

45 Leverett 1003

- NOT THE 5 Sand - ✓
- end of bed (turn) ✓  
Sands + fill in a rock
- short granular sand (PK)
- PIPE INTO D Box  
LINE 1 fixed (BAND) 1' above water level  
15 Sand C Box a rock.

Net Recovery



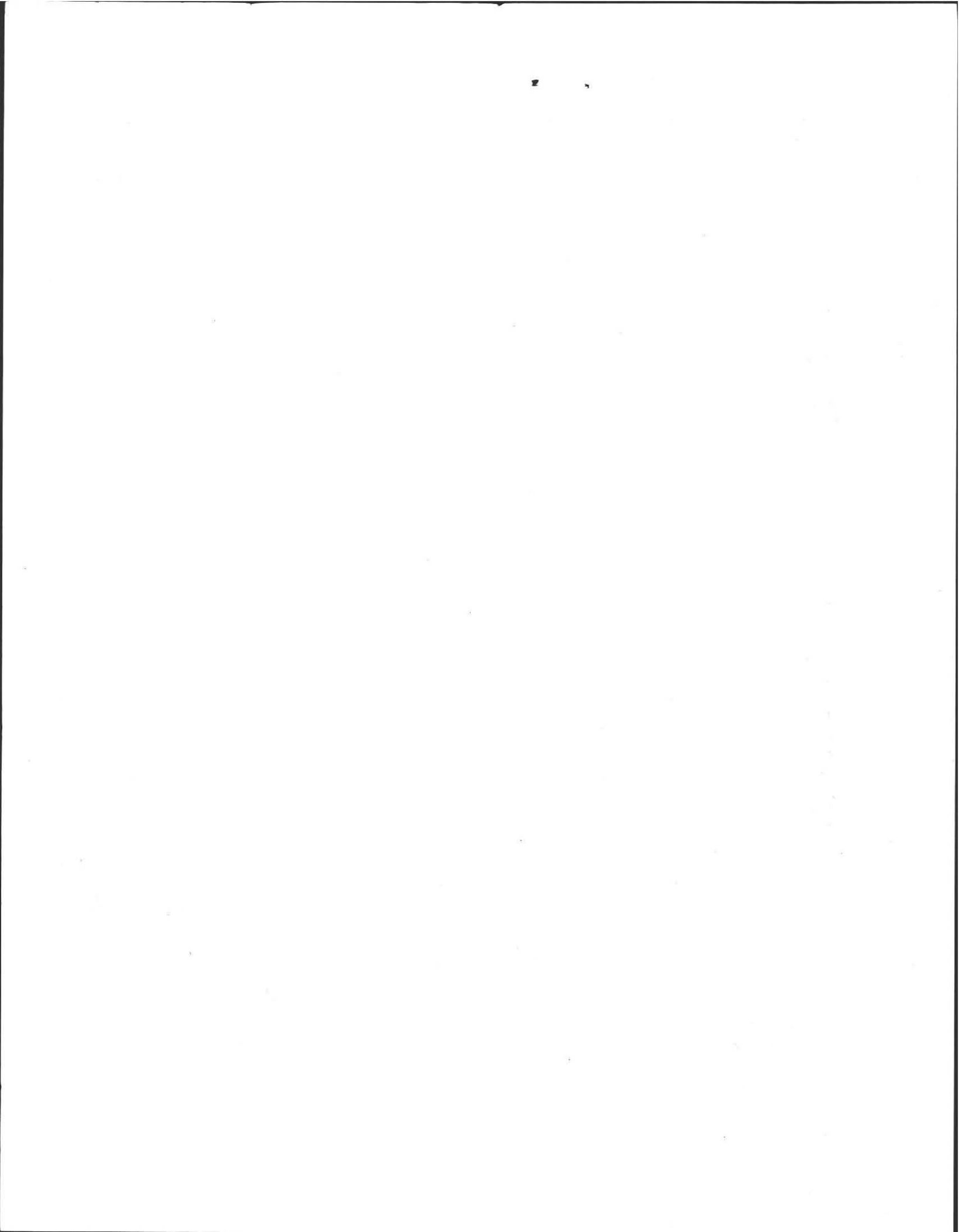
Plan: 1003

Designed by: Alan Wiecez

CHECK LIST FOR SEPTIC PLANS

- Application page attached to plan
- PE or RS stamp, date, signature
- Variances to property line setback distances must have Surveyor Stamp 15270 (3) (NA)
- Legal boundaries noted
- Easements noted
- Dwellings and buildings existing or proposed noted
- Location of driveway or parking areas, other impervious areas
- Location and dimensions of reserve area (new) CMR 15.248(1), 15.104(4) Repair N/A
- System design calculations
- Garbage grinder Y or N N
- Benchmark not disturbed during construction, within 75 feet of facility CMR 15.220 (4)(q)
- North arrow CMR 15.200 (4) (g)
- Contours
- Deep hole location and data
- Perc hole location and data
- Elevations
- Names of approving authority and soil evaluator CMR 15.211 p. 49
- 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. ; 5' tank
- Well statement if applicable
- Location of any surface waters, rivers, vegetated wetlands
- Location of water lines and other subsurface utilities
- Observed and adjusted ground water elevation in the vicinity of system 15.220 (4)(n)
- Profile of system
- Locus plan to show location of facility, including nearest street
- Materials of construction and specs for system
- Gas Baffle 15.227.4
- Pipe in center line of tank 310 CMR 15.227, 15.06(8)
- Double washed stone
- Schedule 40 PVC for trafficked areas, house to tank
- Distances noted from house to tank, etc.
- If dosing is proposed, design and specs of dosing system
- When alternative technology is required, complete plan and specs, including hydraulic profile (NA)
- Trenches preferred over beds CMR 15.240 (6)
- Buoyancy calculations for tanks or components partly below H2O table 15.221(8) p. 56 (NA)
- 3 to 1 slope outside of mound, toe ending 5 feet from property line
- Local upgrade requests on the plan (NA)
- Local upgrade forms attached to application (NA)
- Note on plan listing all variances sought in conjunction with the plan (NA)

NOTES: Pump System approved on 3/29/10 CC





**COLD SPRING ENVIRONMENTAL  
CONSULTANTS INC.**

- 21E Site Investigations
- Subsurface Investigations
- Pollution Remediation
- LSP on Staff
- Forensic Septic Investigations

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

**May 28, 2010**

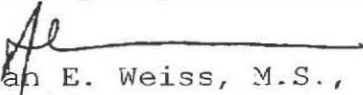
**Amherst, Board of Health**

**RE: S. Tank, P. Chamber And L. field (Repair)  
Installation Inspection  
# 45 Leverett Road (Crossman)**

On this date, the writer inspected the installation of a **(Septic System)**. The writer found the installation to be complete (except for completion of cover material) and in compliance with our plans and 310 CMR 15.000. The installer representative **(Gary Gilmore Excavation)** and our inspection noted that the system was built & installed properly, in accordance with the state/local regulations and our plans. The contractor was requested to have sufficient soil on site and properly cover the system according to our plans and may backfill the system after review by local Health Department representatives.

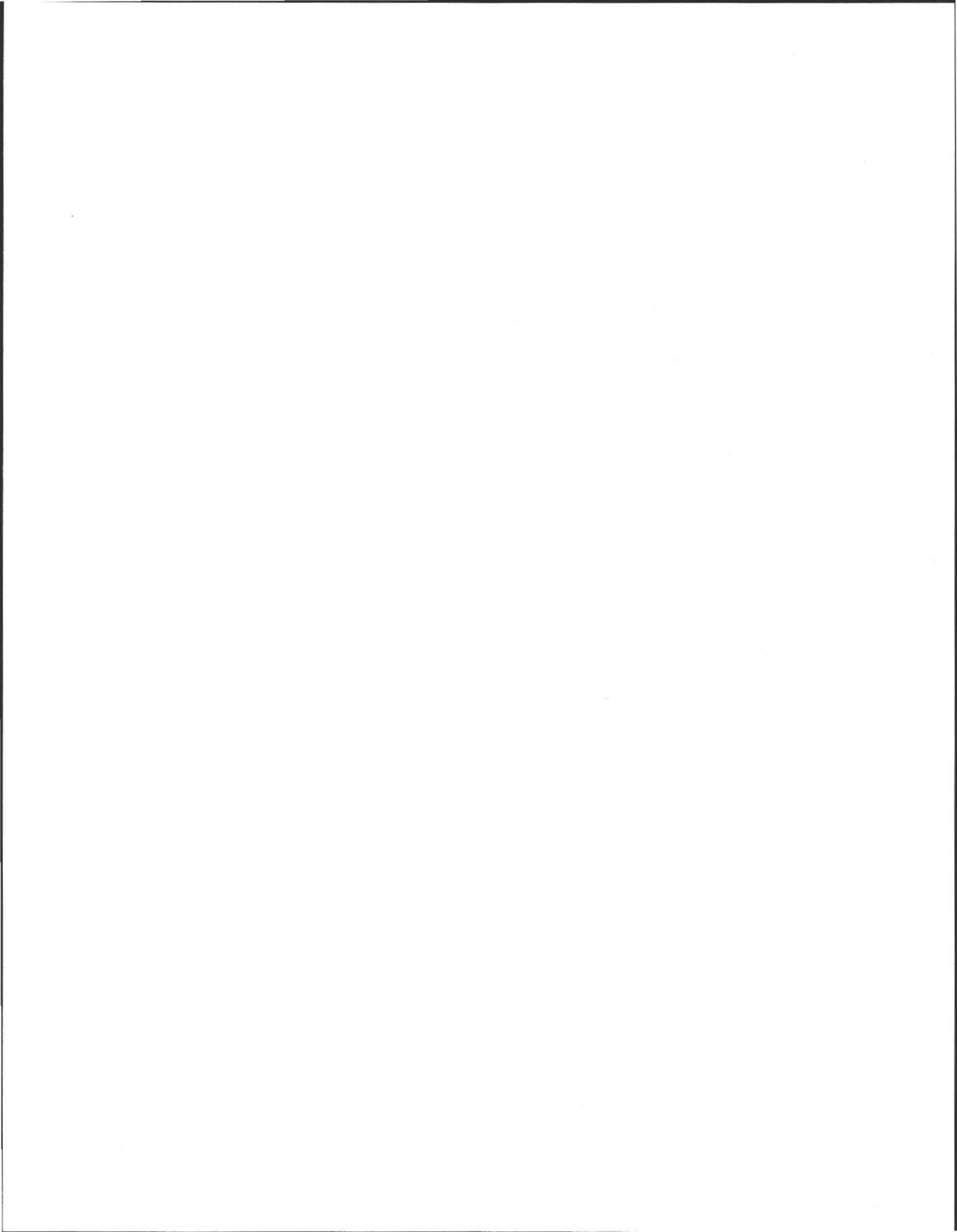
Sincerely,

**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



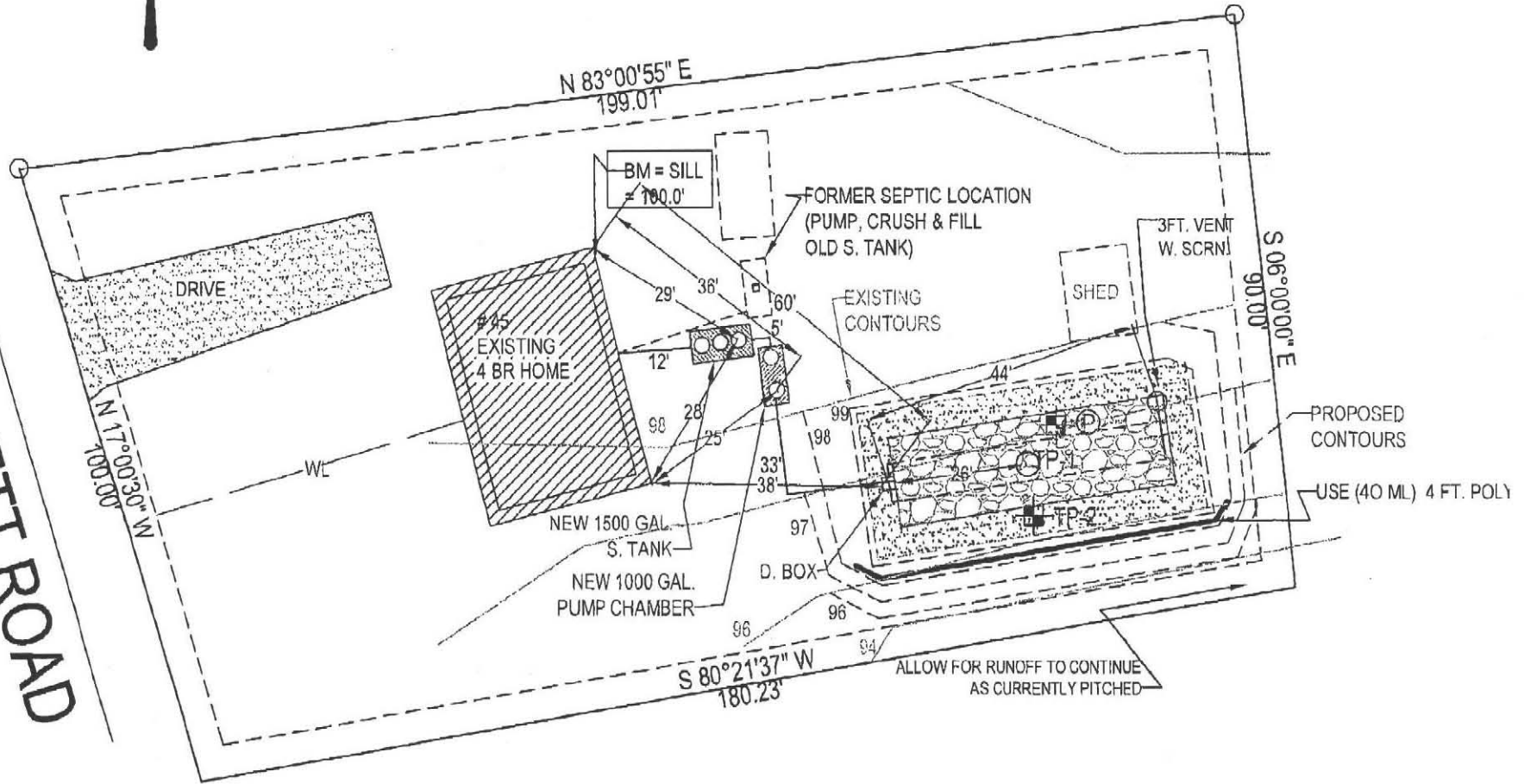
LEVERETT ROAD



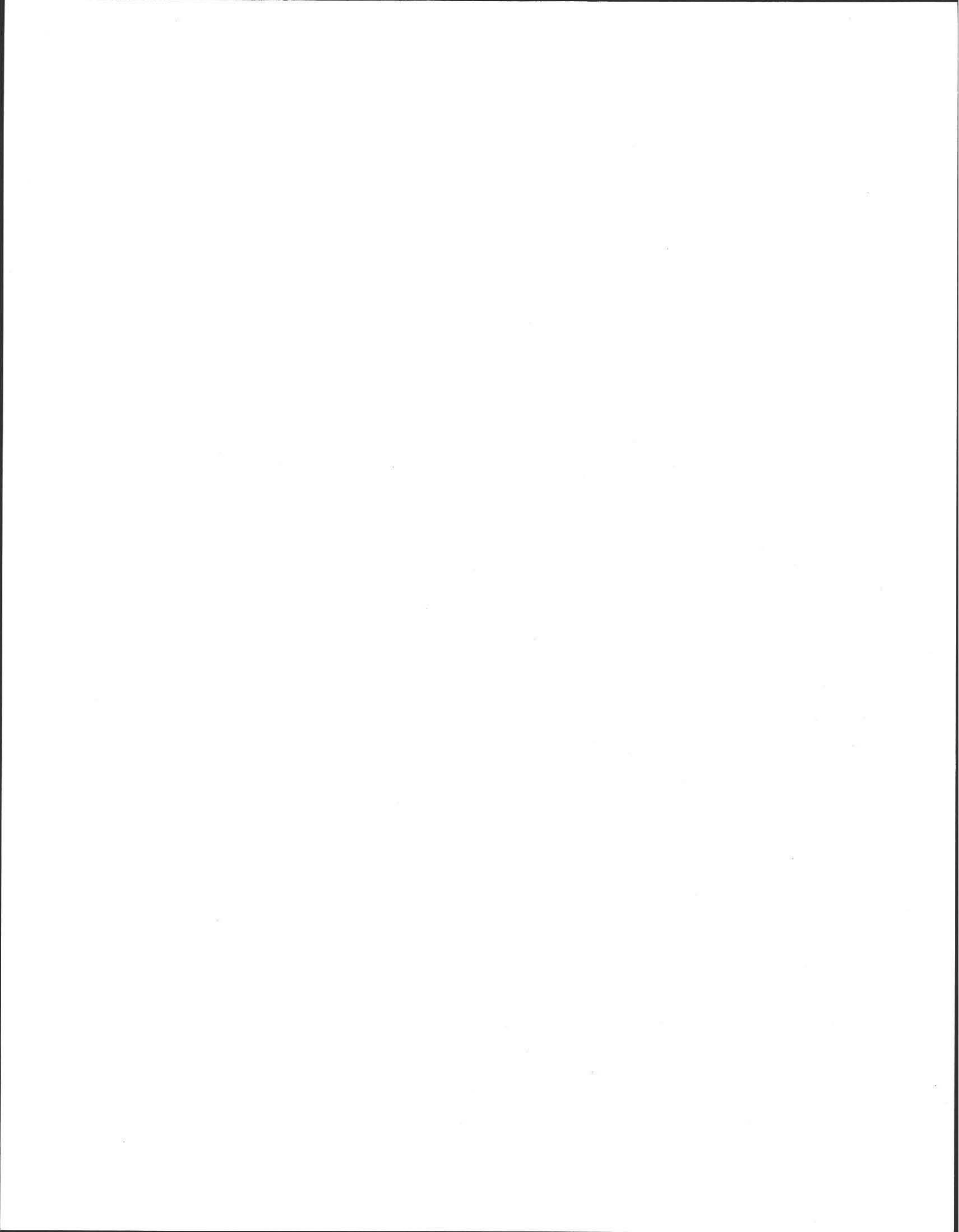
**NOT AN ACTUAL SURVEY!!**  
LINES DRAWN FOR SEPTIC  
LOCATION PURPOSES ONLY!

AS BUILT  
05.28.2010  
MAP 3c LOT 48  
SCALE: 1"=30'  
17,900± SF.

**NOTE TO HOMEOWNER: MOUNDS, W/**  
**DISTANCE FROM THE BOTTOM OF THE**  
**GROUNDWATER. THIS "SEPARATION"**  
**SAME AS THE HEIGHT OF THE FINISH**  
**TYPICALLY HIGHER THAN THE "SEPAF**  
**SPRING ENVIRONMENTAL CONSULTA.**  
**FILLED OR MOUNDED SYSTEMS.**



EFFLUENT DISPOSAL AREA





No. 1003

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>45 Leverett Rd</u>	Owner's Name <u>Tom Crossman</u>
Map/Parcel# <u>3c-48</u>	Address <u>42 Princeton Terr, Bradford</u>
Lot# <u>#48</u>	Telephone# <u>413-687-7582</u>
Installer's Name <u>Addair Septic</u>	Designer's Name <u>Alan Weiss, RS</u>
Address <u>Amherst, MA.</u>	Address <u>Belchertown, MA.</u>
Telephone# _____	Telephone# <u>323-5957</u>

Type of Building 4 BR. Residential Lot Size 17,900 sq. ft.

Dwelling - No. of Bedrooms 4 Garbage grinder (  )

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

Other Fixtures \_\_\_\_\_

Design Flow (min. required) 110 gpd Calculated design flow 440 Design flow provided 466 gpd

Plan: Date 3/26/2010 Number of sheets 1 Revision Date \_\_\_\_\_

Title Septic System Repair Plan.

Description of Soil(s) \_\_\_\_\_

Soil Evaluator Form No. \_\_\_\_\_ Name of Soil Evaluator A. WEISS Date of Evaluation 3/18/2010

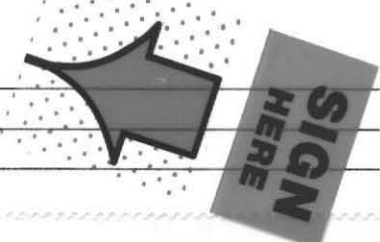
G. Courtmande

DESCRIPTION OF REPAIRS OR ALTERATIONS Complete 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 Thomas Crossman Date 3/29/10

Inspections \_\_\_\_\_



No. 1003

FEE 150.00

# COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

## CERTIFICATE OF COMPLIANCE

Description of Work:  Individual Component(s)  Complete System

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

by: Bilmore Construction  
at 45 Leverett Rd. Amherst

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. 1003, dated \_\_\_\_\_ Approved Design Flow 466 (gpd)

Installer: [Signature]

Designer: Alan Weiss Inspector: Gay Courtmande Date: 3/29/10

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

No. 1003

FEE 150.00

# COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

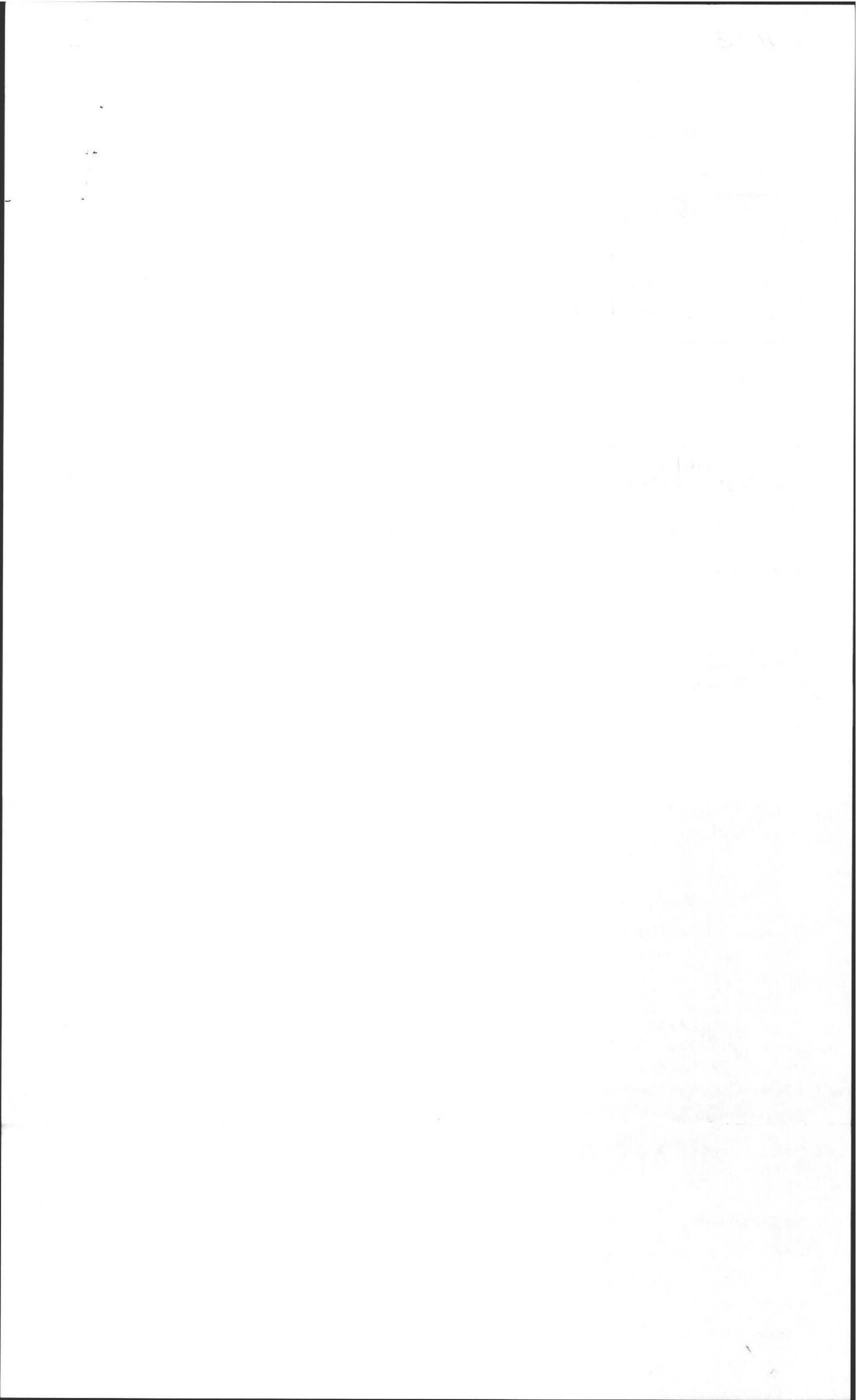
## DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct ( ) Repair (  ) Upgrade ( ) Abandon ( ) an individual sewage disposal system at 45 Leverett Rd as described in the application for

Disposal System Construction Permit No. 1003, dated 3/29/10.

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

Form 1255 Rev. 5/96 A.M. Sulkin Co. Charlestown, MA Date 3/29/10 Board of Health [Signature]





ALAN E. WEISS, M.S., L.S.P.  
Licensed Site Professional  
Registered Sanitarian  
Hydrogeologist  
President

- Subsurface Investigations
- 21E Site Investigations
- Pollution Remediation
- Percolation Tests and Septic Designs

350 Old Enfield Rd.  
Belchertown, MA 01007  
(413) 323-5957 & 323-4916 (FAX)

Date: 3/18/2010

Commonwealth of Massachusetts  
Amherst, Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: A. Weiss  
Witnessed By: G. Cartemunde

Date: 3/18/2010

Location Address or Lot # 45 LEIGHTON RD	Owner's Name, Address, and Telephone # Tom Crossman 42 Princeton Terr Greenfield, MA 01301
New Construction <input type="checkbox"/> Repair <input checked="" 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)

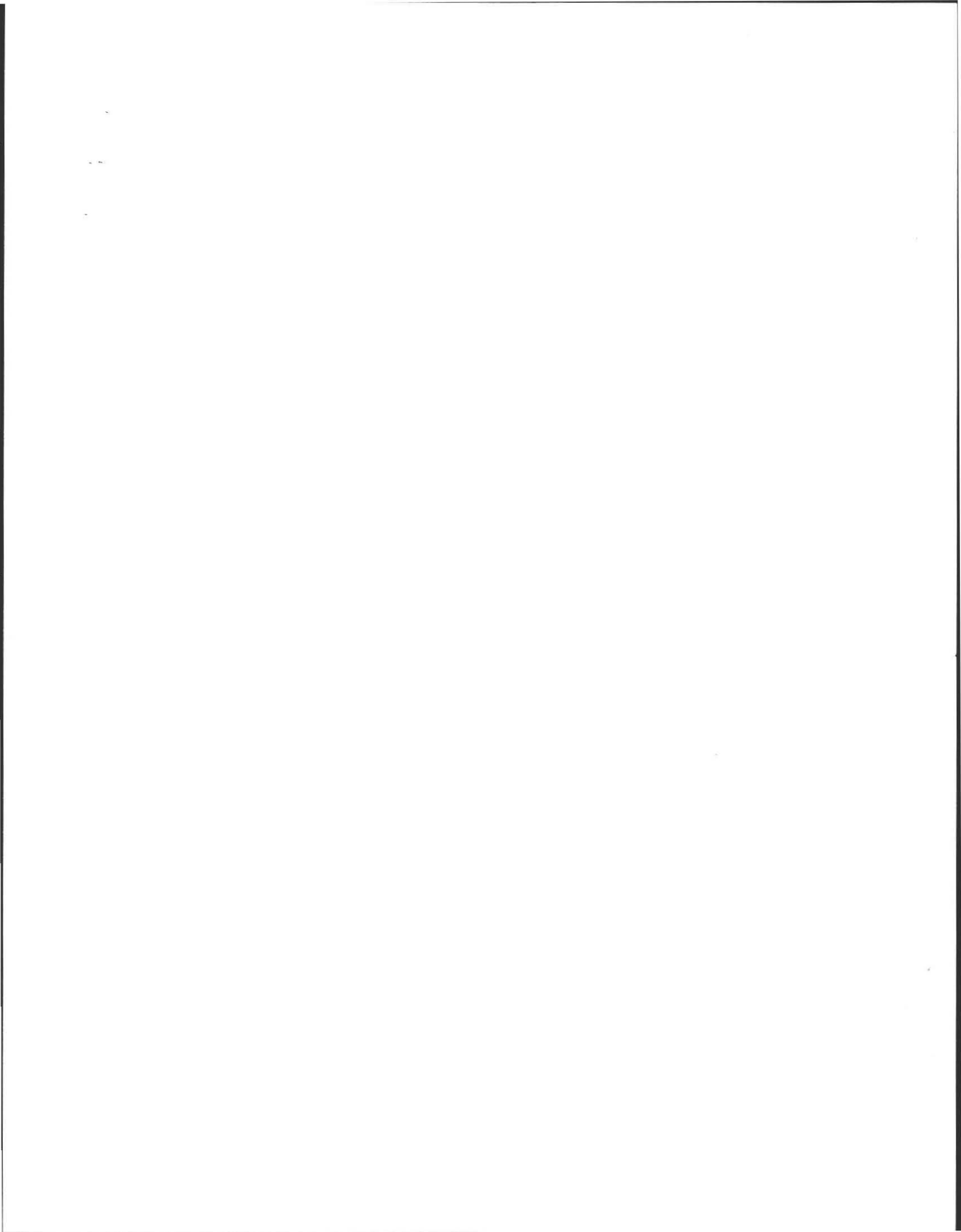
Wetlands Conservancy Program Map (map unit)

Current Water Resource Conditions (USGS): Month

Range :Above Normal  Normal  Below Normal

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





Location Address or Lot No. 45 Leverett Rd.

On-site Review

Deep Hole Number 1+2 Date: 3/18/2010 Time: 1:00 Weather Sun 60°

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

Land Use LS Slope (%) 1 Surface Stones few

Vegetation grasses

Landform terrace

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

Distances from:

Open Water Body 100+ feet Drainage way 25+ feet

Possible Wet Area 100+ feet Property Line 20' feet

Drinking Water Well None 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"	A <sub>p</sub>	FSL	10YR 3/3		- Friable
9-18"	B <sub>w</sub>	LS	10YR 5/6	2.5Y 4/2	- Friable, Loose (F. Sand)
18"-84"	C <sub>1</sub>	STG	2.5Y 4/3	38"	F.C. SAND + gravel 25% rounded cobbles
#2 0-9"	A	fsl	10YR 3/3		- Friable
9-20"	B	LS	10YR 5/6	24"	- Friable (F. Sand)
20"-104"	C	STG	2.5Y 4/3	2.5Y 4/2 10YR 6/8	F.C. Sand, Loose

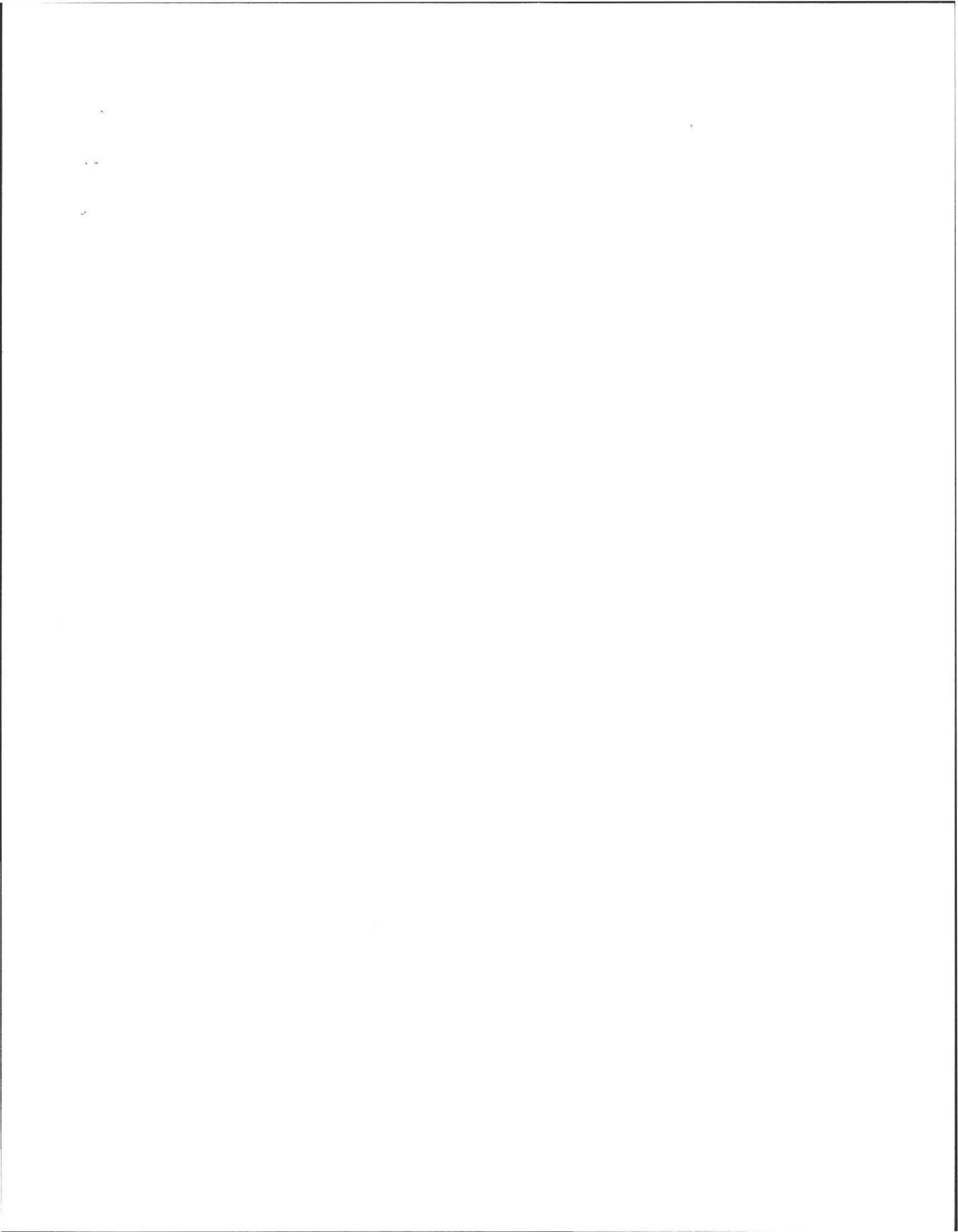
\* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) Outwash

Depth to Groundwater: Standing Water in the Hole: 90" Depth to Bedrock: 104"

Estimated Seasonal High Ground Water: 38" e1, 24" e2 Weeping from Pit Face: 70"





Location Address or Lot No. 45 Leurett RD

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 38" 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

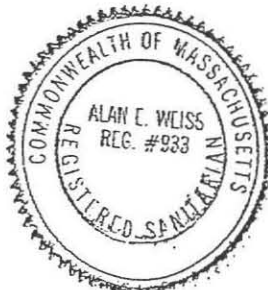
Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? Yes

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 3/18/2010



1  
2  
3



Location Address or Lot No. 45 Leavett Rd

COMMONWEALTH OF MASSACHUSETTS

, Massachusetts

Percolation Test*		
Date: ...	<u>3/18/2010</u>	Time: <u>1:00</u>
Observation Hole #	<u>P<sub>1</sub></u>	<u>P<sub>2</sub></u>
Depth of Perc	<u>35'</u>	
Start Pre-soak	<u>1:18</u>	
End Pre-soak	<u>1:33</u>	
Time at 12"	<u>1:33</u>	
Time at 9"	<u>1:40</u>	
Time at 6"	<u>1:47</u>	
Time (9"-6")	<u>7 min</u>	
Rate Min./Inch	<u>3 min / in.</u>	

*Repair*

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

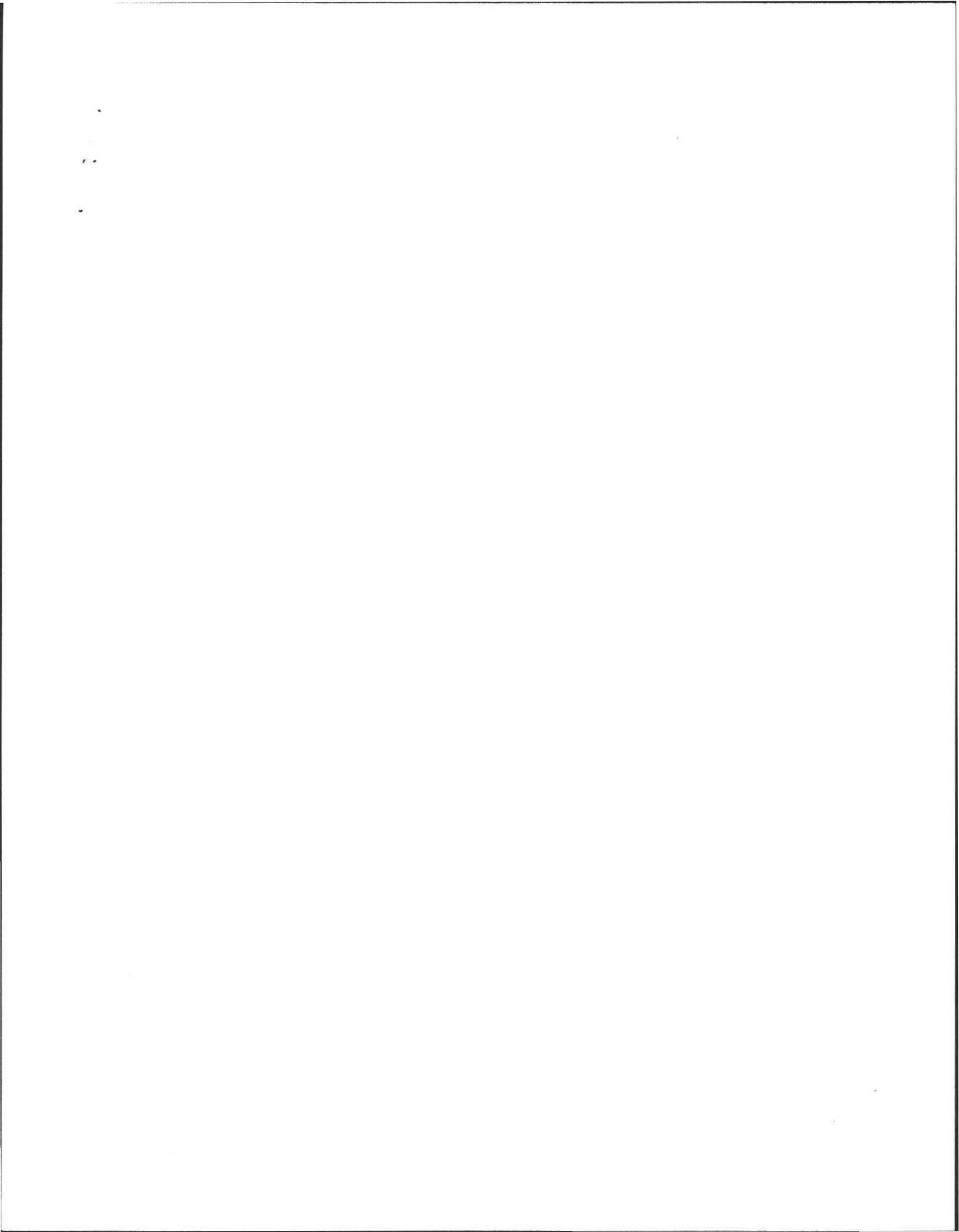
Site Passed  Site Failed

Performed By: A. Weiss

Witnessed By: G. Costantini

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





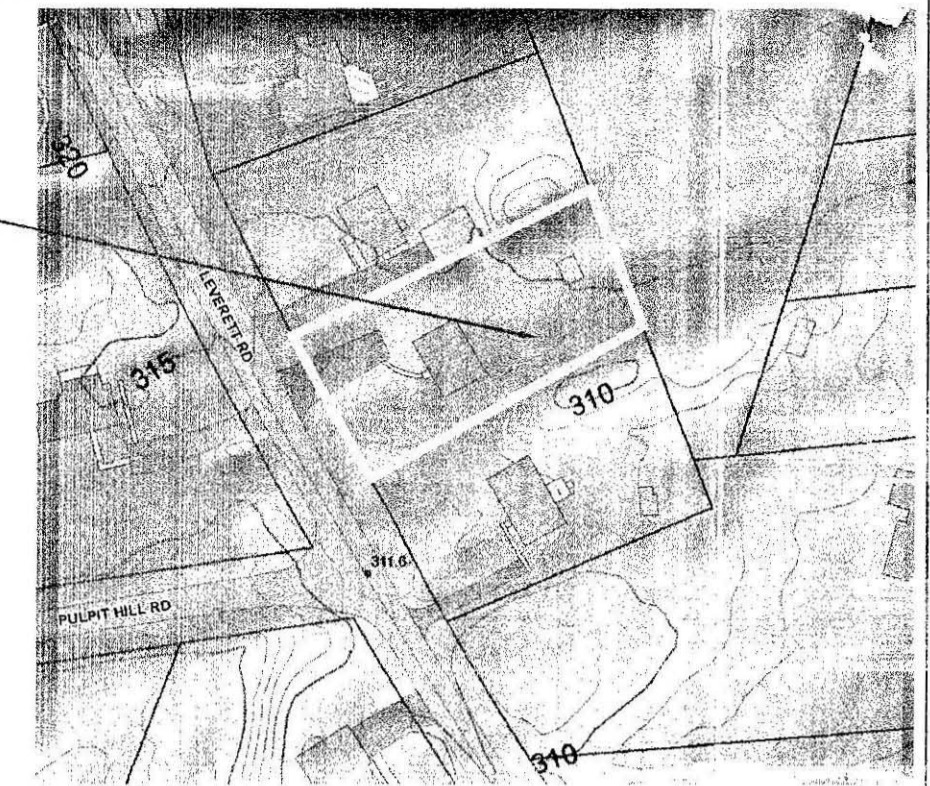


**PLOT PLAN**  
**MAP 3c LOT 48**  
**SCALE: 1"=30'**  
**17,900± SF.**

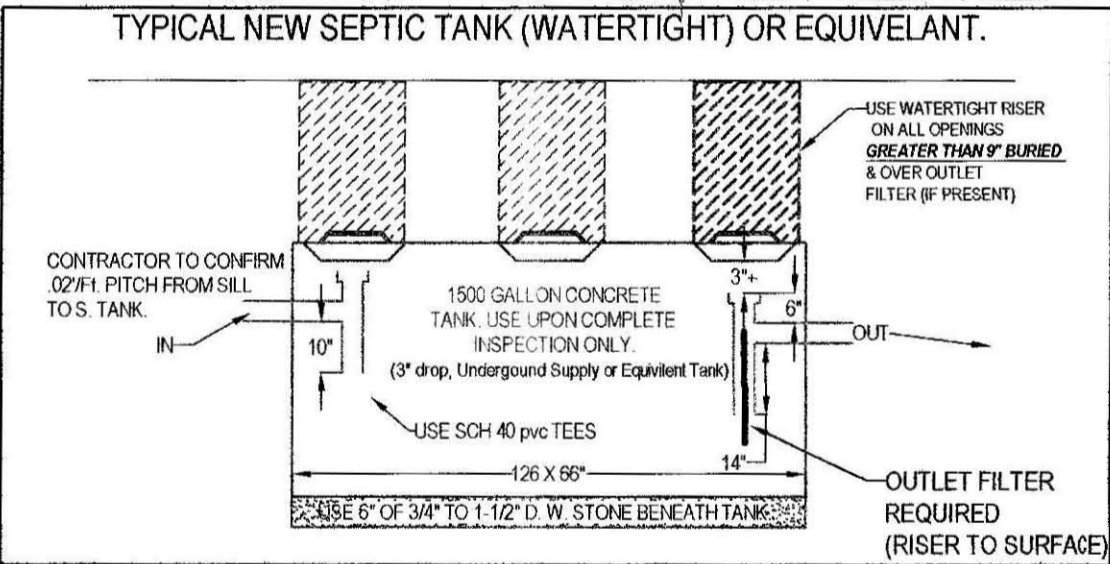
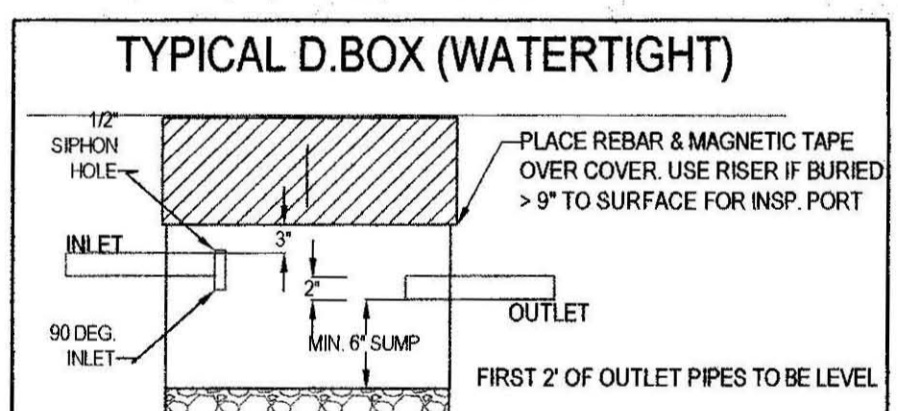
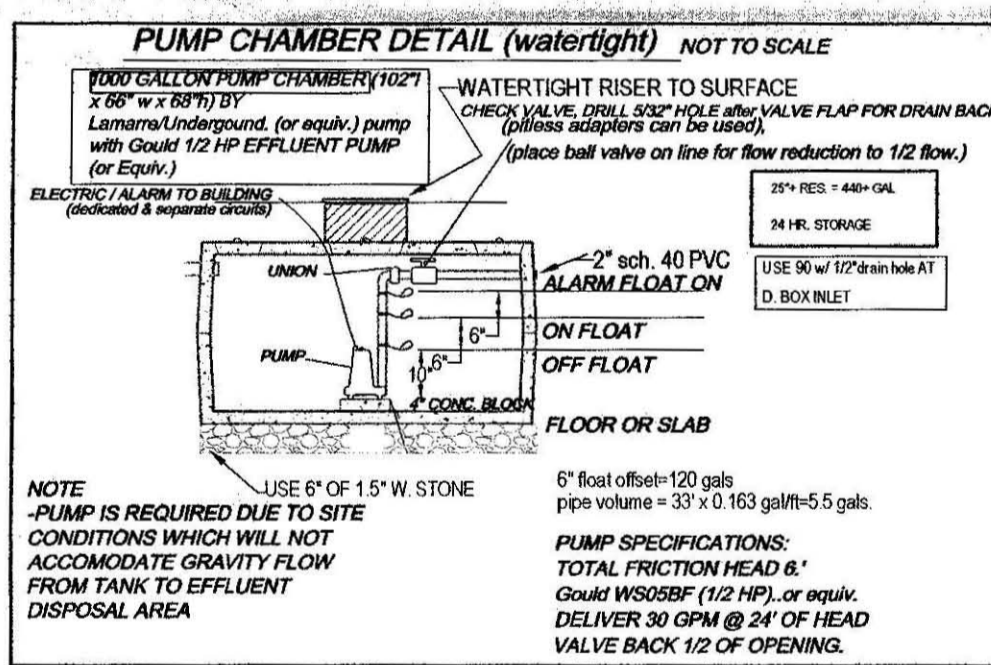
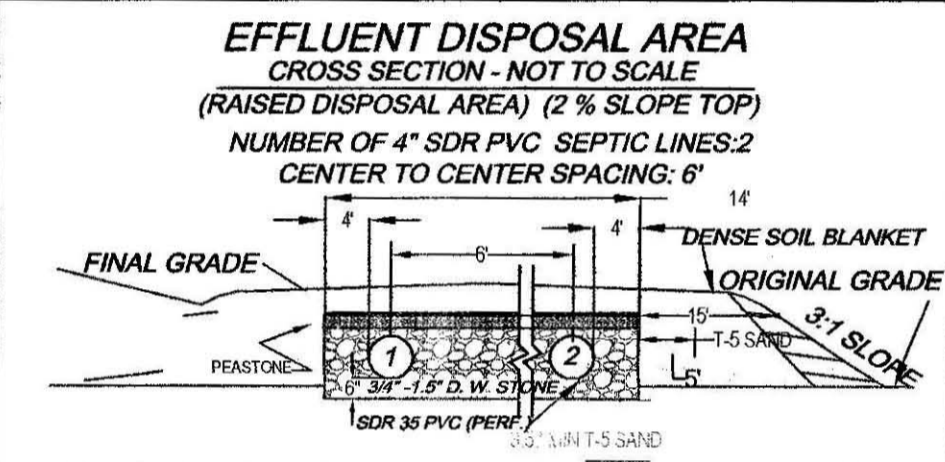
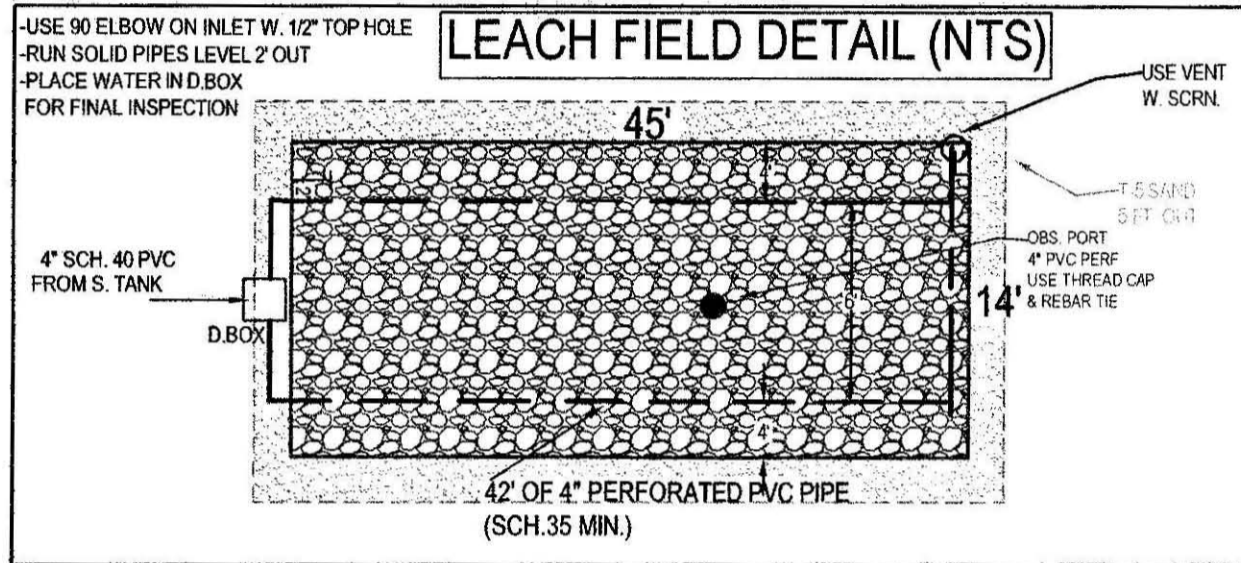
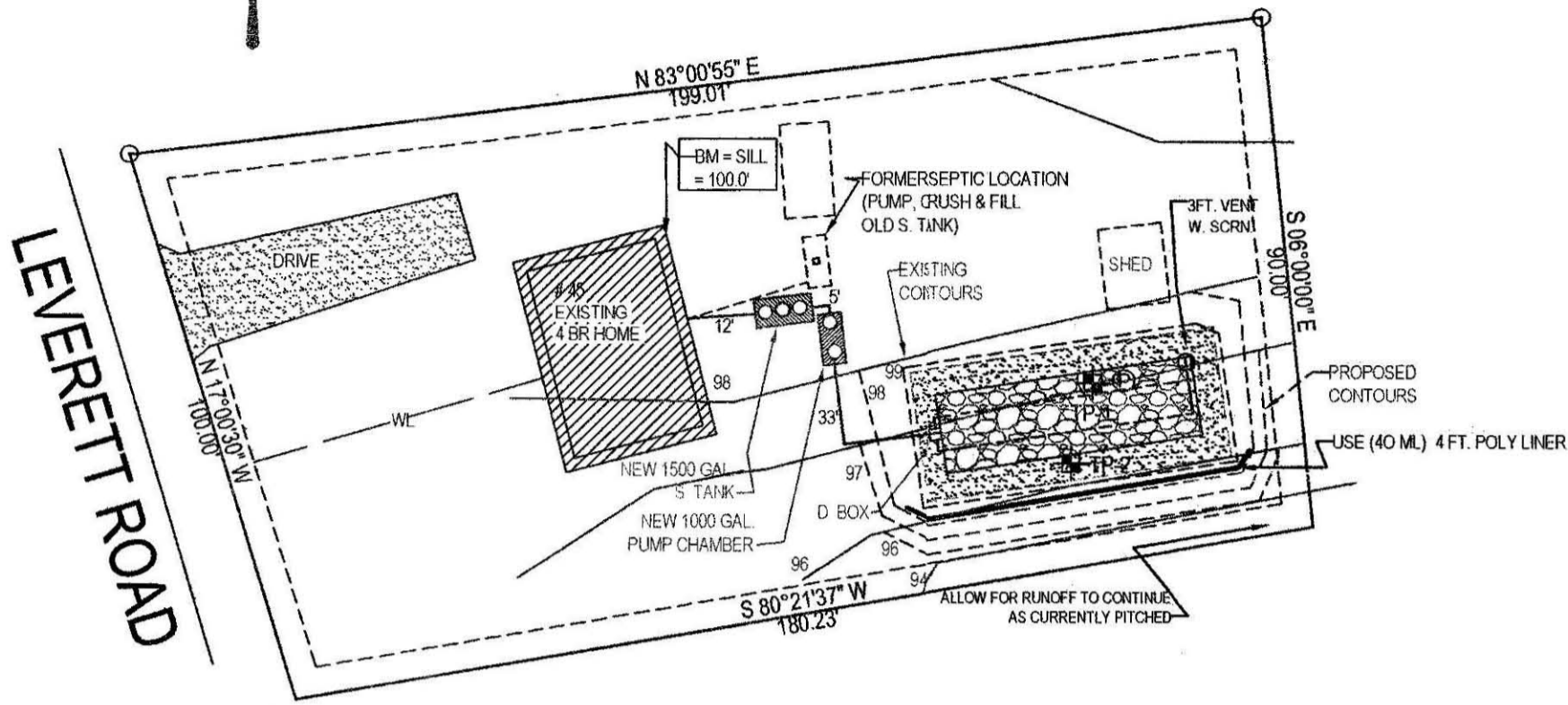
**NOT AN ACTUAL SURVEY!!**  
 LINES DRAWN FOR SEPTIC  
 LOCATION PURPOSES ONLY!

**NOTE TO HOMEOWNER: MOUNDS, WHERE USED, ARE REQUIRED BY STATE CODE TO MAXIMIZE THE DISTANCE FROM THE BOTTOM OF THE LEACHING FIELD TO THE TOP OF THE ESTIMATED HIGH GROUNDWATER. THIS "SEPARATION" FROM HIGH GROUNDWATER (3.4, OR 5 FEET), IS NOT THE SAME AS THE HEIGHT OF THE FINISHED MOUND SURFACE. THE ACTUAL FINISHED MOUND IS TYPICALLY HIGHER THAN THE "SEPARATION". BY SIGNING PERMIT YOU ACKNOWLEDGE THAT COLD SPRING ENVIRONMENTAL CONSULTANTS INC. IS NOT RESPONSIBLE FOR THE AESTHETICS OF FILLED OR MOUNDED SYSTEMS.**

**SUBJECT SITE LOCATION**



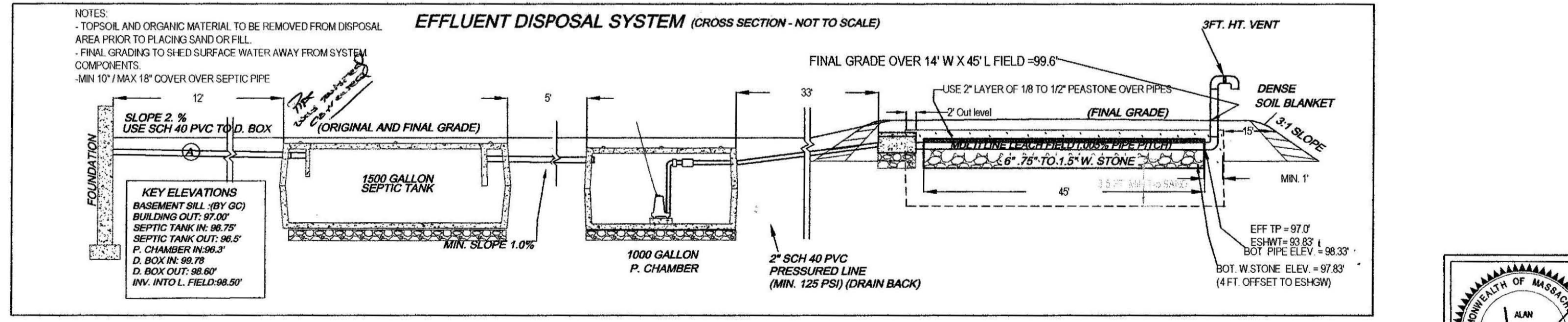
- PUMP CHAMBER/MOUNDED SEPTIC SYSTEM OPERATION AND MAINTENANCE NOTES FOR HOMEOWNER:**
- HAVE SEPTIC TANK PUMPED EVERY SECOND (2) YEARS.
  - \*\*HAVE TANK, PUMP AND PUMP CHAMBER & OUTLET FILTER & D BOX INSPECTED ANNUALLY. \*\*OUTLET FILTER MUST BE CLEANED ANNUALLY\*\***
  - MAKE CERTAIN TO TEST HI WATER SHUT OFF ALARM ANNUALLY.
  - MAINTAIN AREA OVER SEPTIC AS GRASSY OR SIMILAR GROUND COVER ATTEMPTING TO MAXIMIZE SUNLIGHT TO AREA.
  - DO NOT PLANT ANY TREES OR DEEP ROOTING SHRUBS WITHIN 10 FEET OF LEACHFIELD.
  - USE ONLY LIQUID DETERGENTS IN WASHER OR DISHWASHER.
  - CONSERVE WATER WHEREVER POSSIBLE TO LENGTHEN LIFE OF SYSTEM. USE WATER SAVING DEVICES AND FIXTURES ONLY.
  - KEEP ALL RUNOFF DRAINS SUCH AS GUTTERS OR CURTAIN DRAINS AT LEAST 25 FEET FROM LEACHING FIELD.



- DESIGN NOTES AND CALCULATIONS:**
- 4 BEDROOM HOME X 110 GPD/BR = 440 GPD. REQUIRED.
  - Use ONE FIELD: 14' WIDE X 45' LONG WITH 6" OF 3/4" TO 1-1/2" DBL WASHED STONE BELOW INVERT.
    - BOTTOM AREA: 14' W X 45' L = 630 SF.
    - SIDE AREA: 0 SF.
    - TOTAL AREA: 630 SF X 0.74 GAL/SF = 466 GPD
  - GARBAGE DISPOSAL NOT ALLOWED.
  - NO OTHER PRIVATE WELLS WITHIN 100 FEET OF SAS (TOWN WATER).
  - NO OTHER WETLANDS WITHIN 100 FEET OF SAS.
  - USE NEW 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).
    - INSTALL NEW 1,000 GALL. P. CHAMBER AS NOTED WITH DEDICATED ALARM & FLOAT CIRCUITS
  - 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 APPROVED (75" x 1 1/2") DBL. WASHED STONE UNDER TANK & D. BOX FOR 6".
    - CONFIRM STONE PROPERLY DOUBLE WASHED PRIOR TO PLACEMENT.
    - USE PROPER SCH. 40 PVC TEES AS SHOWN.
    - PRE & POST CONTOURS NOTED AS NECESSARY. RESERVE AS NOTED (not required for repairs).
    - 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 20" MIN. AS NEEDED (INSPECTION REQUIRED).
      - CLEAR PAST BASE OF (MIN. 20") & SCARIFY UNDER BED PRIOR TO TITLE V SAND/STONE PLACEMENT.
      - EXCAVATE EXISTING FLOAM, SUB AND ANY EXISTING DEBRIS, DIRTY FILL OR PRIOR SYSTEM IF PRESENT.
    - SOIL EVALUATION BY A. WEISS, RS. (G. COURTMANCHE, BOH AGENT).
      - DEPTH OF PERC 38"
      - PERC RATE = 3 MIN / IN.
      - CLASS 1 SOIL RATING:
    - NO TREES WITHIN 10 FT. OF NEW LEACH FIELD.
    - ENGINEER & TOWN (IF REQUIRED) TO INSPECT SUBGRADE, TOWN AND ENGINEER INSPECT AT FINAL.
    - BM-100.00 @ (SILL AS NOTED). CONFIRM PROPER PIPE SLOPES.
      - USE INSPECT SCH. 40 PIPE FOR PIPE FROM HOUSE TO NEW OR EXISTING TANK
    - GRADE MULCH AND SEED OVER SAS AS NOTED.
    - INSTALLATION IN LOW GROUNDWATER SEASON RECOMMENDED.
    - USE OBSERVATION POINT 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.

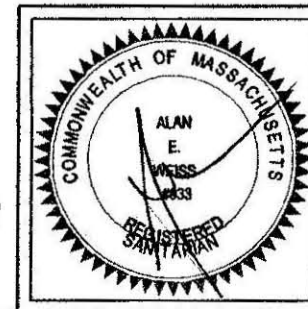
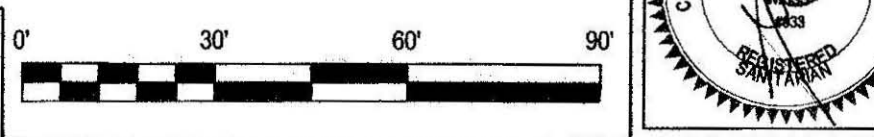
**TEST PIT LOG:**

TP-1 EFF. ELEV: 97.0 (EFF.)				SOIL EVALUATOR: A. WEISS, RS				DATE OF EVALUATION: 03.18.2010			
DEPTH:	HORIZ. TEXTURE:	COEFF. (MUNSELL):	MATERIAL:	DEPTH:	HORIZ. TEXTURE:	COEFF. (MUNSELL):	MATERIAL:				
0-9"	A	FSL	10 YR 3.3	0-9"	A	FSL	10 YR 3.3	FRIABLE			
9-18"	Bw	LS	10yr 5.6	9-20"	Bw	LS	10yr 5.6	FRIABLE, LOOSE			
18-84"	C1	S	2.5Y 4.3	20-104"	C1	S	2.5Y 4.3	F-C SAND & GRAVEL			
				25% GRAV. & BOULDERS							
OXIDES: 2.5 Y4.2				10 YR 6.8				OXIDES: 2.5 Y4.2		10 YR 6.8	
EHWT: 38" = 93.38'								EHWT: 24" = 93.0'			
STANDING H2O: 90"								STANDING H2O: 90"			
WEEPING: 70"								WEEPING: 70"			
BEDROCK: 104"+								BEDROCK: 104"+			



**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.**



**SEPTIC SYSTEM REPAIR PLAN FOR TOM CROSSMAN**  
**45 LEVERETT ROAD**  
**AMHERST, MA**

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

**P.H.O.N.C. (413) 323-5957**  
**F.A.X. (413) 323-4916**  
**e-Mail: AEWCS@charter.net**

**DATE:** 03.26.2010 **DRAWN BY:** AEW **REVISED:**  
**SCALE:** 1"=30' **CHECKED BY:** AEW **DRAWING NUMBER:** 110-3316-0318