local Boards of Health if they choose to do so.

The Local Upgrade Approval is to be completed by the local Board of Health and a signed copy provided to the system owner.

A. Facility Information

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



1. Facility Name and Address

   Dulcineia M. Dos Santos and Amaro R. Ferreira
   Name

   147 Bay Road
   Street Address

   Amherst | MA | 01002
   City/Town | State | Zip Code

2. Owner Name and Address (if different from above):

   same
   Name

   Street Address

   City/Town

   State

   Zip Code

   (413) 253-9834
   Telephone Number

3. Type of Facility (check all that apply):

   ☒ Residential ☐ Institutional ☐ Commercial ☐ School

4. Design flow per 310 CMR 15.203: 330 gpd

5. System Designer: Paul M. Styspeck, PE / Robt Stover ☒ PE ☐ RS

   P. O. Box 3312 | Amherst | MA 01004-3312
   Address | City/Town | State, ZIP

B. Approval

1. Local Upgrade Approval is granted for:

   ☐ Reduction in setback(s) – specify:

   ☐ Reduction in SAS area of up to 25%: SAS size, sq. ft. % reduction

Commonwealth of Massachusetts
City/Town of Amherst

Local Upgrade Approval

Form 9B

B. Approval (continued)

☐ Reduction in separation between the SAS and high groundwater:

Separation reduction	from 5.00 to 4.27 ft.
Percolation rate	less than 2 min./inch
Depth to groundwater	87-inches ft.

☐ Relocation of water supply well (explain):

☐ Reduction of 12-inch separation between inlet and outlet tees and high groundwater

☐ Use of only one deep hole in proposed disposal area

☐ Use of a sieve analysis as a substitute for a perc test

List local variances granted not requiring DEP approval per 310 CMR 15.412(4):

List variances granted requiring DEP approval:

Approving Authority

Print or Type Name and Title | Signature | Date

Commonwealth of Massachusetts
City/Town of Amherst
Application for Disposal System Construction Permit

Form 1A

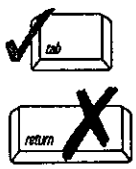
Number

$
Fee

DEP has provided this form for use by local Boards of Health if they choose to do so. Before using the form, check with your local Board of Health to make sure that they will accept it.

A. Facility Information

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



Application is hereby made for a permit to:
- ☐ Construct a new on-site sewage disposal system
- ☐ Repair or replace an existing on-site sewage disposal system
- ☒ Repair or replace an existing system component

1. Location of Facility:

147 Bay Road
Address or Lot #

Amherst | MA | 01002
City/Town | State | Zip Code

2. Owner Information

Dulcineia M. Dos Santos and Amaro R. Ferreira
Name

same
Address (if different from above)

City/Town | State | 01002 Zip Code

(413) 253-9834
Telephone Number

3. Installer Information

Name | Name of Company

Address

City/Town | State | Zip Code

Telephone Number

4. Designer Information

Paul M. Styspeck, PE / Robert Stover | Amherst Environmental Services
Name | Name of Company

P. O. Box 3312
Address

Amherst | MA | 01004-3312
City/Town | State | Zip Code

(413) 256-3400
Telephone Number

COMMONWEALTH OF MASSACHUSETTS
PAUL M. STYSPECK
CIVIL
NO. 40177
REGISTERED PROFESSIONAL ENGINEER
1.28.11

Commonwealth of Massachusetts
City/Town of Amherst

Application for Disposal System Construction Permit

Form 1A

Number

$ Fee

A. Facility Information (continued)

5. Type of Building:

☒ Dwelling ☐ Garbage Grinder (check if present)

Other: Type of Building _____ Number of Persons Served

☐ Showers _____ Number of showers ☐ Cafeteria ☐ Other fixtures

Specify other fixtures: _____

6. Design Flow: 330.00 Gallons per Day

Calculated Daily Flow: 505.77 Gallons

7. Plan: 7/27/11 Date of Original

one Number of Sheets _____ Revision Date

"Plan of Septic System Repair" Title of Plan

8. Description of Soil:

attached

9. Nature of Repairs or Alterations (if applicable):

replace failed soil absorption system with new distribution box and two leaxh trenches consisting of 24 (12 per trench) Infiltrator Quick4 Plus standard low profile chambers.

10. Date last inspected: 6/29/11 by Nathan Torretti Date

Commonwealth of Massachusetts
City/Town of Amherst

Application for Disposal System Construction Permit

Form 1A

Number

$
Fee

B. Agreement

The undersigned agrees to ensure the construction and maintenance of the aforedescribed on-site sewage disposal system in accordance with the provisions of Title 5 of the Environmental Code and not to place the system in operation until a Certificate of Compliance has been issued by this Board of Health.

Signature

8/11/11
Date

Application Approved By:

Name

9.21.2011
Date

Application **Disapproved** for the following reasons:

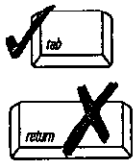
Commonwealth of Massachusetts
City/Town of Amherst
Disposal System Construction Permit
Form 2A

Number _____

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

Permission is hereby granted to:

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



Amaro R. Ferreira and Dulcineia M. Dos Santos
Name

Name of Company

147 Bay Road
Address

Amherst | MA | 01002
City/Town | State | Zip Code

to perform the following work on an on-site sewage disposal system:

- ☐ Construction
- ☐ Repair or replacement
- ☒ Repair or replacement of system components

same
Facility Address

City/Town | State | Zip Code

Owner

(413) 253-9834
Telephone Number

The work to be performed is further described in the Application for Disposal System Construction Permit. The applicant recognizes his/her duty to comply with Title 5 and the following local provisions or special conditions:

All construction must be completed within three years of the date below.

Approved by | Date

Title

No. _____ Date: 7/13/11

Commonwealth of Massachusetts
Amherst, **Massachusetts**

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: Robert Stover **Date:** 7/13/11
Witnessed By: Ed Smith

Location Address or Lot #	Owner's Name, Address, and Telephone #
147 Bay Road Map 25 B Parcel 27 New Construction ☐ Repair ☒	Dulcinea M. Santos Amaro R. Ferreira 147 Bay Rd. Amherst (413) 253-9834

Office Review

Published Soil Survey Available: No ☐ Yes ☒
Year Published 1981 Publication Scale 1:15840 Soil Map Unit HgB
Drainage Class A Soil Limitations poor filter
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)

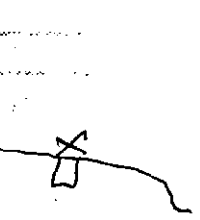
Current Water Resource Conditions (USGS): Month _____
Range: Above Normal ☒ Normal ☐ Below Normal ☐ June, 2011
Other References Reviewed: _____

Location Address or Lot No. 147 Bay Rd., Amherst

On-site Review

Deep Hole Number 2 **Date:** 7/13/11 **Time:** 11:40 **Weather** clear, 85°±
Location (identify on site plan) See plan
Land Use residential/yard **Slope (%)** 11 **Surface Stones** none
Vegetation red oak, white pine
Landform kame terrace
Position on landscape (sketch on the back)
Distances from:

Open Water Body 200 feet Drainage way none feet
Possible Wet Area 100 feet + Property Line 35 feet left sideline
Drinking Water Well 200 feet + Other town water



DEEP OBSERVATION HOLE LOG*

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-5	A	FSL	10YR5/3 dry	none	Friable
5-14	Bw	LS	10YR4/4 dry	none	loose to very friable
14-110	C	FS	10YR4/4	@94" "varved" VFS+ VFLS 7.5YR4/6	loose, stratified sands
					firmer below 94"

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) outwash **Depth to Bedrock:** >110"
Depth to Groundwater: **Standing Water in the Hole:** 103" **Weeping from Pit Face:** 96"
Estimated Seasonal High Ground Water: 94"

Location Address or Lot No. 147 Bay Rd. Amherst

On-site Review

Deep Hole Number 1 Date: 7/13/11 Time: 10:15 Weather clear, 85°±

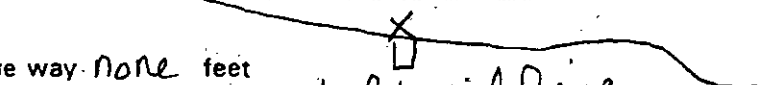
Location (identify on site plan) see plan

Land Use residential Slope (%) 1 Surface Stones none

Vegetation red oak, white pine

Landform Kame terrace

Position on landscape (sketch on the back)



Distances from:

Open Water Body 200 feet + Drainage way none feet

Possible Wet Area 100 feet + Property Line 50 feet ± left sideline

Drinking Water Well 200 feet + Other town water

DEEP OBSERVATION HOLE LOG*

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-8	A	FSL	10YR5/3	none	friable
8-19	Bw	LS	10YR4/4	none	Loose, gravelly remnant Bw
19-87	C1	FS gravelly	10YR4/4	none	loose stratified sand+gr.
87-110	C2	VFSL	10YR5/3	below 87 7.5YR4/6	Firm, "varved" VFSL and FS+F gravel

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) outwash Depth to Bedrock: >110"

Depth to Groundwater: Standing Water in the Hole: 100" Weeping from Pit Face: 87"

Estimated Seasonal High Ground Water: 87"

FORM 11 - SOIL EVALUATOR FORM

Location Address or Lot No. 147 Bay Road
Amherst

Determination for Seasonal High Water Table

Method Used:

- ☐ Depth observed standing in observation hole ..... inches
- ☐ Depth weeping from side of observation hole ..... inches
- ☒ Depth to soil mottles 87 inches and 94"
- ☐ Ground water adjustment ..... feet

Index Well Number ..... Reading Date ..... Index well level .....

Adjustment factor ..... Adjusted ground water level .....

Depth of Naturally Occurring Pervious Material

Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? yes

If not, what is the depth of naturally occurring pervious material? _____

Certification

I certify that on 6/1993 (date) I have passed the soil evaluator examination approved by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017.

Signature Robert Stover Date 7/13/11

FORM 12 - PERCOLATION TEST

Location Address or Lot No. 147 Bay Rd

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*		
Date: 7/13/11	Time: 10:32	
Observation Hole #	1	
Depth of Perc	49"	
Start Pre-soak	10:39 25 gals	
End Pre-soak	couldn't maintain	
Time at 12"	a liquid level	
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: Bob Stover

Witnessed By: Ed Smith

Comments: 5' water table separation required

Commonwealth of Massachusetts
City/Town of Amherst

Local Upgrade Approval

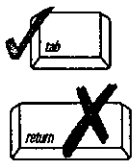
Form 9B

DEP has provided this form for use by local Boards of Health if they choose to do so.

The Local Upgrade Approval is to be completed by the local Board of Health and a signed copy provided to the system owner.

A. Facility Information

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



1. Facility Name and Address

   Dulcineia M. Dos Santos and Amaro R. Ferreira
   Name

   147 Bay Road
   Street Address

   Amherst | MA | 01002
   City/Town | State | Zip Code

2. Owner Name and Address (if different from above):

   same
   Name | Street Address

   City/Town | State

   Zip Code | (413) 253-9834
   Telephone Number

3. Type of Facility (check all that apply):

   ☒ Residential ☐ Institutional ☐ Commercial ☐ School

4. Design flow per 310 CMR 15.203: 330 gpd

5. System Designer: Paul M. Styspeck, PE / Robt Stover ☒ PE ☐ RS

   P. O. Box 3312 | Amherst | MA 01004-3312
   Address | City/Town | State, ZIP

B. Approval

1. Local Upgrade Approval is granted for:

   ☐ Reduction in setback(s) – specify:

   ☐ Reduction in SAS area of up to 25%: _____ SAS size, sq. ft. _____ % reduction

Commonwealth of Massachusetts
City/Town of Amherst

Local Upgrade Approval

Form 9B

B. Approval (continued)

☑ Reduction in separation between the SAS and high groundwater:

Separation reduction	from 5.00 to 4.27 ft.
Percolation rate	less than 2 min./inch
Depth to groundwater	87-inches ft.

☐ Relocation of water supply well (explain):

☐ Reduction of 12-inch separation between inlet and outlet tees and high groundwater

☐ Use of only one deep hole in proposed disposal area

☐ Use of a sieve analysis as a substitute for a perc test

List local variances granted not requiring DEP approval per 310 CMR 15.412(4):

List variances granted requiring DEP approval:

Edmund Smith / AMHERST BD. OF HEALTH
Approving Authority

EDMUND SMITH — Print or Type Name and Title

Signature

8-17-2011 — Date

Commonwealth of Massachusetts
City/Town of Amherst
Application for Disposal System Construction Permit

Form 1A

12-07
Number

$
Fee

DEP has provided this form for use by local Boards of Health if they choose to do so. Before using the form, check with your local Board of Health to make sure that they will accept it.

A. Facility Information

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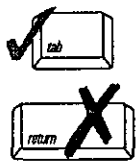

Application is hereby made for a permit to:
- ☐ Construct a new on-site sewage disposal system
- ☐ Repair or replace an existing on-site sewage disposal system
- ☒ Repair or replace an existing system component

1. Location of Facility:

147 Bay Road
Address or Lot #

Amherst | MA | 01002
City/Town | State | Zip Code

2. Owner Information

Dulcineia M. Dos Santos and Amaro R. Ferreira
Name

same
Address (if different from above)

City/Town | State | 01002 Zip Code

(413) 253-9834
Telephone Number

3. Installer Information

GRANBY SEPTIC | GREG EJERSON
Name | Name of Company

36 KELLOGG STREET
Address

GRANBY, MA 01033
City/Town | State | Zip Code

413-531-4693 · 467-1931 OFFICE
Telephone Number CELL

4. Designer Information

Paul M. Styspeck, PE / Robert Stover | Amherst Environmental Services
Name | Name of Company

P. O. Box 3312
Address

Amherst | MA | 01004-3312
City/Town | State | Zip Code

(413) 256-3400
Telephone Number

COMMONWEALTH OF MASSACHUSETTS
PAUL M. STYSPECK
CIVIL
NO. 49177
REGISTERED PROFESSIONAL ENGINEER
1.28.11

Commonwealth of Massachusetts
City/Town of Amherst

Application for Disposal System Construction Permit

Form 1A

Number

$
Fee

A. Facility Information (continued)

5. Type of Building:

☒ Dwelling ☐ Garbage Grinder (check if present)

Other: Type of Building _____ Number of Persons Served

☐ Showers _____ Number of showers ☐ Cafeteria ☐ Other fixtures

Specify other fixtures: _____

6. Design Flow: 330.00 Gallons per Day

Calculated Daily Flow: 505.77 Gallons

7. Plan: 7/27/11 Date of Original

one Number of Sheets _____ Revision Date

"Plan of Septic System Repair" Title of Plan

8. Description of Soil:

attached

9. Nature of Repairs or Alterations (if applicable):

replace failed soil absorption system with new distribution box and two leaxh trenches consisting of 24 (12 per trench) Infiltrator Quick4 Plus standard low profile chambers.

10. Date last inspected: 6/29/11 by Nathan Torretti Date

Commonwealth of Massachusetts
City/Town of Amherst
Application for Disposal System Construction Permit
Form 1A

Number

$ Fee

B. Agreement

The undersigned agrees to ensure the construction and maintenance of the aforedescribed on-site sewage disposal system in accordance with the provisions of Title 5 of the Environmental Code and not to place the system in operation until a Certificate of Compliance has been issued by this Board of Health.

Signature — Date: 8/11/11

Application Approved By:

Name — Date: 8/17/11

Application **Disapproved** for the following reasons:

Commonwealth of Massachusetts
City/Town of Amherst
Disposal System Construction Permit
Form 2A

Number _____

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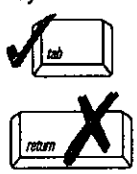
Permission is hereby granted to:

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



Amaro R. Ferreira and Dulcineia M. Dos Santos
Name

Name of Company

147 Bay Road
Address

Amherst | MA | 01002
City/Town | State | Zip Code

to perform the following work on an on-site sewage disposal system:

- ☐ Construction
- ☐ Repair or replacement
- ☒ Repair or replacement of system components

same
Facility Address

City/Town | State | Zip Code

Owner

(413) 253-9834
Telephone Number

The work to be performed is further described in the Application for Disposal System Construction Permit. The applicant recognizes his/her duty to comply with Title 5 and the following local provisions or special conditions:

All construction must be completed within three years of the date below.

Edward R Smith
Approved by

8.17.2011
Date

Asst. Sanitarian
Title

To: Amaro R. Ferreira & Dulcineia M. Dos Santos 8/7/11
147 Bay Road
Amherst, MA 01002
413-221-1344 (Dulcineia cell)

From: Granby Septic Service
36 Kellogg Street
Granby, MA 01033
413-531-4693 Cell
413-467-1931 Office

RE: Installation of replacement leach field for 147 Bay Road, Amherst, MA

I will provide a gravity fed septic system for a 3 bedroom existing home in accordance with Amherst Environmental Services approved plan dated 7/27/11. The existing septic tank will be pumped out at the time of the installation. The price and installation of a new septic tank is not included in this proposal. *At the homeowner's option, I can add an effluent filter to the outlet end of the septic tank along with a new baffle for an additional $50.*

The new leachfield will be made from Quick-4 low profile infiltrators. One new Massachusetts style 5 outlet distribution box will be installed with a 12" riser to with 6" of the finish grade. The existing leachfield will be abandoned on site. The distribution box will be crushed and filled in.

The existing loam will be dozed into a pile at the onset of construction and will be spread on the job upon completion. At the property owner's request we are proposing to install this septic to "rough grade". After the final inspection by Bob Stover and the Amherst Health agent, we will backill the system with the existing material and we will spread the small amount of stockpiled loam. We will haul away all excess dirt. The new leachfield will need to have grass planted over it.

Homeowner is responsible for all necessary septic permits and related inspection fees. It is the homeowner's responsibility to ensure that all grey water inside the house exits into the new septic system.

This price could be susceptible to change due to unforeseen conditions. If any change is to take place other than what is specified in this contract a change order must be agreed upon and signed by both parties.

Price for replacement septic system, price includes excavation, materials, trucking, and backfilling to rough grade ~~**$4200**~~ $4000 GRE

Payment schedule is as follows: 100% due upon completion which is backfilling to rough grade.

Respectfully submitted,

8/7/11

Greg Everson, owner

The above prices, specifications and conditions are satisfactory and are hereby accepted. Granby Septic Service is authorized to do the work as specified. Payment will be made as outlined above.

Signature of Acceptance

References will gladly be provided if interested in our services.

Plan: 147 BAY ROAD Designed by: ROBT. STOVER

CHECK LIST FOR SEPTIC PLANS

- [x] Application page attached to plan
- [x] PE or RS stamp, date, signature
- [NA] Variances to property line setback distances must have Surveyor Stamp 15220 (3)
- [x] Legal boundaries noted
- [x] Easements noted
- [x] Dwellings and buildings existing or proposed noted
- [x] Location of driveway or parking areas, other impervious areas
- [NA] Location and dimensions of reserve area (new) CMR 15.248(1), 15.104(4)
- [x] System design calculations
- [x] Garbage grinder Y or (N)
- [x] Benchmark not disturbed during construction, within 75 feet of facility CMR15.220 (4)(q)
- [x] North arrow CMR 15.200 (4) (g)
- [x] Contours
- [x] Deep hole location and data
- [x] Perc hole location and data
- [x] Elevations
- [x] Names of approving authority and soil evaluator CMR 15.21E p. 49
- [x] Location of every water supply, public and private. CMR 15.220(k):
  - Within 400 feet of system in case of surface water and gravel packed public water supply
  - Within 250 feet of system in case of tubular public water supply
  - Within 150 feet of private supply wells - 100' septic sys. ; 50' tank
- [NA] **Well statement if applicable**
- [x] Location of any surface waters, rivers, vegetated wetlands
- [x] Location of water lines and other subsurface utilities
- [x] Observed and adjusted ground water elevation in the vicinity of system 15.220 (4)(n)
- [x] Profile of system
- [x] Locus plan to show location of facility, including nearest street
- [x] Materials of construction and specs for system
- [NA] Gas Baffle 15.227.4
- [x] Pipe in center line of tank 310 CMR 15.227, 15.06(8)
- [NA] Double washed stone
- [x] Schedule 40 PVC for trafficked areas, house to tank
- [x] Distances noted from house to tank, etc.
- [NA] If dosing is proposed, design and specs of dosing system
- [NA] When alternative technology is required, complete plan and specs, including hydraulic profile
- [x] Trenches preferred over beds CMR 15.240 (6)
- [x] Buoyancy calculations for tanks or components partly below H20 table 15.221(8) p. 56
- [NA] 3 to 1 slope outside of mound, toe ending 5 feet from property line
- [x] Local upgrade requests on the plan
- [x] Local upgrade forms attached to application
- [x] Note on plan listing all variances sought in conjunction with the plan

NOTES:

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

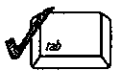
Form 9A is to be submitted to the Local Board of Health for the upgrade of a failed or nonconforming septic system with a design flow of less than 10,000 gpd, where full compliance, as defined in 310 CMR 15.404(1), is not feasible.

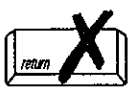
System upgrades that cannot be performed in accordance with 310 CMR 15.404 and 15.405, or in full compliance with the requirements of 310 CMR 15.000, require a variance pursuant to 310 CMR 15.410 through 15.415.

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

A. Facility Information

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





1. Facility Name and Address:

Dulcineia M. Dos Santos and Amaro R. Ferreira
Name

147 Bay Road
Street Address

Amherst | MA | 01002
City/Town | State | Zip Code

2. Owner Name and Address (if different from above):

same
Name

Street Address

City/Town

State

Zip Code

(413) 253-9834
Telephone Number

3. Type of Facility (check all that apply):

☒ Residential ☐ Institutional ☐ Commercial ☐ School

4. Describe Facility:

three bedroom full-time single family house without a garbage grinder

5. Type of Existing System:

☐ Privy ☐ Cesspool(s) ☒ Conventional ☐ Other (describe below):

6. Type of soil absorption system (trenches, chambers, leach field, pits, etc):

existing: two pipe and stone leach trenches

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

A. Facility Information (continued)

7. Design Flow per 310 CMR 15.203:

Design flow of existing system:	not known gpd
Design flow of proposed upgraded system	505.77 gpd
Design flow of facility:	330.00 gpd

B. Proposed Upgrade of System

1. Proposed upgrade is (check one):

☐ Voluntary ☐ Required by order, letter, etc. (attach copy)

☒ Required following inspection pursuant to 310 CMR 15.301: June 29, 2011 (date of inspection)

2. Describe the proposed upgrade to the system:

install distribution box and two leach trenches consisting of 24 (12 per trench) Infiltrator Quick4 Plus standard low profile chambers

3. Local Upgrade Approval is requested for (check all that apply):

☐ Reduction in setback(s) – describe reductions:

☐ Reduction in SAS area of up to 25%: _____ SAS size, sq. ft. _____ % reduction

☒ Reduction in separation between the SAS and high groundwater:

Separation reduction	from 5.00 to 4.27 ft.
Percolation rate	less than 2 min./inch
Depth to groundwater	87-inches ft.

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

B. Proposed Upgrade of System (continued)

☐ Relocation of water supply well (explain):

☐ Reduction of 12-inch separation between inlet and outlet tees and high groundwater

☐ Use of only one deep hole in proposed disposal area

☐ Use of a sieve analysis as a substitute for a perc test

☐ Other requirements of 310 CMR 15.000 that cannot be met – describe and specify sections of the Code:

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 groundwater elevation pursuant to 310 CMR 15.405(1)(h)(1). ***The soil evaluator must be a member or agent of the local approving authority.***

High groundwater evaluation determined by:

Evaluator's Name (type or print)	Signature	7/13/11 Date of evaluation

C. Explanation

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

1. An upgraded system in full compliance with 310 CMR 15.000 is not feasible:

Existing septic tank is structurally sound according to system inspector Nathan Torretti and it's high in the ground but it is still too deep to allow for a 5-ft separation from the estimated seasonal high ground water elevation.

2. An alternative system approved pursuant to 310 CMR 15.283 to 15.288 is not feasible:

This facility does not warrant an alternative system.

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

C. Explanation (continued)

3. A shared system is not feasible:

   There is no abutter known to need to share a system. A shared system is not warranted by the circumstances of this facility.

4. Connection to a public sewer is not feasible:

   This area is not served by public sewer.

5. The Application for Local Upgrade Approval must be accompanied by all of the following (check the appropriate boxes):

   ☒ Application for Disposal System Construction Permit

   ☒ Complete plans and specifications

   ☒ Site evaluation forms

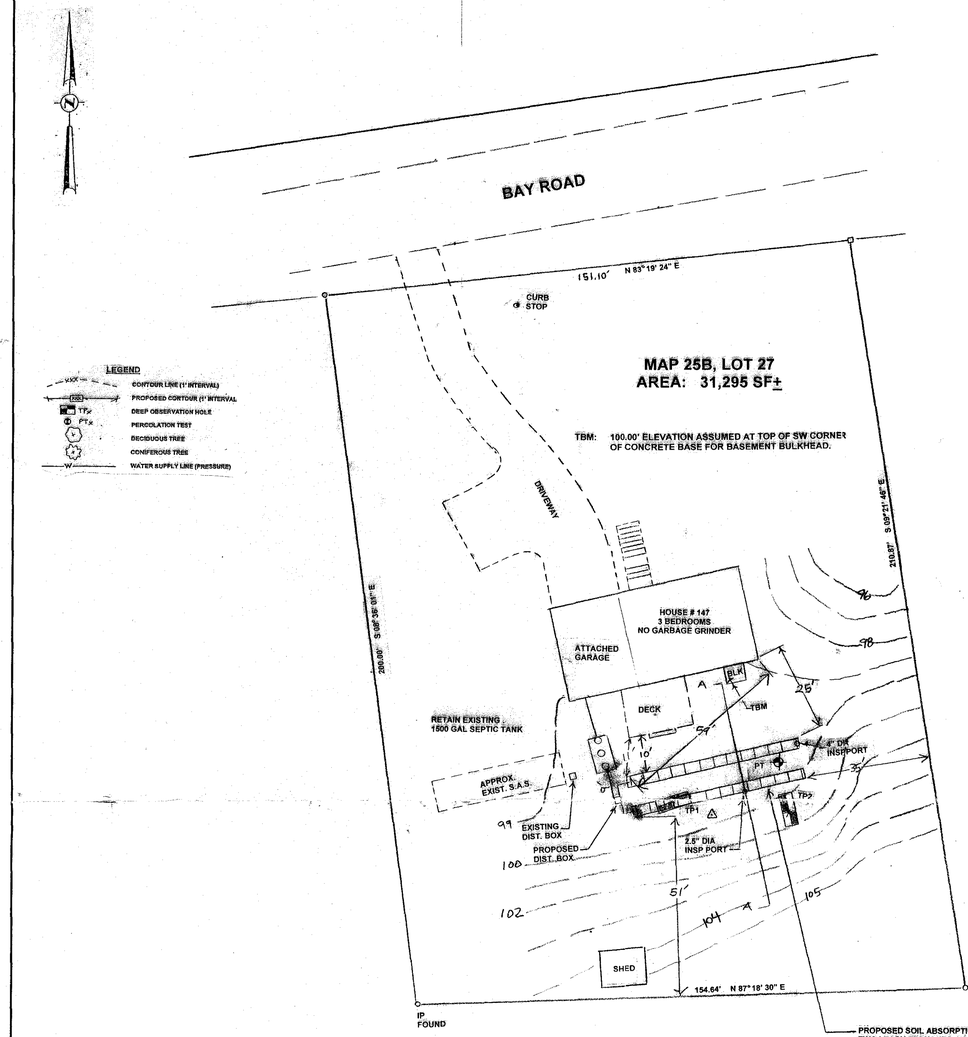
   ☐ A list of abutters affected by reduced setbacks to private water supply wells or property lines. Provide proof that affected abutters have been notified pursuant to 310 CMR 15.405(2).

   ☐ Other (List):

D. 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 deliberate violations."

Wilmina dos Santos	8/11/11
Facility Owner's Signature	Date
Dulcineia M. Dos Santos & Amaro R. Ferreira	
Print Name	
Robert Stover	7/28/11
Name of Preparer	Date
P. O. Box 3312	Amherst
Preparer's address	City/Town
01004-3312	(413) 256-3400
State/ZIP Code	Telephone

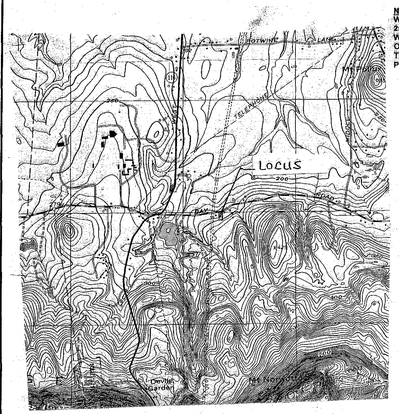


PLANVIEW

SCALE: 1" = 20'

PROPERTY LINE INFORMATION FROM
"PLAN OF LAND IN AMHERST, MASSACHUSETTS"
BY ALMER HUNTLEY, JR. & ASSOCIATES, INC
PREPARED FOR HOWARD W. ATKINS, DATED DEC. 10, 1982

PROPOSED SOIL ABSORPTION SYSTEM:
TWO LEACH TRENCHES, EACH 49.10' LONG BY 34" WIDE;
EACH WITH 12 *INFILTRATOR QUICK4 PLUS STANDARD LP CHAMBERS*; PERISCOPE INLET FOR 8" INVERT HEIGHT.



USGS MT HOLYOKE, MA QUADRANGLE
SCALE: 1 : 25 000

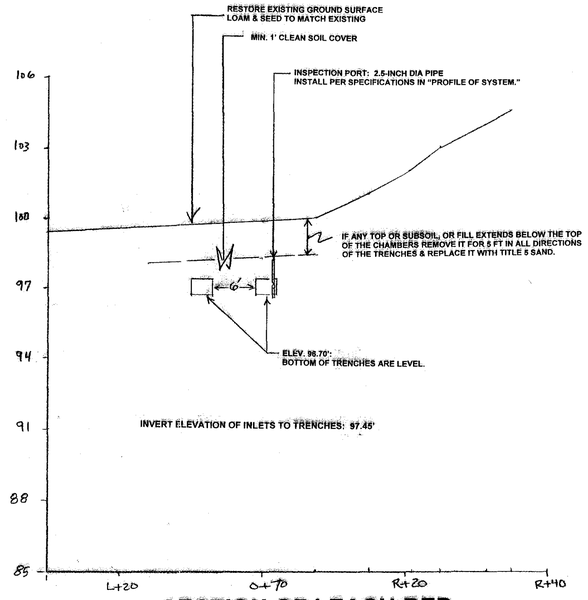
NOTE: THERE ARE NO SURFACE WATER SUPPLIES OR GRAVEL PACKED PUBLIC WATER SUPPLY WELLS WITHIN 400' OF THE PROPOSED SYSTEM LOCATION. THERE ARE NO TUBULAR WATER SUPPLY WELLS WITH 250' OF THE PROPOSED SYSTEM LOCATION. THERE ARE NO TRIBUTARIES TO SURFACE WATER SUPPLIES WITHIN 200' OF THE PROPOSED SYSTEM LOCATION OR WETLANDS BORDERING SURFACE WATER SUPPLIES OR TRIBUTARIES TO SURFACE WATER SUPPLIES WITHIN 100' OF THE PROPOSED SYSTEM LOCATION. THERE ARE NO WETLAND RESOURCE AREAS OR PRIVATE WATER SUPPLY WELLS WITHIN 150' OF THE PROPOSED SYSTEM LOCATION.

GENERAL CONDITIONS

1. This septic system repair plan is prepared in accordance with Title 5, 310 CMR 15.00. Construction shall conform to these regulations.
2. Installer shall be certified by the manufacturer to install *Infiltrator* chambers.
3. The installer shall inform the designer of any unusual conditions and shall not modify the plan without the written consent of the designer.
4. All debris in the site area shall be removed and disposed of in accordance with the law.
5. There is no guarantee expressed or implied to any user of a system installed pursuant to this plan.
6. The installer shall notify the designer and the Board of Health Representative when the system excavation is ready for inspection and again when the system installation is complete but not covered. The installer shall notify the designer when the finished grade is ready for inspection. Notification shall be 72 hours prior to the time of inspection.
7. The septic tank shall be pumped and inspected as necessary and at least once every three years.

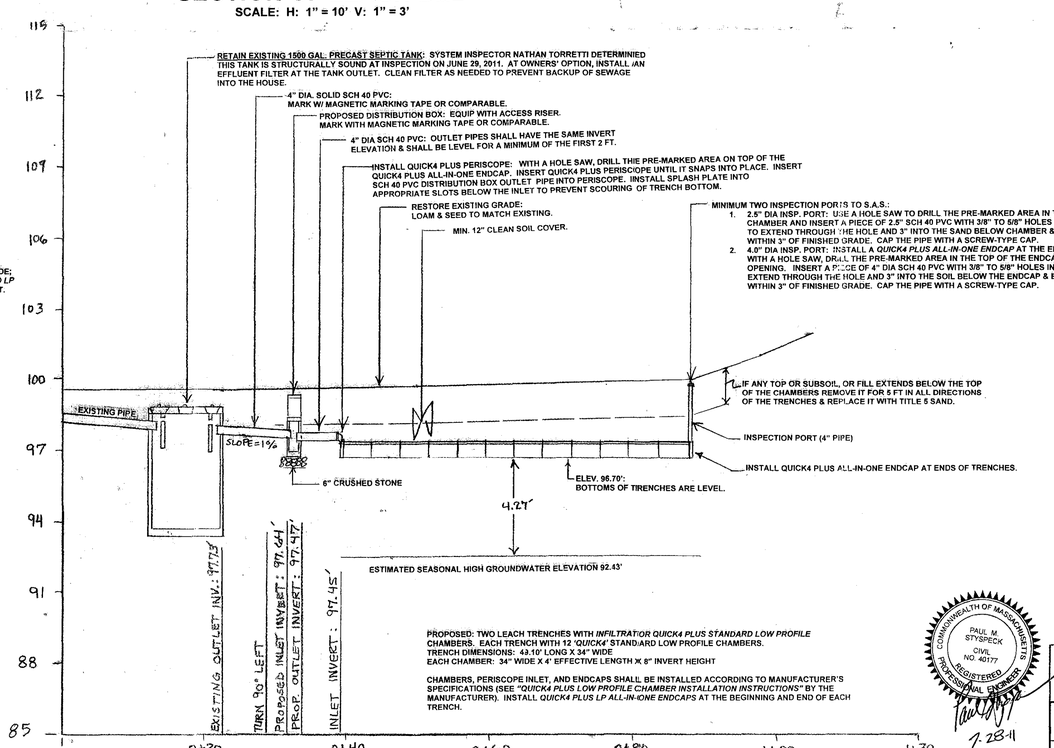
CONSTRUCTION NOTES

1. Any topsoil, subsoil, old fill, or other impervious materials encountered during excavation shall be removed from the area of the soil absorption system, from five feet around the soil absorption system and from wherever fill is to be placed. Any fill placedunder or adjacent to the soil absorption system shall be a clean, granular sand and conform to the specifications of Title 5, 310 CMR 15.255(3).
2. Pipes exiting the distribution box shall have the sameinvert elevation and be laid level for a minimum first two feet.
3. The finished grade above the soil absorption system shall have a minimum two percent slope to shed surface runoff away from the system.
4. Disturbed areas shall be loamed, seeded and mulched until stable vegetation is established.



SECTION OF LEACH BED

SCALE: H: 1" = 10' V: 1" = 3'



PROFILE OF SYSTEM

SCALE: H: 1" = 10' V: 1" = 3'

SOIL EVALUATION

Approved Soil Evaluator: Robert Stover
BOH Representative: Ed Smith
Date of Evaluation: 7/13/2011

Ground elevation at soil evaluation test pit #1: 99.68'.
Est. Seasonal High Ground Water Elev. 92.43'.
Bedrock Elevation deeper than: 90.51'.

Depth	Soil Horizon	Soil Texture	Soil Color	Mottling	Other
0 – 8"	A	FSL	10YR5/3	None	friable
8 – 19"	Bw	LS	10YR64/4	None	loose, gravelly reminant subsoil
19 - 87"	C1	LS, gravelly	10YR4/4	None	loose, stratified sand and gravel
87 – 110"	C2	VFSL	10YR5/3	>87": 7.5YR4/6	Firm, "varved" VFSL with FS And fine gravel

Parent Material (Geologic): outwash
Standing Water in the Hole: 100" Weeping from Pit Face: 87"
Estimated Seasonal High Ground Water: 87"
Depth to bedrock: >110"

Ground elevation at soil evaluation test pit #2: 100.17'.
Est. Seasonal High Ground Water Elev. 92.34'.
Bedrock Elevation deeper than: 91.00'.

Depth	Soil Horizon	Soil Texture	Soil Color	Mottling	Other
0 – 5"	A	FSL	10YR5/3	None	friable
5 – 14"	Bw	SL	10YR4/4	None	loose to very friable
14 – 110"	C	FS	10YR4/4	@ 94" 7.5YR4/6	loose stratified sands firmer below 94"

Parent Material (Geologic): outwash
Standing Water in the Hole: 103" Weeping from Pit Face: 96"
Estimated Seasonal High Ground Water: 94"
Depth to bedrock: >110"

DESIGN CRITERIA

Design flow is for a 3-bedroom house without a garbage grinder

DESIGN CALULATION

Design flow: 3-bedrooms, no garbage grinder: = 330 gpd.

Retain existing septic tank: Precast, 1500 gallons

Effluent Loading Rate: Percolation Rate = less than 2 minutes per inch
Class I soils.
Effluent loading rate = 0.74 gpd/sf.

Soil Absorption System: two leach trenches.
Each 49.10' long X 3.00' wide
Each with 12 *Infiltrator Quick4* low profile standard chambers for a total of 24 total chambers; 8-inch invert height

Each standard chamber (trench configuration):	= 6.96 SF/LF.
24 chambers each 4.0 LF:	= 96.0 LF.
two sets of endcaps at 1.1 LF per set:	= 2.2 LF.
Total linear feet:	= 98.2 LF.
98.20 LF X 6.96 SF/LF:	= 683.47 SF.
Calculated Design Flow: 683.47 SF X 0.74 GPD/SF:	= 505.77 gpd.
Total Required Design Flow	= 330.00 gpd (OK)

THE APPLICANT REQUESTS THAT THE AMHERST BOARD OF HEALTH GRANT A LOCAL UPGRADE APPROVAL TO REDUCE THE REQUIRED WATER TABLE SEPARATION FROM FIVE FEET TO FOUR FEET.

COMMONWEALTH OF MASSACHUSETTS
PAUL M. STYSPECK
CIVIL
NO. 40177
REGISTERED PROFESSIONAL ENGINEER
7-28-11

PLAN OF SEPTIC SYSTEM REPAIR

147 BAY ROAD, AMHERST, MA 01002
ASSESSORS MAP 25B, LOT 27

AMARO R. FERREIRA & DULCINEIA M. DOS SANTOS
147 BAY ROAD, AMHERST, MA 01002

SCALE: AS SHOWN	APPROVED BY:	DRAWN BY	RWS
DATE: 7/27/11		REVISED	

AMHERST ENVIRONMENTAL SERVICES
PAUL STYSPECK, P.E. / ROBERT STOVER
P. O. BOX 3312, AMHERST, MA 01004-3312
(413) 256-3400

DRAWING NUMBER

FORM 12 - PERCOLATION TEST

Location Address or Lot No. 147 Bay Rd

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*		
Date: 7/13/11	Time: 10:32	
Observation Hole #	1	
Depth of Perc	49"	
Start Pre-soak	10:39 25 gals	
End Pre-soak	couldn't maintain	
Time at 12"	a liquid level	
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: Bob Stover

Witnessed By: Ed Smith

Comments: 5' water table separation required

DEP

DEP APPROVED FORM - 12/03/96

Location Address or Lot No. 147 Bay Road
Amherst

Determination for Seasonal High Water Table

Method Used:

- ☐ Depth observed standing in observation hole ..... inches
- ☐ Depth weeping from side of observation hole ..... inches
- ☒ Depth to soil mottles 87 inches and 94"
- ☐ Ground water adjustment ..... feet

Index Well Number ..... Reading Date ..... Index well level .....

Adjustment factor ..... Adjusted ground water level .....

Depth of Naturally Occurring Pervious Material

Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? yes

If not, what is the depth of naturally occurring pervious material? ~~8~~

Certification

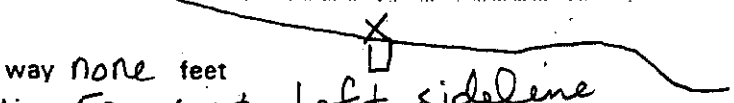
I certify that on 6/1993 (date) I have passed the soil evaluator examination approved by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017.

Signature Robert Stover Date 7/13/11

Location Address or Lot No. 147 Bay Rd.
Amherst

On-site Review

Deep Hole Number 1 Date: 7/13/11 Time: 10:15 Weather clear 85°±
Location (identify on site plan) see plan
Land Use residential Slope (%) 1 Surface Stones none
Vegetation red oak, white pine
Landform Kame terrace
Position on landscape (sketch on the back)



Distances from:
Open Water Body 200 feet + Drainage way none feet
Possible Wet Area 100 feet + Property Line 50 feet ± left sideline
Drinking Water Well 200 feet + Other
town water

DEEP OBSERVATION HOLE LOG*

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0–8	A	FSL	10YR5/3	none	friable
8–19	Bw	LS	10YR4/4	none	Loose, gravelly remnant Bw
19–87	C1	FS gravelly	10YR4/4	none	loose stratified sand+gr.
87–110	C2	VFSL	10YR5/3	below 87 7.5YR4/6	Firm, "varved" VFSL and FS+F gravel

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

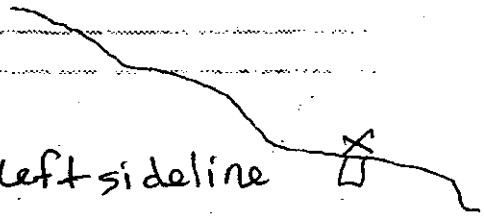
Parent Material (geologic) outwash Depth to Bedrock: >110"
Depth to Groundwater: Standing Water in the Hole: 100" Weeping from Pit Face: 87"
Estimated Seasonal High Ground Water: 87"

Location Address or Lot No. 147 Bay Rd., Amherst

On-site Review

Deep Hole Number 2 **Date:** 7/13/11 **Time:** 11:40 **Weather** clear, 85°±
Location (identify on site plan) See plan
Land Use residential/yard **Slope (%)** 1/ **Surface Stones** none
Vegetation red oak, white pine
Landform kame terrace
Position on landscape (sketch on the back)
Distances from:

Open Water Body 200 feet Drainage way none feet
Possible Wet Area 100 feet+ Property Line 35 feet left sideline
Drinking Water Well 200 feet+ Other
town water



DEEP OBSERVATION HOLE LOG*

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-5	A	FSL	10YR5/3 dry	none	Friable
5-14	Bw	LS	10YR4/4 dry	none	loose to very friable
14-110	C	FS	10YR4/4	@94" "varved" VFS+ VFLS 7.5YR4/6	loose, stratified sands
					firmer below 94"

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) outwash **Depth to Bedrock:** >110"
Depth to Groundwater: **Standing Water in the Hole:** 103" **Weeping from Pit Face:** 96"
Estimated Seasonal High Ground Water: 94"

Commonwealth of Massachusetts
City/Town of Amherst

Local Upgrade Approval

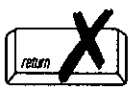
Form 9B

DEP has provided this form for use by local Boards of Health if they choose to do so.

The Local Upgrade Approval is to be completed by the local Board of Health and a signed copy provided to the system owner.

A. Facility Information

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



1. Facility Name and Address

Dulcineia M. Dos Santos and Amaro R. Ferreira
Name

147 Bay Road
Street Address

Amherst | MA | 01002
City/Town | State | Zip Code

2. Owner Name and Address (if different from above):

same
Name

Street Address

City/Town

State

Zip Code

(413) 253-9834
Telephone Number

3. Type of Facility (check all that apply):

☒ Residential ☐ Institutional ☐ Commercial ☐ School

4. Design flow per 310 CMR 15.203: 330 gpd

5. System Designer: Paul M. Styspeck, PE / Robt Stover ☒ PE ☐ RS

P. O. Box 3312 | Amherst | MA 01004-3312
Address | City/Town | State, ZIP

B. Approval

1. Local Upgrade Approval is granted for:

☐ Reduction in setback(s) – specify:

☐ Reduction in SAS area of up to 25%: SAS size, sq. ft. % reduction

Commonwealth of Massachusetts
City/Town of Amherst

Local Upgrade Approval

Form 9B

B. Approval (continued)

☐ Reduction in separation between the SAS and high groundwater:

Separation reduction	from 5.00 to 4.27 ft.
Percolation rate	less than 2 min./inch
Depth to groundwater	87-inches ft.

☐ Relocation of water supply well (explain):

☐ Reduction of 12-inch separation between inlet and outlet tees and high groundwater

☐ Use of only one deep hole in proposed disposal area

☐ Use of a sieve analysis as a substitute for a perc test

List local variances granted not requiring DEP approval per 310 CMR 15.412(4):

List variances granted requiring DEP approval:

Approving Authority

Print or Type Name and Title | Signature | Date

No. _____ Date: 7/13/11

Commonwealth of Massachusetts
Amherst, **Massachusetts**

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: Robert Stover Date: 7/13/11
Witnessed By: Ed Smith

Location Address or Lot # 147 Bay Road Map 25B Parcel 27 New Construction ☐ Repair ☒	Owner's Name, Address, and Telephone # Dulcinea M. Santos Amaro R. Ferreira 147 Bay Rd. Amherst (413) 253-9834

Office Review

Published Soil Survey Available: No ☐ Yes ☒
Year Published 1981 Publication Scale 1:15840 Soil Map Unit HgB
Drainage Class A Soil Limitations poor filter
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 ☐ June, 2011
Other References Reviewed: _____

FORM 12 - PERCOLATION TEST

Location Address or Lot No. 147 Bay Rd

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*		
Date: 7/13/11	Time: 10:32	
Observation Hole #	1	
Depth of Perc	49"	
Start Pre-soak	10:39 25 gals	
End Pre-soak	couldn't maintain	
Time at 12"	a liquid level	
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: Bob Stover

Witnessed By: Ed Smith

Comments: 5' water table separation required

Location Address or Lot No. 147 Bay Road
Amherst

Determination for Seasonal High Water Table

Method Used:

- ☐ Depth observed standing in observation hole ..... inches
- ☐ Depth weeping from side of observation hole ..... inches
- ☒ Depth to soil mottles 87 inches and 94"
- ☐ Ground water adjustment ..... feet

Index Well Number ..... Reading Date ..... Index well level .....

Adjustment factor ..... Adjusted ground water level .....

Depth of Naturally Occurring Pervious Material

Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? yes

If not, what is the depth of naturally occurring pervious material? —

Certification

I certify that on 6/1993 (date) I have passed the soil evaluator examination approved by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017.

Signature Robert Stover Date 7/13/11

Location Address or Lot No. 147 Bay Rd., Amherst

On-site Review

Deep Hole Number 2 **Date:** 7/13/11 **Time:** 11:00 **Weather** clear, 85°±
Location (identify on site plan) See plan
Land Use residential/yard **Slope (%)** 11 **Surface Stones** none
Vegetation red oak, white pine
Landform kame terrace
Position on landscape (sketch on the back)
Distances from:

Open Water Body 200 feet Drainage way none feet
Possible Wet Area 100 feet + Property Line 35 feet left sideline
Drinking Water Well 200 feet + Other
town water

DEEP OBSERVATION HOLE LOG*

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-5	A	FSL	10YR5/3 dry	none	Friable
5-14	Bw	LS	10YR4/4 dry	none	loose to very friable
14-110	C	FS	10YR4/4	@94" "varved" VFS+ VFLS 7.5YR4/6	loose, stratified sands
					firmer below 94"

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) outwash **Depth to Bedrock:** >110"
Depth to Groundwater: **Standing Water in the Hole:** 103" **Weeping from Pit Face:** 96"
Estimated Seasonal High Ground Water: 94"

Location Address or Lot No. 147 Bay Rd. Amherst

On-site Review

Deep Hole Number 1 **Date:** 7/13/11 **Time:** 10:15 **Weather** clear, 85°±

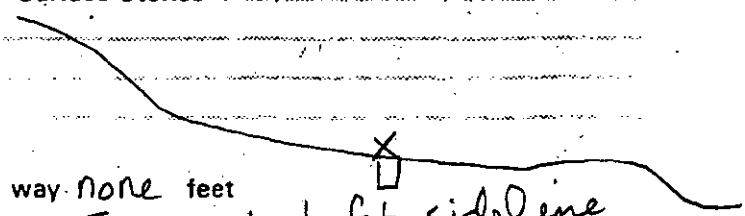
Location (identify on site plan) see plan

Land Use residential **Slope (%)** 1 **Surface Stones** none

Vegetation red oak, white pine

Landform Kame terrace

Position on landscape (sketch on the back)



Distances from:

Open Water Body 200 feet + Drainage way none feet

Possible Wet Area 100 feet + Property Line 50 feet ± left sideline

Drinking Water Well 200 feet + Other town water

DEEP OBSERVATION HOLE LOG*

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-8	A	FSL	10YR5/3	none	friable
8-19	Bw	LS	10YR4/4	none	Loose, gravelly remnant Bw
19-87	C1	FS gravelly	10YR4/4	none	loose stratified sand+gr.
87-110	C2	VFSL	10YR5/3	below 87 7.5YR4/6	Firm, "varved" VFSL and FS+F gravel

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) outwash **Depth to Bedrock:** >110"

Depth to Groundwater: **Standing Water in the Hole:** 100" **Weeping from Pit Face:** 87"

Estimated Seasonal High Ground Water: 87"

No. _____ Date: 7/13/11

Commonwealth of Massachusetts
Amherst, **Massachusetts**

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: Robert Stover **Date:** 7/13/11
Witnessed By: Ed Smith

Location Address or Lot # 147 Bay Road Map 25 B Parcel 27 New Construction ☐ Repair ☒	Owner's Name, Address, and Telephone # Dulcinea M. Santos Amaro R. Ferreira 147 Bay Rd. Amherst (413) 253-9834

Office Review

Published Soil Survey Available: No ☐ Yes ☒
Year Published 1981 Publication Scale 1:15840 Soil Map Unit HgB
Drainage Class A Soil Limitations poor filter
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 ☐ June, 2011
Other References Reviewed:

FORM 12 - PERCOLATION TEST

Location Address or Lot No. 147 Bay Rd

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*		
Date: 7/13/11	Time: 10:32	
Observation Hole #	1	
Depth of Perc	49"	
Start Pre-soak	10:39 25 gals	
End Pre-soak	couldn't maintain	
Time at 12"	a liquid level	
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: Bob Stover

Witnessed By: Ed Smith

Comments: 5' water table separation required

DEP APPROVED FORM - 12/02/96

Location Address or Lot No. 147 Bay Road
Amherst

Determination for Seasonal High Water Table

Method Used:

- ☐ Depth observed standing in observation hole ..... inches
- ☐ Depth weeping from side of observation hole ..... inches
- ☒ Depth to soil mottles 87 inches and 94"
- ☐ Ground water adjustment ..... feet

Index Well Number ..... Reading Date ..... Index well level .....

Adjustment factor ..... Adjusted ground water level .....

Depth of Naturally Occurring Pervious Material

Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? yes

If not, what is the depth of naturally occurring pervious material? ____

Certification

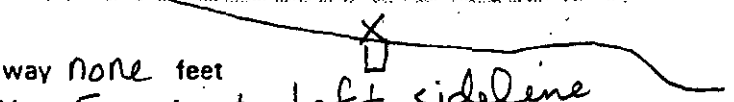
I certify that on 6/1993 (date) I have passed the soil evaluator examination approved by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017.

Signature Robert Stover Date 7/13/11

Location Address or Lot No. 147 Bay Rd. Amherst

On-site Review

Deep Hole Number 1 Date: 7/13/11 Time: 10:15 Weather clear 85°±
Location (identify on site plan) see plan
Land Use residential Slope (%) 1 Surface Stones none
Vegetation red oak, white pine
Landform kame terrace
Position on landscape (sketch on the back)
Distances from:
Open Water Body 200 feet + Drainage way none feet
Possible Wet Area 100 feet + Property Line 50 feet ± left sideline
Drinking Water Well 200 feet + Other
town water



DEEP OBSERVATION HOLE LOG*

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0–8	A	FSL	10YR5/3	none	friable
8–19	Bw	LS	10YR4/4	none	Loose, gravelly remnant Bw
19–87	C1	FS gravelly	10YR4/4	none	loose stratified sand+gr.
87–110	C2	VFSL	10YR5/3	below 87 7.5YR4/6	Firm, "Varved" VFSL and FS+F gravel

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

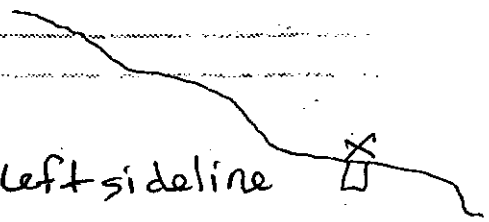
Parent Material (geologic) outwash Depth to Bedrock: >110"
Depth to Groundwater: Standing Water in the Hole: 100" Weeping from Pit Face: 87"
Estimated Seasonal High Ground Water: 87"

Location Address or Lot No. 147 Bay Rd., Amherst

On-site Review

Deep Hole Number 2 **Date:** 7/13/11 **Time:** 11:40 **Weather** clear, 85°±
Location (identify on site plan) see plan
Land Use residential / yard **Slope (%)** 1 / **Surface Stones** none
Vegetation red oak, white pine
Landform kame terrace
Position on landscape (sketch on the back)
Distances from:

Open Water Body 200 feet ~~feet~~ Drainage way none feet
Possible Wet Area 100 feet + Property Line 35 feet
Drinking Water Well 200 feet + town water Other



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Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0 - 5	A	FSL	10YR5/3 dry	none	Friable
5 - 14	Bw	LS	10YR4/4 dry	none	loose to very friable
14 - 110	C	FS	10YR4/4	@ 94" "varved" VFS + VFLS 7.5YR 4/6	loose, stratified sands
					firmer below 94"

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) outwash **Depth to Bedrock:** >110"
Depth to Groundwater: **Standing Water in the Hole:** 103" **Weeping from Pit Face:** 96"
Estimated Seasonal High Ground Water: 94"

No. _____ Date: 7/13/11

Commonwealth of Massachusetts
Amherst, **Massachusetts**

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: Robert Stover Date: 7/13/11
Witnessed By: Ed Smith

Location Address or Lot # 147 Bay Road Map 25 B Parcel 27	Owner's Name, Address, and Telephone # Dulcinea M. Santos Amaro R. Ferreira 147 Bay Rd. Amherst (413) 253-9834
New Construction ☐ Repair ☒	

Office Review

Published Soil Survey Available: No ☐ Yes ☒
Year Published 1981 Publication Scale 1:15840 Soil Map Unit HlgB
Drainage Class A Soil Limitations poor filter
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 ☐ June, 2011
Other References Reviewed:

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

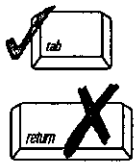
Form 9A is to be submitted to the Local Board of Health for the upgrade of a failed or nonconforming septic system with a design flow of less than 10,000 gpd, where full compliance, as defined in 310 CMR 15.404(1), is not feasible.

System upgrades that cannot be performed in accordance with 310 CMR 15.404 and 15.405, or in full compliance with the requirements of 310 CMR 15.000, require a variance pursuant to 310 CMR 15.410 through 15.415.

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

A. Facility Information

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



1. Facility Name and Address:

   Dulcineia M. Dos Santos and Amaro R. Ferreira
   Name

   147 Bay Road
   Street Address

   Amherst | MA | 01002
   City/Town | State | Zip Code

2. Owner Name and Address (if different from above):

   same
   Name

   Street Address

   City/Town

   State

   Zip Code

   (413) 253-9834
   Telephone Number

3. Type of Facility (check all that apply):

   ☒ Residential ☐ Institutional ☐ Commercial ☐ School

4. Describe Facility:

   three bedroom full-time single family house without a garbage grinder

5. Type of Existing System:

   ☐ Privy ☐ Cesspool(s) ☒ Conventional ☐ Other (describe below):

6. Type of soil absorption system (trenches, chambers, leach field, pits, etc):

   existing: two pipe and stone leach trenches

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

A. Facility Information (continued)

7. Design Flow per 310 CMR 15.203:

Design flow of existing system:	not known gpd
Design flow of proposed upgraded system	505.77 gpd
Design flow of facility:	330.00 gpd

B. Proposed Upgrade of System

1. Proposed upgrade is (check one):

☐ Voluntary ☐ Required by order, letter, etc. (attach copy)

☒ Required following inspection pursuant to 310 CMR 15.301: June 29, 2011 (date of inspection)

2. Describe the proposed upgrade to the system:

install distribution box and two leach trenches consisting of 24 (12 per trench) Infiltrator Quick4 Plus standard low profile chambers

3. Local Upgrade Approval is requested for (check all that apply):

☐ Reduction in setback(s) – describe reductions:

☐ Reduction in SAS area of up to 25%: _____ SAS size, sq. ft. _____ % reduction

☒ Reduction in separation between the SAS and high groundwater:

Separation reduction	from 5.00 to 4.27 ft.
Percolation rate	less than 2 min./inch
Depth to groundwater	87-inches ft.

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

B. Proposed Upgrade of System (continued)

☐ Relocation of water supply well (explain):

☐ Reduction of 12-inch separation between inlet and outlet tees and high groundwater

☐ Use of only one deep hole in proposed disposal area

☐ Use of a sieve analysis as a substitute for a perc test

☐ Other requirements of 310 CMR 15.000 that cannot be met – describe and specify sections of the Code:

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 groundwater elevation pursuant to 310 CMR 15.405(1)(h)(1). ***The soil evaluator must be a member or agent of the local approving authority.***

High groundwater evaluation determined by:

Evaluator's Name (type or print)	Signature	7/13/11 Date of evaluation

C. Explanation

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

1. An upgraded system in full compliance with 310 CMR 15.000 is not feasible:

Existing septic tank is structurally sound according to system inspector Nathan Torretti and it's high in the ground but it is still too deep to allow for a 5-ft separation from the estimated seasonal high ground water elevation.

2. An alternative system approved pursuant to 310 CMR 15.283 to 15.288 is not feasible:

This facility does not warrant an alternative system.

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

C. Explanation (continued)

3. A shared system is not feasible:

There is no abutter known to need to share a system. A shared system is not warranted by the circumstances of this facility.

4. Connection to a public sewer is not feasible:

This area is not served by public sewer.

5. The Application for Local Upgrade Approval must be accompanied by all of the following (check the appropriate boxes):

☒ Application for Disposal System Construction Permit

☒ Complete plans and specifications

☒ Site evaluation forms

☐ A list of abutters affected by reduced setbacks to private water supply wells or property lines. Provide proof that affected abutters have been notified pursuant to 310 CMR 15.405(2).

☐ Other (List):

D. 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 deliberate violations."

Dulcineia dos Santos	8/11/11
Facility Owner's Signature	Date
Dulcineia M. Dos Santos & Amaro R. Ferreira	
Print Name	
Robert Stover	7/28/11
Name of Preparer	Date
P. O. Box 3312	Amherst
Preparer's address	City/Town
01004-3312	(413) 256-3400
State/ZIP Code	Telephone

Commonwealth of Massachusetts
City/Town of Amherst

Local Upgrade Approval

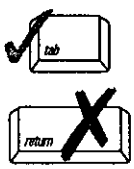
Form 9B

DEP has provided this form for use by local Boards of Health if they choose to do so.

The Local Upgrade Approval is to be completed by the local Board of Health and a signed copy provided to the system owner.

A. Facility Information

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



1. Facility Name and Address

   Dulcineia M. Dos Santos and Amaro R. Ferreira
   Name

   147 Bay Road
   Street Address

   Amherst | MA | 01002
   City/Town | State | Zip Code

2. Owner Name and Address (if different from above):

   same
   Name | Street Address

   City/Town | State

   Zip Code | (413) 253-9834
   Telephone Number

3. Type of Facility (check all that apply):

   ☒ Residential ☐ Institutional ☐ Commercial ☐ School

4. Design flow per 310 CMR 15.203: 330 gpd

5. System Designer: Paul M. Styspeck, PE / Robt Stover ☒ PE ☐ RS

   P. O. Box 3312 | Amherst | MA 01004-3312
   Address | City/Town | State, ZIP

B. Approval

1. Local Upgrade Approval is granted for:

   ☐ Reduction in setback(s) – specify:

   ☐ Reduction in SAS area of up to 25%: _____ SAS size, sq. ft. _____ % reduction

Commonwealth of Massachusetts
City/Town of Amherst

Local Upgrade Approval

Form 9B

B. Approval (continued)

☐ Reduction in separation between the SAS and high groundwater:

Separation reduction	from 5.00 to 4.27 ft.
Percolation rate	less than 2 min./inch
Depth to groundwater	87-inches ft.

☐ Relocation of water supply well (explain):

☐ Reduction of 12-inch separation between inlet and outlet tees and high groundwater

☐ Use of only one deep hole in proposed disposal area

☐ Use of a sieve analysis as a substitute for a perc test

List local variances granted not requiring DEP approval per 310 CMR 15.412(4):

List variances granted requiring DEP approval:

Approving Authority

Print or Type Name and Title | Signature | Date

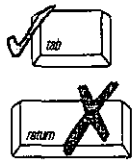
Commonwealth of Massachusetts
City/Town of

Septic System Installation Checklist

DEP has provided this form for use by local Boards of Health if they wish to do so.

A. Applicant Information

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



DULCINEIA DOS SANTOS E AMARO FERREIRA
Name

147 BAY ROAD
Address

AMHERST | MA | 01002
City | State | Zip Code

12-07 | | |
Disposal System Construction Permit # | Map | Lot

GRANBY SEPTIC
Installer

BOB STOVER
Designer

EDMUND SMITH
Board of Health Representative

Inspection Dates:

Tank: PASSED TITLE V ONLY — 6/29/2011 Date
Final: 9/21/2011 Date
Leach Area: 9/21/2011 Date
Other: Date

B. Application Checklist

1. Pre-Construction Conference	Approved	N/A	Problem
Sieve analysis supplied for sand	☐	☐	☐
Current approved plans (3 copies)	☑	☐	☐
System staked prior to construction	☐	☐	☐
On-site check for tank water-tightness	☐	☐	☐
Abandonment of existing system (repairs)	☑	☐	☐
Plan revision(s)	☐	☐	☐
Conditions/Approvals	☐	☐	☐
O/M Plan on file	☐	☐	☐
DEP approval on file	☐	☐	☐

Commonwealth of Massachusetts
City/Town of
Septic System Installation Checklist

B. Application Checklist (cont.)

2. Construction Inspection

a) Building Sewer (310 CMR 15.222)		Approved	N/A	Problem
All waste pipes tied into building sewer	Basement check	☐	☐	☐
Schedule 40 PVC 4" or cast iron	Verify by reading pipe	☐	☐	☐
Minimum slope of 0.01-0.02	Visual	☐	☐	☐
Pipe laid in continuous straight line	Visual	☐	☐	☐
Pipe laid on compact, firm base	Visual	☐	☐	☐
Cleanouts precede all changes in alignment/grade	Verify by visual/tape	☐	☐	☐
Cleanout provided every 100 ft.	Verify by visual/tape	☐	☐	☐
Backfill material clean	Visual	☐	☐	☐

b) Septic Tank (310 CMR 15.223)		Approved	N/A	Problem
Tank is set level with 6" stone under (15.228)	Check with level	N/A	☐	☐
Tank is required size/loading per plan	Verify with plan	N/A	☐	☐
Inlet and outlet are at proper location (15.227)	Verify with plan	N/A	☐	☐
Tank is water tight (15.226)	Test	N/A	☐	☐
Outlet tees extend 6" above flow line	Verify by visual/tape	☐	☐	☐
Approved filter device placed at outlet	DEP list	☐	☐	☐
Gas baffle installed at outlet tee	Visual	☐	☐	☐
Inlet and outlet tees on center line	Visual	☐	☐	☐
Tank is backfilled with acceptable material	Visual	☐	☐	☐

mark passed title ✓ 6/29/2011

Notes:

Commonwealth of Massachusetts
City/Town of
Septic System Installation Checklist

B. Application Checklist (cont.)

c) Distribution Box (310 CMR 15.232)	9/21/2011	Approved	N/A	Problem
All outlet pipes at same elevation	Check by adding water	☑	☐	☐
Number of outlets 2 per plan	Number of laterals 2 per plan			
Inlet tee min. 1" over outlet	Visual and w/tape	☑	☐	☐
D box set on level base	Visual	☑	☐	☐
Top of D box 36" max depth	Visual and w/tape	☑	☐	☐
D box is water-tight	Add water	☑	☐	☐
D box has a minimum of 2" thick wall and 12" inside dimension		☑	☐	☐

d) Pump Chamber (310 CMR 15.231)		Approved	N/A	Problem
Tank is set level	Visual and w/level	☐	☐	☐
Proper volume is provided	Check plan and tank	☐	☐	☐
Float elevations set per plan	Measure w/tape	☐	☐	☐
Min. 2" delivery line to D box	Visual	☐	☐	☐
Number of pumps:	_____	☐	☐	☐
Specified pump provided or designers approval for equal pump		☐	☐	☐
Correct pump sequence		☐	☐	☐
Covers set to grade		☐	☐	☐
Electrical permit provided		☐	☐	☐
6" of stone beneath chamber	Visual	☐	☐	☐
Chamber is water-tight	Test	☐	☐	☐
Min. 9" cover provided	Visual	☐	☐	☐
Correct loading provided per plan	Visual on tank	☐	☐	☐

Notes:

Commonwealth of Massachusetts
City/Town of
Septic System Installation Checklist

B. Application Checklist (cont.)

e) Leaching Facility (310 CMR 15.240)		Approved	N/A	Problem
No frozen material used including back fill	Visual	☑	☐	☐
No clay, tailings or stones larger than 6" for cover material		☑	☐	☐
Soil at bottom/sides of excavation matches info on deep holes		☑	☐	☐
All impervious layers removed	Visual	☑	☐	☐
No remaining A/B horizons	Visual	☑	☐	☐
Groundwater conditions match plan and deep holes	Visual/check plan	☑	☐	☐
Vented if under impervious cover per plan (15.241)		☐	☑	☐
Vent is protected from precipitation and animal entry		☐	☑	☐
Cover of a minimum of 9" over leach area		☑	☐	☐
Pipe slope equal to 0.005	Check w/transit	☑	☐	☐
Leach area per design (15.241)		☑	☐	☐
Excavation is level and at required depth	Visual/check plan	☑	☐	☐
Removal of 5 ft material and replacement (if in fill)	Visual/check plan	☑	☐	☐
Back fill material is acceptable	Visual	☑	☐	☐
Final contours correct per plan	Check with plan	☑	☐	☐
Surface/subsurface drainage away from leach area		☑	☐	☐
Final grade and side slopes are stable		☑	☐	☐
Distribution lines are capped, vented, or connected together		☑	☐	☐
Impermeable barrier (15.255[2])		☐	☑	☐
Retaining wall inspected by PE		☐	☑	☐
Retaining wall is water-proofed		☐	☑	☐
Retaining wall/barrier is at correct depth/height		☐	☑	☐

Commonwealth of Massachusetts
City/Town of
Septic System Installation Checklist

B. Application Checklist (cont.)

			Approved	N/A	Problem
f)	Leaching trenches (310 CMR 15.251)				
	Number of trenches:	2	☑	☐	☐
	Depth of trenches:	≥ 3'	☐	☐	☐
	Width of trenches: · INFILTRATOR	34"	☐	☐	☐
	Trench spacing per plan		☑	☐	☐
	Stone is double-washed [3/4" to 1½"] (15.247)		☐	☑	☐
g)	Leaching fields (310 CMR 15.242)				
	Length of field:		☐	☐	☐
	Width of field:		☐	☐	☐
	Min. of 2 distribution lines		☐	☐	☐
	Separation distance conforms to plan		☐	☐	☐
	Stone is double-washed [3/4" to 1½"] (15.247)		☐	☐	☐
h)	Leaching Pits (310 CMR 15.253)				
	Number of pits:		☐	☐	☐
	Depth of pits:		☐	☐	☐
	Stone is double-washed [3/4" to 1½"] (15.247)		☐	☐	☐
	Each pit has min. 1 20" access cover		☐	☐	☐
	Piping network and configuration of pits/chambers per plan		☐	☐	☐
i)	Tight Tank (310 CMR 15.260)				
	Tank is set level with 6" stone under	Visual and with level	☐	☐	☐
	Tank is proper size per plan	Visual with plan	☐	☐	☐
	Pumping contract has been provided		☐	☐	☐
	Covers to grade	Visual	☐	☐	☐
	A/V alarm set at 3/5 tank capacity	Check floats by raising	☐	☐	☐
	A/V alarm test on separate circuit	Set off alarm	☐	☐	☐

Commonwealth of Massachusetts
City/Town of
Septic System Installation Checklist

B. Application Checklist (cont.)

j) Certificate of Compliance (310 CMR 15.021)

As Built Plan Submitted _____ Date

Signed by Installer _____ Date

Signed by Designer _____ Date

Certificate of Compliance Issued _____ Date

Notes:

Commonwealth of Massachusetts
City/Town of Amherst
Application for Disposal System Construction Permit

Form 1A

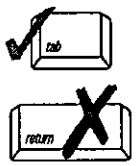
Number

$
Fee

DEP has provided this form for use by local Boards of Health if they choose to do so. Before using the form, check with your local Board of Health to make sure that they will accept it.

A. Facility Information

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



Application is hereby made for a permit to:
- ☐ Construct a new on-site sewage disposal system
- ☐ Repair or replace an existing on-site sewage disposal system
- ☒ Repair or replace an existing system component

1. Location of Facility:

147 Bay Road
Address or Lot #

Amherst | MA | 01002
City/Town | State | Zip Code

2. Owner Information

Dulcineia M. Dos Santos and Amaro R. Ferreira
Name

same
Address (if different from above)

City/Town | State | 01002 Zip Code

(413) 253-9834
Telephone Number

3. Installer Information

Name | Name of Company

Address

City/Town | State | Zip Code

Telephone Number

4. Designer Information

Paul M. Styspeck, PE / Robert Stover | Amherst Environmental Services
Name | Name of Company

P. O. Box 3312
Address

Amherst | MA | 01004-3312
City/Town | State | Zip Code

(413) 256-3400
Telephone Number

COMMONWEALTH OF MASSACHUSETTS
PAUL M. STYSPECK
CIVIL NO. 49177
REGISTERED PROFESSIONAL ENGINEER
1.28.11

Commonwealth of Massachusetts
City/Town of Amherst
Application for Disposal System Construction Permit
Form 1A

Number

$ Fee

A. Facility Information (continued)

5. Type of Building:

☒ Dwelling ☐ Garbage Grinder (check if present)

Other: Type of Building _____ Number of Persons Served

☐ Showers _____ Number of showers ☐ Cafeteria ☐ Other fixtures

Specify other fixtures: _____

6. Design Flow: 330.00 Gallons per Day

Calculated Daily Flow: 505.77 Gallons

7. Plan: 7/27/11 Date of Original

one Number of Sheets _____ Revision Date

"Plan of Septic System Repair" Title of Plan

8. Description of Soil:

attached

9. Nature of Repairs or Alterations (if applicable):

replace failed soil absorption system with new distribution box and two leaxh trenches consisting of 24 (12 per trench) Infiltrator Quick4 Plus standard low profile chambers.

10. Date last inspected: 6/29/11 by Nathan Torretti Date

Commonwealth of Massachusetts
City/Town of Amherst

Application for Disposal System Construction Permit

Form 1A

Number

$
Fee

B. Agreement

The undersigned agrees to ensure the construction and maintenance of the aforedescribed on-site sewage disposal system in accordance with the provisions of Title 5 of the Environmental Code and not to place the system in operation until a Certificate of Compliance has been issued by this Board of Health.

Signature

8/11/11
Date

Application Approved By:

Name

Date

Application **Disapproved** for the following reasons:

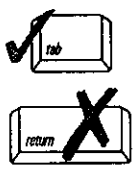
Commonwealth of Massachusetts
City/Town of Amherst
Disposal System Construction Permit
Form 2A

Number _____

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

Permission is hereby granted to:

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



Amaro R. Ferreira and Dulcineia M. Dos Santos
Name

Name of Company

147 Bay Road
Address

Amherst
City/Town

MA
State

01002
Zip Code

to perform the following work on an on-site sewage disposal system:

- ☐ Construction
- ☐ Repair or replacement
- ☒ Repair or replacement of system components

same
Facility Address

City/Town

State

Zip Code

Owner

(413) 253-9834
Telephone Number

The work to be performed is further described in the Application for Disposal System Construction Permit. The applicant recognizes his/her duty to comply with Title 5 and the following local provisions or special conditions:

All construction must be completed within three years of the date below.

Approved by

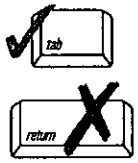
Date

Title

Commonwealth of Massachusetts
City/Town of Amherst
Certificate of Compliance
Form 3

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

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



This is to Certify that the following work on an On-Site Sewage Disposal System

- ☐ Construction of a new system
- ☐ Repair or replacement of an existing system
- ☒ Repair or replacement of an existing system component

Has been done in accordance with Title 5 and the Disposal System Construction Permit (DSCP):

DSCP Number _____ DSCP Date _____

Amaro R. Ferreira and Dulcineia M. Dos Santos
Facility Owner

147 Bay Road
Street Address or Lot #

Amherst | MA | 01002
City/Town | State | Zip Code

Designer Information:

Paul M. Styspeck, PE / Robert Stover | Amherst Environmental Services
Name | Name of Company

Signature _____ Date _____

Installer Information:

Name _____ Name of Company _____

Signature _____ Date _____

Use of this system is conditioned on compliance with the provisions set forth below:

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

Approving Authority _____

Signature _____ Date _____

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

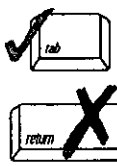
Form 9A is to be submitted to the Local Board of Health for the upgrade of a failed or nonconforming septic system with a design flow of less than 10,000 gpd, where full compliance, as defined in 310 CMR 15.404(1), is not feasible.

System upgrades that cannot be performed in accordance with 310 CMR 15.404 and 15.405, or in full compliance with the requirements of 310 CMR 15.000, require a variance pursuant to 310 CMR 15.410 through 15.415.

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

A. Facility Information

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



1. Facility Name and Address:

   Dulcineia M. Dos Santos and Amaro R. Ferreira
   Name

   147 Bay Road
   Street Address

   Amherst | MA | 01002
   City/Town | State | Zip Code

2. Owner Name and Address (if different from above):

   same
   Name

   Street Address

   City/Town

   State

   Zip Code

   (413) 253-9834
   Telephone Number

3. Type of Facility (check all that apply):

   ☒ Residential ☐ Institutional ☐ Commercial ☐ School

4. Describe Facility:

   three bedroom full-time single family house without a garbage grinder

5. Type of Existing System:

   ☐ Privy ☐ Cesspool(s) ☒ Conventional ☐ Other (describe below):

6. Type of soil absorption system (trenches, chambers, leach field, pits, etc):

   existing: two pipe and stone leach trenches

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

A. Facility Information (continued)

7. Design Flow per 310 CMR 15.203:

Design flow of existing system:	not known gpd
Design flow of proposed upgraded system	505.77 gpd
Design flow of facility:	330.00 gpd

B. Proposed Upgrade of System

1. Proposed upgrade is (check one):

☐ Voluntary ☐ Required by order, letter, etc. (attach copy)

☒ Required following inspection pursuant to 310 CMR 15.301: June 29, 2011 (date of inspection)

2. Describe the proposed upgrade to the system:

install distribution box and two leach trenches consisting of 24 (12 per trench) Infiltrator Quick4 Plus standard low profile chambers

3. Local Upgrade Approval is requested for (check all that apply):

☐ Reduction in setback(s) – describe reductions:

☐ Reduction in SAS area of up to 25%: _____ SAS size, sq. ft. _____ % reduction

☒ Reduction in separation between the SAS and high groundwater:

Separation reduction	from 5.00 to 4.27 ft.
Percolation rate	less than 2 min./inch
Depth to groundwater	87-inches ft.

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

B. Proposed Upgrade of System (continued)

☐ Relocation of water supply well (explain):

☐ Reduction of 12-inch separation between inlet and outlet tees and high groundwater

☐ Use of only one deep hole in proposed disposal area

☐ Use of a sieve analysis as a substitute for a perc test

☐ Other requirements of 310 CMR 15.000 that cannot be met – describe and specify sections of the Code:

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 groundwater elevation pursuant to 310 CMR 15.405(1)(h)(1). ***The soil evaluator must be a member or agent of the local approving authority.***

High groundwater evaluation determined by:

Evaluator's Name (type or print)	Signature	7/13/11 Date of evaluation

C. Explanation

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

1. An upgraded system in full compliance with 310 CMR 15.000 is not feasible:

Existing septic tank is structurally sound according to system inspector Nathan Torretti and it's high in the ground but it is still too deep to allow for a 5-ft separation from the estimated seasonal high ground water elevation.

2. An alternative system approved pursuant to 310 CMR 15.283 to 15.288 is not feasible:

This facility does not warrant an alternative system.

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

C. Explanation (continued)

3. A shared system is not feasible:

There is no abutter known to need to share a system. A shared system is not warranted by the circumstances of this facility.

4. Connection to a public sewer is not feasible:

This area is not served by public sewer.

5. The Application for Local Upgrade Approval must be accompanied by all of the following (check the appropriate boxes):

☒ Application for Disposal System Construction Permit

☒ Complete plans and specifications

☒ Site evaluation forms

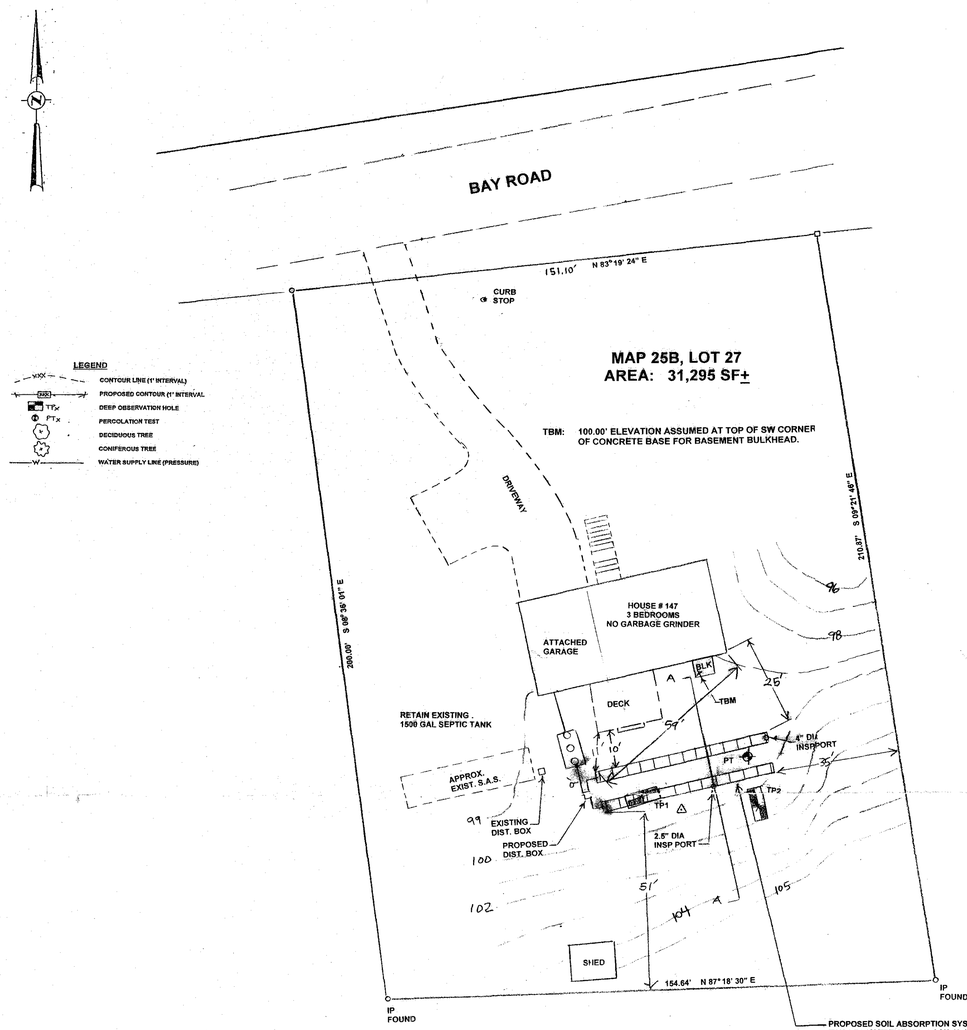
☐ A list of abutters affected by reduced setbacks to private water supply wells or property lines. Provide proof that affected abutters have been notified pursuant to 310 CMR 15.405(2).

☐ Other (List):

D. 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 deliberate violations."

Dulcineia dos Santos	8/11/11
Facility Owner's Signature	Date
Dulcineia M. Dos Santos & Amaro R. Ferreira	
Print Name	
Robert Stover	7/28/11
Name of Preparer	Date
P. O. Box 3312	Amherst
Preparer's address	City/Town
01004-3312	(413) 256-3400
State/ZIP Code	Telephone

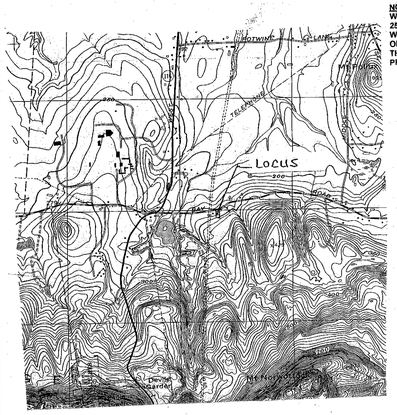


PROPOSED SOIL ABSORPTION SYSTEM:
TWO LEACH TRENCHES, EACH 49.10' LONG BY 34" WIDE; EACH WITH 12 *INFILTRATOR QUICK4 PLUS STANDARD LP CHAMBERS;* PERISCOPE INLET FOR 8" INVERT HEIGHT.

PLANVIEW

SCALE: 1" = 20'

PROPERTY LINE INFORMATION FROM
"PLAN OF LAND IN AMHERST, MASSACHUSETTS"
BY ALMER HUNTLEY, JR. & ASSOCIATES, INC
PREPARED FOR HOWARD W. ATKINS, DATED DEC. 10, 1982



USGS MT HOLYOKE, MA QUADRANGLE
SCALE: 1 : 25 000

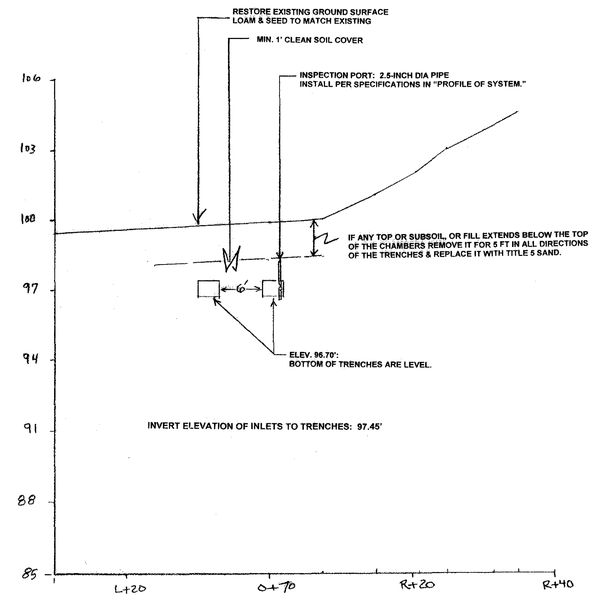
NOTE: THERE ARE NO SURFACE WATER SUPPLIES OR GRAVEL PACKED PUBLIC WATER SUPPLY WELLS WITHIN 400' OF THE PROPOSED SYSTEM LOCATION. THERE ARE NO TUBULAR WATER SUPPLY WELLS WITH 250' OF THE PROPOSED SYSTEM LOCATION. THERE ARE NO TRIBUTARIES TO SURFACE WATER SUPPLIES WITHIN 200' OF THE PROPOSED SYSTEM LOCATION OR WETLANDS BORDERING SURFACE WATER SUPPLIES OR TRIBUTARIES TO SURFACE WATER SUPPLIES WITHIN 100' OF THE PROPOSED SYSTEM LOCATION. THERE ARE NO WETLAND RESOURCE AREAS OR PRIVATE WATER SUPPLY WELLS WITHIN 150' OF THE PROPOSED SYSTEM LOCATION.

GENERAL CONDITIONS

1. This septic system repair plan is prepared in accordance with Title 5, 310 CMR 15.00. Construction shall conform to these regulations.
2. Installer shall be certified by the manufacturer to install *Infiltrator* chambers.
3. The installer shall inform the designer of any unusual conditions and shall not modify the plan without the written consent of the designer.
4. All debris in the site area shall be removed and disposed of in accordance with the law.
5. There is no guarantee expressed or implied to any user of a system installed pursuant to this plan.
6. The installer shall notify the designer and the Board of Health Representative when the system excavation is ready for inspection and again when the system installation is complete but not covered. The installer shall notify the designer when the finished grade is ready for inspection. Notification shall be 72 hours prior to the time of inspection.
7. The septic tank shall be pumped and inspected as necessary and at least once every three years.

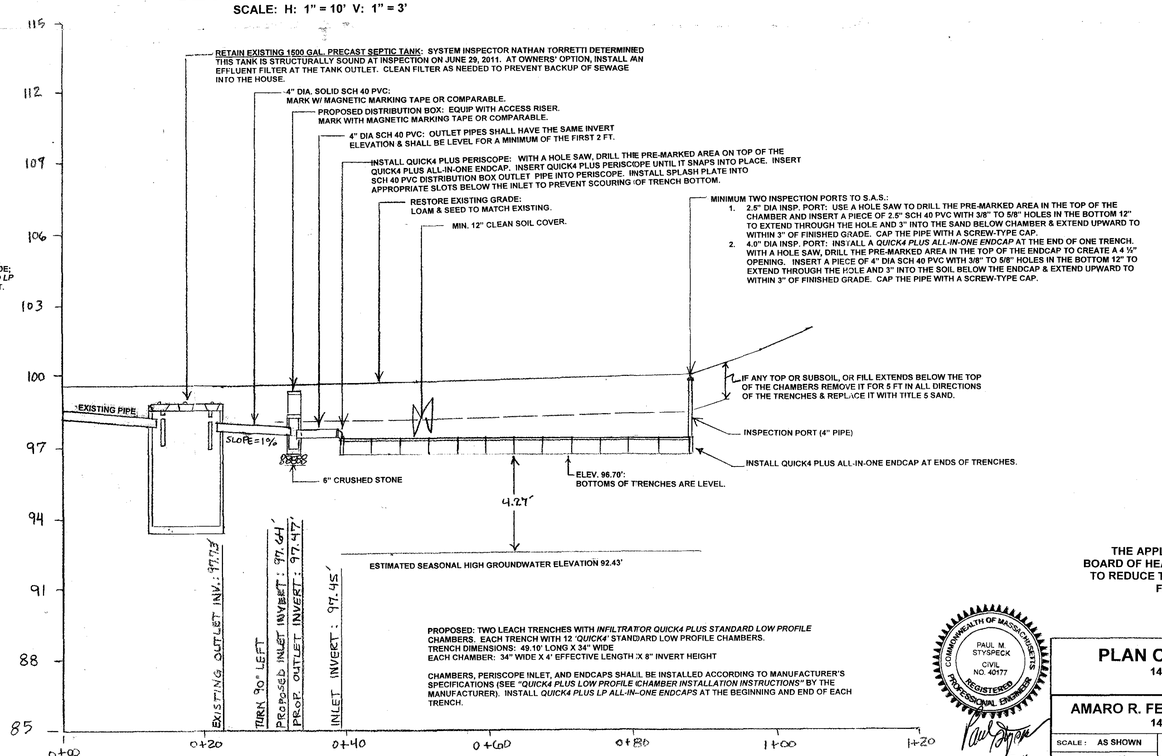
CONSTRUCTION NOTES

1. Any topsoil, subsoil, old fill, or other impervious materials encountered during excavation shall be removed from the area of the soil absorption system from five feet around the soil absorption system and from wherever fill is to be placed. Any fill placed under or adjacent to the soil absorption system shall be a clean, granular sand and conform to the specifications of Title 5, 310 CMR 15.255(3).
2. Pipes exiting the distribution box shall have the same invert elevation and be laid level for a minimum first two feet.
3. The finished grade above the soil absorption systemshall have a minimum two percent slope to shed surface runoff away from the system.
4. Disturbed areas shall be loamed, seeded and mulched until stable vegetation is established.



SECTION OF LEACH BED

SCALE: H: 1" = 10' V: 1" = 3'



PROFILE OF SYSTEM

SCALE: H: 1" = 10' V: 1" = 3'

SOIL EVALUATION

Approved Soil Evaluator: Robert Stover
BOH Representative: Ed Smith
Date of Evaluation: 7/13/2011

Ground elevation at soil evaluation test pit #1: 99.68'.
Est. Seasonal High Ground Water Elev. 92.43'.
Bedrock Elevation deeper than: 90.51'.

Depth	Soil Horizon	Soil Texture	Soil Color	Mottling	Other
0 – 8"	A	FSL	10YR5/3	None	friable
8 – 19"	Bw	LS	10YR64/4	None	loose, gravelly remnant subsoil
19 - 87"	C1	LS, gravelly	10YR4/4	None	loose, stratified sand and gravel
87 – 110"	C2	VFSL	10YR5/3	>87" 7.5YR4/6	Firm, "varved" VFSL with FS And fine gravel

Parent Material (Geologic): outwash — Depth to bedrock: >110"
Standing Water In the Hole: 100" Weeping from Pit Face: 87"
Estimated Seasonal High Ground Water: 87"

Ground elevation at soil evaluation test pit #2: 100.17'.
Est. Seasonal High Ground Water Elev. 92.34'.
Bedrock Elevation deeper than: 91.00'.

Depth	Soil Horizon	Soil Texture	Soil Color	Mottling	Other
0 – 5"	A	FSL	10YR5/3	None	friable
5 – 14"	Bw	SL	10YR4/4	None	loose to very friable
14 – 110"	C	FS	10YR4/4	@ 94" 7.5YR4/6	loose stratified sands firmer below 94"

Parent Material (Geologic): outwash — Depth to bedrock: >110"
Standing Water In the Hole: 103" Weeping from Pit Face: 96"
Estimated Seasonal High Ground Water: 94"

DESIGN CRITERIA

Design flow is for a 3-bedroom house without a garbage grinder

DESIGN CALULATION

Design flow: 3-bedrooms, no garbage grinder: = 330 gpd.

Retain existing septic tank: Precast, 1500 gallons

Effluent Loading Rate: Percolation Rate = less than 2 minutes per inch
Class I soils.
Effluent loading rate = 0.74 gpd/sf.

Soil Absorption System: two leach trenches.
Each 49.10' long X 3.00' wide
Each with 12 *Infiltrator Quick4* low profile standard chambers for a total of 24 total chambers; 8-inch invert height

Each standard chamber (trench configuration):	= 6.96 SF/LF.
24 chambers each 4.0 LF:	= 96.0 LF.
two sets of endcaps at 1.1 LF per set:	= 2.2 LF.
Total linear feet:	= 98.2 LF.
98.20 LF X 6.96 SF/LF:	= 683.47 SF.
Calculated Design Flow: 683.47 SF X 0.74 GPD/SF:	= 505.77 gpd.
Total Required Design Flow	= 330.00 gpd (OK)

THE APPLICANT REQUESTS THAT THE AMHERST BOARD OF HEALTH GRANT A LOCAL UPGRADE APPROVAL TO REDUCE THE REQUIRED WATER TABLE SEPARATION FROM FIVE FEET TO FOUR FEET.

COMMONWEALTH OF MASSACHUSETTS
PAUL M STYSPECK
CIVIL
NO. 40177
REGISTERED PROFESSIONAL ENGINEER
7-28-11

PLAN OF SEPTIC SYSTEM REPAIR

147 BAY ROAD, AMHERST, MA 01002
ASSESSORS MAP 25B, LOT 27

AMARO R. FERREIRA & DULCINEIA M. DOS SANTOS
147 BAY ROAD, AMHERST, MA 01002

SCALE : AS SHOWN	APPROVED BY :	DRAWN BY RWS	
DATE : 7/27/11		REVISED	

AMHERST ENVIRONMENTAL SERVICES
PAUL STYSPECK, P.E. / ROBERT STOVER
P. O. BOX 3312, AMHERST, MA 01004-3312
(413) 256-3400
DRAWING NUMBER

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

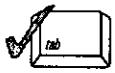
Form 9A is to be submitted to the Local Board of Health for the upgrade of a failed or nonconforming septic system with a design flow of less than 10,000 gpd, where full compliance, as defined in 310 CMR 15.404(1), is not feasible.

System upgrades that cannot be performed in accordance with 310 CMR 15.404 and 15.405, or in full compliance with the requirements of 310 CMR 15.000, require a variance pursuant to 310 CMR 15.410 through 15.415.

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

A. Facility Information

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



1. Facility Name and Address:

   Dulcineia M. Dos Santos and Amaro R. Ferreira
   Name

   147 Bay Road
   Street Address

   Amherst | MA | 01002
   City/Town | State | Zip Code

2. Owner Name and Address (if different from above):

   same
   Name | Street Address

   City/Town | State

   Zip Code | (413) 253-9834
   Telephone Number

3. Type of Facility (check all that apply):

   ☒ Residential ☐ Institutional ☐ Commercial ☐ School

4. Describe Facility:

   three bedroom full-time single family house without a garbage grinder

5. Type of Existing System:

   ☐ Privy ☐ Cesspool(s) ☒ Conventional ☐ Other (describe below):

6. Type of soil absorption system (trenches, chambers, leach field, pits, etc):

   existing: two pipe and stone leach trenches

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

A. Facility Information (continued)

7. Design Flow per 310 CMR 15.203:

Design flow of existing system:	not known gpd
Design flow of proposed upgraded system	505.77 gpd
Design flow of facility:	330.00 gpd

B. Proposed Upgrade of System

1. Proposed upgrade is (check one):

☐ Voluntary ☐ Required by order, letter, etc. (attach copy)

☒ Required following inspection pursuant to 310 CMR 15.301: June 29, 2011 (date of inspection)

2. Describe the proposed upgrade to the system:

install distribution box and two leach trenches consisting of 24 (12 per trench) Infiltrator Quick4 Plus standard low profile chambers

3. Local Upgrade Approval is requested for (check all that apply):

☐ Reduction in setback(s) – describe reductions:

☐ Reduction in SAS area of up to 25%: _____ SAS size, sq. ft. _____ % reduction

☒ Reduction in separation between the SAS and high groundwater:

Separation reduction	from 5.00 to 4.27 ft.
Percolation rate	less than 2 min./inch
Depth to groundwater	87-inches ft.

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

B. Proposed Upgrade of System (continued)

☐ Relocation of water supply well (explain):

☐ Reduction of 12-inch separation between inlet and outlet tees and high groundwater

☐ Use of only one deep hole in proposed disposal area

☐ Use of a sieve analysis as a substitute for a perc test

☐ Other requirements of 310 CMR 15.000 that cannot be met – describe and specify sections of the Code:

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 groundwater elevation pursuant to 310 CMR 15.405(1)(h)(1). ***The soil evaluator must be a member or agent of the local approving authority.***

High groundwater evaluation determined by:

Evaluator's Name (type or print)	Signature	7/13/11 Date of evaluation

C. Explanation

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

1. An upgraded system in full compliance with 310 CMR 15.000 is not feasible:

Existing septic tank is structurally sound according to system inspector Nathan Torretti and it's high in the ground but it is still too deep to allow for a 5-ft separation from the estimated seasonal high ground water elevation.

2. An alternative system approved pursuant to 310 CMR 15.283 to 15.288 is not feasible:

This facility does not warrant an alternative system.

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

C. Explanation (continued)

3. A shared system is not feasible:

There is no abutter known to need to share a system. A shared system is not warranted by the circumstances of this facility.

4. Connection to a public sewer is not feasible:

This area is not served by public sewer.

5. The Application for Local Upgrade Approval must be accompanied by all of the following (check the appropriate boxes):

☒ Application for Disposal System Construction Permit

☒ Complete plans and specifications

☒ Site evaluation forms

☐ A list of abutters affected by reduced setbacks to private water supply wells or property lines. Provide proof that affected abutters have been notified pursuant to 310 CMR 15.405(2).

☐ Other (List):

D. 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 deliberate violations."

Dulcineia dos Santos	8/11/11
Facility Owner's Signature	Date
Dulcineia M. Dos Santos & Amaro R. Ferreira	
Print Name	
Robert Stover	7/28/11
Name of Preparer	Date
P. O. Box 3312	Amherst
Preparer's address	City/Town
01004-3312	(413) 256-3400
State/ZIP Code	Telephone

Commonwealth of Massachusetts
City/Town of Amherst
Application for Disposal System Construction Permit
Form 1A

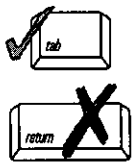
Number

$
Fee

DEP has provided this form for use by local Boards of Health if they choose to do so. Before using the form, check with your local Board of Health to make sure that they will accept it.

A. Facility Information

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



Application is hereby made for a permit to:
- ☐ Construct a new on-site sewage disposal system
- ☐ Repair or replace an existing on-site sewage disposal system
- ☒ Repair or replace an existing system component

1. Location of Facility:

147 Bay Road
Address or Lot #

Amherst | MA | 01002
City/Town | State | Zip Code

2. Owner Information

Dulcineia M. Dos Santos and Amaro R. Ferreira
Name

same
Address (if different from above)

City/Town | State | 01002 Zip Code

(413) 253-9834
Telephone Number

3. Installer Information

Name | Name of Company

Address

City/Town | State | Zip Code

Telephone Number

4. Designer Information

Paul M. Styspeck, PE / Robert Stover
Name

Amherst Environmental Services
Name of Company

P. O. Box 3312
Address

Amherst | MA | 01004-3312
City/Town | State | Zip Code

(413) 256-3400
Telephone Number

COMMONWEALTH OF MASSACHUSETTS
PAUL M. STYSPECK
CIVIL
NO. 40177
REGISTERED PROFESSIONAL ENGINEER
1.28.11

Commonwealth of Massachusetts
City/Town of Amherst
Application for Disposal System Construction Permit
Form 1A

Number

$ Fee

A. Facility Information (continued)

5. Type of Building:

☒ Dwelling ☐ Garbage Grinder (check if present)

Other: Type of Building _____ Number of Persons Served

☐ Showers _____ Number of showers ☐ Cafeteria ☐ Other fixtures

Specify other fixtures: _____

6. Design Flow: 330.00 Gallons per Day

Calculated Daily Flow: 505.77 Gallons

7. Plan: 7/27/11 Date of Original

one Number of Sheets _____ Revision Date

"Plan of Septic System Repair" Title of Plan

8. Description of Soil:

attached

9. Nature of Repairs or Alterations (if applicable):

replace failed soil absorption system with new distribution box and two leaxh trenches consisting of 24 (12 per trench) Infiltrator Quick4 Plus standard low profile chambers.

10. Date last inspected: 6/29/11 by Nathan Torretti Date

Commonwealth of Massachusetts
City/Town of Amherst

Application for Disposal System Construction Permit

Form 1A

Number

$ Fee

B. Agreement

The undersigned agrees to ensure the construction and maintenance of the aforedescribed on-site sewage disposal system in accordance with the provisions of Title 5 of the Environmental Code and not to place the system in operation until a Certificate of Compliance has been issued by this Board of Health.

Signature

8/11/11
Date

Application Approved By:

Name

Date

Application **Disapproved** for the following reasons:

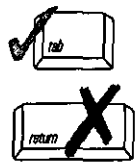
Commonwealth of Massachusetts
City/Town of Amherst
Disposal System Construction Permit
Form 2A

Number

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

Permission is hereby granted to:

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



Amaro R. Ferreira and Dulcineia M. Dos Santos
Name

Name of Company

147 Bay Road
Address

Amherst | MA | 01002
City/Town | State | Zip Code

to perform the following work on an on-site sewage disposal system:

- ☐ Construction
- ☐ Repair or replacement
- ☒ Repair or replacement of system components

same
Facility Address

City/Town | State | Zip Code

Owner

(413) 253-9834
Telephone Number

The work to be performed is further described in the Application for Disposal System Construction Permit. The applicant recognizes his/her duty to comply with Title 5 and the following local provisions or special conditions:

All construction must be completed within three years of the date below.

Approved by

Date

Title

Commonwealth of Massachusetts
City/Town of Amherst
Certificate of Compliance
Form 3

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

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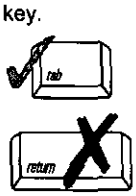


This is to Certify that the following work on an On-Site Sewage Disposal System

- ☐ Construction of a new system
- ☐ Repair or replacement of an existing system
- ☒ Repair or replacement of an existing system component

Has been done in accordance with Title 5 and the Disposal System Construction Permit (DSCP):

DSCP Number	DSCP Date

Amaro R. Ferreira and Dulcineia M. Dos Santos
Facility Owner

147 Bay Road
Street Address or Lot #

Amherst	MA	01002
City/Town	State	Zip Code

Designer Information:

Paul M. Styspeck, PE / Robert Stover	Amherst Environmental Services
Name	Name of Company
Signature	Date

Installer Information:

Name	Name of Company
Signature	Date

Use of this system is conditioned on compliance with the provisions set forth below:

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

Approving Authority

Signature	Date

On-Site Review

Deep Hole Number 1 Date: 7/13/2011 Time 9:30
Weather CLEAR + HOT
Location (identify on site plan) 20' OFF DECK, MIDDLE OF HOUSE
Land Use RESIDENTIAL Slope (%) 0-3%
Surface Stone NONE
Vegetation:
~~MOWED GRASS~~ RED OAK, WHITE PINE

Landform:
toeslope receding lake bed

Position on Landscape (sketch on back)
Distances from:

Open Water Body	NA feet	Drainageway	NA feet
Possible Wet Ares	NA feet	Property Line	35-40 feet
Drinking Water Well	NA feet	Other	

DEEP OBSERVATION HOLE LOG

depth from surface (inches)	soil horizon	soil texture (USDA)	soil color (Munsel)	soil mottling	other (structure, stones, boulders) Consistency, % gravel
0-8"	A	~~FINE~~ SANDY LOAM	10YR 3/3		
8"-19"	B	LOAMY SAND	10YR 4/4		
19-87	C1	GRAVELLY SAND	~~10YR 4/4~~ ~~7.5YR 4/4~~		STRATIFIED SANDS + GRAVEL 15% AND GREATER LOAM
87"	C2 ← ESTIMATED SEASONAL HIGH WATER	VERY FINE SANDY LOAM	~~7.5YR 5/6~~ 10YR 5/3	0200 87" 7.5 YR 4/6	VARVED BELOW 87"
110"	BOTTOM				

Parent Material (geologic) OUTWASH
Depth to Bedrock NA
Depth to Groundwater :
Standing Water in the Hole 100" (8'4")
Weeping from Pit Face 87
Estimated Seasonal High Water

On-Site Review

Deep Hole Number 2 Date: ~~7/13~~ Time 9:45
Weather
Location (identify on site plan) 30' BEHIND SE REAR CORNER HOUSE
Land Use RESIDENTIAL Slope (%)
Surface Stone NONE
Vegetation:
RED OAK, WHITE PINE

Landform:
TOESLOPE, receding lake bed

Position on Landscape (sketch on back)
Distances from:

Open Water Body	feet	Drainageway	feet
Possible Wet Ares	feet	Property Line	35-40 feet
Drinking Water Well	feet	Other	

DEEP OBSERVATION HOLE LOG

depth from surface (inches)	soil horizon	soil texture (USDA)	soil color (Munsel)	soil mottling	other (structure, stones, boulders) Consistency, % gravel
0-5	A		SAME		
5-14	B		COLORS & TEXTURES		
14-110	C1				
94" ←	C2	ESTIMATED			
96"		SEEPAGE			
110"			BOTTOM		

Parent Material (geologic) OUTWASH
Depth to Bedrock NA
Depth to Groundwater :
Standing Water in the Hole 103"
Weeping from Pit Face 96"
Estimated Seasonal High Water

FORM 11: Soil Evaluation Form NO: _____

Commonwealth of Massachusetts
Town of

Soil Suitability Assessment : On-Site Sewage Disposal

Performed By: ISOB STOVER Date: _____
Witnessed By: ED SMITH

Location Address of:	Owner's Name:
Lot #	Address of:
	Telephone:
New Construction ☐ Repair ☐	

Office Review

Published Soil Survey Available? No ☐ Yes ☑ HINCKLEY LOAMY SAND
Year Published 1981 Publication Scale 1:15840 Soil Map Unit 253B
Drainage Class 1 Soil Limitations POOR FILTER (HGB)

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 Reference Reviewed:

Determination: Seasonal High Water Table

Methods Used:

- ☐ Depth observed standing in observation hole _____ inches
- ☐ Depth weeping from side of observation hole _____ inches
- ☐ Depth to soil mottles _____ inches
- ☐ Ground water adjustment _____ feet

Index Well No. _____ Reading Date _____ Index Well Level _____
Adjustment factor _____ Adjusted ground water level _____

Depth of Naturally Occurring Previous Material

Does at least four feed of naturally occurring previous materials exist in all areas observed throughout the area proposed for this soil absorption system? _____

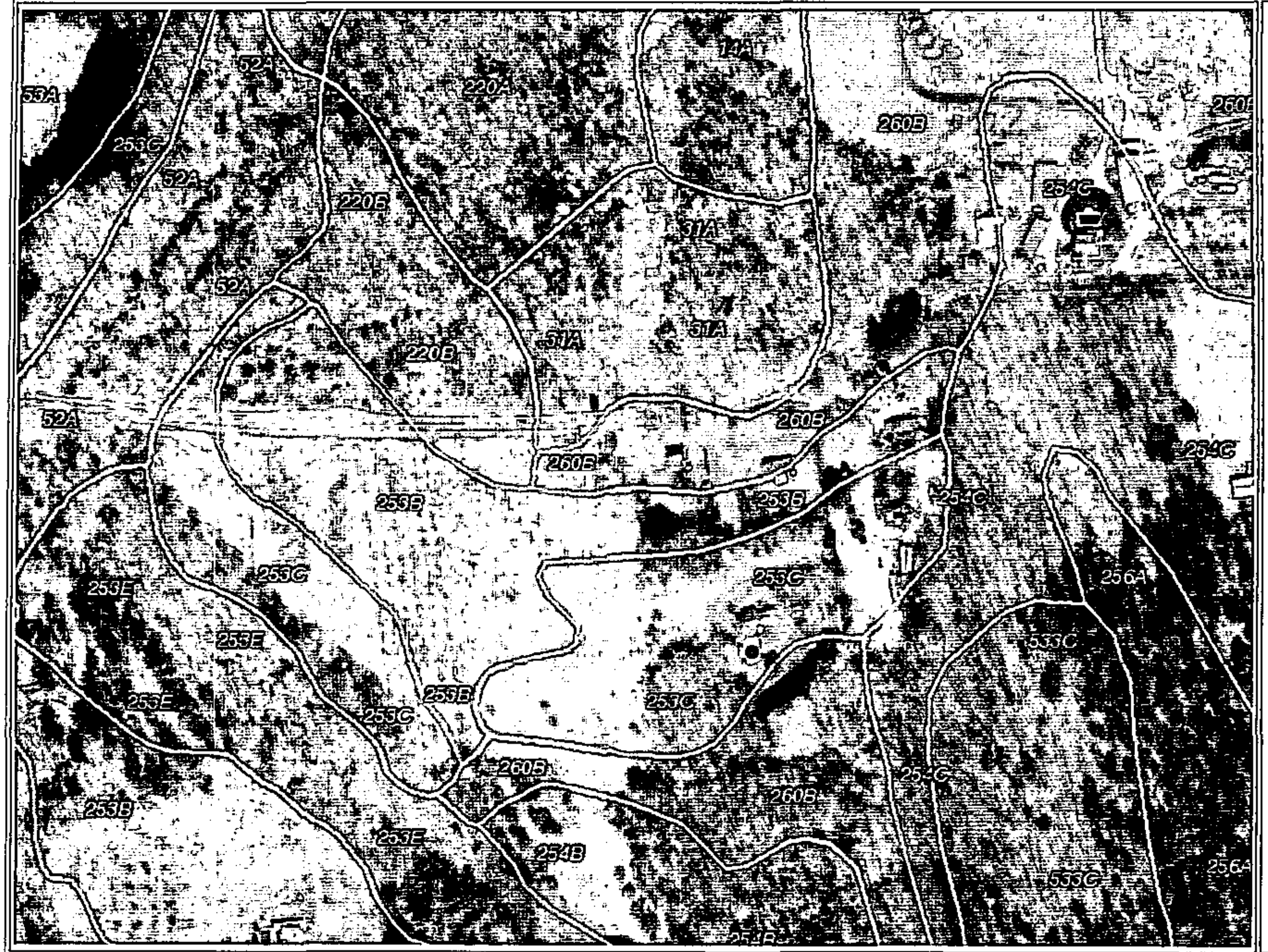
If not, what is the depth of naturally occurring previous material?
_____

Certification

I certify that on _____ (date) I have passed the soil evaluator examination approved by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise, and experience described in 310 CMR 15.017.

Signature _____
Date _____

Zoom to location: 147 Bay Road, Amherst, ma Go!



Zoom to location: 147 Bay Road, Amherst, ma Go!

Map Unit Legend

Area (Ac)	Map Symbol	Map Unit
14.3	260B	Sudbury fine sandy loam, 3 to 8 percent slopes
12.6	253B	Hinckley loamy sand, 3 to 8 percent slopes
11.6	254C	Merrimac fine sandy loam, 8 to 15 percent slopes
11.0	253C	Hinckley loamy sand, 8 to 15 percent slopes
6.7	253E	Hinckley loamy sand, 25 to 35 percent slopes
5.8	52A	Freetown muck, 0 to 1 percent slopes
5.4	31A	Walpole fine sandy loam, 0 to 3 percent slopes
5.2	533C	Montauk fine sandy loam, 3 to 15 percent slopes, stony
4.9	220A	Boxford silt loam, 0 to 3 percent slopes
3.8	256A	Deerfield loamy fine sand, 0 to 5 percent slopes
3.8	220B	Boxford silt loam, 3 to 8 percent slopes
3.3	254B	Merrimac fine sandy loam, 3 to 8 percent slopes
2.4	14A	Scitico silt loam, 0 to 3 percent slopes
1.5	253A	Hinckley loamy sand, 0 to 3 percent slopes
0.0	1	Water

FORM 12: Percolation Test
Location Adrress or Lot # 147 BAY ROAD

Commonwealth of Massachusetts
Town of

#2

PERCOLATION TEST *		
DATE: 7/13/2011		TIME:
Observation Hole #		
Depth of Perc	~~32"~~ 49" (bottom of hole)	
Start Pre-soak	10:32 10:39	WON'T HOLD SOAK
End Pre-soak	10:35	25 gals POURED
Time at 12"		
Time at 9"		
Time at 6"		
Time (9"-6")		
Rate Min./Inch	< 2 min/in	

**Minimum of one percolation test must be performed in both the primary area and reserve area.*

Site Passed ☑ Site failed ☐

Performed by BOB STOVEL

Witnessed by ED SMITH, AMHERST BOH

Comments:

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

147 BAY ROAD
Property Address

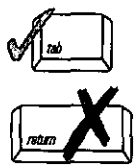
DOS SANTOS
Owner's Name

Owner information is required for every page.

AMHERST	MASS	01002	JUNE 29, 2011
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. General Information

1. Inspector:

NATHAN TORRETTI
Name of Inspector

CLEAN SEPTICS
Company Name

P O BOX 394 252 WEST ST
Company Address

LUDLOW	MASS	01056
City/Town	State	Zip Code

413 583 2138	S I 4025
Telephone Number	License Number

B. Certification

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:

☐ Passes ☐ Conditionally Passes ☒ Fails

☐ Needs Further Evaluation by the Local Approving Authority

Nathan Torretti
Inspector's Signature

JUNE 29, 2011
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 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.

****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.**

147 BAY ROAD
Property Address

Owner information is required for every page.

DOS SANTOS
Owner's Name

AMHERST	MASS	01002	JUNE 29, 2011
City/Town	State	Zip Code	Date of Inspection

B. Certification (cont.)

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

A) 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:

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.

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):

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

147 BAY ROAD
Property Address

DOS SANTOS
Owner's Name

Owner information is required for every page.

AMHERST	MASS	01002	JUNE 29, 2011
City/Town	State	Zip Code	Date of Inspection

B. Certification (cont.)

B) System Conditionally Passes (cont.):

☐ 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):

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:

☐ 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

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

147 BAY ROAD
Property Address

DOS SANTOS
Owner's Name

Owner information is required for every page.

AMHERST	MASS	01002	JUNE 29, 2011
City/Town	State	Zip Code	Date of Inspection

B. Certification (cont.)

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.

☐ 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.

3. Other:

_____

_____

_____

_____

D) 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
☒	☐	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

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

147 BAY ROAD
Property Address

DOS SANTOS
Owner's Name

Owner information is required for every page.

AMHERST	MASS	01002	JUNE 29, 2011
City/Town	State	Zip Code	Date of Inspection

B. Certification (cont.)

Yes	No	
☐	☒	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 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 2000gpd-10,000gpd.
☒	☐	**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.

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.

For large systems, you must indicate either "yes" or "no" to each of the following, in addition to the questions in Section D.

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.

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

147 BAY ROAD
Property Address

DOS SANTOS
Owner's Name

Owner information is required for every page.

AMHERST	MASS	01002	JUNE 29, 2011
City/Town	State	Zip Code	Date of Inspection

C. Checklist

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:
☐	☒	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)]

D. System Information

Residential Flow Conditions:

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

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

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Property Address

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AMHERST	MASS	01002	JUNE 29, 2011
City/Town	State	Zip Code	Date of Inspection

D. System Information

Description:

Number of current residents: 2

Does residence have a garbage grinder? ☐ Yes ☒ No

Is laundry on a separate sewage system? [if **yes** separate inspection required] ☐ Yes ☒ No

Laundry system inspected? ☐ Yes ☒ No

Seasonal use? ☐ Yes ☒ No

Water meter readings, if available (last 2 years usage (gpd)): TOWN WATER

Detail:

Sump pump? ☒ Yes ☐ No

Last date of occupancy: PRESENT
Date

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

Industrial waste holding tank present? ☐ Yes ☐ No

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

Water meter readings, if available:

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

147 BAY ROAD
Property Address

DOS SANTOS
Owner's Name

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AMHERST	MASS	01002	JUNE 29, 2011
City/Town	State	Zip Code	Date of Inspection

D. System Information (cont.)

Last date of occupancy/use: _____ Date

Other (describe below):

_____

_____

_____

General Information

Pumping Records:

Source of information: PUMPED 6 / 13 / 2008 BY CLEAN SEPTICS

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

If yes, volume pumped: _____ gallons

How was quantity pumped determined? _____

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)
- ☐ 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): _____

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

147 BAY ROAD
Property Address

DOS SANTOS
Owner's Name

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AMHERST	MASS	01002	JUNE 29, 2011
City/Town	State	Zip Code	Date of Inspection

D. System Information (cont.)

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

APPROXIMATELY N /A

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

Building Sewer (locate on site plan):

Depth below grade: _____ feet

Material of construction:

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

Distance from private water supply well or suction line: TOWN WATER feet

Comments (on condition of joints, venting, evidence of leakage, etc.):

JOINTS AND VENTING OK, NO LEAKAGE

Septic Tank (locate on site plan):

Depth below grade: 1' feet

Material of construction:

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

If tank is metal, list age: _____ years

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

Dimensions: L 10' 5' X W 5' X H 5'

Sludge depth: _____

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

147 BAY ROAD
Property Address

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AMHERST	MASS	01002	JUNE 29, 2011
City/Town	State	Zip Code	Date of Inspection

D. System Information (cont.)

Septic Tank (cont.)

Distance from top of sludge to bottom of outlet tee or baffle _____

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 _____

How were dimensions determined? _____

Comments (on pumping recommendations, inlet and outlet tee or baffle condition, structural integrity, liquid levels as related to outlet invert, evidence of leakage, etc.):
PUMP SEPTIC TANK EVERY ONE - THREE YEARS, INLET AND OUTLET BAFFLE OK. TANK IS STRUCTURALLY SOUND, LIQUID LEVELS ARE AT THE INVERT. NO LEAKAGE

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

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

147 BAY ROAD
Property Address

DOS SANTOS
Owner's Name

Owner information is required for every page.

AMHERST	MASS	01002	JUNE 29, 2011
City/Town	State	Zip Code	Date of Inspection

D. System Information (cont.)

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

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

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

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

147 BAY ROAD
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AMHERST	MASS	01002	JUNE 29, 2011
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D. System Information (cont.)

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

Depth of liquid level above outlet invert: 2", D -BOX IS APPROXIMATELY 1' 2" DEEP

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.):
S .A. S. IS FLOODED

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.):

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

If SAS not located, explain why:

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

147 BAY ROAD
Property Address

DOS SANTOS
Owner's Name

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AMHERST	MASS	01002	JUNE 29, 2011
City/Town	State	Zip Code	Date of Inspection

D. System Information (cont.)

Type:

☐	leaching pits	number:	
☐	leaching chambers	number:	
☐	leaching galleries	number:	
☒	leaching trenches	number, length:	2, 30' TO 35" LENGTHS OFF D -BOX
☐	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.):
YES SIGNS OF HYDRAULIC FAILURE

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

147 BAY ROAD
Property Address

DOS SANTOS
Owner's Name

Owner information is required for every page.

AMHERST	MASS	01002	JUNE 29, 2011
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D. System Information (cont.)

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.):

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Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

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AMHERST	MASS	01002	JUNE 29, 2011
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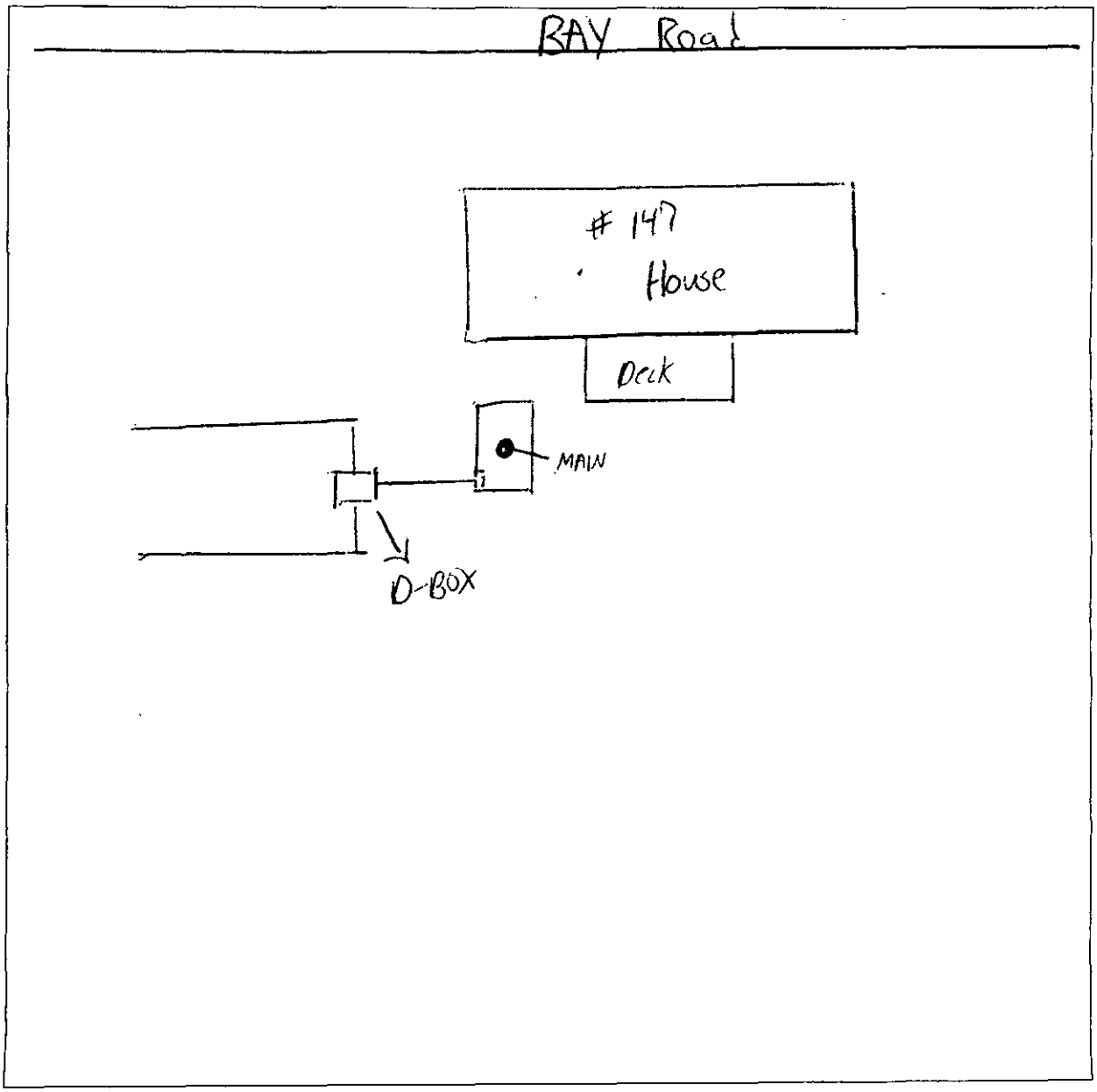
D. System Information (cont.)

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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Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

147 BAY ROAD
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DOS SANTOS
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AMHERST	MASS	01002	JUNE 29, 2011
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D. System Information (cont.)

Site Exam:

☒ Check Slope

☐ Surface water

☒ Check cellar

☐ Shallow wells

Estimated depth to high ground water: _____ 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: _____ Date

☒ Observed site (abutting property/observation hole within 150 feet of SAS)

☒ Checked with local Board of Health - explain:
INSPECTION WITNESS BY THE BOARD OF HEALTH

☐ Checked with local excavators, installers - (attach documentation)

☐ Accessed USGS database - explain:

You **must** describe how you established the high ground water elevation:
TO BE VERIFIED AT TIME OF PERCOLATION TEST

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

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

147 BAY ROAD
Property Address

DOS SANTOS
Owner's Name

Owner information is required for every page.

AMHERST	MASS	01002	JUNE 29, 2011
City/Town	State	Zip Code	Date of Inspection

E. Report Completeness Checklist

☒ Inspection Summary: A, B, C, D, or E checked

☒ Inspection Summary D (System Failure Criteria Applicable to All Systems) completed

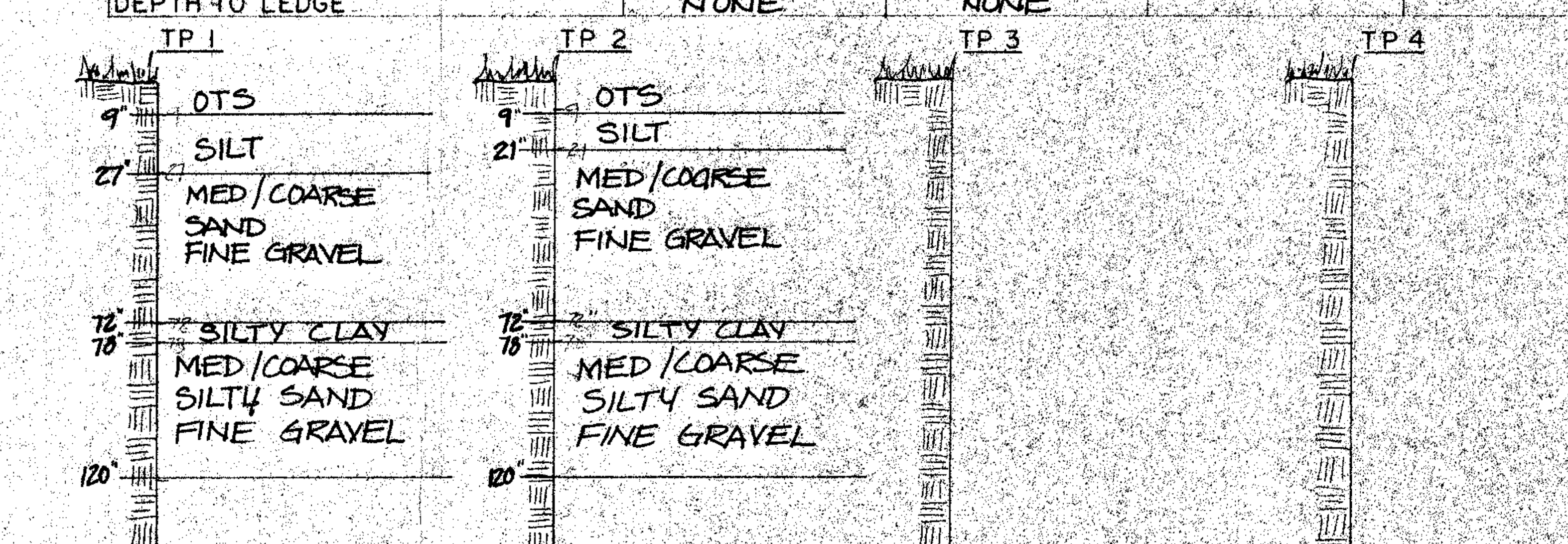
☒ System Information – Estimated depth to high groundwater

☒ Sketch of Sewage Disposal System either drawn on page 15 or attached in separate file

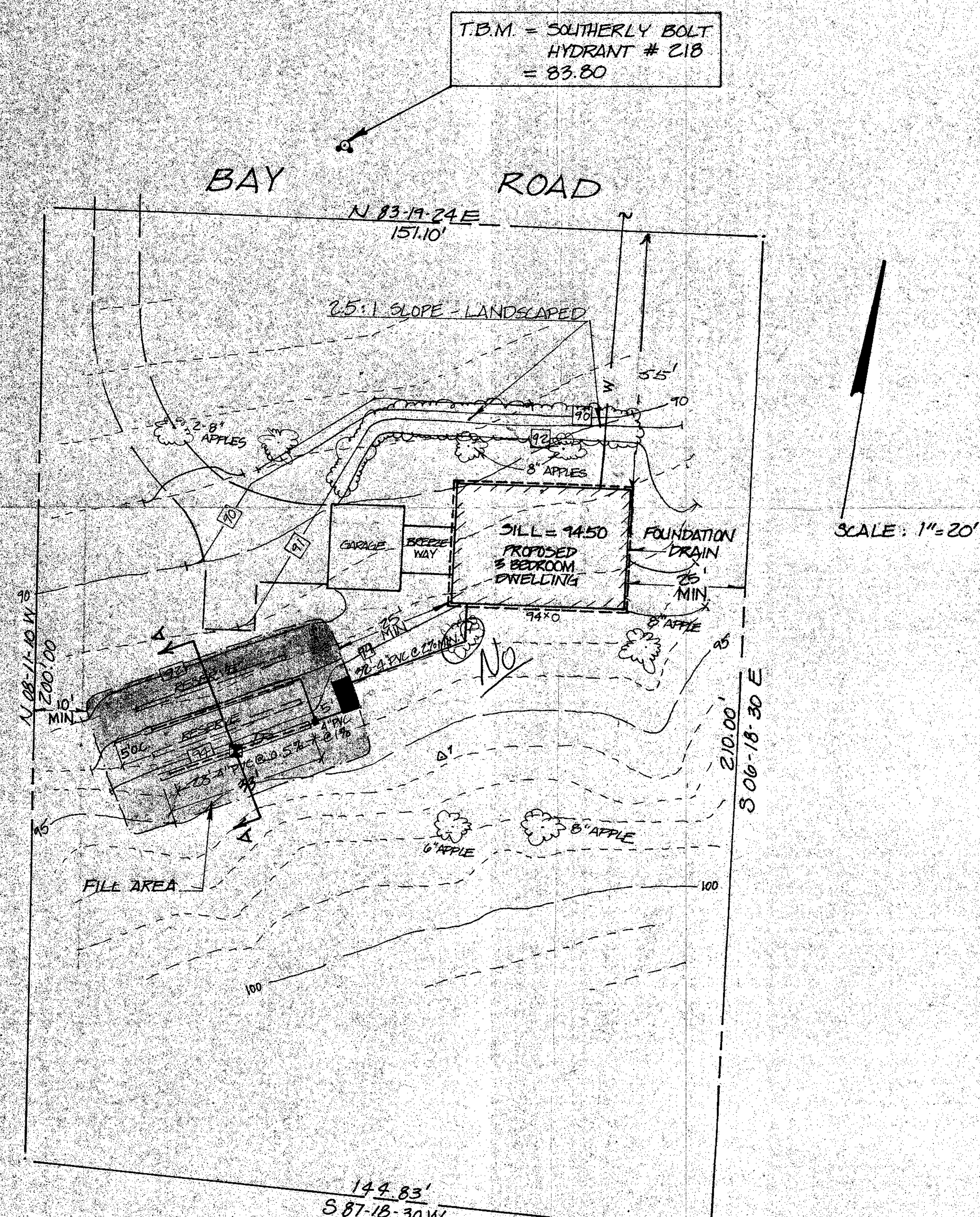
DESIGN CRITERIA

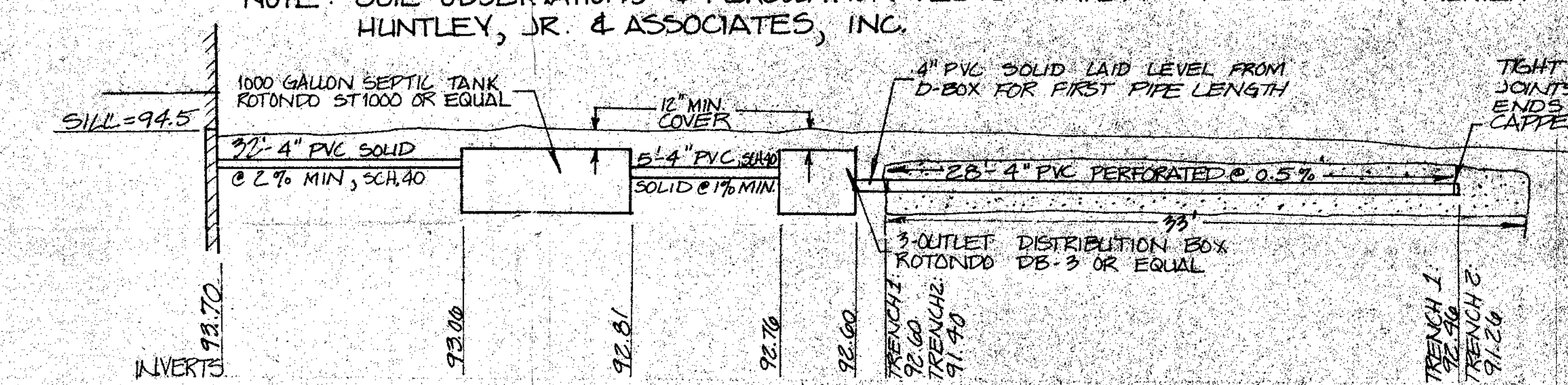
1. LOCATION OF STREAMS, SURFACE AND SUBSURFACE DRAINS AND WETLANDS: GREATER THAN 100', SUBSURFACE DRAINS GREATER THAN 25'.
2. WATER SUPPLY SOURCE: MUNICIPAL WATER
3. SYSTEM IS NOT DESIGNED FOR GARBAGE DISPOSAL.
4. HOUSE 3 BEDROOMS
5. DESIGN FLOW: 110 GPD X 3 BEDROOMS = 330 GPD
6. DESIGN CALCULATIONS: DESIGN PERC RATE = 2 MIN./INCH, SIDEWALL AREA = 2.5 SF/GAL
   330 GPD = 2.5 SF/GAL X (1' WIDE X L) X 2 SIDES
   L = 66 FT
   USE 2 TRENCHES AT 33 FT X 1 FT WIDE X 1 FT DEEP
7. SEPTIC TANK CAPACITY: 1000 GAL.
8. FOUNDATION TO BE ___ DRAINED
9. SOIL TYPE:
10.

TEST PITS ⊠	TP 1	TP 2	TP 3	TP 4
PIT DEPTH	120"	120"		
PERCOLATION RATE & DEPTH ⊕	2min/inch @ 54"	—		
DEPTH OF SEASONAL HIGH WATER	72" oxides	78" oxides		
DEPTH OF OBSERVED GROUNDWATER	NONE	NONE		
DEPTH TO LEDGE	NONE	NONE		



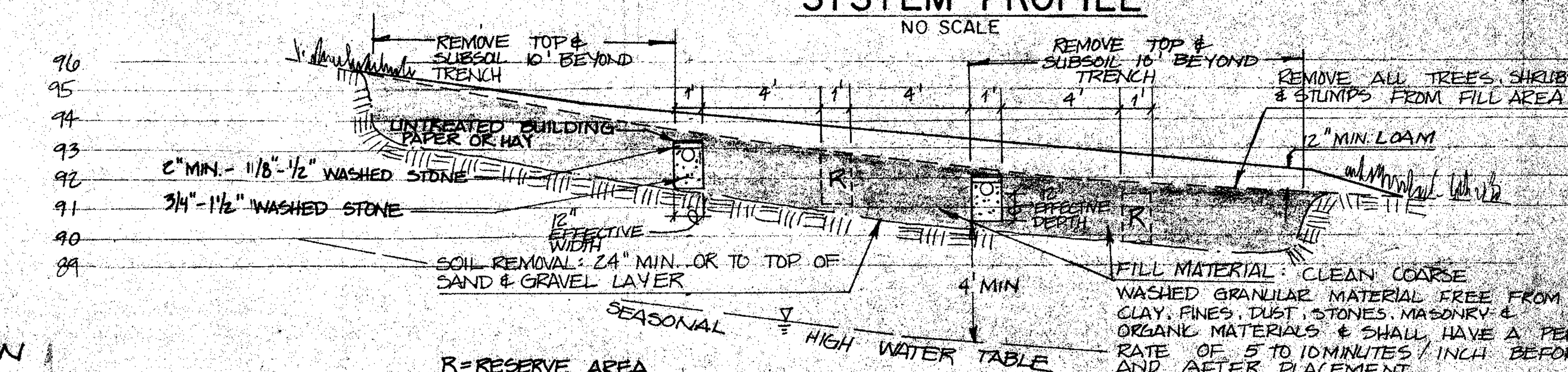
NOTE: SOIL OBSERVATIONS & PERCOLATION TESTS TAKEN 4-23-86 BY ALMER HUNTLEY, JR. & ASSOCIATES, INC.





SYSTEM PROFILE

NO SCALE



SECTION A-A

NO SCALE

SITE LOCATION
1:24,000

GENERAL NOTES

1. SYSTEM DESIGNED ACCORDING TO: TITLE V, MASSACHUSETTS DEQE, CHAPTER 30A. CONSTRUCTION TO CONFORM TO SAME.
2. —102— INDICATES EXISTING CONTOUR, —[102]— INDICATES PROPOSED CONTOUR.
3. C.T. MALE ASSOCIATES, INC. HAS FURNISHED THIS DESIGN & PLAN BUT HAS NOT BEEN RETAINED TO CONSTRUCT OR SUPERVISE CONSTRUCTION OF THE SYSTEM. THEREFORE, NO GUARANTEE OR WARRANTY, EXPRESS OR IMPLIED, IS MADE TO THE ULTIMATE USER RELATIVE TO ANY SYSTEM INSTALLED PURSUANT TO THE PLAN. CONTRACTOR TO NOTIFY ENGINEER OF ANY SITE CONDITION DIFFERING FROM THOSE INDICATED OR OF FIELD CHANGES MADE.

DATE	REVISIONS	APPR'D
8/28/86	REVISED HOUSE LOCATION & GRADING	WS

C.T. MALE ASSOCIATES, INC.
Engineers, Surveyors and Planners
Formerly
Gordon E. Ainsworth & Associates, Inc.

SCALE	AS NOTED
DATE	JULY 28, 1986
PROJECT NO.	86-150
DRAWN	DW
CHECKED BY	WWS
APPROVED BY	WWS

PROJECT
PAUL RACKOWE
BAY ROAD
AMHERST, MASSACHUSETTS

SHEET TITLE
SUBSURFACE SEWAGE DISPOSAL

SHEET 1 OF 1

No. 86-41

#147

WM. RACKOWE

FEE 90.00

CK by K. ALDRICH

THE COMMONWEALTH OF MASSACHUSETTS

BOARD OF HEALTH

TOWN OF Amherst 4/25/ ~~May~~ 1986

Application for Disposal Works Construction Permit

Application is hereby made for a Permit to Construct (X) or Repair ( ) an Individual Sewage Disposal System at:

147 Bay Road (Lot #1) — Location - Address

PAUL W. RACKOWE James — Owner

34 CLARK ST. EASTHAMPTON — or Lot No. Address

TRAC ~~Excavating~~ Mason — Installer

WILLIAMSBURG MASS — Address

Type of Building — Size Lot 30,282 Sq. feet

Dwelling — No. of Bedrooms 3 Expansion Attic ( ) Garbage Grinder ( )

Other — Type of Building ..... No. of persons ..... Showers (1) — Cafeteria ( )

Other fixtures 1 TUB/Shower

Design Flow 110 gallons per person per day. Total daily flow 330 gallons.

Septic Tank — Liquid capacity 1000 gallons Length ..... Width ..... Diameter ..... Depth .....

Disposal Trench — No. 2 Width 2 FT. Total Length 66 FT. Total leaching area 132 sq. ft. Bottom

Seepage Pit No. ..... Diameter ..... Depth below inlet 1 Total leaching area ..... sq. ft.

Other Distribution box ( ) Dosing tank ( )

Percolation Test Results Performed by ALMER HUNTLEY JR. + ASSOC. Date 11-23-86

Test Pit No. 1 2 minutes per inch Depth of Test Pit 120" Depth to ground water 60"

Test Pit No. 2 ..... minutes per inch Depth of Test Pit ..... Depth to ground water .....

Description of Soil 8" OTS; 18" SILT; 3'-9" MED TO COARSE SAND/Fine gravel; 6" silty clay; MEDIUM TO COARSE SILTY SAND WITH fine gravel

Nature of Repairs or Alterations — Answer when applicable .....

CHECK OR FILL IN WHERE APPLICABLE

Agreement:

The undersigned agrees to install the aforedescribed Individual Sewage Disposal System in accordance with the provisions of TITLE 5 of the State Sanitary Code — The undersigned further agrees not to place the system in operation until a Certificate of Compliance has ~~been issued~~ by the board of health.

Signed Paul W. Rackowe NOV. 19, 1986 Date

Application Approved By C E Dube Jr. Nov. 20, 1986 Date

Application Disapproved *for the following reasons:* .....

Permit No. 86-41 Issued 11-20-86 Date

THE COMMONWEALTH OF MASSACHUSETTS

BOARD OF HEALTH

..... OF .....

Certificate of Compliance

THIS IS TO CERTIFY, That the Individual Sewage Disposal System constructed ( ) or Repaired ( )

by ..... Installer

at .....

has been installed in accordance with the provisions of TITLE 5 of The State Sanitary Code as described in the application for Disposal Works Construction Permit No. ..... dated .....

THE ISSUANCE OF THIS CERTIFICATE SHALL NOT BE CONSTRUED AS A GUARANTEE THAT THE SYSTEM WILL FUNCTION SATISFACTORY.

DATE ..... Inspector .....

THE COMMONWEALTH OF MASSACHUSETTS

BOARD OF HEALTH

No. 86-41 TOWN OF AMHERST FEE 90

Disposal Works Construction Permit

Permission is hereby granted PAUL RACKOWE by

to Construct (X) or Repair ( ) an Individual Sewage Disposal System

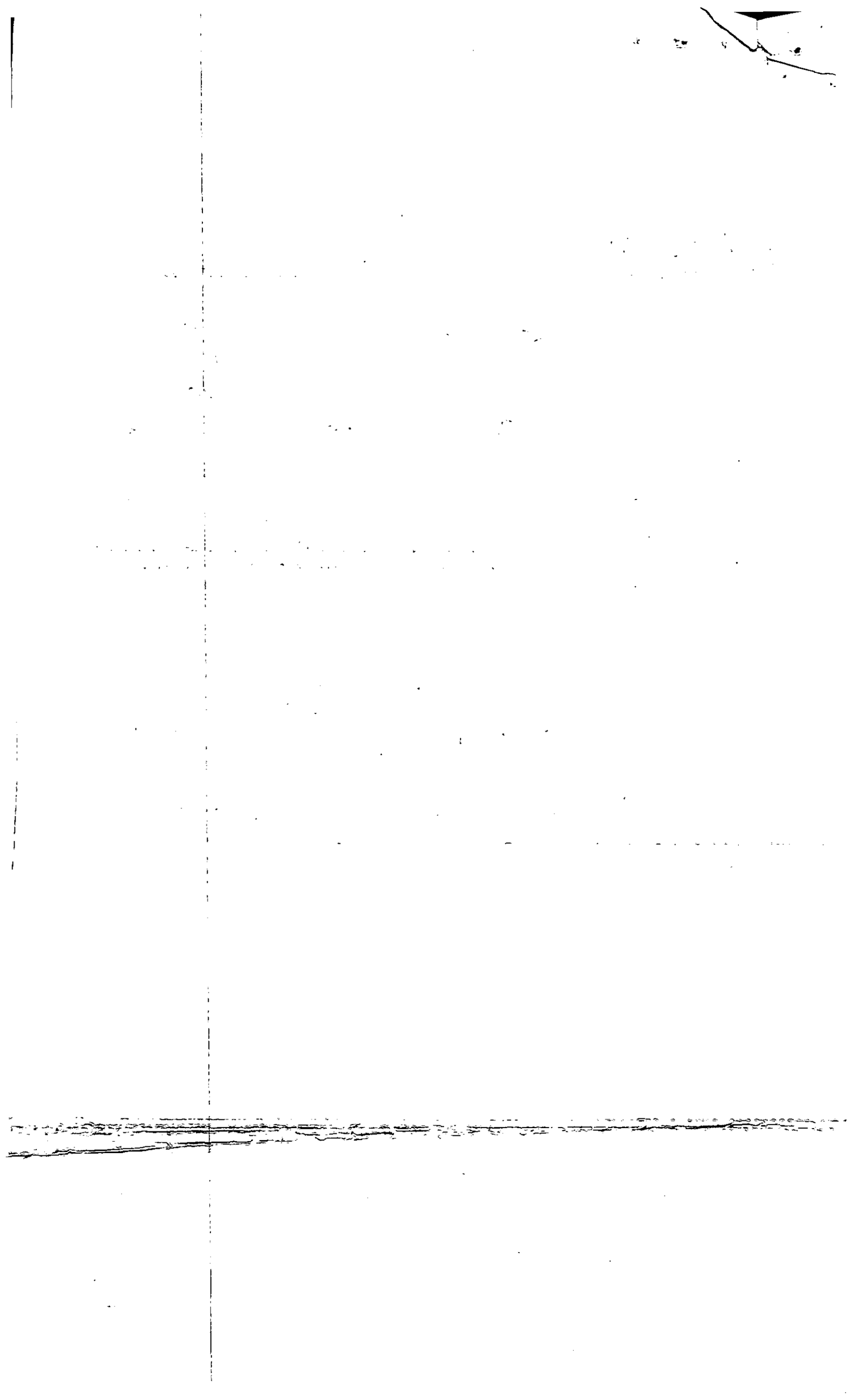
at No. LOT #1 (ATKINS) BAY ROAD Street to 4-25-86

as shown on the application for Disposal Works Construction Permit No. 86-41 Dated ~~May~~ 1986

C E Dube Jr. Board of Health

DATE Nov 20, 1986

FORM 1255 HOBBS & WARREN, INC., PUBLISHERS



BOARD OF HEALTH

TOWN OF AMHERST, MASSACHUSETTS

Lot #1 147 BAY RD

Important Information Regarding Your Private Sewage Disposal System

DISPLAY THIS DOCUMENT IN A PROMINENT PLACE

Owner PAUL W. RACKOWE Address 34 CLARK ST EASTHAMPTON MA

Installer MUSZKA INC Address 339 WESTHAMPTON MA

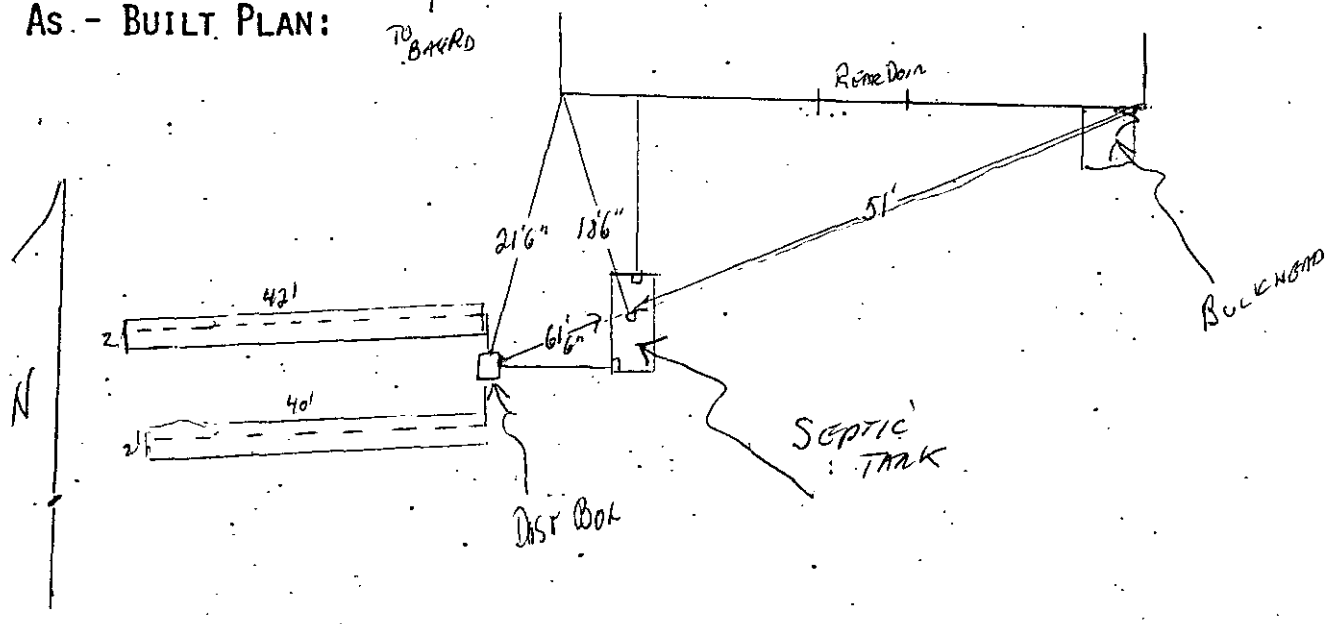
Date Installation Inspected and Approved 4/6/87

Description of System: Tank Capacity: 1500 160 @ SIDES

Leach Field (X) Bed ( ) Seepage Pit ( ). Square Feet: 160 @ BOTTOM

Garbage Grinder Yes ( ) - No (X) No. Bedrooms: 3 No. People 6

AS - BUILT PLAN:



PROPER MAINTENANCE OF YOUR PRIVATE SEWAGE DISPOSAL SYSTEM

1. This system must be inspected periodically and the tank pumped out at an interval not to exceed 3 years. 1987 REGULAR
2. For your protection sanitary pumpers are licensed by the Amherst Board of Health.
3. Regular pumping is crucial to avoid early failure and costly repairs of the system.
4. DO NOT dispose into the system such items as rags, string, sanitary napkins, coffee grounds as they can cause it to clog and fail.
5. Further information can be obtained by contacting your Health Department at 253-7077.

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

Property Address: 147 Bay Rd Amherst
Owner: Rackmore
Date of Inspection: 7/8/02

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

A. System Passes:

Yes 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: See page one

B. System Conditionally Passes:

ND 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.

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

No 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:

No 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:

No 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:

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: 147 Bay Rd. Amherst, Mass.
Owner's Name: Paul W. Rackowe
Owner's Address: 147 Bay Rd Amherst, MA 01002
Date of Inspection: 7/8/02

Name of Inspector: (please print) Robert Stover
Company Name: Amherst Civil Engineering
Mailing Address: P.O. Box 3312 Amherst, MA 01004-3312
Telephone Number: (413) 25

F16

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:

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

Inspector's Signature: Robert W. Stover **Date:** 7/8/02

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 System is 15 years old, in gravelly soil and has had relatively light use (2 persons). Distribution box has some cracks in sidewalls but is solidly in place and functional and not leaking.

******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.**

I recommend pumping this tank every two years or once a year if there are more than 4 occupants in the house. Use liquid laundry detergents

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

Property Address: 147 Bay Rd. Amherst
Owner: RacKowe
Date of Inspection: 7/8/02

SOIL ABSORPTION SYSTEM (SAS): ✓ **(locate on site plan, excavation not required)**

If SAS not located explain why:

_____

_____

Type

____ leaching pits, number: ___
____ leaching chambers, number: ____
____ leaching galleries, number: ____
✓ leaching trenches, number, length: 2
____ 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.):
No evidence of hydraulic failure, no ponding observed - no damp soil - vegetation normal.

CESSPOOLS: N/A (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: N/A (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.):

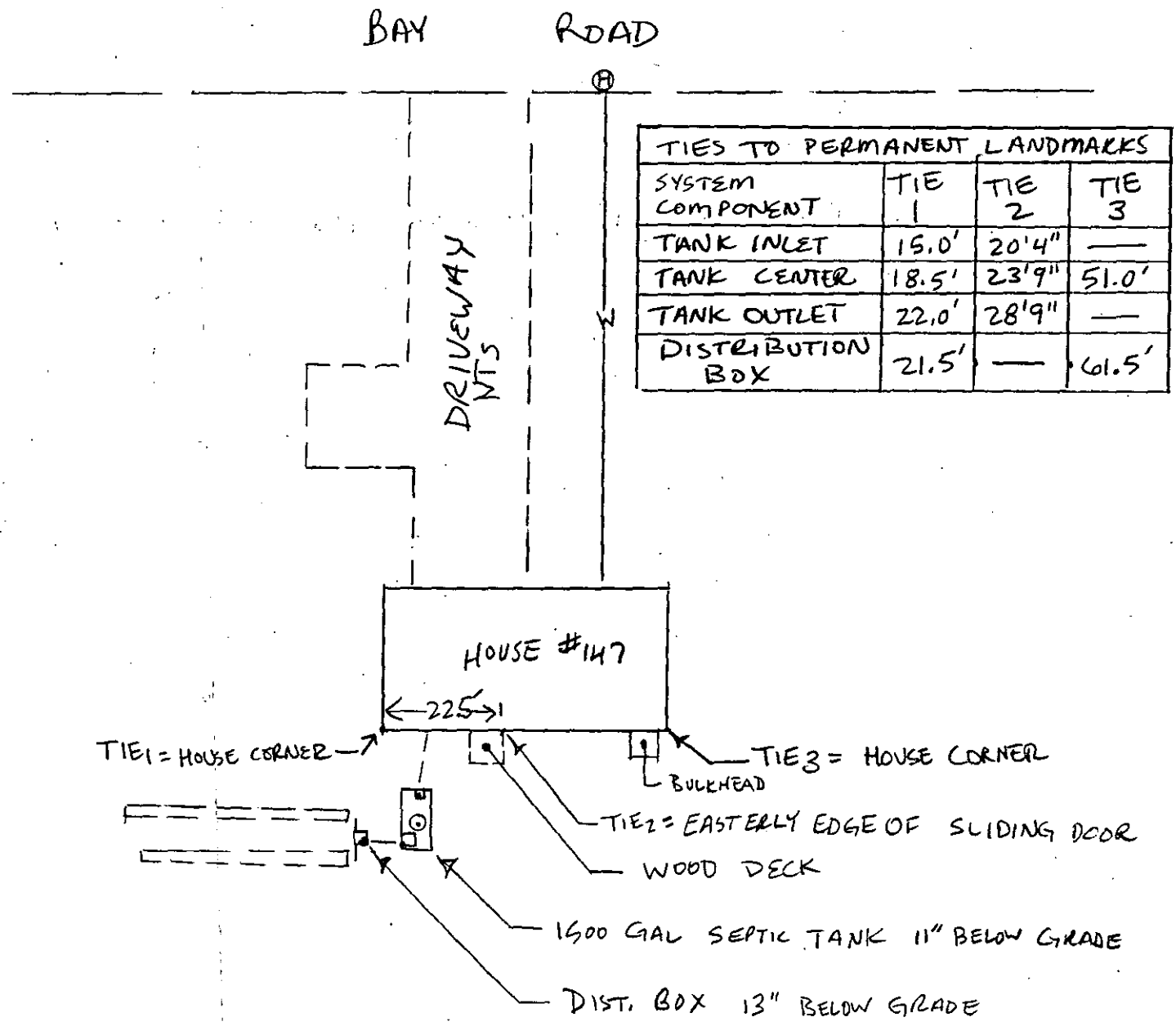
_____

_____

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

Property Address: 147 Bay Rd. Amherst
Owner: Rackowe
Date of Inspection: 7/8/02

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.



TIES TO PERMANENT LANDMARKS			
SYSTEM COMPONENT	TIE 1	TIE 2	TIE 3
TANK INLET	15.0'	20'4"	—
TANK CENTER	18.5'	23'9"	51.0'
TANK OUTLET	22.0'	28'9"	—
DISTRIBUTION BOX	21.5'	—	61.5'

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

Property Address: 147 Bay Rd. Amherst
Owner: Lackowe
Date of Inspection: 7/8/02

BUILDING SEWER (locate on site plan) 34" below top found. to invert 7'4" from inside R rear corner of gar.

Depth below grade: 17"
Materials of construction: ___cast iron ✓40 PVC ___other (explain): 4" Dia
Distance from private water supply well or suction line: _____
Comments (on condition of joints, venting, evidence of leakage, etc.):
everything appears to be in good condition + no evidence of Leakage observed

SEPTIC TANK: ✓ (locate on site plan) 11" below grade

Depth below grade: 11"
Material of construction: ✓concrete ___metal ___fiberglass ___polyethylene
___other(explain)_____
If tank is metal list age: N/A Is age confirmed by a Certificate of Compliance (yes or no): ___ (attach a copy of certificate)
Dimensions: 10.5' x 5.5' x 4.0' below outlet invert
Sludge depth: 10"
Distance from top of sludge to bottom of outlet tee or baffle: 24"
Scum thickness: 3"
Distance from top of scum to top of outlet tee or baffle: 5"
Distance from bottom of scum to bottom of outlet tee or baffle: 11"±
How were dimensions determined: measured and typical
Comments (on pumping recommendations, inlet and outlet tee or baffle condition, structural integrity, liquid levels as related to outlet invert, evidence of leakage, etc.):
Inlet baffle is enclosed cast-to-walls concrete in good condition
Outlet baffle is enclosed cast-to-walls concrete in functional condition
The structural integrity of the tank is good - no signs of leakage observed — liquid level was at the invert of the outlet.

GREASE TRAP: ___(locate on site plan) not apply

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: 147 Bay Rd. Amherst
Owner: RacKowe
Date of Inspection: 7/8/02

TIGHT or HOLDING TANK: ___ (tank must be pumped at time of inspection)(locate on site plan)

Depth below grade: ____ not apply
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: ✓ (if present must be opened)(locate on site plan) 13" below grade

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.):
Box is reasonably level and distribution is reasonably equal – very little carryover of solids. There are several cracks in box sidewalls and some corrosion of inside walls above liquid level but there was no evidence of leakage and the box is functional.

PUMP CHAMBER: ___ (locate on site plan) not apply
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 B
CHECKLIST

Property Address: 147 Bay Rd Amherst
Owner: Rackowe
Date of Inspection: 7/8/02

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. as-built sketch - see attached

✓ / ___ 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)]

d.box located and uncovered.

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

Property Address: 147 Bay Rd Amherst, Mass.
Owner: Rackow
Date of Inspection: 7/8/02

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): no
Is laundry on a separate sewage system (yes or no): no [if yes separate inspection required]
Laundry system inspected (yes or no): N/A
Seasonal use: (yes or no): no
Water meter readings, if available (last 2 years usage (gpd)): town water : 104.5 gpd
Sump pump (yes or no): no
Last date of occupancy: occupied at time of insp.

COMMERCIAL/INDUSTRIAL not apply
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 reported that tank was last pumped approx. 3 yrs. ago + 3-4 years before that.
Was system pumped as part of the inspection (yes or no): yes
If yes, volume pumped: 1500 gallons – How was quantity pumped determined? tank dimensions + plan shows 1500 gal. tank
Reason for pumping: inspection & routine maintenance

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)
___ Tight tank ___ Attach a copy of the DEP approval

___ Other (describe): _____

Approximate age of all components, date installed (if known) and source of information:
17 years old by report of owner

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 A
CERTIFICATION (continued)

Property Address: 147 Bay Rd Amherst
Owner: Raiconte
Date of Inspection: 7/8/02

C. Further Evaluation is Required by the Board of Health:

NO 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:**

not apply
___ 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:**

NO 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.

NO The system has a septic tank and SAS and the SAS is within a Zone 1 of a public water supply.

NO The system has a septic tank and SAS and the SAS is within 50 feet of a private water supply well.

NO 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 area is served by town water supply

**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: 147 Bay Rd Amherst, MA
Owner: Mackowe
Date of Inspection: 7/8/02

D. 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
___	✓	Static liquid level in the distribution box above outlet invert due to an overloaded or clogged SAS or cesspool
N/A		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.
N/A		Any portion of cesspool or privy is within 100 feet of a surface water supply or tributary to a surface water supply.
N/A		Any portion of a cesspool or privy is within a Zone 1 of a public well.
N/A		Any portion of a cesspool or privy is within 50 feet of a private water supply well.
N/A		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: not apply
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)

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 C
SYSTEM INFORMATION (continued)

Property Address: 147 Bay Rd, Amherst
Owner: Rockowe
Date of Inspection: 7/8/02

SITE EXAM
✓ Slope
Surface water none
Check cellar
Shallow wells

Estimated depth to ground water 72 ~~feet~~ inches

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

✓ Obtained from system design plans on record - If checked, date of design plan reviewed: 4/23/86
✓ Observed site (abutting property/~~observation hole within 150 feet of SAS~~)
✓ Checked with local Board of Health-explain: for plans + soil logs
___ Checked with local excavators, installers- (attach documentation)
___ Accessed USGS database-explain: _____

You **must** describe how you established the **high ground water elevation**:
high groundwater elevation taken from logs of soil test pits done by Almon Hunter, Jr. & Associates, Inc dated 4/23/86 (see attached). Oxides were reported at 72" + 75" - well below bottom of existing S.A.S.

NRCS soil survey shows this site has WnB (Windsor) soil w/ a typical high water table deeper than 60".

#147 W.M. RACKOWE

No. 86-41

FEE 90.00 CK by K. ALDRICH

THE COMMONWEALTH OF MASSACHUSETTS

BOARD OF HEALTH

TOWN OF Amherst 4/25/1986

Application for Disposal Works Construction Permit

Application is hereby made for a Permit to Construct (X) or Repair ( ) an Individual Sewage Disposal System at:

147 Bay Road (Lot #1)
Location - Address or Lot No.

PAUL W. RACKOWE James 34 CLARK ST. EASTHAMPTON
Owner Address

TRAC EXCAVATING MATERIA Williamsburg MA
Installer Address

Type of Building Size Lot 30,282 Sq. feet

Dwelling — No. of Bedrooms 3 Expansion Attic ( ) Garbage Grinder ( )

Other — Type of Building ..... No. of persons ..... Showers (1) — Cafeteria ( )

Other fixtures 1 TUB/SHOWER

Design Flow 110 gallons per person per day. Total daily flow 330 gallons.

Septic Tank — Liquid capacity 1000 gallons Length ..... Width ..... Diameter ..... Depth .....

Disposal Trench — No. 2 Width 2 FT. Total Length 66 FT Total leaching area 132 sq. ft. Bottom

Seepage Pit No. ..... Diameter ..... Depth below inlet 1 Total leaching area ..... sq. ft.

Other Distribution box ( ) Dosing tank ( )

Percolation Test Results Performed by ALMER HUNTLEY JR. ASSOC. Date 11-23-86

Test Pit No. 1 2 minutes per inch Depth of Test Pit 120" Depth to ground water 60"

Test Pit No. 2 ..... minutes per inch Depth of Test Pit ..... Depth to ground water .....

Description of Soil 8" OTS; 18" silt; 3'-9" MED. TO COARSE SAND/fine gravel; 6" silty clay; MEDIUM TO COARSE SILTY SAND WITH fine gravel

Nature of Repairs or Alterations — Answer when applicable .....

Agreement:

The undersigned agrees to install the aforedescribed Individual Sewage Disposal System in accordance with the provisions of TITLE 5 of the State Sanitary Code — The undersigned further agrees not to place the system in operation until a Certificate of Compliance has been issued by the board of health.

Signed Paul W. Rackowe NOV. 19, 1986
Date

Application Approved By C. C. Dacko Jr. Nov. 20, 1986
Date

Application Disapproved *for the following reasons:* .....

Permit No. 86 - 41 Issued 11-20-86
Date

CHECK OR FILL IN WHERE APPLICABLE

THE COMMONWEALTH OF MASSACHUSETTS

BOARD OF HEALTH

..... OF .....

Certificate of Compliance

THIS IS TO CERTIFY, That the Individual Sewage Disposal System constructed ( ) or Repaired ( )

by .....
Installer

at .....

has been installed in accordance with the provisions of TITLE 5 of The State Sanitary Code as described in the application for Disposal Works Construction Permit No. ..... dated .....

THE ISSUANCE OF THIS CERTIFICATE SHALL NOT BE CONSTRUED AS A GUARANTEE THAT THE SYSTEM WILL FUNCTION SATISFACTORY.

DATE ..... Inspector .....

MUNICIPAL WATER

3. SYSTEM IS NOT DESIGNED FOR GARBAGE DISPOSAL.

4. HOUSE 2 BEDROOMS

5. DESIGN FLOW: 110 GPD X 3 BEDROOMS = 330 GPD

6. DESIGN CALCULATIONS: DESIGN PERC RATE = 2 MIN./INCH, SIDEWALL AREA = 2.5 SF
330 GPD = 2.5 SF/GAL X (1' WIDE X L) X 2 SIDES
L = 66 FT
USE 2 TRENCHES AT 33 FT X 1 FT WIDE X 1 FT DEEP

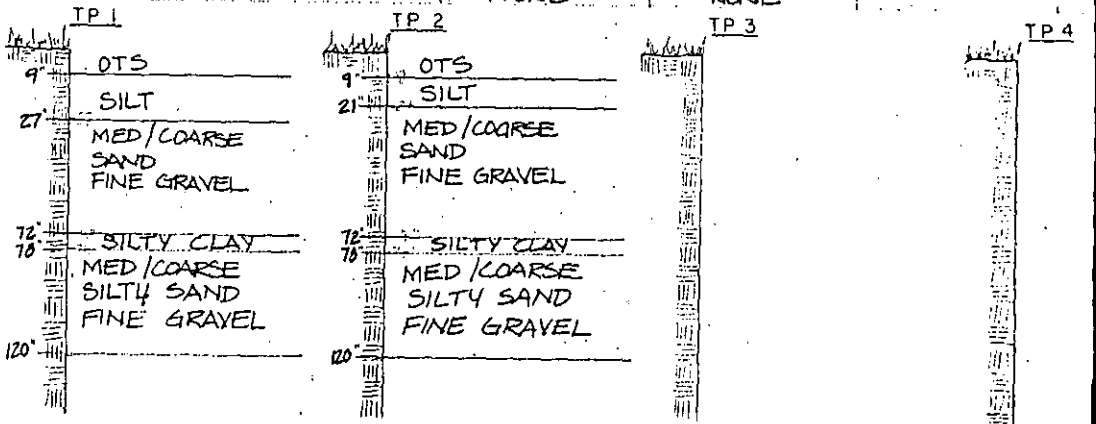
7. SEPTIC TANK CAPACITY: 1000 GAL.

8. FOUNDATION TO BE ___ DRAINED

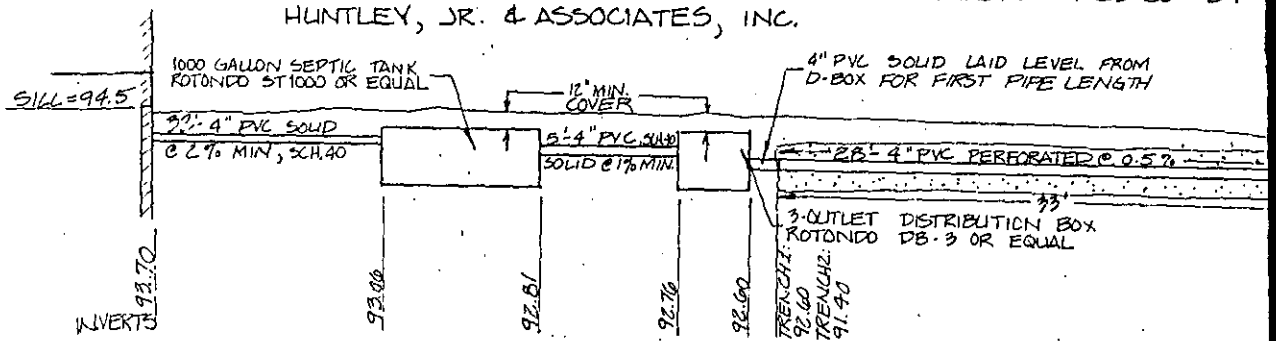
9. SOIL TYPE:

10.

TEST PITS	TP 1	TP 2	TP 3
PIT DEPTH	120"	120"	
PERCOLATION RATE & DEPTH ◆	2min/inch @ 54"		
DEPTH OF SEASONAL HIGH WATER	72" oxides	78" oxides	
DEPTH OF OBSERVED GROUNDWATER	NONE	NONE	
DEPTH TO LEDGE	NONE	NONE	

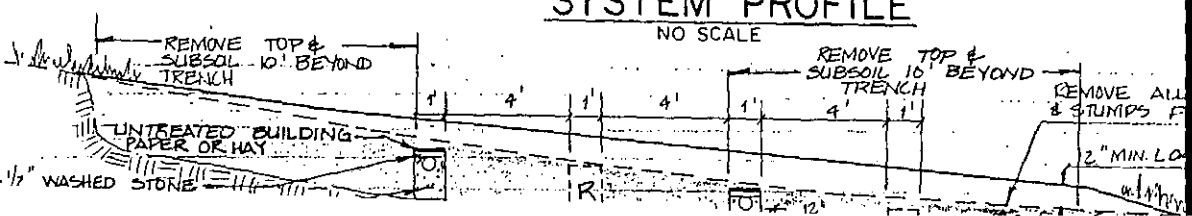


NOTE: SOIL OBSERVATIONS & PERCOLATION TESTS TAKEN 4-23-86 BY HUNTLEY, JR. & ASSOCIATES, INC.



SYSTEM PROFILE

NO SCALE



BOARD OF HEALTH

TOWN OF AMHERST, MASSACHUSETTS

Lot #1 147 BAY RD

Important Information Regarding Your Private Sewage Disposal System

DISPLAY THIS DOCUMENT IN A PROMINENT PLACE

Owner PAUL W. RACKOWE Address 34 CLARK ST EASTHAMPTON MA

Installer MISTICKA INC Address 339 WESTHAMPTON MA

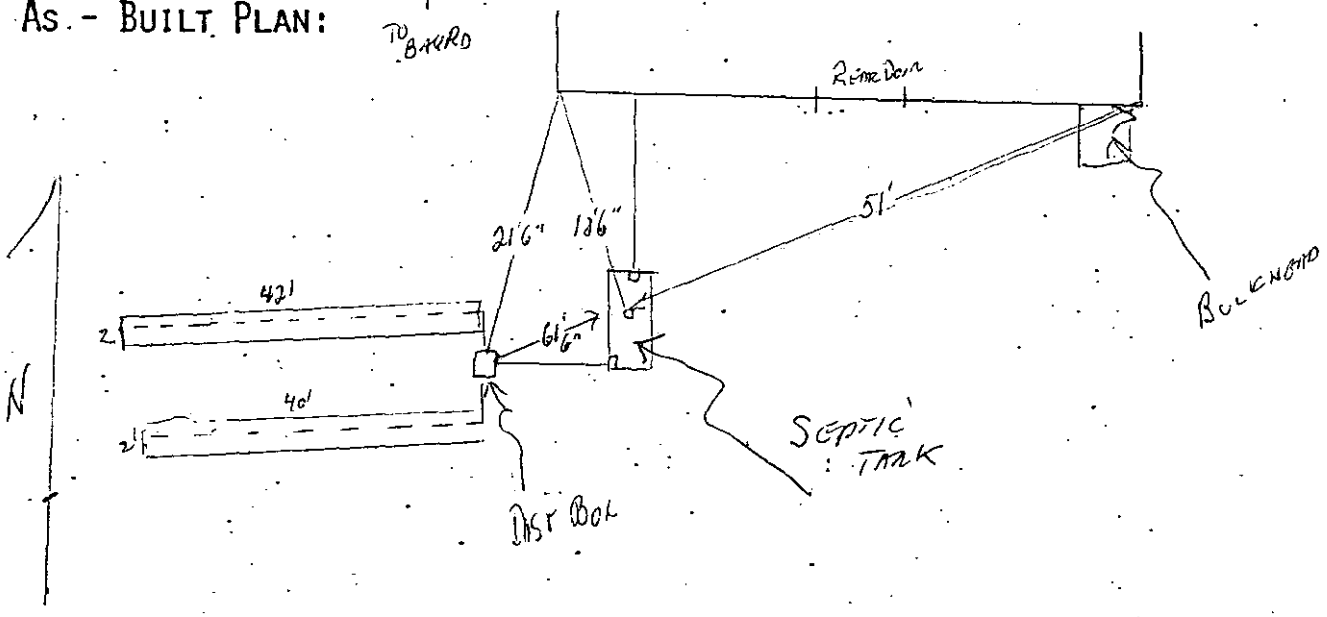
Date Installation Inspected and Approved 4/6/87

Description of System: Tank Capacity: 1500 160 @ SIDES

Leach Field (X) Bed ( ) Seepage Pit ( ) Square Feet: 160 @ BOTTOM

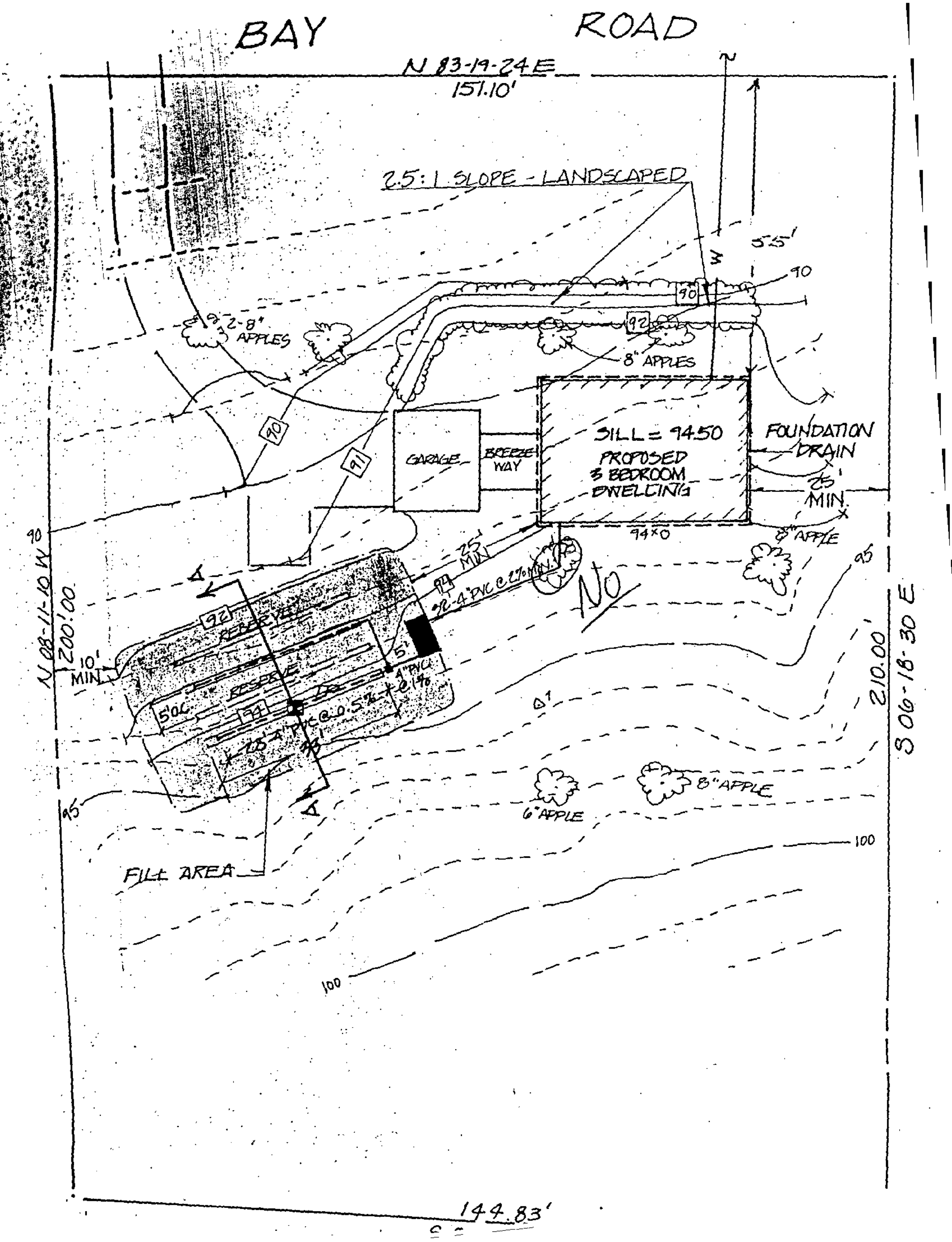
Garbage Grinder Yes ( ) - No (X) No. Bedrooms: 3 No. People 6

AS - BUILT PLAN:



PROPER MAINTENANCE OF YOUR PRIVATE SEWAGE DISPOSAL SYSTEM

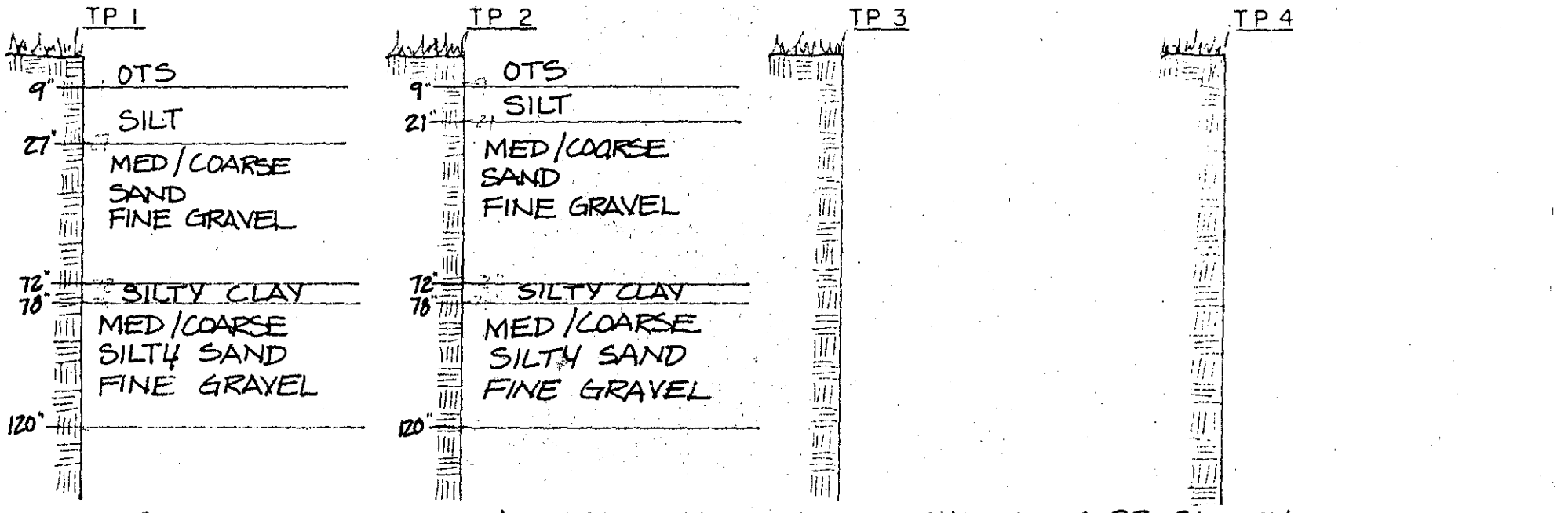
1. This system must be inspected periodically and the tank pumped out at an interval not to exceed 3 years. 1987 REGULARLY
2. For your protection sanitary pumpers are licensed by the Amherst Board of Health.
3. Regular pumping is crucial to avoid early failure and costly repairs of the system.
4. DO NOT dispose into the system such items as rags, string, sanitary napkins, coffee grounds as they can cause it to clog and fail.
5. Further information can be obtained by contacting your Health Department at 253-7077.


BAY ROAD
N 83-19-24 E
151.10'
2.5:1 SLOPE - LANDSCAPED
2-8" APPLES
8" APPLES
GARAGE
BREEZE WAY
SILL = 94.50
PROPOSED 3 BEDROOM DWELLING
FOUNDATION DRAIN
25' MIN
8" APPLE
25' MIN
NO
10' MIN
N 08-11-10 W 200.00'
S 06-18-30 E 210.00'
RESERVE
5' O.C.
4" PVC @ 1%
6" APPLE
8" APPLE
FILL AREA
100
95
90
144.83'

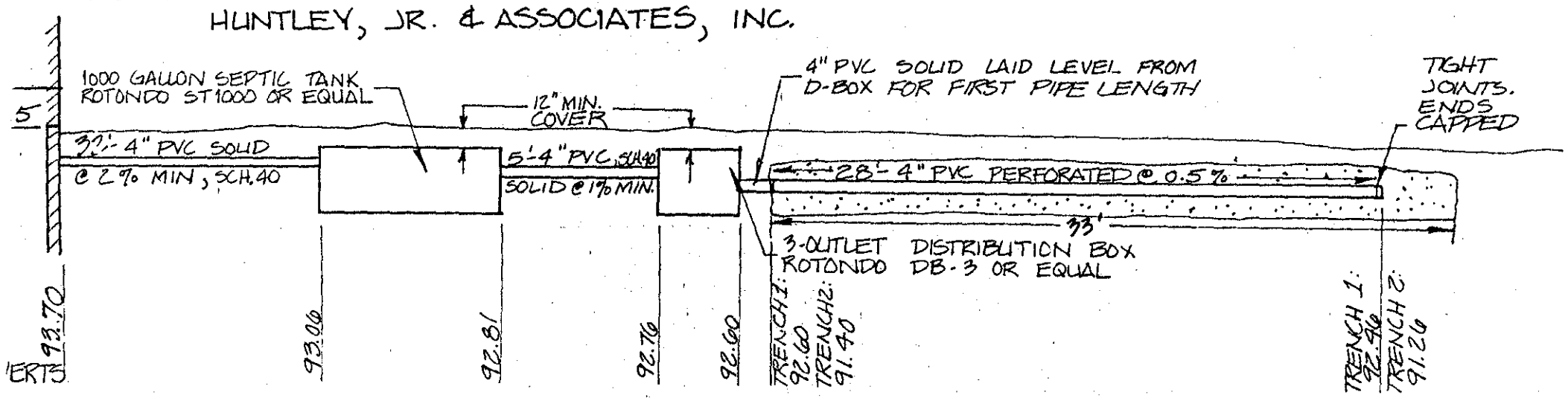
DESIGN CRITERIA

1. LOCATION OF STREAMS, SURFACE AND SUBSURFACE DRAINS AND WETLANDS: GREATER THAN 100', SUBSURFACE DRAINS GREATER THAN 25'.
2. WATER SUPPLY SOURCE: MUNICIPAL WATER
3. SYSTEM IS NOT DESIGNED FOR GARBAGE DISPOSAL.
4. HOUSE 3 BEDROOMS
5. DESIGN FLOW: 110 GPD X 3 BEDROOMS = 330 GPD
6. DESIGN CALCULATIONS: DESIGN PERC RATE = 2 MIN./INCH, SIDEWALL AREA = 2.5 SF/GAL.
   330 GPD = 2.5 SF/GAL X (1' WIDE X L) X 2 SIDES
   L = 66 FT
   USE 2 TRENCHES AT 33 FT X 1 FT WIDE X 1 FT DEEP
7. SEPTIC TANK CAPACITY: 1000 GAL.
8. FOUNDATION TO BE ___ DRAINED
9. SOIL TYPE:
10.

TEST PITS ✖	TP 1	TP 2	TP 3	TP 4
PIT DEPTH	120"	120"		
PERCOLATION RATE & DEPTH ✥	2min/inch @ 54"	—		
DEPTH OF SEASONAL HIGH WATER	72" oxides	78" oxides		
DEPTH OF OBSERVED GROUNDWATER	NONE	NONE		
DEPTH TO LEDGE	NONE	NONE		

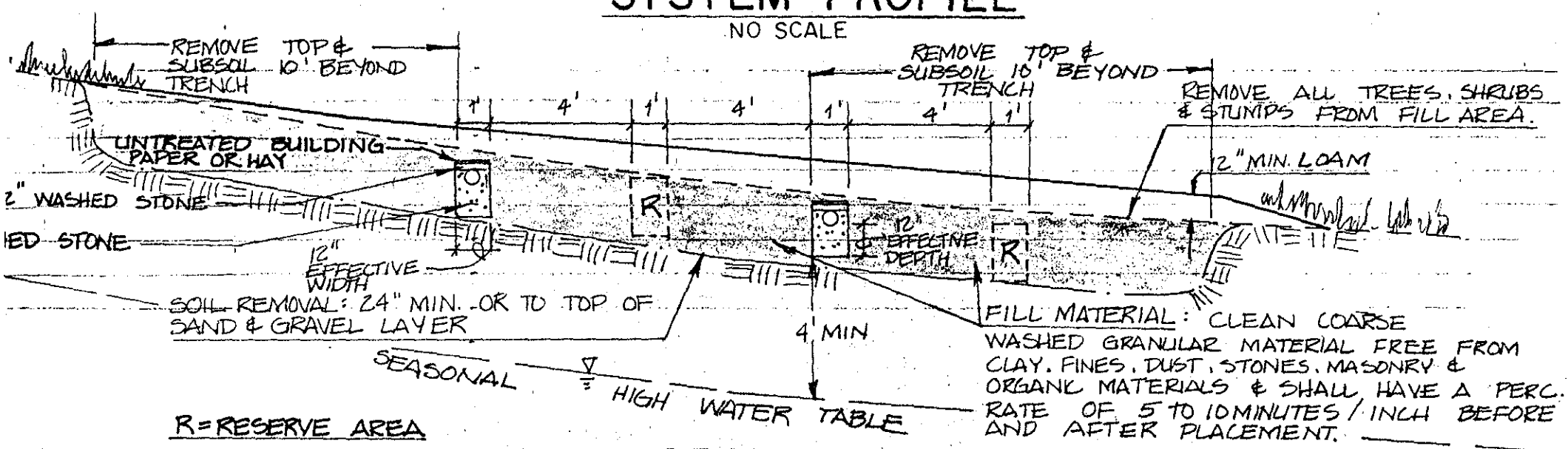


NOTE: SOIL OBSERVATIONS & PERCOLATION TESTS TAKEN 4-23-86 BY ALMER HUNTLEY, JR. & ASSOCIATES, INC.



SYSTEM PROFILE

NO SCALE



R = RESERVE AREA

SECTION A-A

NO SCALE

GENERAL NOTES

1. SYSTEM DESIGNED ACCORDING TO: TITLE V, MASSACHUSETTS DEQE, CHAPTER 30A.
   ...TION TO CONFORM TO SAME

2. WATER SUPPLY SOURCE: MUNICIPAL WATER

3. SYSTEM IS NOT DESIGNED FOR GARBAGE DISPOSAL.

4. HOUSE 3 BEDROOMS

5. DESIGN FLOW: 110 GPD X 3 BEDROOMS = 330 GPD

6. DESIGN CALCULATIONS: DESIGN PERC RATE = 2 MIN./INCH, SIDEWALL AREA = 2.5 SF
330 GPD = 2.5 SF/GAL X (1' WIDE X L) X 2 SIDES
L = 66 FT
USE 2 TRENCHES AT 33 FT X 1 FT WIDE X 1 FT DEEP

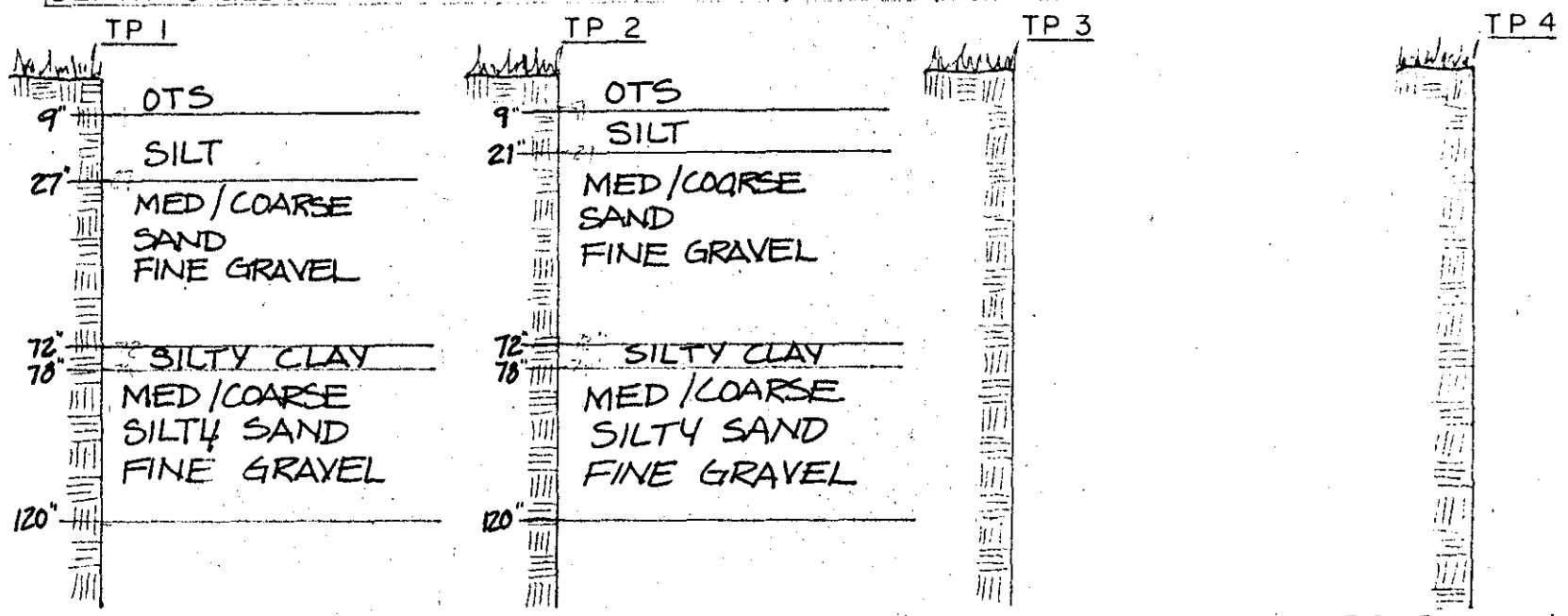
7. SEPTIC TANK CAPACITY: 1000 GAL.

8. FOUNDATION TO BE ___ DRAINED

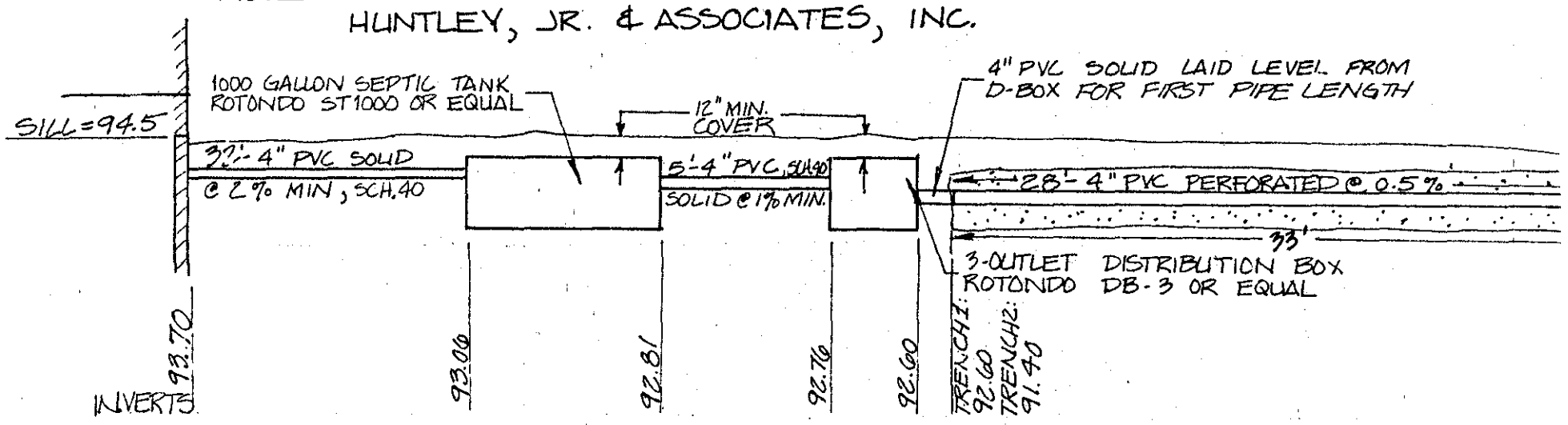
9. SOIL TYPE:

10.

TEST PITS	TP 1	TP 2	TP 3
PIT DEPTH	120"	120"	
PERCOLATION RATE & DEPTH	2min/inch @ 54"	—	
DEPTH OF SEASONAL HIGH WATER	72" oxides	78" oxides	
DEPTH OF OBSERVED GROUNDWATER	NONE	NONE	
DEPTH TO LEDGE	NONE	NONE	

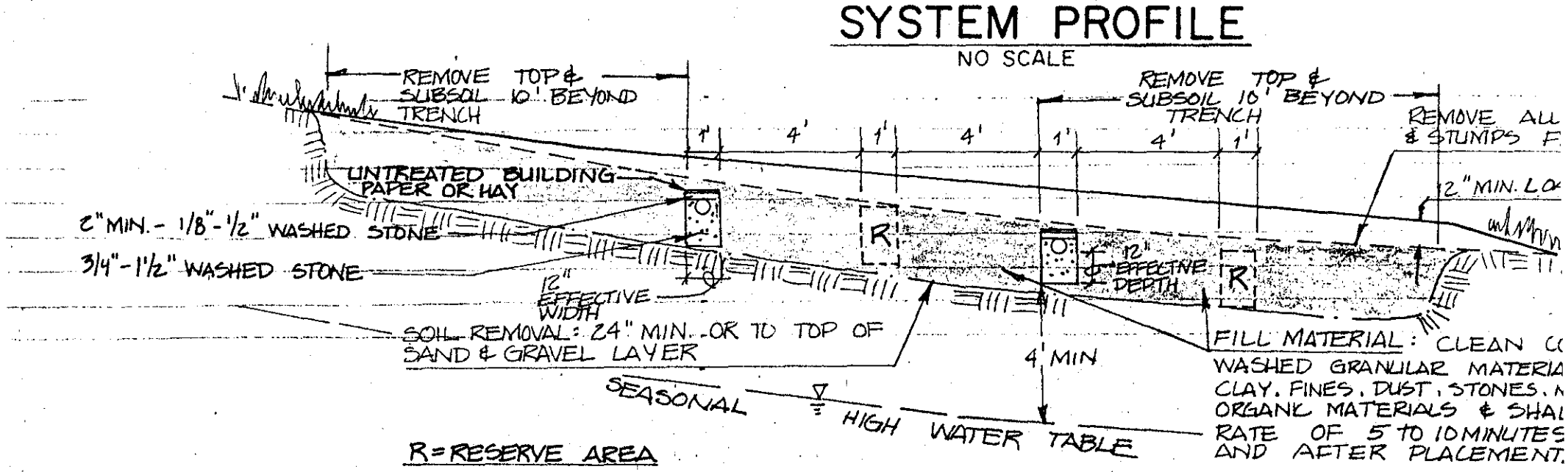


NOTE: SOIL OBSERVATIONS & PERCOLATION TESTS TAKEN 4-23-86 BY HUNTLEY, JR. & ASSOCIATES, INC.



SYSTEM PROFILE

NO SCALE



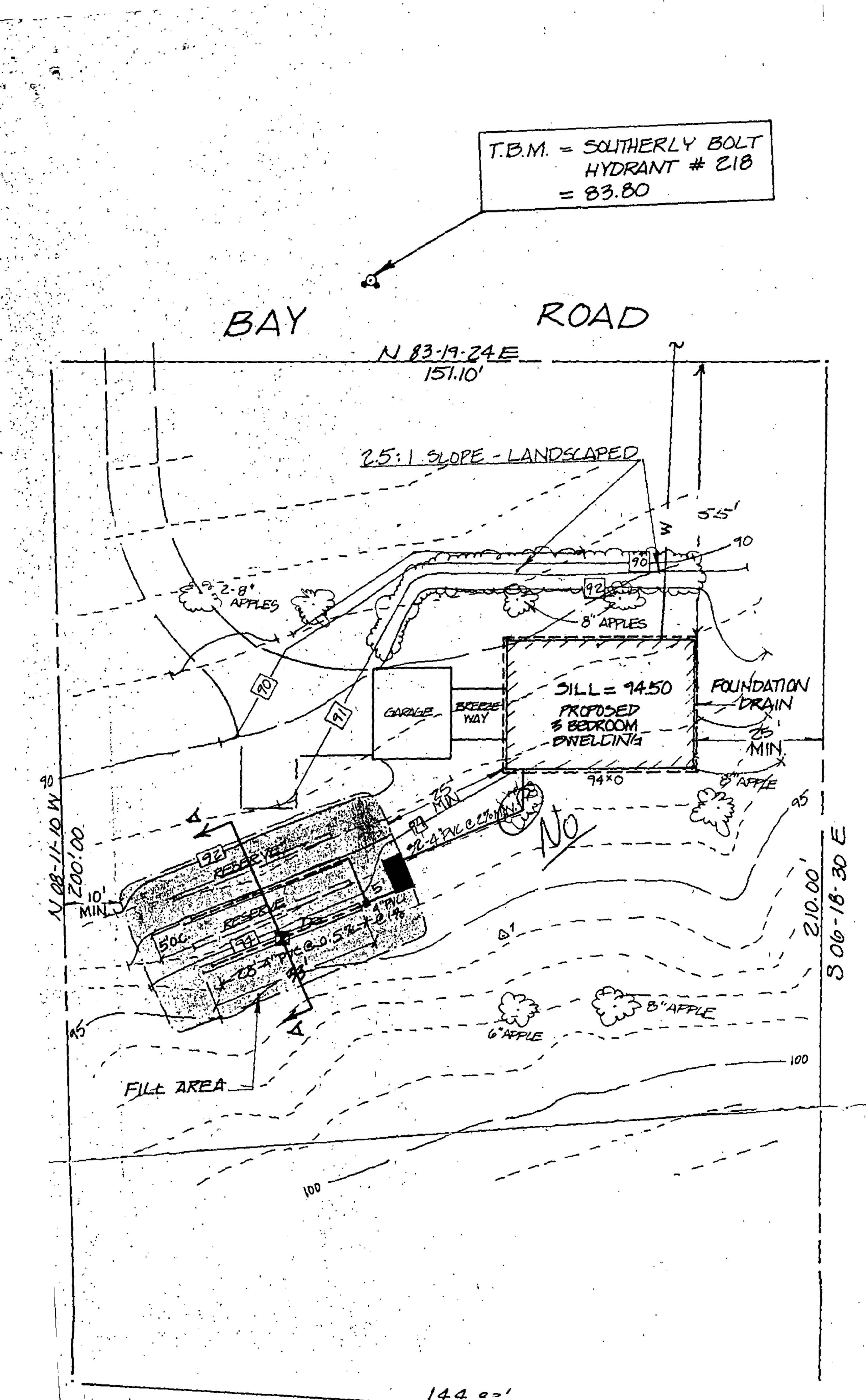
R = RESERVE AREA

SECTION A-A

NO SCALE

GENERAL NOTES

1. SYSTEM DESIGNED ACCORDING TO: TITLE V, MASSACHUSETTS DEQE, CHAPTER 30A. CONSTRUCTION TO CONFORM TO SAME.
2. —102— INDICATES EXISTING CONTOUR, —[102]— INDICATES PROPOSED CONTOUR.
3. C.T. MALE ASSOCIATES, INC. HAS FURNISHED THIS DESIGN & PLAN BUT HAS NOT BEEN RETAINE OR SUPERVISE CONSTRUCTION OF THE SYSTEM. THEREFORE, NO GUARANTEE OR WARRANTY, OR IMPLIED, IS MADE TO THE ULTIMATE USER RELATIVE TO ANY SYSTEM INSTALL TO THE PLAN. CONTRACTOR TO NOTIFY ENGINEER OF ANY SITE CONDITION DIFFERI THOSE INDICATED OR OF FIELD CHANGES MADE.



T.B.M. = SOUTHERLY BOLT
HYDRANT # 218
= 83.80
BAY ROAD
N 83-19-24 E
151.10'
2.5:1 SLOPE - LANDSCAPED
55'
90
92
2-8" APPLES
8" APPLES
GARAGE
BREEZE WAY
SILL = 94.50
PROPOSED
3 BEDROOM
DWELLING
FOUNDATION DRAIN
25' MIN.
8" APPLE
94.0
25' MIN
NO
RESERVE
5' O.C.
10' MIN
N 08-11-10 W
200.00'
S 06-18-30 E
210.00'
95
8" APPLE
6" APPLE
100
FILL AREA
144.83'

RECEIVED MAY - 3 2000

FIRE
CASUALTY

A.S.A.P.
Adjustment Service, Inc.

COMPENSATION
SPECIAL INVESTIGATION

24 Elm Street, Suite #3
Westfield, MA 01085

"Multiline Adjusters Specializing in Quality"

Tel. (413)562-4154
Fax (413)562-7993

05/02/00

To: Board of Health or
Board of Selectmen
CITY HALL
AMHERST, MA. 01002

Re: **Insured:** PAUL RACKOWE

Property Address: 147 BAY ROAD
AMHERST, MA 01002

Policy No.: NBSL38573

Loss of: 04/08/00

Loss Type: WIND CO

File No.: 00-048672-00P

Claim has been made involving loss, damage or destruction of the above captioned property, which may either exceed $ 1,000.00 or cause Mass.Gen. Law, Chapter 143, Section 6 to be applicable.

If any notice under Mass. Gen. Laws, Ch. 139, Sec. 3B is appropriate please direct it to the attention of the writer and include a reference to the captioned insured, location, policy number, date of loss and claim or file number.

Ken Bourque, Adjuster

On this date, I caused copies of this notice to be sent to the persons named above at the addresses indicated above by first class mail.

Elvira Bureau 5/2/00
Signature and Date