

1352 West St.





**COLD SPRING ENVIRONMENTAL  
CONSULTANTS INC.**

- 2IE Site Investigations
- Subsurface Investigations
- Pollution Remediation
- LSP on Staff
- Forensic Septic Investigations

- Percolation Tests
- Septic Designs
- Regulatory Compliance
- Recycling and Solid Waste
- Second Opinions

**received**  
10-28-08

October 16, 2008

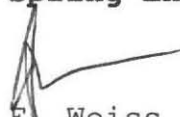
**Amherst Board of Health**

RE:Septic System Repair Installation Inspection  
# (1352) West Street (Norwottuck Fish and Game)

On this date, the writer inspected the installation of a **Septic Tank and Leach Field**. The writer found the installation to be complete (except for completion of cover material and final fill) and in compliance with our plans and 310 CMR 15.000. The installer representative (**Karls Excavating**). Our inspection noted that the system was built properly, in accordance with the state regulations and our plans. The contractor was requested to have sufficient breakout soil on site and properly cover the system according to our plans and may backfill the system after review by local Health Department representatives.

Sincerely,

**Cold Spring Environmental Consultants, Inc.**

  
Alan E. Weiss, M.S., L.S.P.  
President  
Principal Hydrogeologist  
Licensed Site Professional #6442  
Registered Sanitarian #933

Cold Spring Environmental  
350 Old Enfield Road  
Belchertown, Ma. 01007

413-323-5957, phone  
413-323-4916, fax

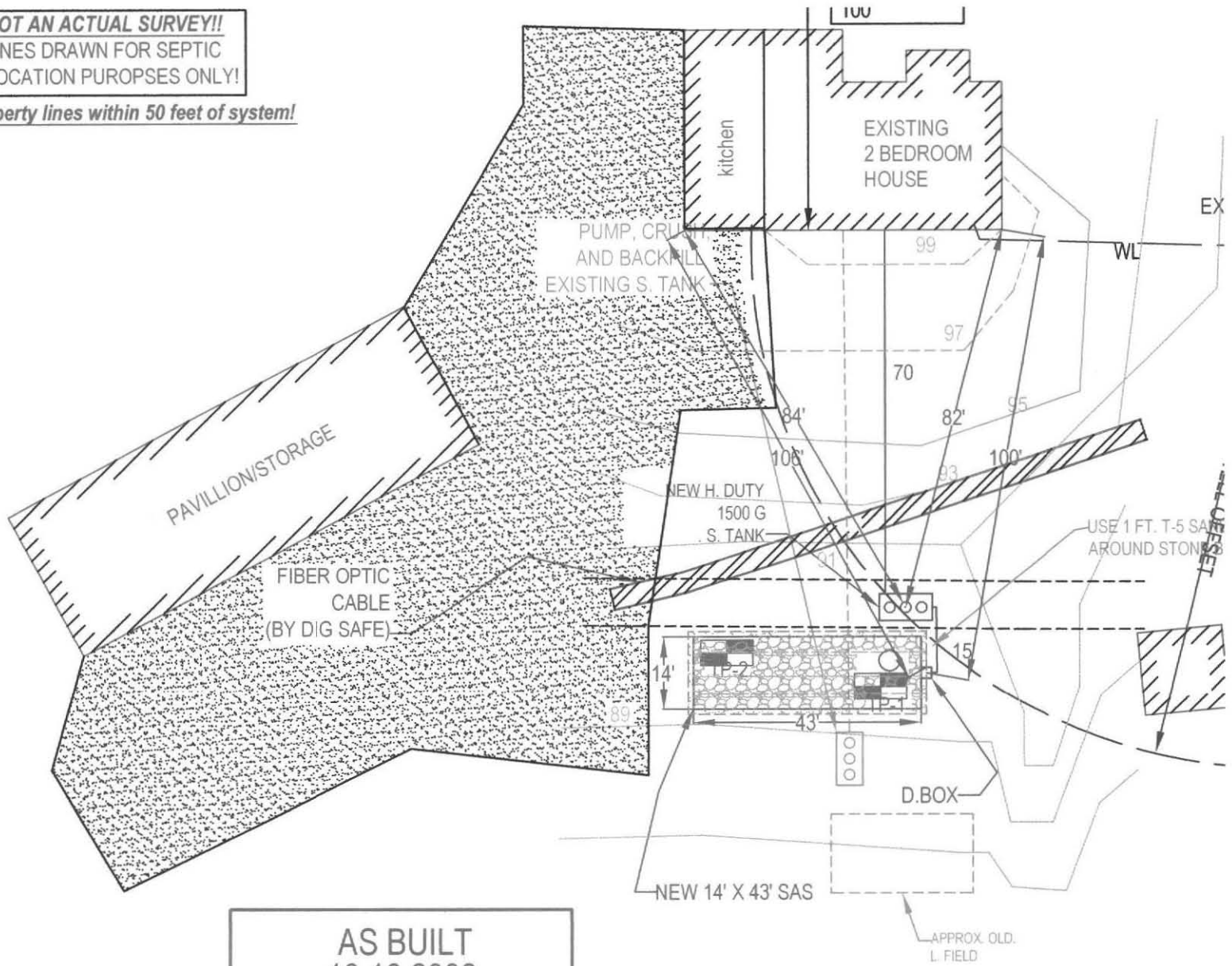
11-12-08  
Sent copy of  
As-Built  
1352 West St.  
Norwottuck Fish & Game

*\*As built Attached,*

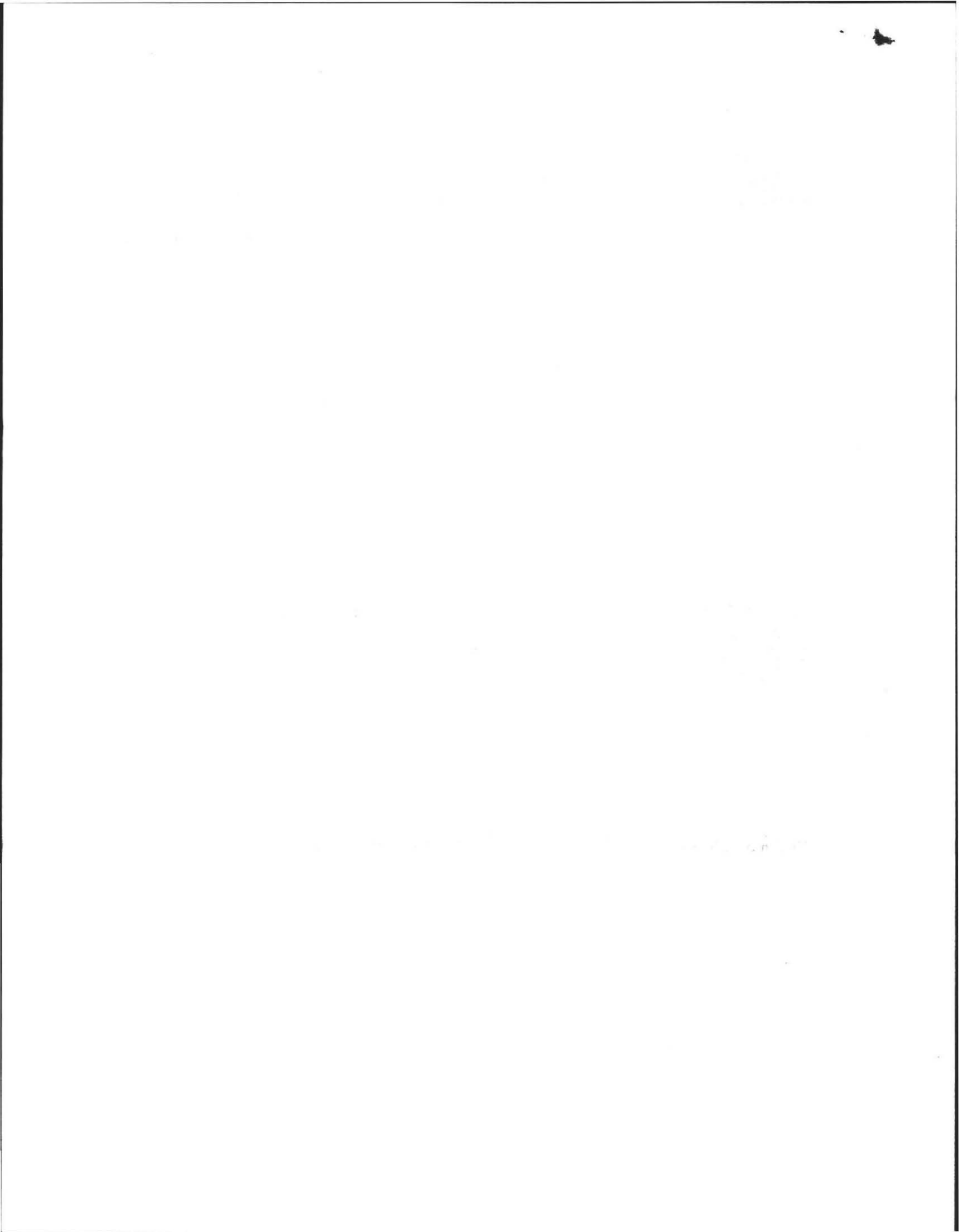
Page 1 of 1

**NOT AN ACTUAL SURVEY!!**  
LINES DRAWN FOR SEPTIC  
LOCATION PURPOSES ONLY!

*property lines within 50 feet of system!*



AS BUILT  
10.16.2008  
SCALE: 1"=30'  
80 AC +/-



Town of



AMHERST

Massachusetts

AMHERST HEALTH DEPARTMENT, 70 BOLTWOOD WALK, AMHERST, MA 01002  
(413) 256-4077

(413) 256-4033 ENVIRONMENTAL HEALTH SERVICES  
(413) 256-4053 (FAX)

**SUB-GRADE INSPECTION**

Location: 1352 West St Norwottuck Light Lane

Property Owner: \_\_\_\_\_

I certify that I have inspected the excavation to sub-grade of the proposed septic system leaching area prior placement of any fill of stone, or construction of any portion of the system.

I further certify that:

1. All 'A' and 'B' horizon soils (topsoils and subsoils) were removed in the area of the system.
2. There was no evidence of ground water in the excavation.
3. There was no evidence of "mottles" that would be in conflict with the findings of the deep hole soil profile.
4. That the excavation was accomplished to the proper depth and in conformance with the approved plans.

COLD SPRING ENVIRONMENTAL, INC.  
Designers Name 100 ENFIELD RD.  
BELCHERTOWN, MA 01007

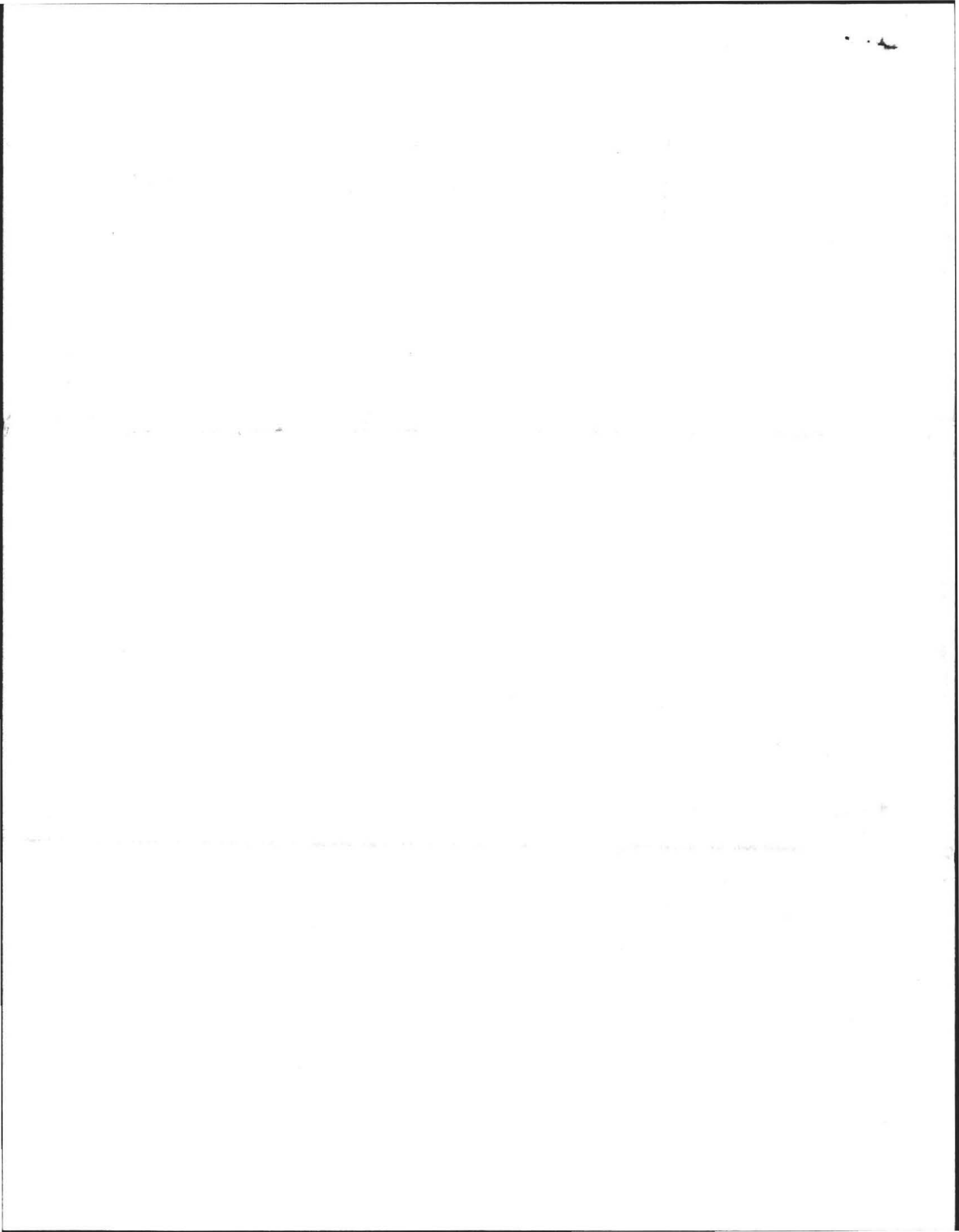
[Signature]  
Designers Signature

Street Address

Town, State, Zip Code

413.323-4916  
Telephone Number

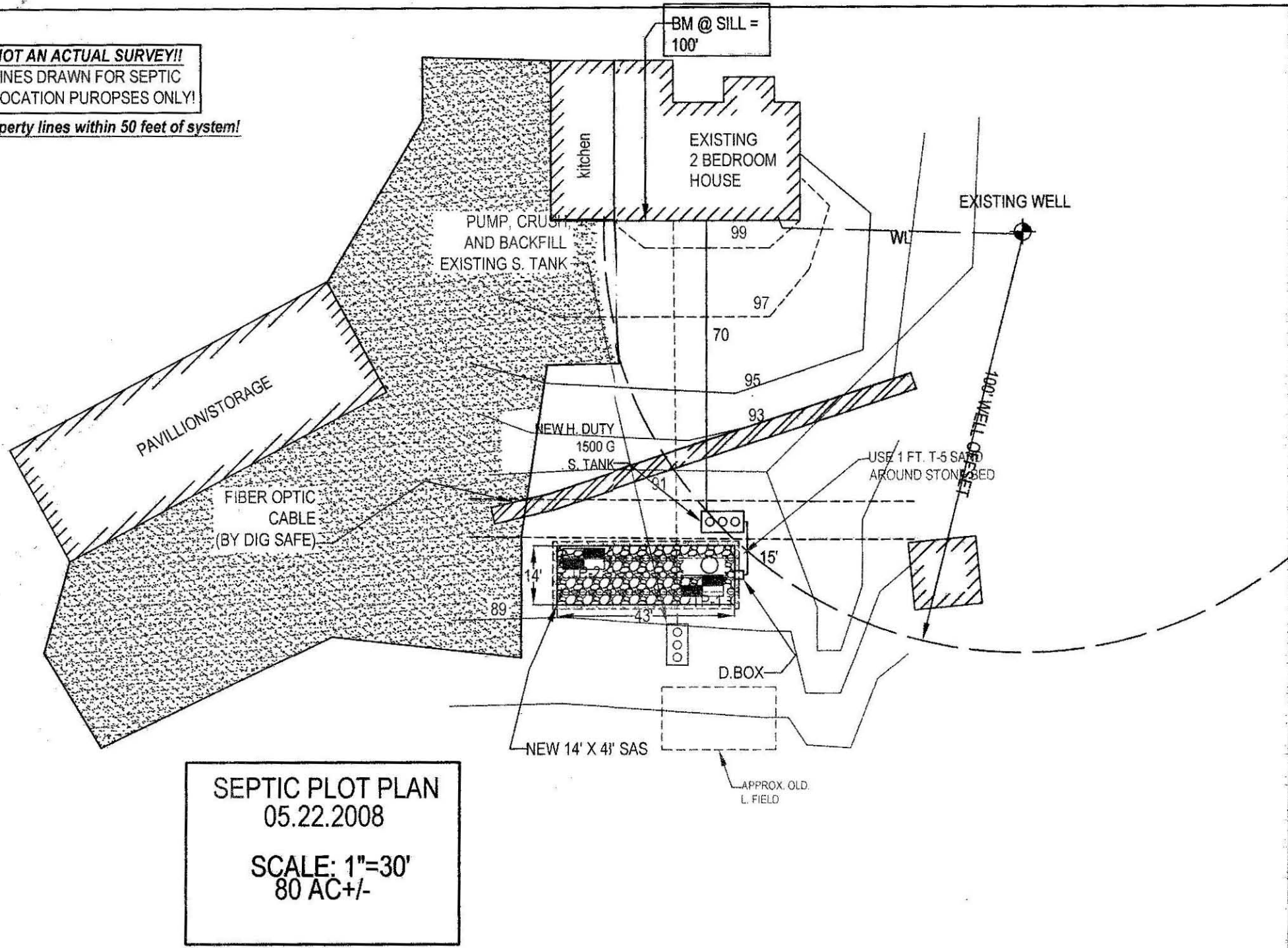




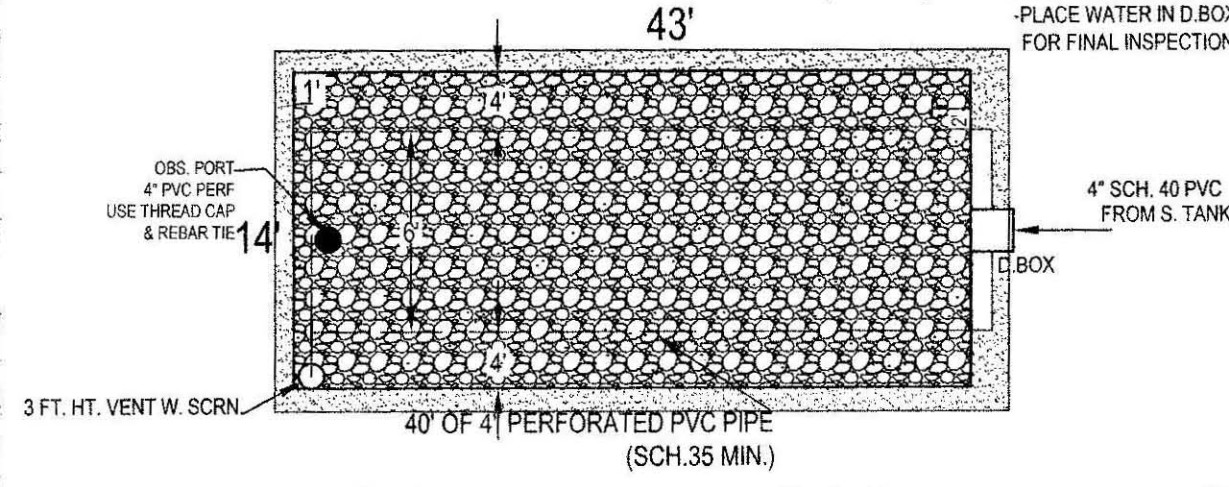


NOT AN ACTUAL SURVEY!!  
LINES DRAWN FOR SEPTIC  
LOCATION PURPOSES ONLY!

No property lines within 50 feet of system!



### LEACH FIELD DETAIL (NTS)



SUBJECT SITE LOCATION  
(AMHERST GIS)



### 2006 SEPTIC PLAN ADDENDUM

**DUE TO LATE REGULATION CHANGES 4-22-2006**  
**ALL NEW SYSTEMS MUST:**  
1.) INSTALL PVC RISERS OVER D. BOX'S BURIED DEEPER THAN 9" AND PLACE IRON REBAR ON TOP.  
2.) HAVE 4" PERFORATED, PVC INSPECTION PORTALS TO BOTTOM OF STONE BED, WITH SCREW RISER TO 3" OF SURFACE, MARKED WITH REBAR. *All OPENINGS & COMPONENTS marked with magnetic tape*  
3.) HAVE PERFORATIONS IN BED AT 4 AND 8 O-CLOCK POSITIONS.  
**NOTE:** THESE ARE NEW STATE REGULATION REQUIREMENTS (4-22-06), NOT NECESSARILY THE OPINION OF THE DESIGNER.

### GRAVITY SLOPE SEPTIC SYSTEM OPERATION AND MAINTENANCE NOTES FOR HOMEOWNER.

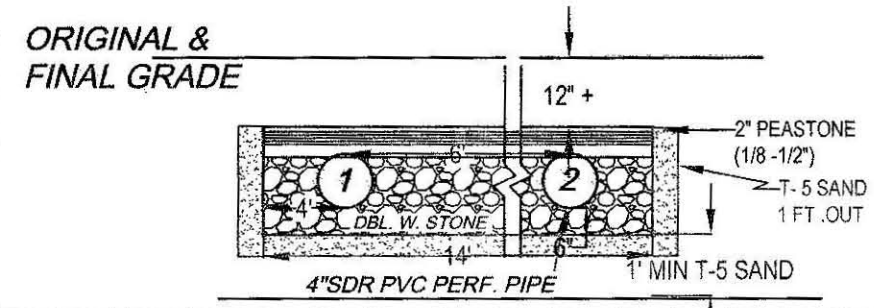
- HAVE TANK PUMPED EVERY 2 YEARS.
- MAINTAIN AREA OVER SEPTIC SYSTEM AS GRASSY OR SIMILAR GROUND COVER.
- DO NOT PLANT ANY TREES OR DEEP ROOTING SHRUBS WITHIN 10 FEET OF SYSTEM.
- USE ONLY LIQUID DETERGENTS & LOW FLOW WASHERS.
- CLEAN TANK OUTLET FILTER ANNUALLY IF PRESENT

### DESIGN NOTES AND CALCULATIONS:

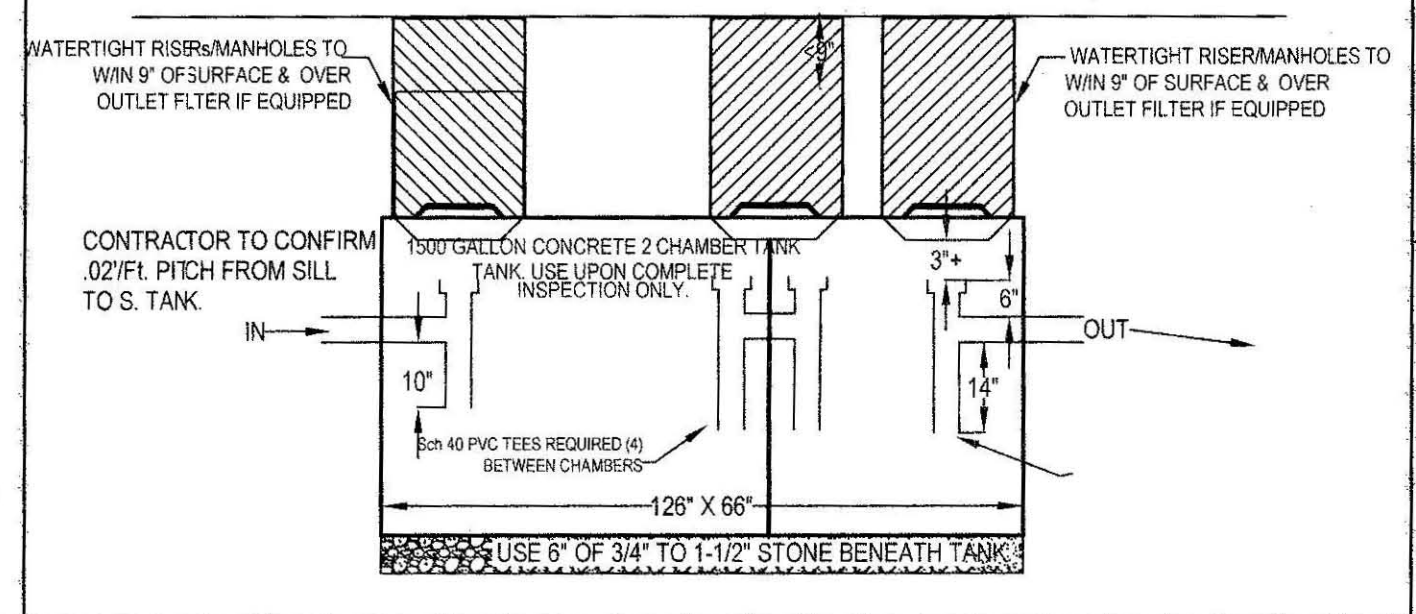
- 2 BR (BEDROOM HOME) X 110 +220 GPD /BR = 440 GPD. REQUIRED  
-Use ONE FIELD: 14' WIDE X 43' LONG WITH 6" OF 3/4" TO 1 1/2" DBL WASHED STONE BELOW INVERT  
- BOTTOM AREA: 14' W X 43' L = 602 SF.  
- SIDE AREA: 0 SF.  
- TOTAL AREA: 602 SF X 0.74 GAL/SF = 445 GPD
- GARBAGE DISPOSAL NOT ALLOWED, TO BE REMOVED\*\*\*\*
- NO OTHER PRIVATE WELLS WITHIN 100 FEET OF SAS.
- NO OTHER WETLANDS WITHIN 100 FEET OF SAS
- USE NEW DOUBLE CHAMBER HD 1,500 GAL S. TANK AS NOTED & MAINTAIN 0.02 PITCH FROM SILL TO S. TANK  
- INSTALL & INSPECT SCH. 40 TEES / BAFFLES (10" INLET, 14" OUTLET),  
**NOTE:**  
- ALL COMPONENTS OF NEW SYSTEM MUST BE MARKED WITH MAGNETIC TAPE. BE SURE TO MAINTAIN 3" CLEARANCE FROM TOP OF TEES TO BOTTOM OF TANK COVERS & BOXES.
- USE LARGE STYLE (5+ OUTLET) D.BOX ONLY.
- ALL D. BOX OUTLET PIPES LEVEL FOR FIRST 2'. BOXES MUST HAVE 2"+ CONC. WALLS  
**NOTE:**  
- D. BOXES WITH MORE THAN 9" OF COVER SOIL MUST HAVE RISERS TO 6" OF SURFACE.
- USE APPROVED (1 1/2") DBL. WASHED STONE UNDER TANK & D. BOX FOR 6".  
- CONFIRM STONE PROPERLY WASHED (WITH BUCKET / H2O TEST) PRIOR TO PLACEMENT.
- USE PROPER SCH. 40 PVC TEES AS SHOWN.
- PRE & POST CONTOURS NOTED AS NECESSARY, RESERVE AREA NOTED REQUIRED.
- SLOPE CALCS (SEE CONTOURS). SUBGRADE INSP. REQ'D.
- USE FIELD DUE: TO TOPOGRAPHY AND SPACE OF LOT WITH RESPECT TO LOCATION AND ELEVATION OF RESIDENCE (310 CMR 15.240)
- USE 2% MIN. SLOPE OVER SAS  
- CLEAR TOP AND SUB TO 18" MIN. AS NEEDED (INSPECTION REQUIRED).  
- CLEAR PAST BASE OF B (MIN. 18") & SCARIFY UNDER BED PRIOR TO TITLE V SAND PLACEMENT.  
- EXCAVATE EXISTING LOAM, SUB AND ANY EXISTING DEBRIS, DIRTY FILL OR PRIOR SYSTEM IF PRESENT.
- SOIL EVALUATION BY A. WEISS, RS. 6/10/08 (E. BOKINA, T. DION, BOH AGENT).  
- DEPTH OF PERC. 48"  
- PERC RATE = 4 MIN / IN  
- CLASS I SOIL (RATING (F. SAND)
- NO TREES WITHIN 10 FT. OF NEW LEACH FIELD. USE TITLE V FILL 5' OUT.
- ENGINEER TO INSPECT SUBGRADE, AND FINAL.  
- USE/INSPECT SCH. 40 PIPE FOR PIPE FROM HOUSE TO NEW OR EXISTING TANK
- GRADE MULCH AND SEED OVER LEACHFIELD AS NOTED.
- INSTALLATION IN LOW GROUNDWATER SEASON RECOMMENDED.
- USE OBSERVATION PORT NEAR CENTER OF STONE BED HAVE 4" PERFORATED, PVC INSPECTION PORTALS TO BOTTOM OF STONE BED, WITH RISER TO 3" OF SURFACE & THREADED CAP & MARK WITH RE-BAR.

### EFFLUENT DISPOSAL AREA CROSS SECTION - NOT TO SCALE (LEVEL DISPOSAL AREA)

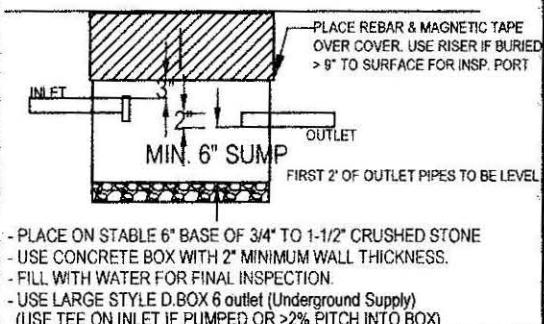
NUMBER OF SEPTIC LINES: 2  
CENTER TO CENTER SPACING: 6'



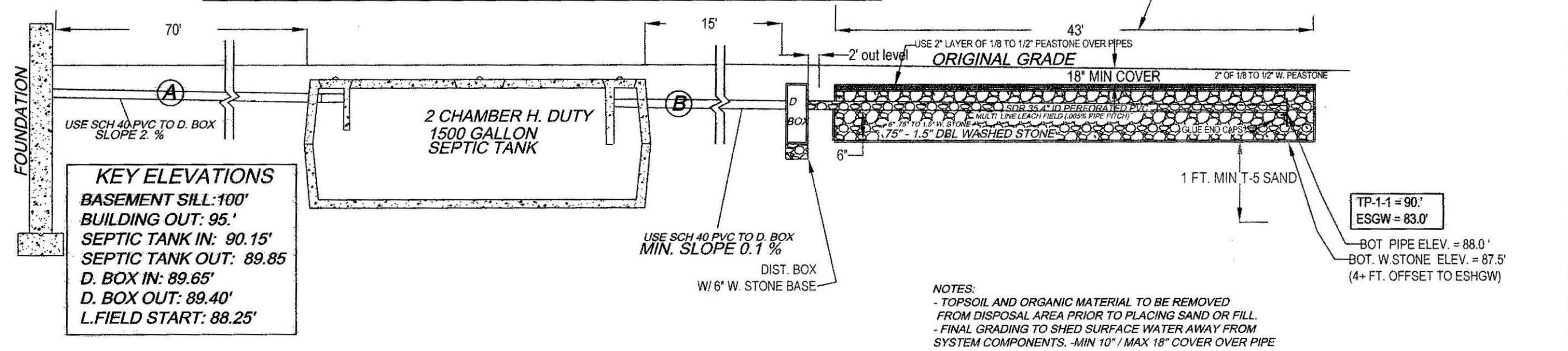
### TYPICAL NEW H. DUTY SEPTIC TANK (WATERTIGHT) OR EQUIVELANT



### TYPICAL D. BOX (WATERTIGHT)



### EFFLUENT DISPOSAL SYSTEM (CROSS SECTION - NOT TO SCALE)



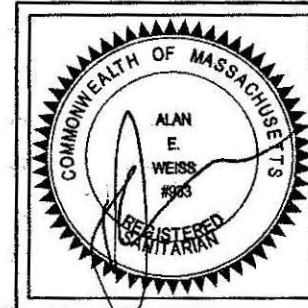
### TEST PIT LOG:

TP-1 EFF. ELEV: 90.0'				SOIL EVALUATOR: A. WEISS, RS				DATE OF EVALUATION: 6/10/08			
DEPTH:	HORIZ:	TEXTURE:	COLOR (MUNSELL):	MATERIAL:	DEPTH:	HORIZ:	TEXTURE:	COLOR (MUNSELL):	MATERIAL:		
0-4	A	FSL	10 YR 3/3	FRIABLE LOOSE	0-12	A	FSL	10 YR 3/3	FRIABLE LOOSE		
4-18	Bw	LS	10 YR 4/6		12-28	Bw	LS	10 YR 4/6			
18-87	C1	LS	7.5 Y 4/4	F. SAND, LOOSE, R <sub>x</sub> @ 87"	28-97	C1	LS	7.5 Y 4/4	F. SAND, LOOSE, R <sub>x</sub> @ 87"		
OXIDES: 7.5 Y 5/8 OBSERVED @ 84"				OXIDES: 7.5 Y 5/8 OBSERVED @ 84"							
EHW: 84" = 83.0'				EHW: 84"							
STANDING H2O: NOT OBSERVED				STANDING H2O: NOT OBSERVED							
WEEPING: NOT OBSERVED				WEEPING: NOT OBSERVED							
BEDROCK: 87"+				BEDROCK: 97"+							

SEPTIC SYSTEM REPAIR PLAN FOR NORWOTTUCK FISH & GAME  
1352 WEST STREET  
AMHERST, MA.

**Cold Spring Environmental Consultants Inc.**  
350 Old Enfield Road  
Belchertown, MA. 01007

P/NO. (413) 323-5957  
FAX: (413) 323-4916  
DATE: 6/20/08  
SCALE: 1"=30'  
DRAWN BY: ALAN WEISS  
REVISED:  
DRAWING NUMBER: 108-2995-0602



**ATTENTION INSTALLER!!**  
CALL DIG SAFE BEFORE YOU DIG!! MASSACHUSETTS STATE LAW CHAPTER 82 SECTIONS 40 - 40E REQUIRE THAT PREMARKING OF GAS, ELECTRIC, WATER, TELEPHONE AND CABLE T.V. UTILITY LINES BE MADE A MINIMUM OF 72 HOURS PRIOR TO GROUND BREAK FOR ANY EXCAVATION.

**NOTE: INSTALLER MUST CONTACT ENGINEER/BD OF HEALTH 48 HOURS PRIOR TO SUBGRADE INSPECTION. INSTALLER MUST HAVE ALL BREAK OUT FILL ON SITE AND IN PLACE PRIOR TO SIGN OFF BY ENGINEER AT TIME OF FINAL INSPECTION OR APPROVAL WILL NOT BE GIVEN TO BACKFILL.**

No. \_\_\_\_\_

FEE \_\_\_\_\_

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT



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

Location <u>1352 West St.</u>	Owner's Name <u>Norwottuck Fish and Game</u>
Map/Parcel# <u>25D 000030</u>	Address <u>1352 West St</u>
Lot#	Telephone# <u>413.253.2080</u>
* Installer's Name <u>Karl's Excavating</u>	Designer's Name <u>Alan Weiss RS.</u>
Address <u>Hadly, MA - 01035</u>	Address <u>Belchertown</u>
Telephone# <u>549-5396</u>	Telephone# <u>413.323.5957</u>

Type of Building Residence / Clubhouse kitchen Lot Size \_\_\_\_\_ sq. ft.  
 Dwelling - No. of Bedrooms 2 Bedroom / 4 Bedroom design Garbage grinder   
 Other - Type of Building \_\_\_\_\_ No. of persons \_\_\_\_\_ Showers ( ), Cafeteria ( )  
 Other Fixtures \_\_\_\_\_  
 Design Flow (min. required) 110 gpd Calculated design flow 220 Design flow provided 445 gpd  
 Plan: Date 6/20/08 Number of sheets \_\_\_\_\_ Revision Date \_\_\_\_\_  
 Title Septic System Repair Plan  
 Description of Soil(s) Class I (F. Sand)  
 Soil Evaluator Form No. \_\_\_\_\_ Name of Soil Evaluator A. Weiss Date of Evaluation 6/10/08

DESCRIPTION OF REPAIRS OR ALTERATIONS Install New Septic System.

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

\* Signed Frank de Thomson, Pres Date 6/24/08



Inspections \_\_\_\_\_

No. \_\_\_\_\_

FEE \_\_\_\_\_

COMMONWEALTH OF MASSACHUSETTS

Board of Health, \_\_\_\_\_, MA.

CERTIFICATE OF COMPLIANCE

Description of Work:  Individual Component(s)  Complete System

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

by: \_\_\_\_\_

at \_\_\_\_\_

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

Installer \_\_\_\_\_

Designer: \_\_\_\_\_ Inspector: \_\_\_\_\_ Date: \_\_\_\_\_

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

No. \_\_\_\_\_

FEE \_\_\_\_\_

COMMONWEALTH OF MASSACHUSETTS

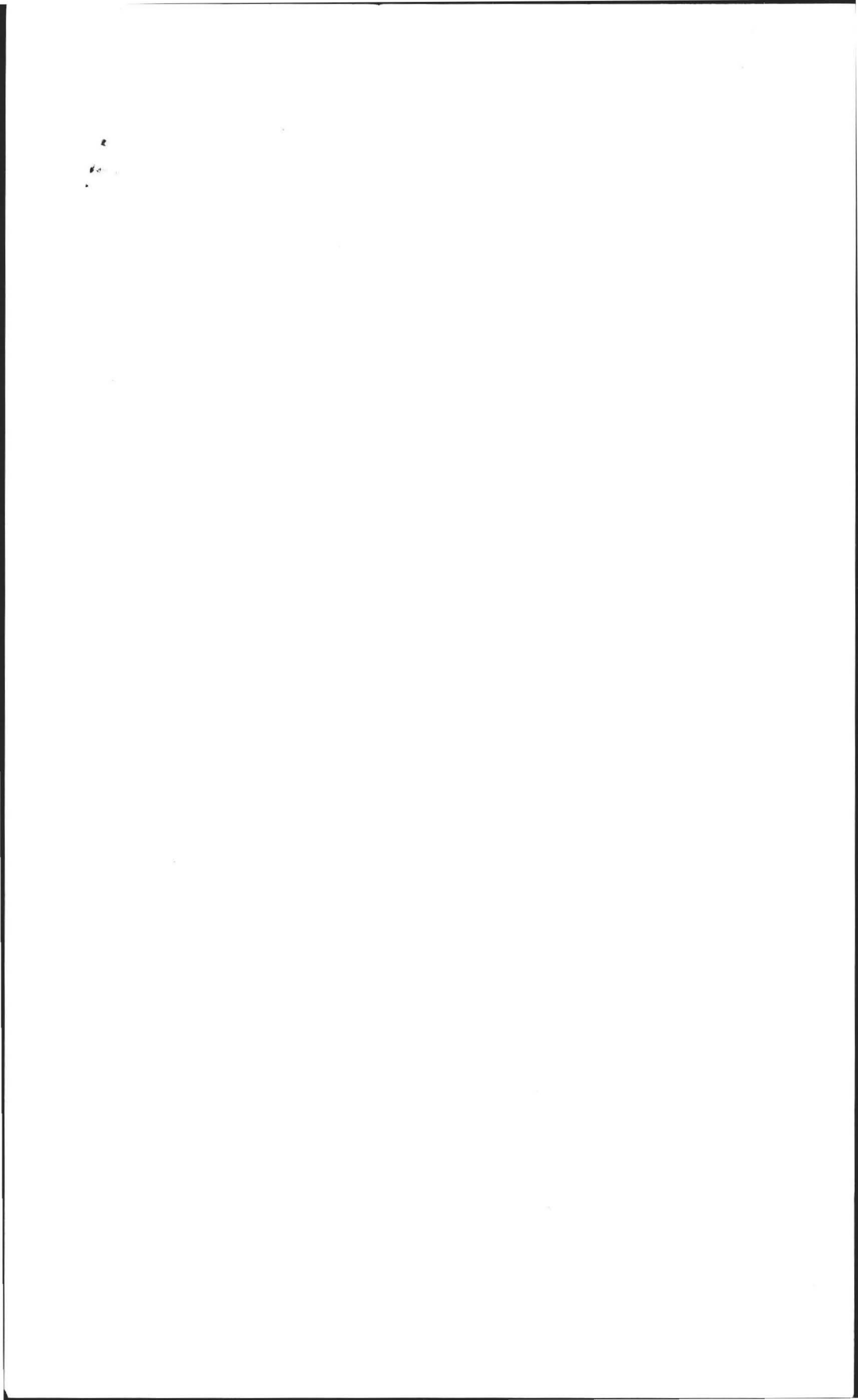
Board of Health, \_\_\_\_\_, MA.

DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct( ) Repair( ) Upgrade( ) Abandon( ) an individual sewage disposal system at \_\_\_\_\_ as described in the application for

Disposal System Construction Permit No. \_\_\_\_\_, dated \_\_\_\_\_.

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



ALAN E. WEISS, M.S., R.S., L.S.P.

Licensed Site Professional  
Registered Sanitarian  
Hydrogeologist  
President

- Wetland Consults
- Soil and Water Testing
- 21E Site Investigations
- Percolation Tests and
- Septic Designs
- Title 5 Inspections

14 Enfield Rd.  
Northampton, MA 01007  
413-5957 & 413-4916 (FAX)

aweiss@charter.net

Date: 6/10/08

Commonwealth of Massachusetts

Amherst, Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: A. WEISS

Date: 6/10/08

Witnessed By: E. BOLINA, T. DION

Location Address or Lot # <u>Newble Hill Fish + Game</u>	Owner's Name, Address, and Telephone # <u>1352 West St</u>
New Construction <input type="checkbox"/> Repair <input type="checkbox"/>	

Office Review

Published Soil Survey Available: No  Yes

Year Published: \_\_\_\_\_ Publication Scale: \_\_\_\_\_ Soil Map Unit: \_\_\_\_\_

Drainage Class: \_\_\_\_\_ Soil Limitations: \_\_\_\_\_

Surficial Geologic Report Available: No  Yes

Year Published: \_\_\_\_\_ Publication Scale: \_\_\_\_\_

Geologic Material (Map Unit): \_\_\_\_\_

Landform: \_\_\_\_\_

Flood Insurance Rate Map:

Above 500 year flood boundary No  Yes

Within 500 year flood boundary No  Yes

Within 100 year flood boundary No  Yes

Wetland Area:

National Wetland Inventory Map (map unit)

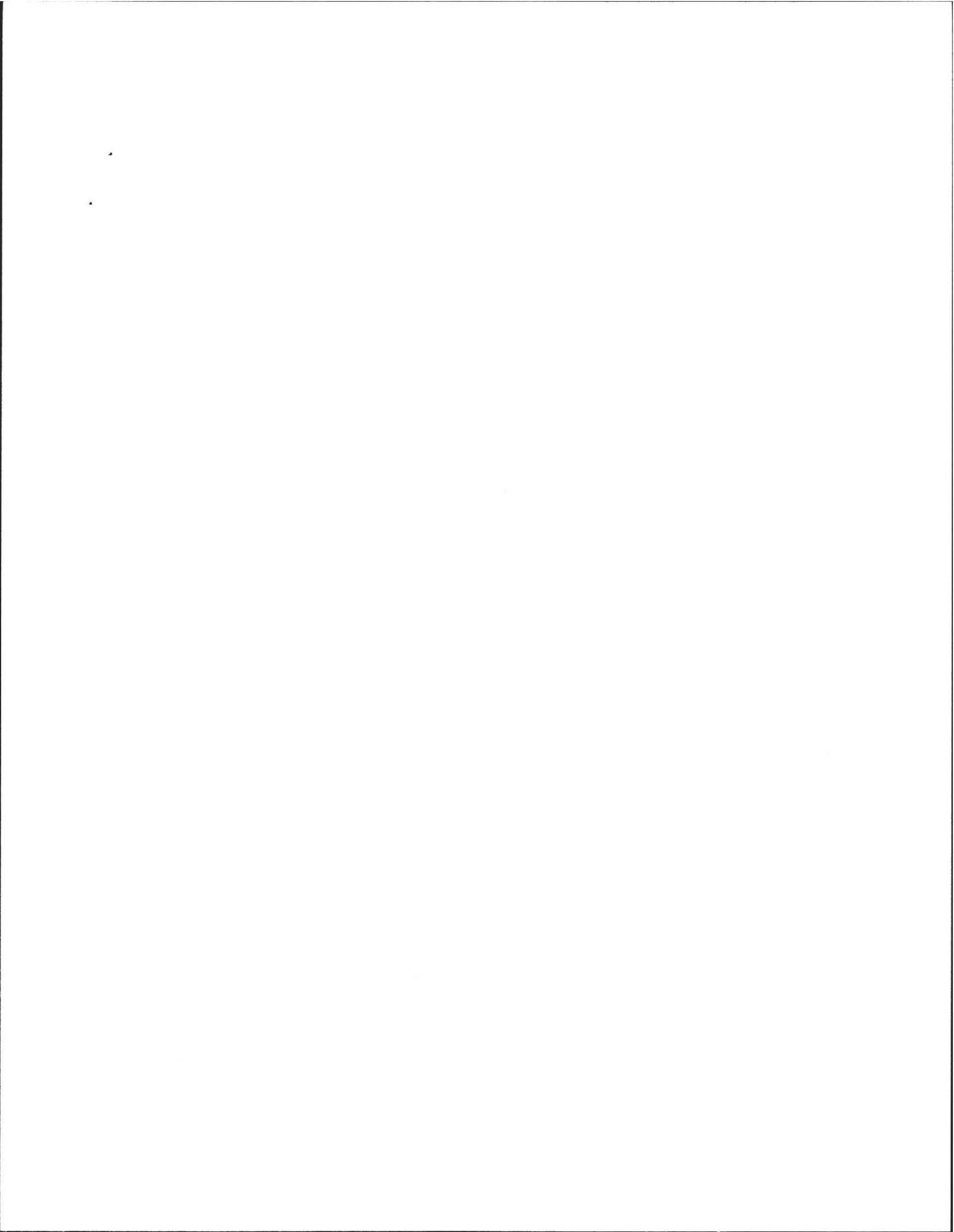
Wetlands Conservancy Program Map (map unit)

Current Water Resource Conditions (USGS): Month

Range: Above Normal  Normal  Below Normal

Other References Reviewed: \_\_\_\_\_





Location Address or Lot No. 1352 - West St

On-site Review

Deep Hole Number 1+2 Date: 6/10/08 Time: 12:00 Weather SUN 90

Location (identify on site plan) \_\_\_\_\_

Land Use Rural Res Slope (%) 5 Surface Stones yes

Vegetation Mixed

Landform Kame Tenzard

Position on landscape (sketch on the back) \_\_\_\_\_

Distances from:

Open Water Body 100+ feet      Drainage way 100+ feet  
 Possible Wet Area 100+ feet      Property Line 50+ feet  
 Drinking Water Well 100+ feet      Other \_\_\_\_\_

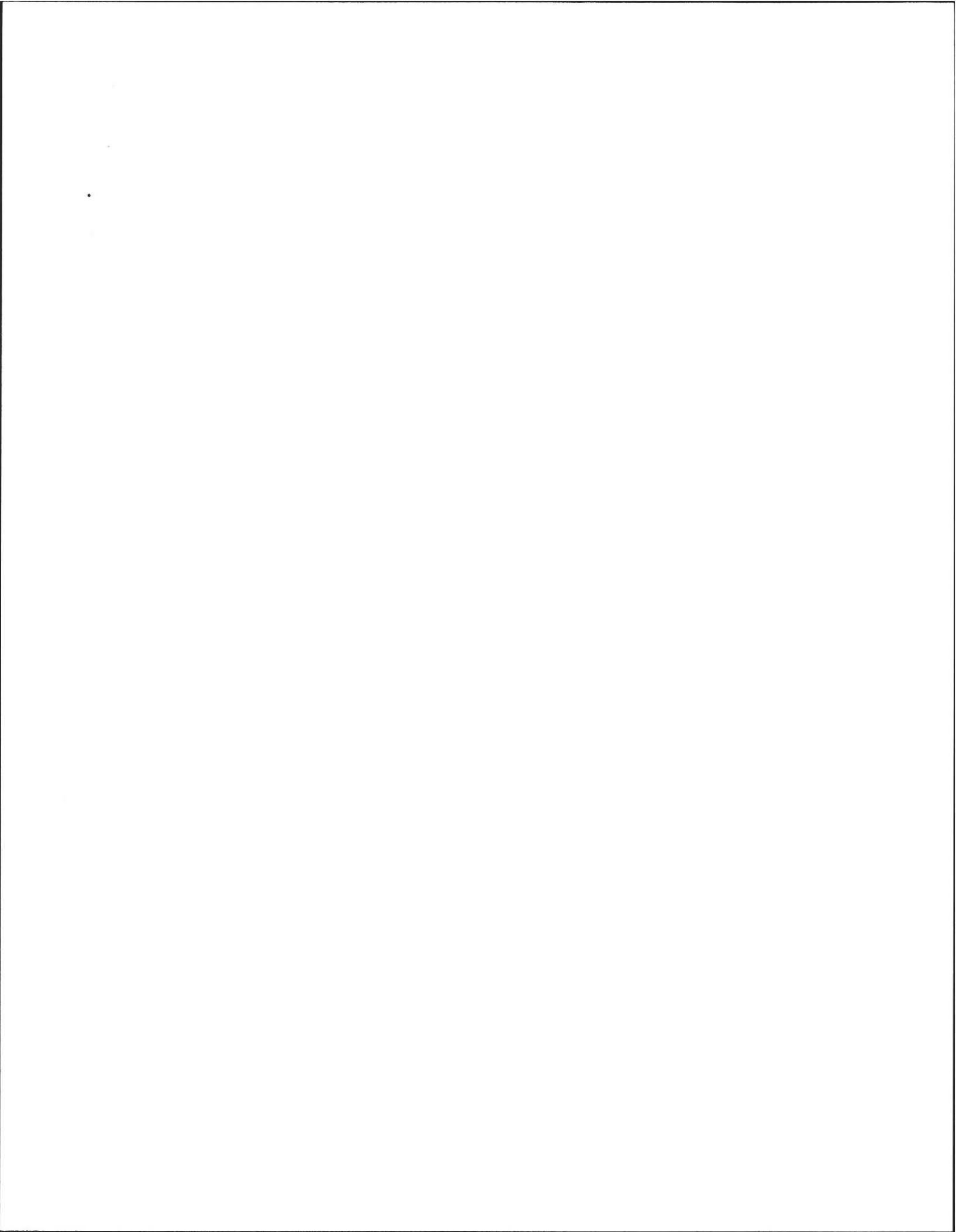
DEEP OBSERVATION HOLE LOG\*

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
#1 0-9" 4"-18" 18"-87"	A B C	FSC LS LS	10YR 3/3 10YR 4/6 7.5Y 4/4	 84" 7.5Y 5/6	Frable Loose  F. Sand, Loose R# 87"
#2 0-12" 12"-28" 28"-97"	A Bw C1	FSC LS LS	10Y 3/3 10YR 4/6 7.5Y 4/4	 84" 7.5Y 5/6	Frable Frable, Loose F. Sand - Loose

\* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) Outcrop      Depth to Bedrock: 87-97"  
 Depth to Groundwater: Standing Water in the Hole: NOT OBS.      Weeping from Pit Face: NOT  
 Estimated Seasonal High Ground Water: 84"





Location Address or Lot No. 1352 West St

## COMMONWEALTH OF MASSACHUSETTS

, Massachusetts

## Percolation Test\*

Date: 6/10/08Time: 12:00

Observation Hole #	<u>#1</u>	<u>Repair</u> /
Depth of Perc	<u>48"</u>	
Start Pre-soak	<u>13:12</u>	
End Pre-soak	<u>13:27</u>	
Time at 12"	<u>13:27</u>	
Time at 9"	<u>13:33</u>	
Time at 6"	<u>13:43</u>	
Time (9"-6")	<u>10 min</u>	
Rate Min./Inch	<u>4 min</u>	

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

Site Passed  Site Failed

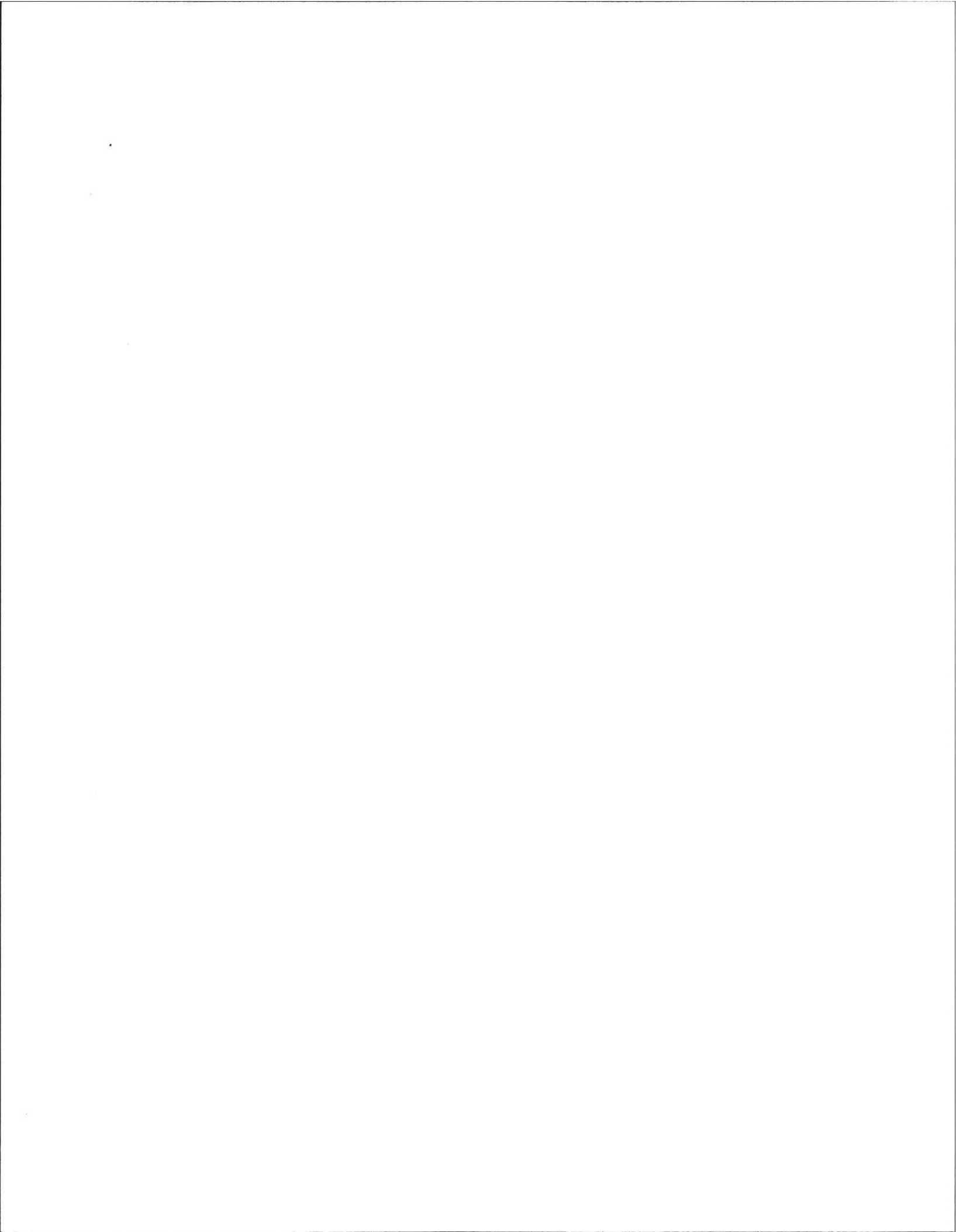
Performed By: A. Weiss

Witnessed By: E. Bokwa

Comments: \_\_\_\_\_







Location Address or Lot No. 1352 West 57

## 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 84" inches
- 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 6/95 (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 [Signature] Date 6/10/2008

