

No. 06-07

#650
RCR#1977 FEE 375
PL 375

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT



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

Location <u>3 Ladyslipper Circle</u>	Owner's Name <u>Kathy Walsh</u>
Map/Parcel# <u>(L1107) 214/23</u>	Address <u>3 Ladyslipper Circle</u>
Lot# <u>112</u>	Telephone# <u>413.256.1486</u>
Installer's Name	Designer's Name <u>Alan Weiss RS.</u>
Address	Address <u>Belchertown</u>
Telephone#	Telephone# <u>413.323.5957</u>

Type of Building Residence Lot Size 30,652± sq. ft.
 Dwelling - No. of Bedrooms 4 Bedrooms 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 445 gpd
 Plan: Date 5/16/06 Number of sheets _____ Revision Date _____
 Title Septic System Repair Plan
 Description of Soil(s) CLASS I
 Soil Evaluator Form No. _____ Name of Soil Evaluator A. Weiss Date of Evaluation 5/9/06

DESCRIPTION OF REPAIRS OR ALTERATIONS Install New Leach Trench SAS

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 [Signature] Date 5/25/06

Inspections _____

No. 06-07

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

CERTIFICATE OF COMPLIANCE

FEE 375
PL 375
650

Description of Work: Individual Component(s) Complete System

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

by: _____
at 3 Ladyslipper Circle

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. 06-07, dated _____, Approved Design Flow _____ (gpd)

Installer [Signature] Designer: _____ Inspector: [Signature] Date: 5/16/06

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

No. 06-07

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

DISPOSAL SYSTEM CONSTRUCTION PERMIT

FEE 375
OK# 650

Permission is hereby granted to; Construct () Repair () Upgrade () Abandon () an individual sewage disposal system at 3 Ladyslipper Circle as described in the application for Disposal System Construction Permit No. 06-07, dated 5/16/06.

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

Date 5/25/06 Board of Health [Signature]

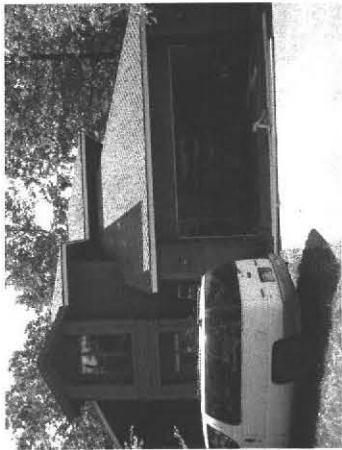
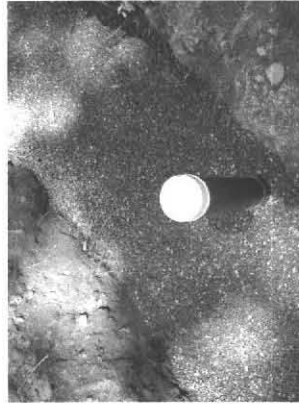
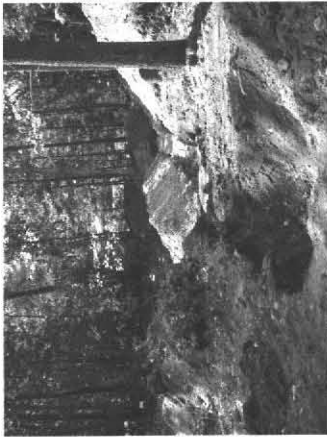
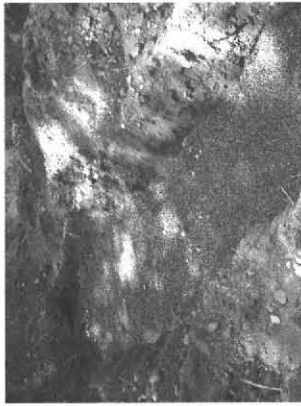
10-10-10

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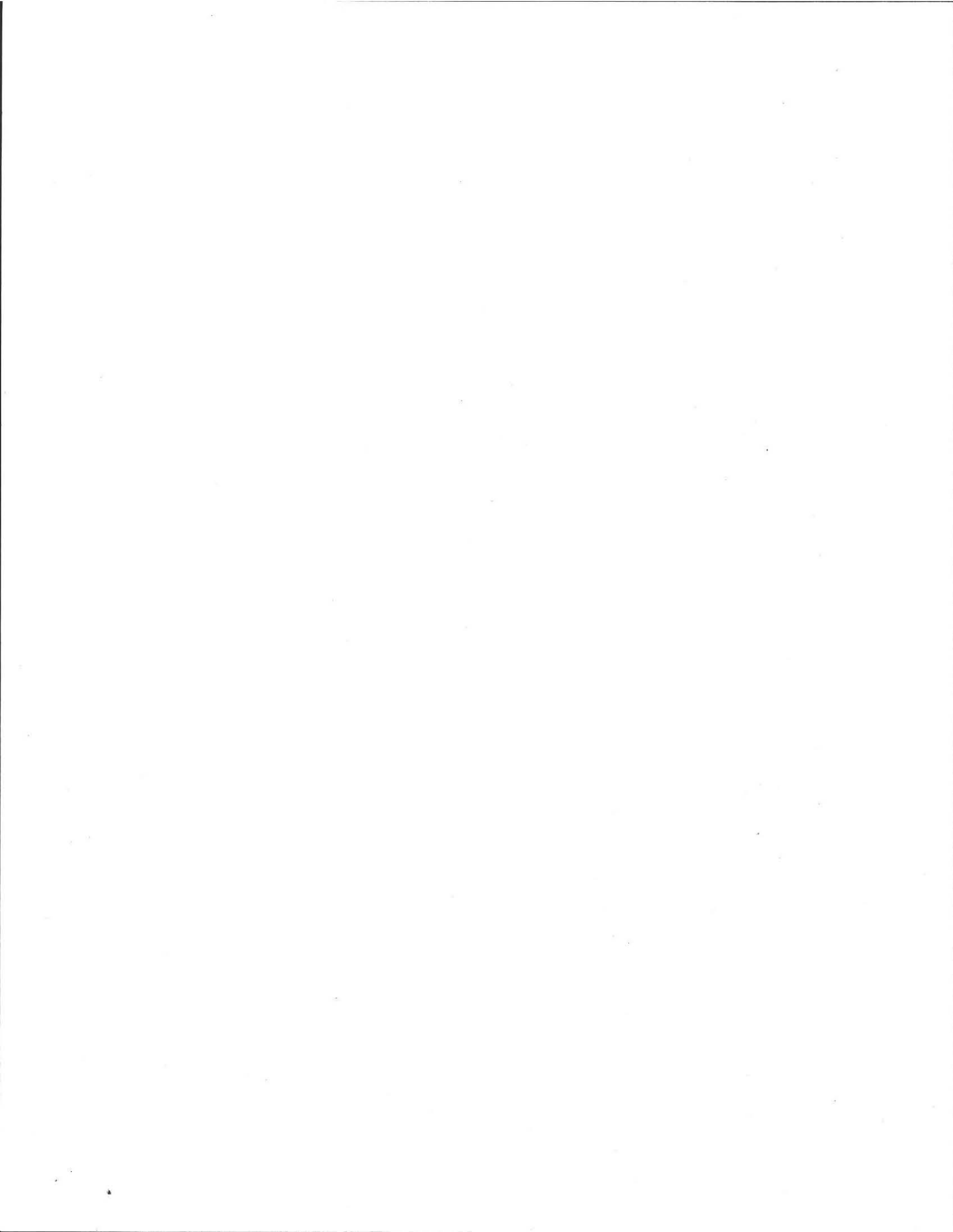
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ALAN E. WEISS, M.S., L.S.P.
Licensed Site Professional
Registered Sanitarian
Hydrogeologist
President

- Subsurface Investigations
- 2IE Site Investigations
- Pollution Remediation
- Percolation Tests and Septic Designs

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

Date: 5-9-06

Commonwealth of Massachusetts
Amherst, Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: A. Weiss
Witnessed By: C. Walsh

Date: 5/9/06

Location Address or Lot # <u>3 Lady Slipper Lane</u> New Construction <input type="checkbox"/> Repair <input checked="" type="checkbox"/>	Owner's Name, Address, and Telephone # <u>old Nancy Home!</u> <u>Kathy Walsh</u> <u>3 Lady Slipper Circle.</u> <u>Amherst, MA.</u>
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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: _____



1000

1000

Location Address or Lot No. 3 Lady Slipper Circle

On-site Review

Deep Hole Number 142 Date: 5/9/06 Time: 1:45 Weather Showers 60°

Location (identify on site plan) _____

Land Use Wooded Slope (%) 2 Surface Stones few

Vegetation deciduous

Landform Terraced

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 DOWN 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)
<u>0-7"</u>	<u>A</u>	<u>10yR 3/2</u>	<u>FSL</u>		<u>Friable</u>
<u>7"-24"</u>	<u>B_w</u>	<u>10yR 4/6</u>	<u>LS</u>	<u>Not obs</u>	<u>Encrusted</u>
<u>24"-120"</u>	<u>C₁</u>	<u>2.5y 4/5</u>	<u>CS</u>	<u>120"</u>	<u>COARSE SAND + Gravel</u> <u>20% (cobbles)</u>
<u>0-8"</u>	<u>A</u>	<u>10yR 3/2</u>	<u>FSL</u>		
<u>8"-32"</u>	<u>B_w</u>	<u>10yR 4/6</u>	<u>LS</u>	<u>Not obs.</u>	
<u>32"-120"</u>	<u>C₁</u>	<u>2.5</u>	<u>CS</u>		<u>COARSE SAND + Gravel</u>

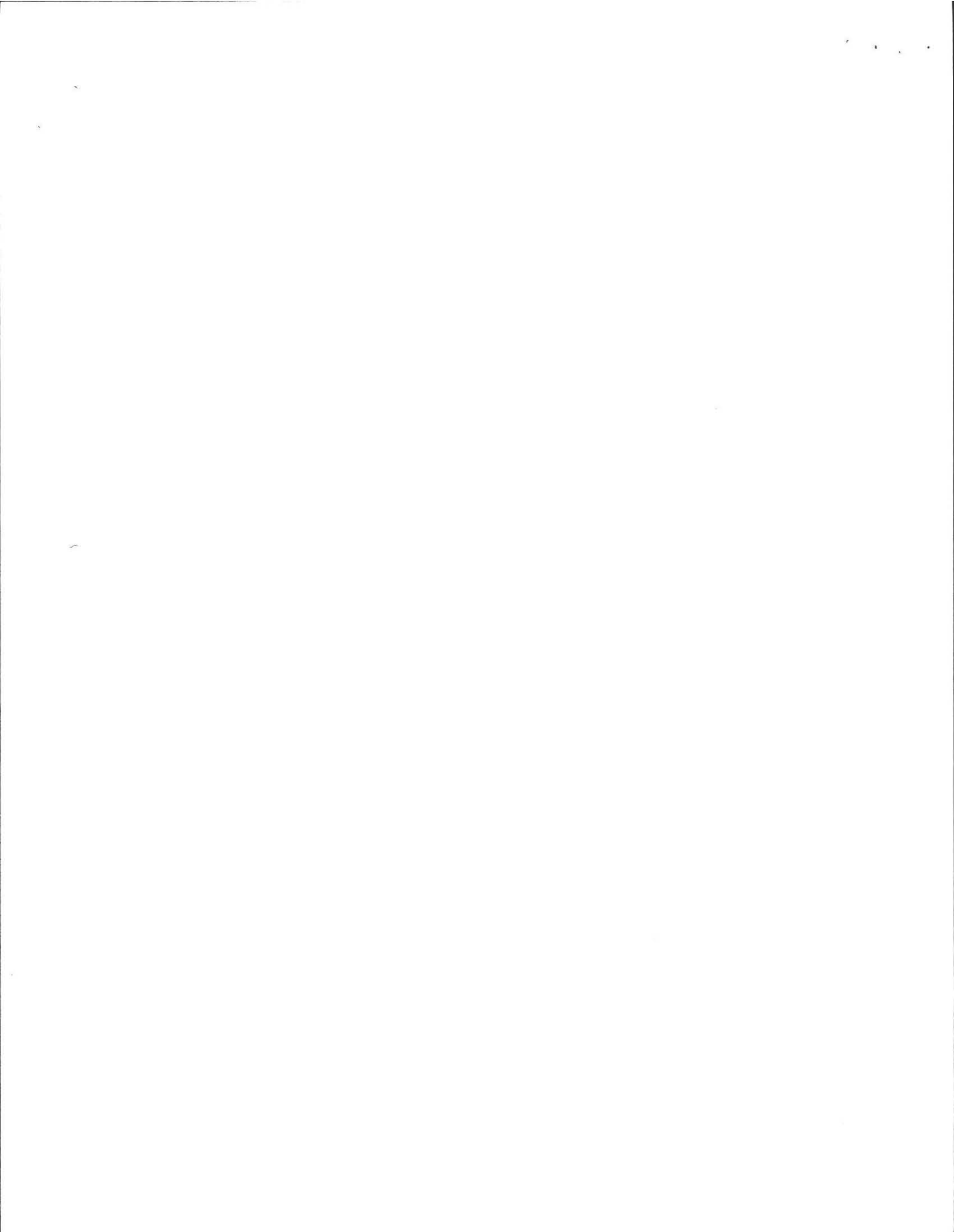
* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) outwash Terrace Depth to Bedrock: 120"

Depth to Groundwater: Standing Water in the Hole: Not Weeping from Pit Face: Not

Estimated Seasonal High Ground Water: 120"





Location Address or Lot No. 3 Lady Slipper Circle.

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*		
Date: ..	<u>5/9/06</u>	Time: <u>2:30</u>
Observation Hole #	<u>P1</u>	
Depth of Perc	<u>40"</u>	<u>Repair</u>
Start Pre-soak	<u>2:35</u> <u>CANT</u>	<u>Less</u>
End Pre-soak	<u>2:38</u> <u>HELD</u>	<u>Thaw</u>
Time at 12"	<u>2:38</u> <u>Water</u>	<u>L2</u>
Time at 9"	<u>2:37</u>	
Time at 6"	<u>2:40</u>	
Time (9"-6")	<u>L2</u>	
Rate Min./Inch	<u>L2</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: D. Zarolowski

Comments: _____





Location Address or Lot No. 3 Lady slipper circle

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 120" 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

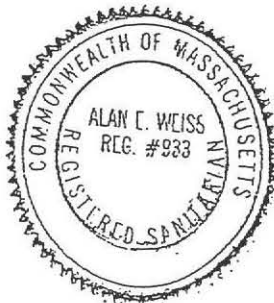
Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? yes

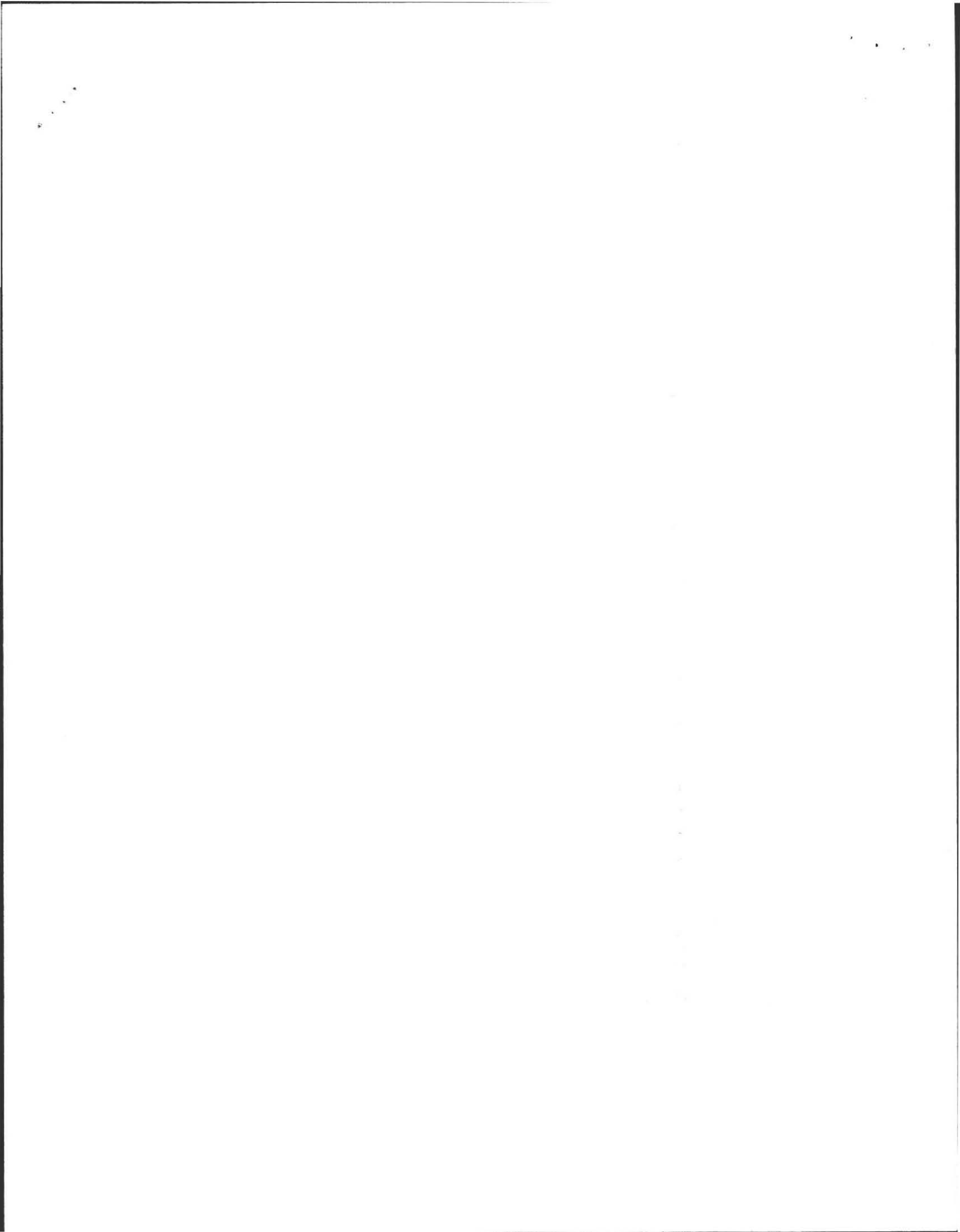
If not, what is the depth of naturally occurring pervious material? _____

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 5-9-06





Commonwealth of Massachusetts
Town of AMHERST

Soil Suitability Assessment : On-Site Sewage Disposal

Performed By: AL WEISS Date: 5/9/06
Witnessed By: DAVID ZAROWSKA

Location Address of: Lot #	Owner's Name: <u>KATHRINE WALSH BURKE</u> Address of: <u>3 Ladyship Circle</u> Telephone: <u>256-1486</u>
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 Reference Reviewed:

5/9/06
NOT PAID
Pay 250.00
plus 125.
375.00

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

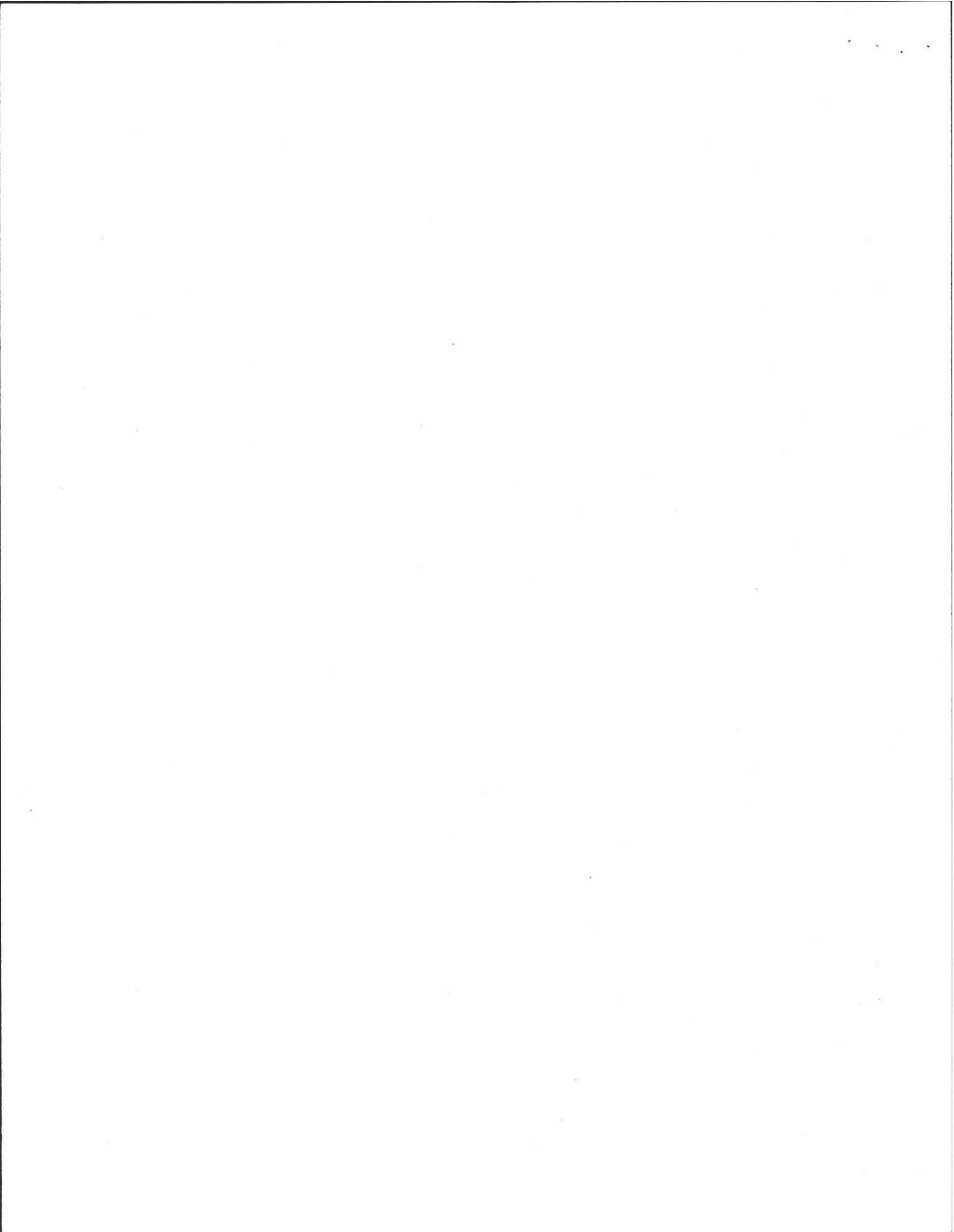
Does at least four feet of naturally occurring previous materials exist in all areas observed throughout the area proposed for this soil absorption system? _____

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 _____



3 Lndrs Slopes Circle

On-Site Review

Deep Hole Number ① Date: 5/9/06 Time 2:00
 Weather Cloudy 55°
 Location (identify on site plan) _____
 Land Use RESIDENTIAL Slope (%) _____
 Surface Stone _____
 Vegetation: LAWN TREES

Landform:

OUTWASH TERRACE

Position on Landscape (sketch on back) _____

Distances from:

Open Water Body 100 feet Drainageway _____ feet
 Possible Wet Area 1 feet Property Line 15 feet
 Drinking Water Well _____ feet Other _____

TOWN

DEEP OBSERVATION HOLE LOG

depth from surface (inches)	soil horizon	soil texture (USDA)	soil color (Munsell)	soil mottling	other (structure, stones, boulders) Consistency, % gravel
8	A	FSL	10YR 3/2	—	FINE
24	Bw	CS	10YR 4/6	—	FINE
120	C ₁	CS	2.5Y 4/5	—	COARSE SAND 20%

Parent Material (geologic) OUTWASH TERRACEDepth to Bedrock 120

Depth to Groundwater: _____

Standing Water in the Hole _____

Weeping from Pit Face _____

Estimated Seasonal High Water _____

On-Site Review

Deep Hole Number ② Date: 5/9/06 Time 2:30
 Weather Cloudy 51°
 Location (identify on site plan) RESIDENTIAL
 Land Use RESIDENTIAL Slope (%) 2
 Surface Stone _____
 Vegetation: LAWN TREES

Landform:

OUTWASH TERRACE

Position on Landscape (sketch on back) _____

Distances from:

Open Water Body _____ feet Drainageway _____ feet
 Possible Wet Area _____ feet Property Line _____ feet
 Drinking Water Well _____ feet Other _____

DEEP OBSERVATION HOLE LOG

depth from surface (inches)	soil horizon	soil texture (USDA)	soil color (Munsell)	soil mottling	other (structure, stones, boulders) Consistency, % gravel
8	A	FSL	10YR 3/2	—	FINE
32	Bw	CS	10YR 4/6	—	"
120	C ₁	CS	2.5Y 4/5	—	COARSE SAND 20%

Parent Material (geologic) _____

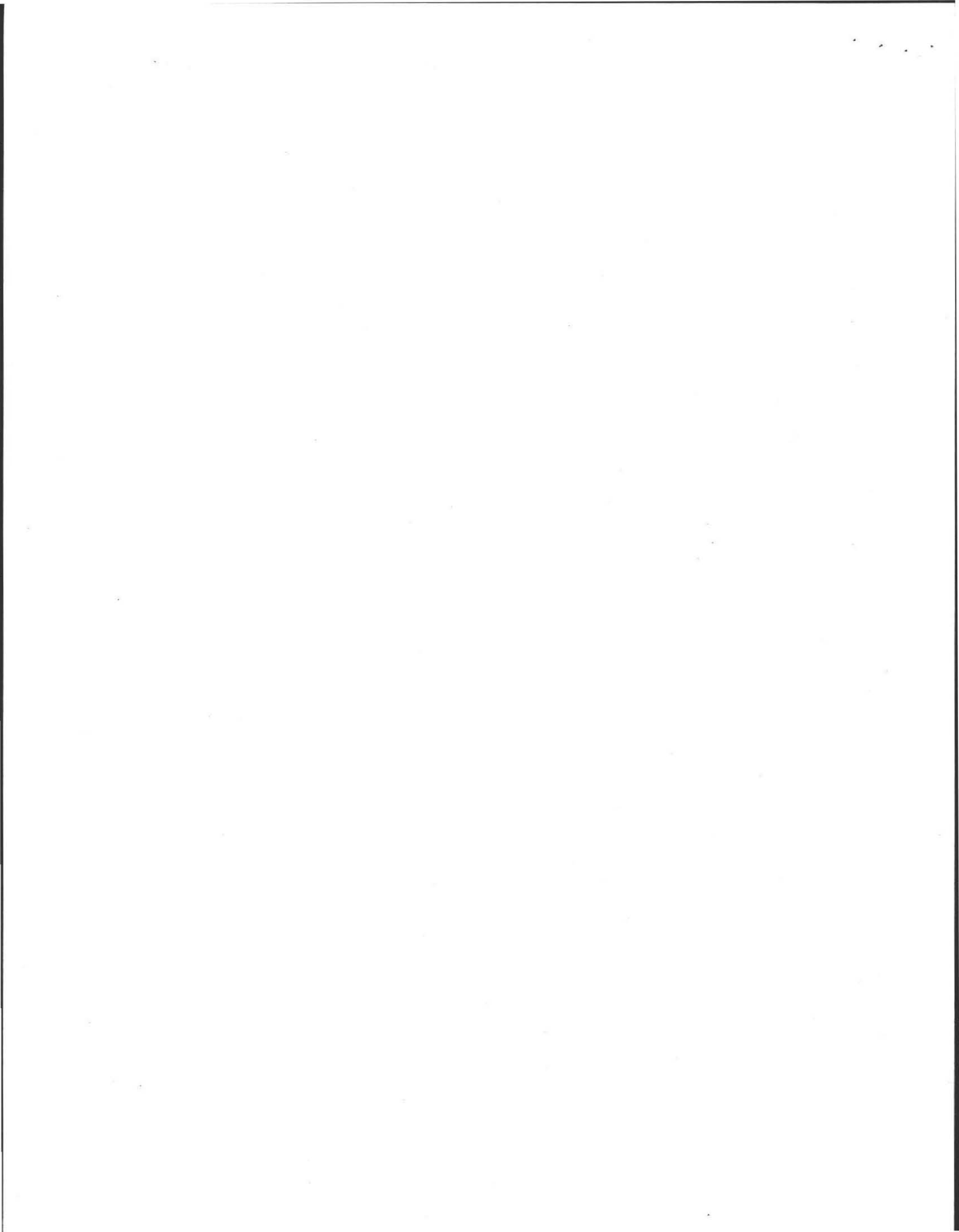
Depth to Bedrock _____

Depth to Groundwater: _____

Standing Water in the Hole _____

Weeping from Pit Face _____

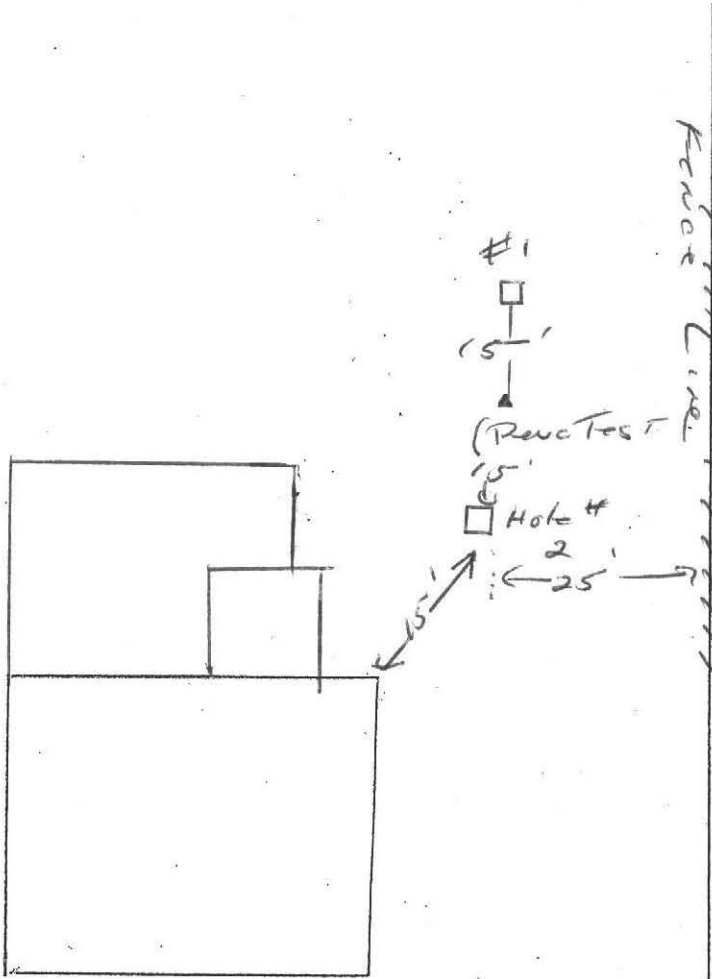
Estimated Seasonal High Water _____



FORM 12: Percolation Test

Location Address or Lot # 3 Hadyslipper Circle

Commonwealth of Massachusetts
Town of AMHERST



PERCOLATION TEST *

DATE:		TIME:
Observation Hole #	①	
Depth of Perc	40"	
Start Pre-soak	2:35	
End Pre-soak		
Time at 12"	CAN HOLD WATER	
Time at 9"		
Time at 6"		
Time (9"-6")		
Rate Min./Inch		

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

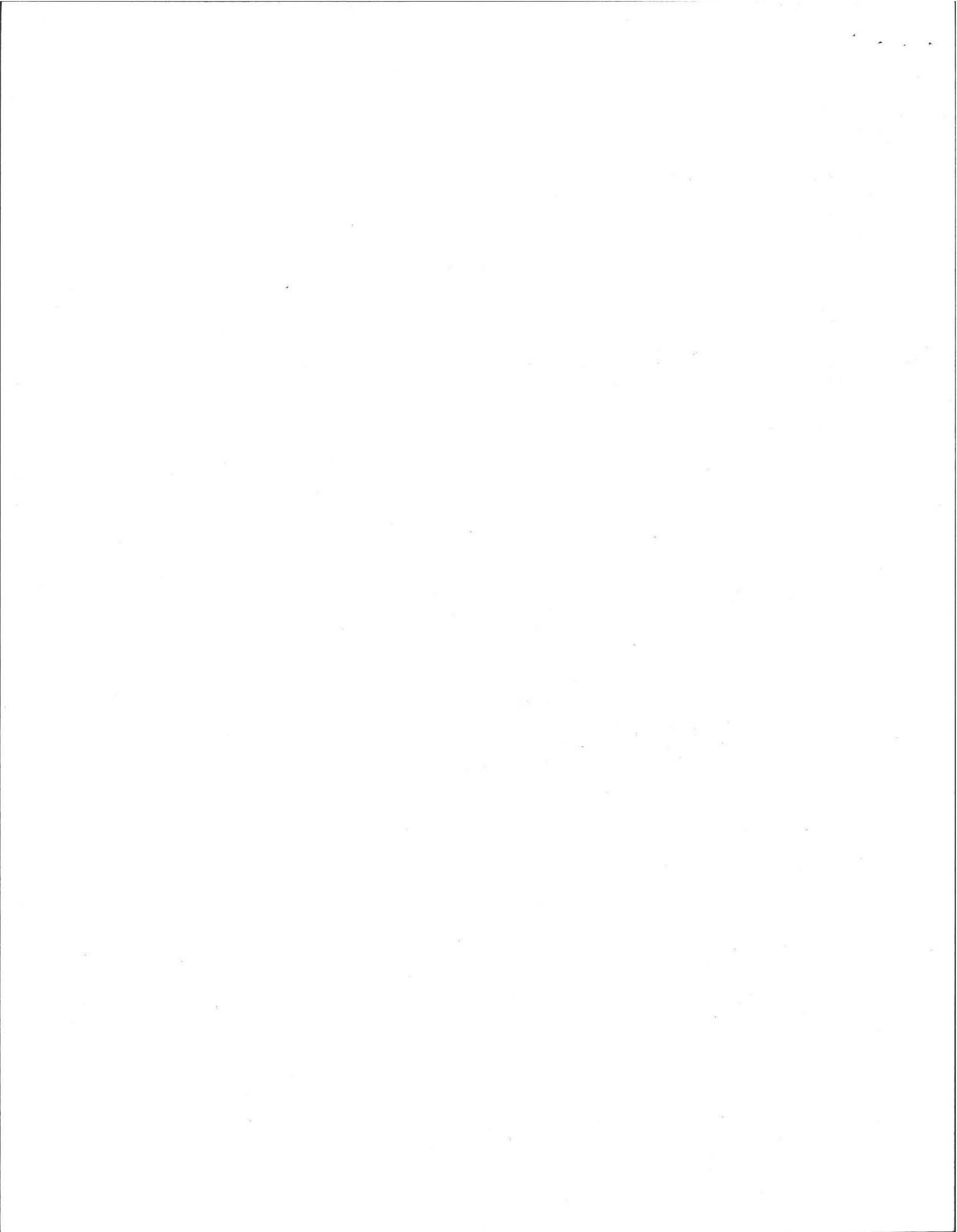
Site Passed Site failed

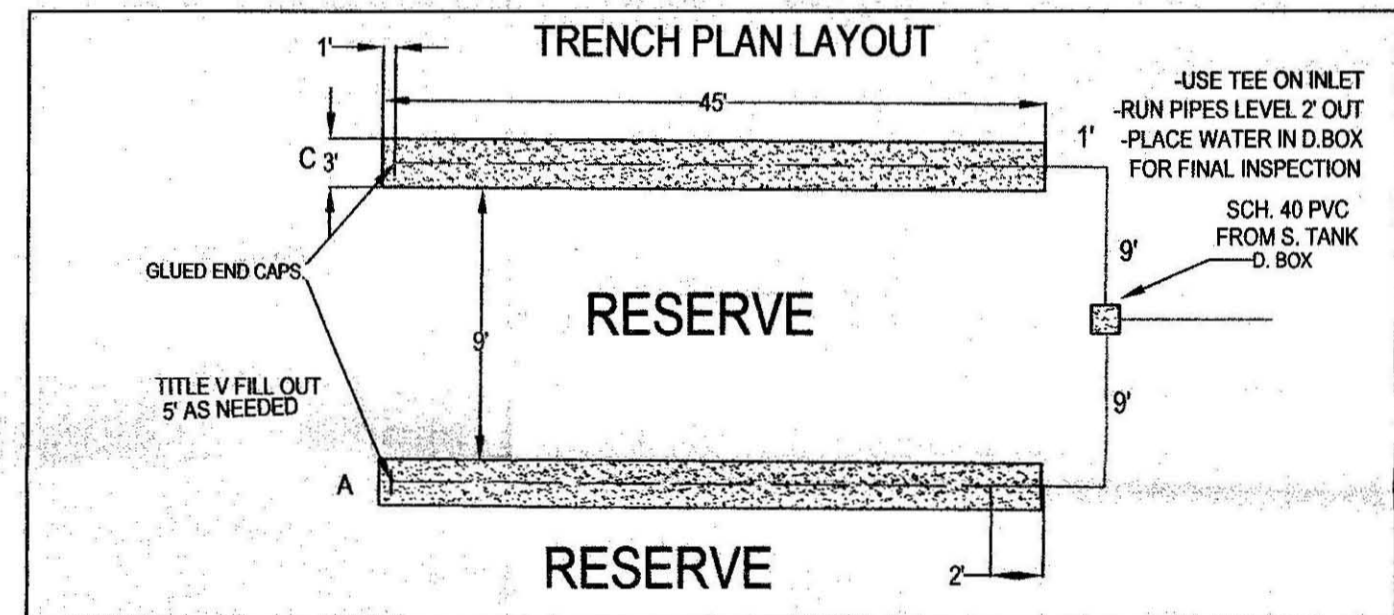
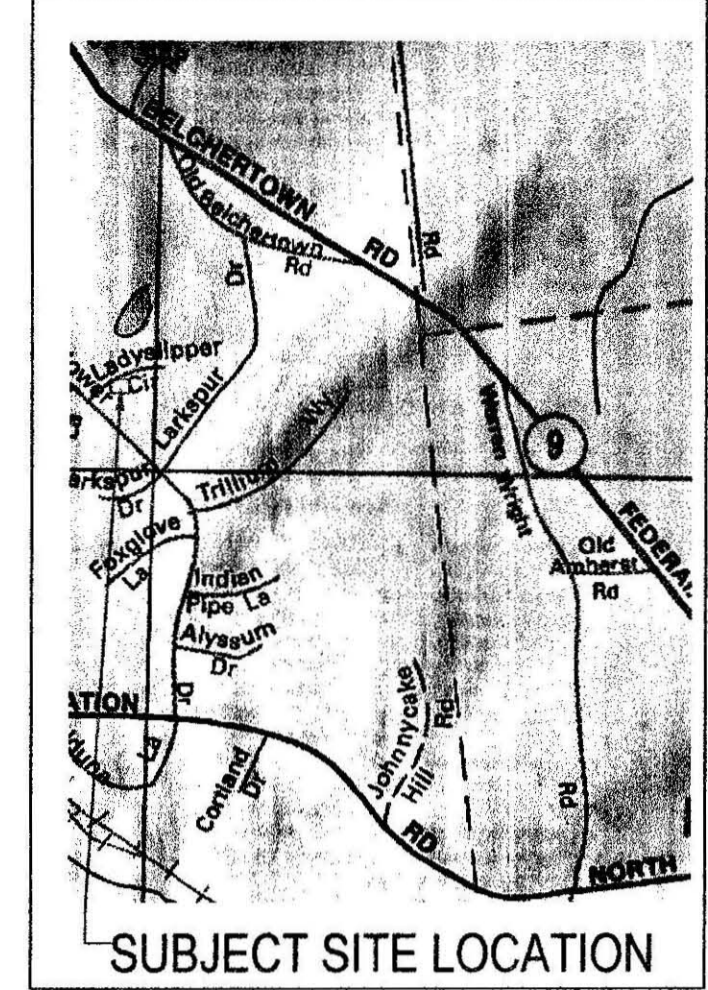
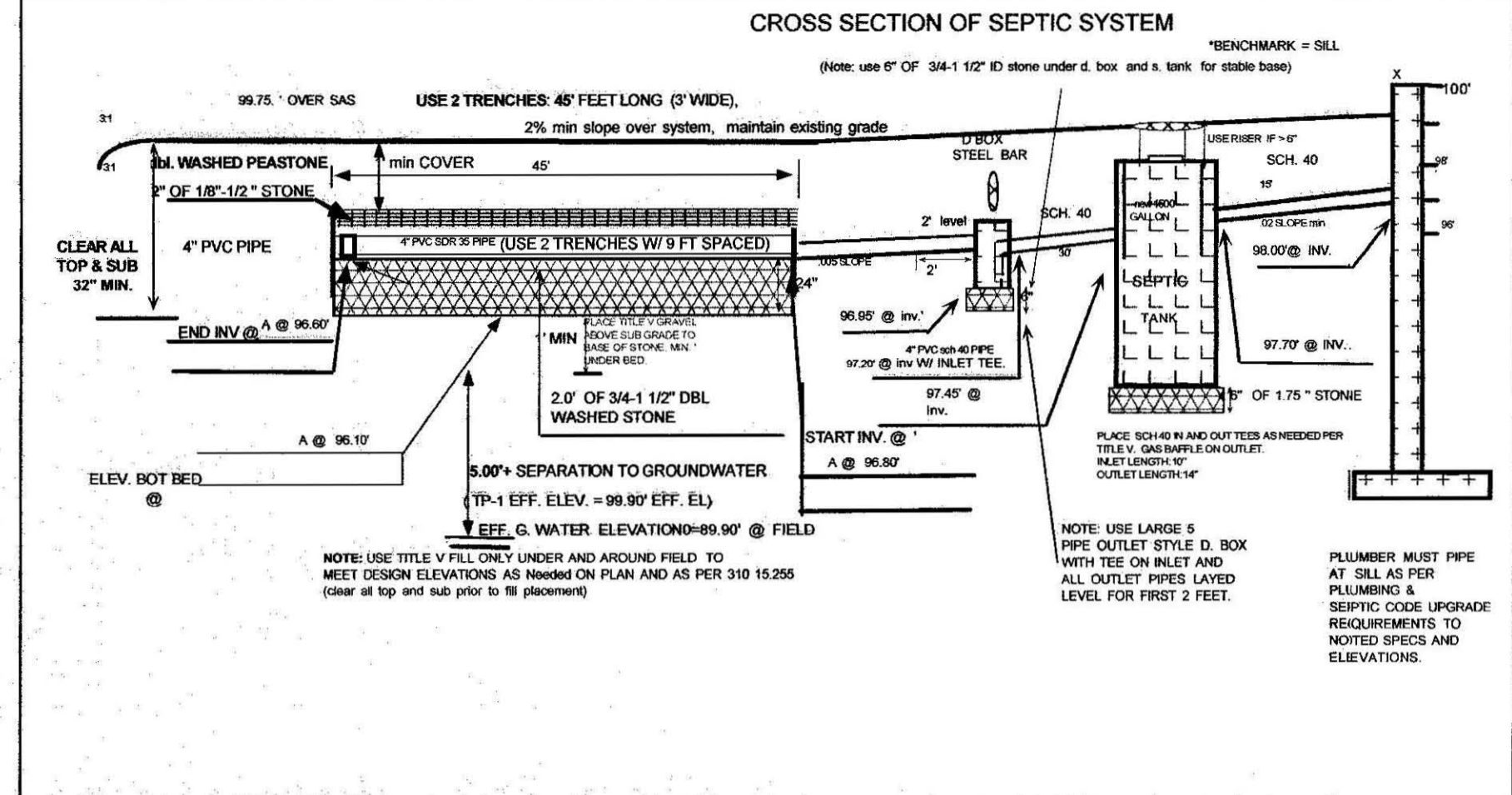
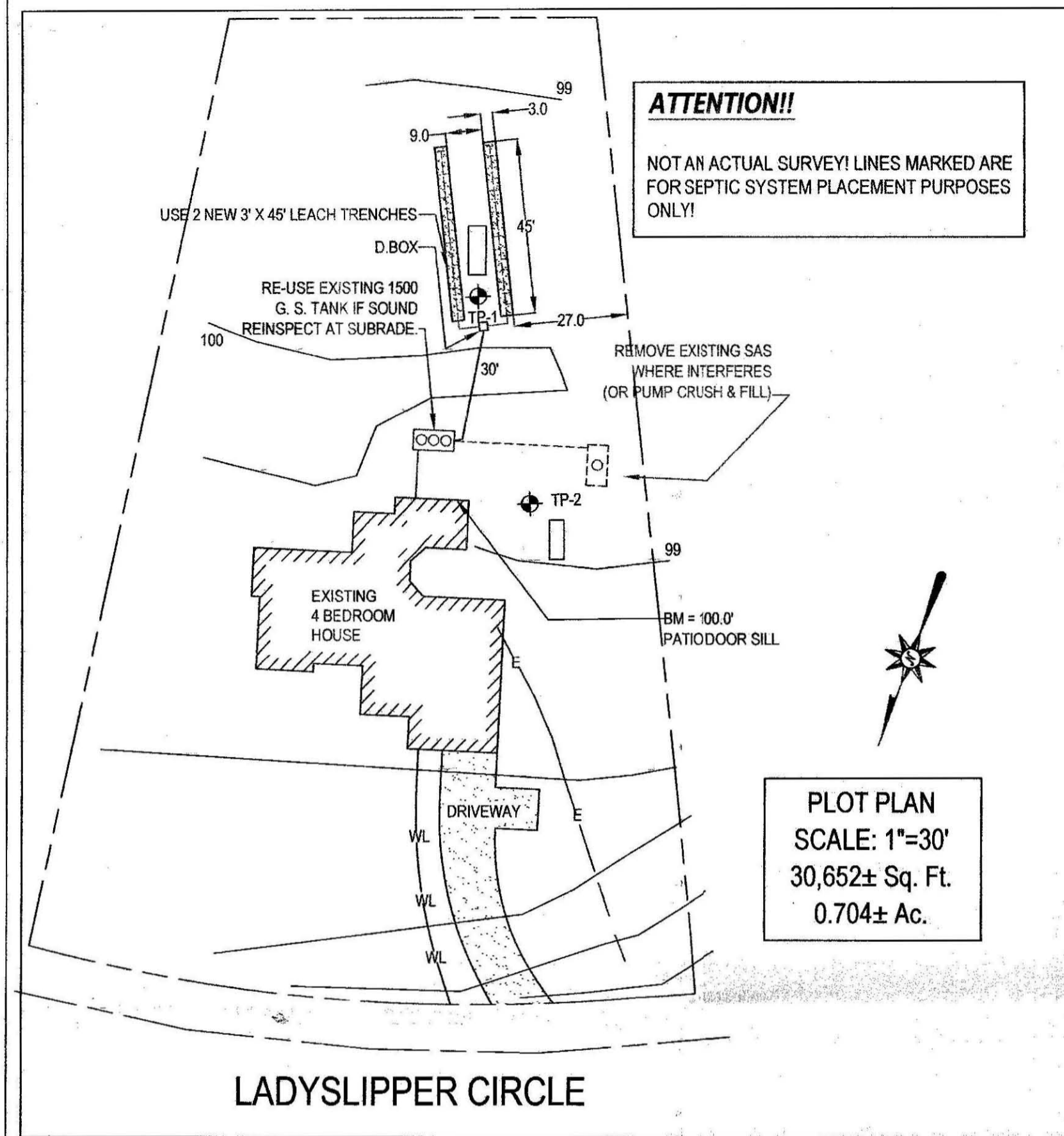
Performed by David Lanzetta

Witnessed by AL Weiss Cold Spring CV

Comments:

Hadyslipper Circle





DESIGN NOTES AND CALCULATIONS:

- 1.) 4 BR X 110 GPD /BR = 440 GPD
- Use **TWO TRENCHES: 3' WIDE X 45' LONG WITH 24" OF 2" TO 4" DBL WASHED STONE BELOW INVERT**
- BOTTOM AREA: 3' W X 45' L X 2 TRENCHES = 270 SF.
- SIDE AREA: 2' HT. X 45' LONG X 2 SIDES X 2 TRENCHES = 360 SF
- END AREA: 2' HT. X 3' WIDE X 2 SIDES X 2 TRENCHES = 24 SF
- TOTAL AREA: 654 SF X 0.74 GAL/SF = 484 GPD
3. **GARBAGE DISPOSAL NOT ALLOWED**
4. NO OTHER PRIVATE WELLS WITHIN 150 FEET OF SAS (TOWN WATER).
5. NO OTHER WETLANDS: WITHIN 150 FEET OF SAS, WETLAND AS NOTED BY C. DAUCHY.
6. USE EXISTING 1,500 GAL. S. TANK AS NOTED & MAINTAIN 0.02 PITCH FROM SILL TO S. TANK
7. USE LARGE STYLE D.BOX ONLY.
- 7A. ALL D. BOX OUTLET PIPES LEVEL FOR FIRST 2'
- NOTE:**
- D. BOXES WITH COVERS AND WALLS LESS THAN 2" THICK ARE NOT ALLOWED PER DESIGN.
8. USE APPROVED (1 1/2") DBL. WASHED STONE UNDER TANK & D. BOX FOR 8".
- CONFIRM STONE PROPERLY WASHED (WITH BUCKET / H2O TEST) PRIOR TO PLACEMENT.
9. USE PROPER SCH. 40 PVC TEES AS SHOWN.
10. PRE & POST CONTOURS NOTED AS NECESSARY, RESERVE AREA NOTED REQUIRED.
11. SLOPE CALCS (SEE CONTOURS), SUBGRADE INSP. REQ'D.
13. USE TRENCHES DUE TO TOPOGRAPHY AND SPACE OF LOT WITH RESPECT TO LOCATION AND ELEVATION OF RESIDENCE (310 CMR 15.240)
14. USE 2% MIN. SLOPE OVER SAS
- CLEAR TOP AND SUB TO 32" MIN. AS NEEDED (SUBGRADE & FINAL INSPECTION REQUIRED).
- CLEAR TO BASE OF IB (MIN. 32") UNDER BED PRIOR TO TITLE V SAND PLACEMENT (if needed).
- EXCAVATE EXISTING SYSTEM AND REMOVE.
15. SOIL EVALUATION BY: A WEISS, RS 5/9/06, D. ZAROZINSKI, BOH AGENT).
- DEPTH OF PERC. 40"
- PERC RATE = < 2 MIN / IN
- CLASS I SOIL RATINGS (SAND)
16. NO TREES WITHIN 10 FT. OF NEW LEACH FIELD. USE TITLE V FILL 5' OUT.
17. ENGINEER TO INSPECT SUBGRADE, AND FINAL.
18. BM=PATIO DOOR SILL:=100.00' @ PIN, CONFIRM PROPER PIPE SLOPES
- USE/INSPECT SCH. 40 PIPE FOR PIPE FROM HOUSE TO NEW OR EXISTING TANK
19. GRADE MULCH AND SEED OVER LEACHFIELD AS NOTED.
20. INSTALLATION IN LOW GROUNDWATER SEASON RECOMMENDED.

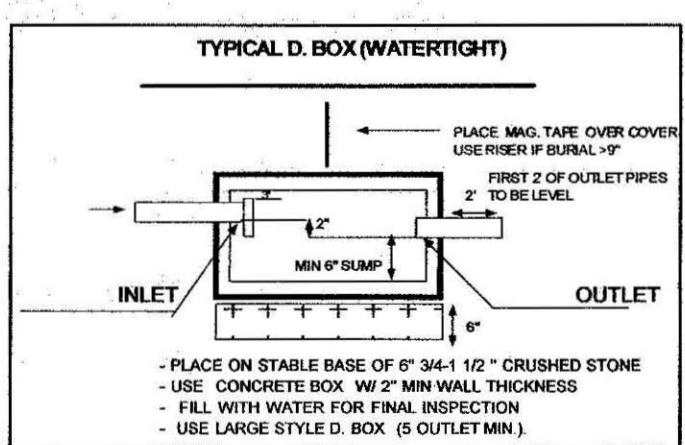
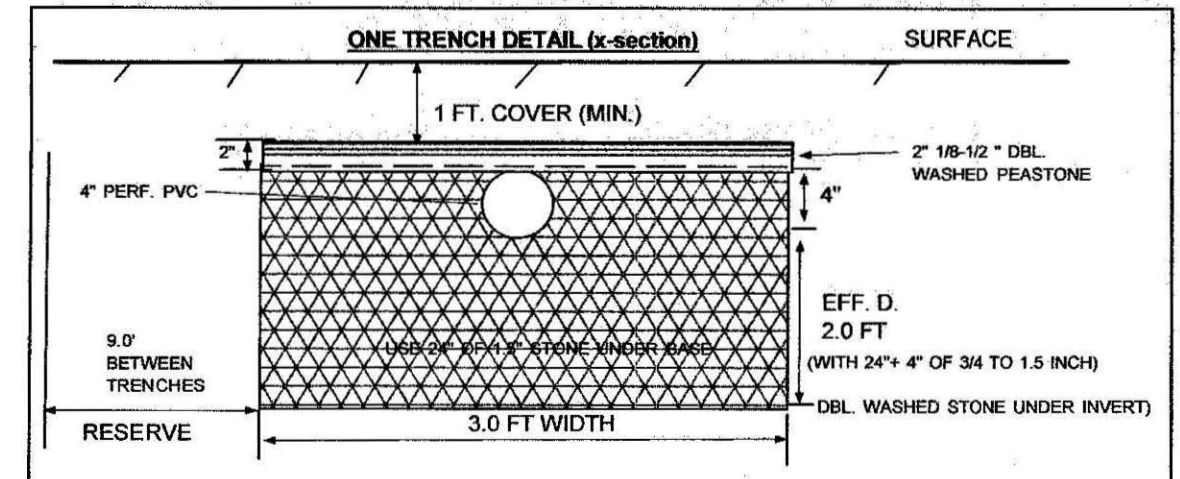
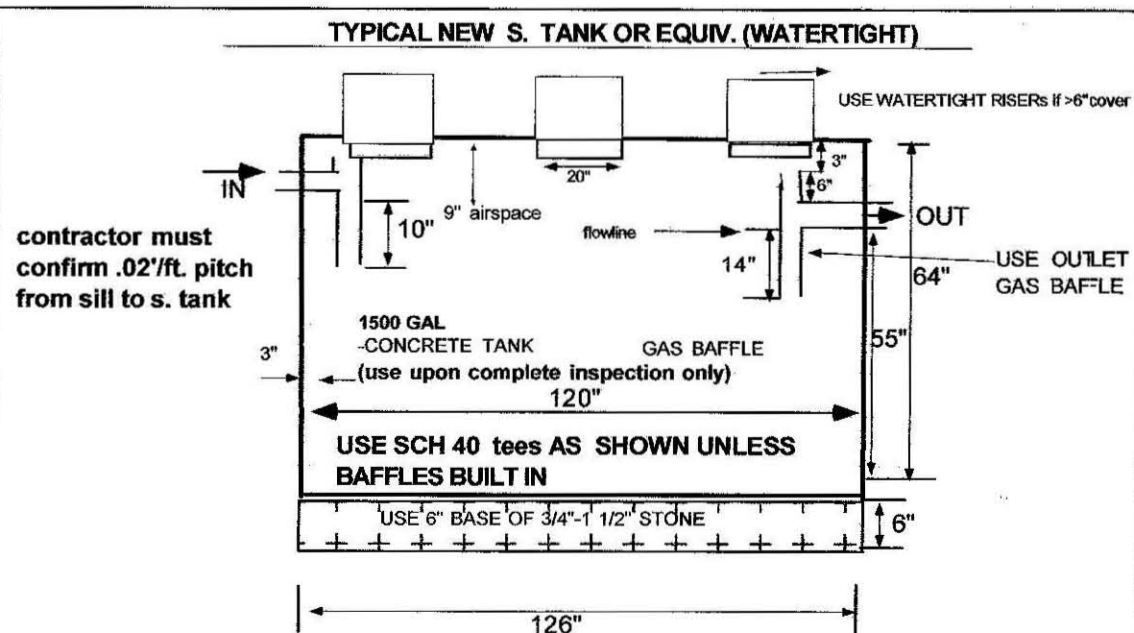
2006 SEPTIC PLAN ADDENDUM

DUE TO LATE REGULATION CHANGES 4-22-2006
ALL NEW SYSTEMS MUST:
1.) INSTALL RISERS OVER D. BOX'S GREATER THAN 9" BURIED.
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.

- 1.) HAVE TANK PUMPED EVERY 2 YEARS.
- 2.) MAINTAIN AREA OVER SEPTIC SYSTEM AS GRASSY OR SIMILAR GROUND COVER.
- 3.) DO NOT PLANT ANY TREES OR DEEP ROOTING SHRUBS WITHIN 10 FEET OF SYSTEM.
- 4.) USE ONLY LIQUID DETERGENTS & LOW FLOW WASHERS.

USING EXISTING SEPTIC TANKS:
AN EXISTING 1,000 or 1,500 GALLON SEPTIC TANK CAN BE USED IF UPON INSPECTION BY THE INSTALLING CONTRACTOR, IF THE TANK IS INSPECTED AND PUMPED AND FOUND TO BE STRUCTURALLY SOUND AT THE TIME OF THE SUBGRADE INSPECTION. IF BAFFLES ARE NOT BUILT IN, THAN SCH 40 PVC TEES MAY BE ADDED. IF TANK IS NOT SOUND THAN, NOTIFY ENGINEER IMMEDIATELY IN ORDER TO ACCOMMODATE A NEW 1,500 GALLON (MIN.) SEPTIC TANK.



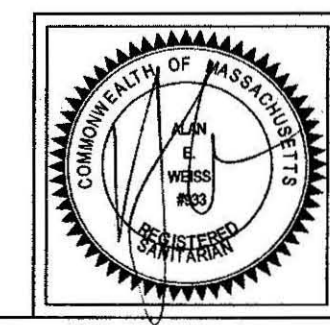
TEST PIT LOG:

TP-1 EFF. EL. 99.80 EFF. ELLEV.	TP-2
0-7" A: F. SANDY LOAM (10 YR 3/2)	0-6"
7-24" Bw: SANDY LOAM (10 YR 4/6)	8-32"
24-120" C1: F. SAND, LAMINATED (2.5 Y 4/6)	32'-120"

OXIDES: NOT OBSERVED
ESHWT: ASSUMED @ 120' +
NOT: STANDING H2O
NOT: WEEPING FROM FACE
120'+ BEDROCK

ATTENTION INSTALLER!!
CALL DIG SAFE BEFORE YOU DIG!! MASSACHUSETTS STATE LAW CHAPTER 82 SECTIONS 41 - 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 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 KATHY WALSH
3 LADYSLIPPER CIRCLE
AMHERST, MA

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

PH: (413) 323-5957
FAX: (413) 323-4916
e-Mail: ALWEISS@charter.net

DATE: 5/16/06
SCALE: 1"=30'

DRAWN BY: ALAN WEISS
REVISED:

DRAWING NUMBER: 106-2433-0412