

#463
Lot 3-D

Z1
Z2

Flax Hills

Plan:

1105

Designed by:

Allen Weis

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 15220 (3)
- 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)
- System design calculations
- Garbage grinder Y or (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. ; S 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
- Trenches preferred over beds CMR 15.240 (6)
- Buoyancy calculations for tanks or components partly below H20 table 15.221(8) p. 56
- 3 to 1 slope outside of mound, toe ending 5 feet from property line
- Local upgrade requests on the plan
- Local upgrade forms attached to application
- Note on plan listing all variances sought in conjunction with the plan

N/A
None needed

None listed
N/A

NOTES:

2 2

1911

ACROSS FROM #460 FLAT HILLS

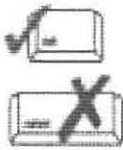


Commonwealth of Massachusetts
City/Town of
Septic System Installation Checklist

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.



Name _____

Address _____

City _____ State _____ Zip Code _____

Disposal System Construction Permit # _____ Map _____ Lot _____

Installer _____

Designer _____

Board of Health Representative _____

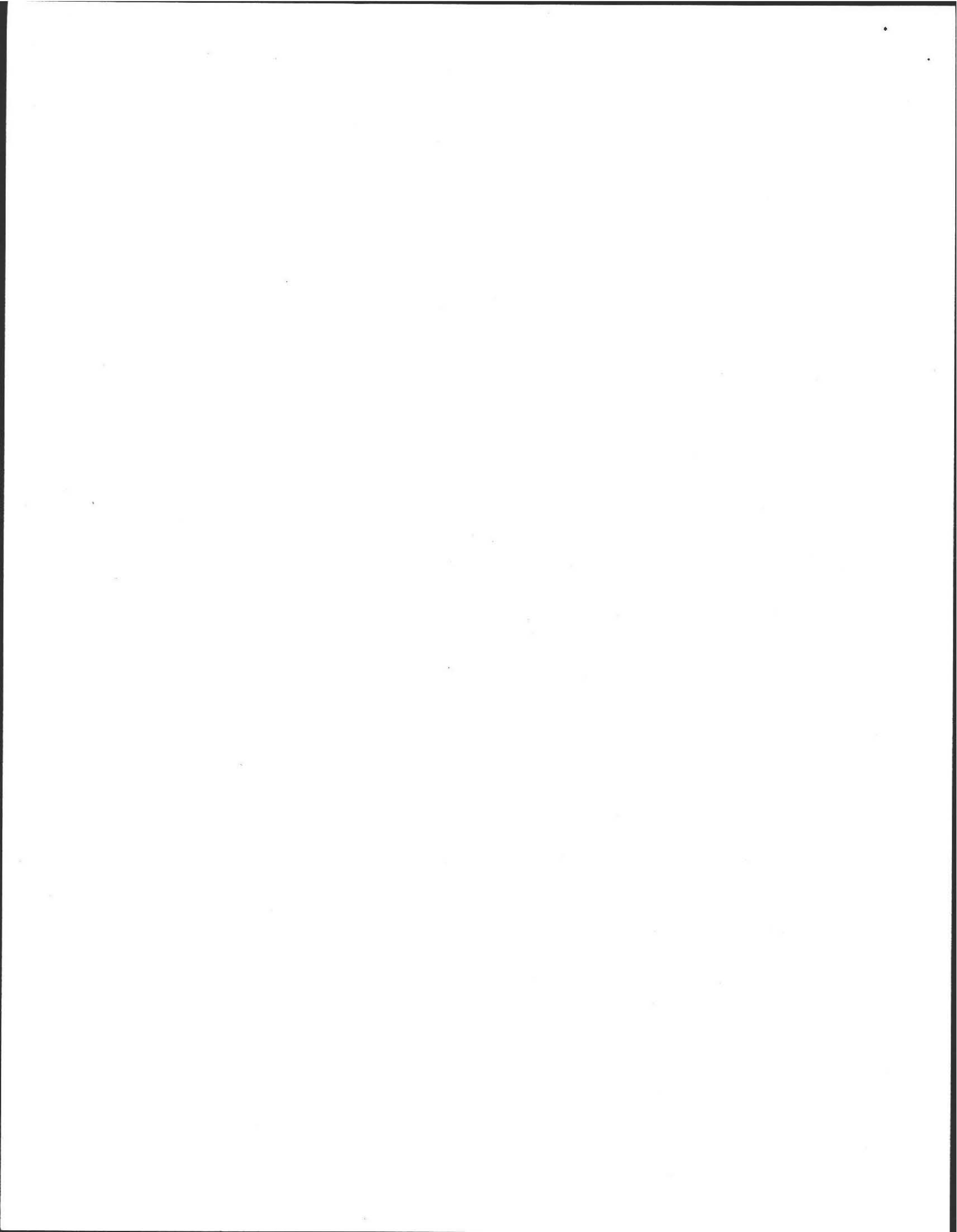
Inspection Dates:

Tank: _____ Date 4/15/2004 Leach Area: _____ Date 4/15/2004

Final: _____ Date _____ Other: _____ Date _____

B. Application Checklist

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





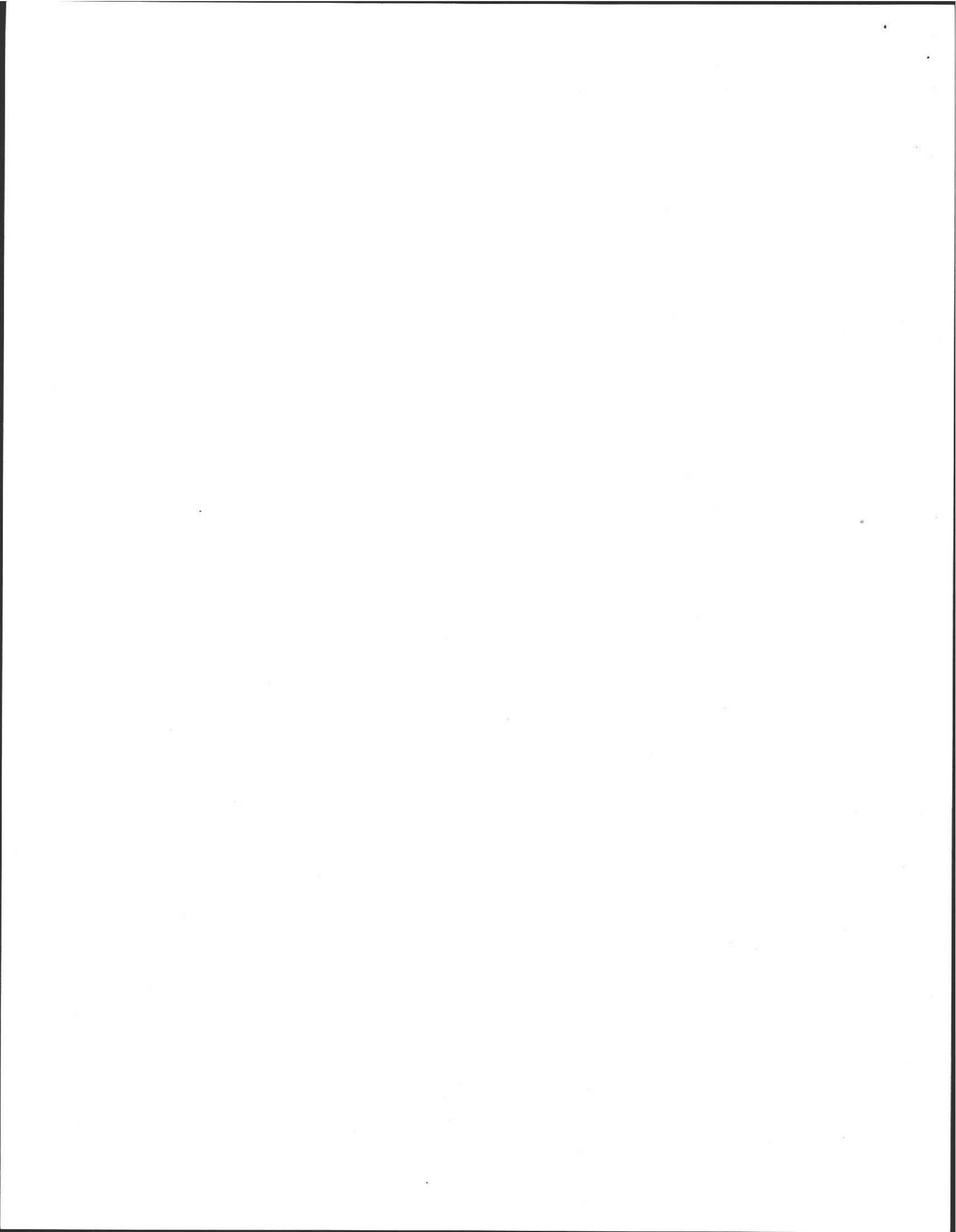
Commonwealth of Massachusetts
 City/Town of
Septic System Installation Checklist

B. Application Checklist (cont.)

2. Construction Inspection

		Approved	N/A	Problem
a)	Building Sewer (310 CMR 15.222)			
	All waste pipes tied into building sewer	Basement check	<input type="checkbox"/>	<input type="checkbox"/>
	Schedule 40 PVC 4" or cast iron	Verify by reading pipe	<input type="checkbox"/>	<input type="checkbox"/>
	Minimum slope of 0.01-0.02	Visual	<input type="checkbox"/>	<input type="checkbox"/>
	Pipe laid in continuous straight line	Visual	<input type="checkbox"/>	<input type="checkbox"/>
	Pipe laid on compact, firm base	Visual	<input type="checkbox"/>	<input type="checkbox"/>
	Cleanouts precede all changes in alignment/grade	Verify by visual/tape	<input type="checkbox"/>	<input type="checkbox"/>
	Cleanout provided every 100 ft.	Verify by visual/tape	<input type="checkbox"/>	<input type="checkbox"/>
	Backfill material clean	Visual	<input type="checkbox"/>	<input type="checkbox"/>
b)	Septic Tank (310 CMR 15.223)	Approved	N/A	Problem
	Tank is set level with 6" stone under (15.228)	Check with level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Tank is required size/loading per plan	Verify with plan	<input checked="" type="checkbox"/>	<input type="checkbox"/> 5'8" x 10'6"
	Inlet and outlet are at proper location (15.227)	Verify with plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Tank is water tight (15.226)	Test	<input checked="" type="checkbox"/>	<input type="checkbox"/> ?
	Outlet tees extend 6" above flow line	Verify by visual/tape	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Approved filter device placed at outlet	DEP list	<input type="checkbox"/>	<input checked="" type="checkbox"/> ?
	Gas baffle installed at outlet tee	Visual	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Inlet and outlet tees on center line	Visual	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Tank is backfilled with acceptable material	Visual	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Notes:



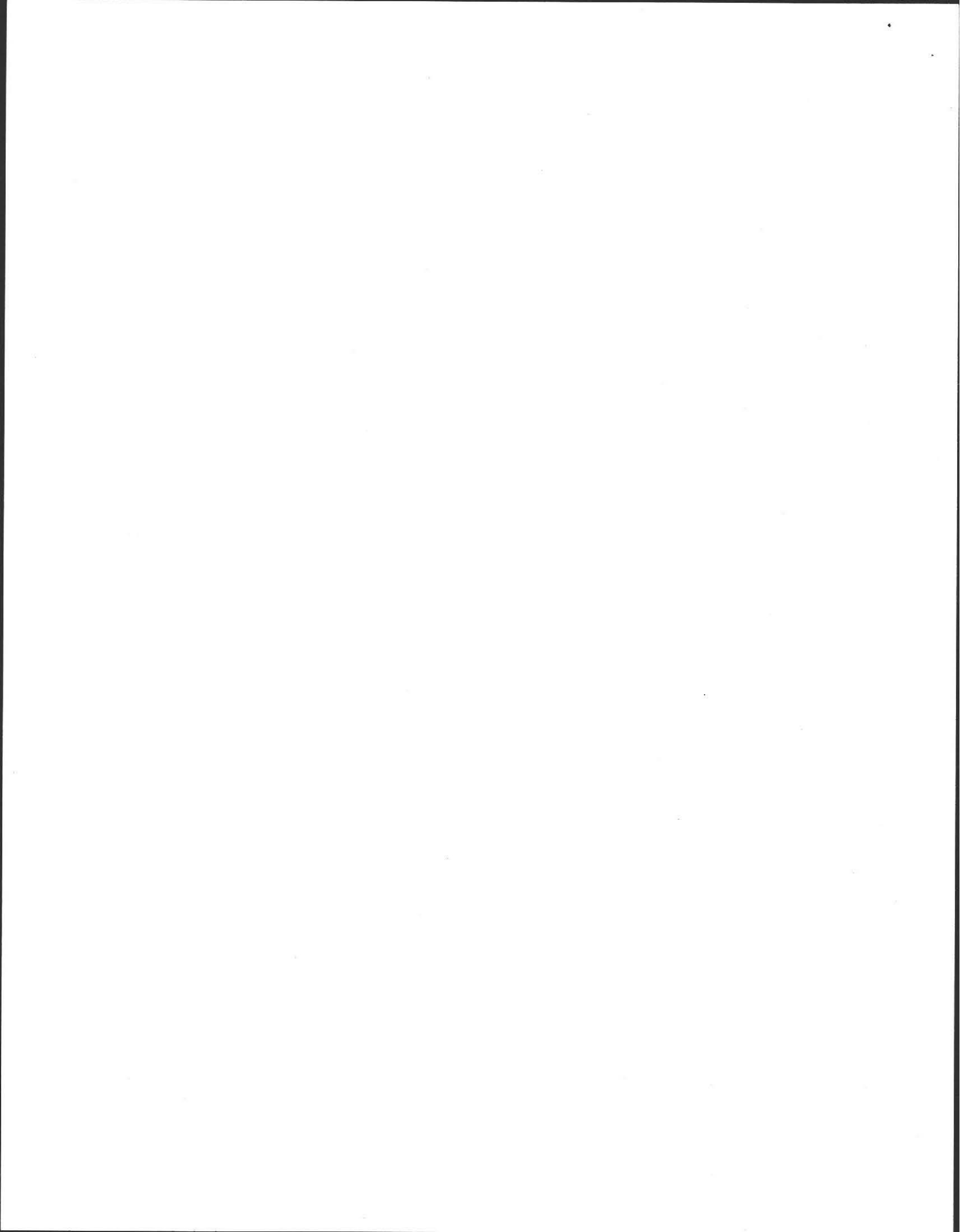


Commonwealth of Massachusetts
 City/Town of
Septic System Installation Checklist

B. Application Checklist (cont.)

		Approved	N/A	Problem
c) Distribution Box (310 CMR 15.232)				
All outlet pipes at same elevation	Check by adding water	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of outlets <u>2</u> per plan	Number of laterals <u>2</u> per plan			
Inlet tee min. 1" over outlet	Visual and w/tape	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D box set on level base	Visual	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Top of D box 36" max depth	Visual and w/tape	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D box is water-tight	Add water	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D box has a minimum of 2" thick wall and 12" inside dimension		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Pump Chamber (310 CMR 15.231)				
Tank is set level	Visual and w/level	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proper volume is provided	Check plan and tank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Float elevations set per plan	Measure w/tape	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Min. 2" delivery line to D box	Visual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of pumps: _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specified pump provided or designers approval for equal pump		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct pump sequence		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Covers set to grade		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electrical permit provided		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6" of stone beneath chamber	Visual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chamber is water-tight	Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Min. 9" cover provided	Visual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct loading provided per plan	Visual on tank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notes:

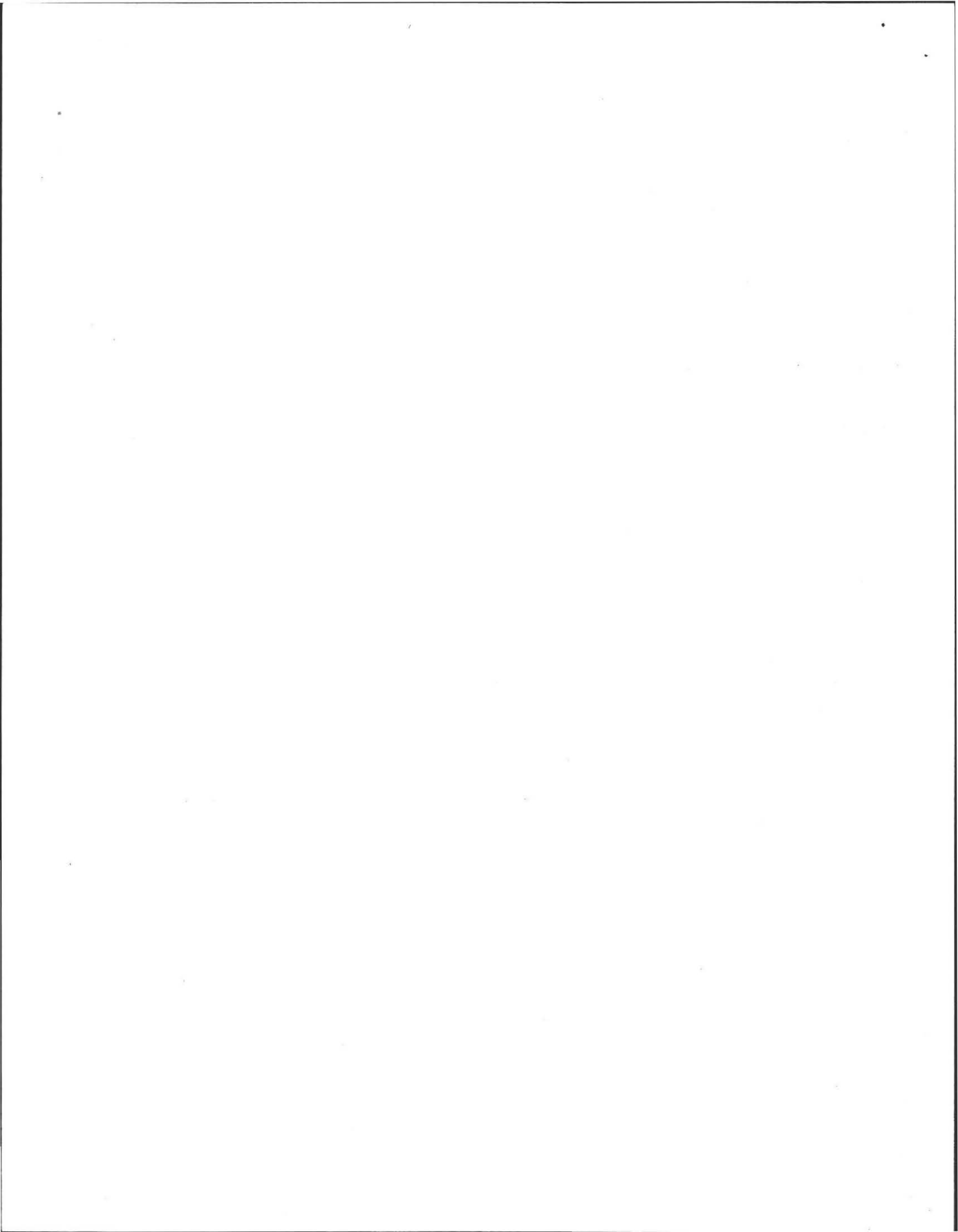




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B. Application Checklist (cont.)

e) Leaching Facility (310 CMR 15.240)		Approved	N/A	Problem
No frozen material used including back fill	Visual	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No clay, tailings or stones larger than 6" for cover material		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil at bottom/sides of excavation matches info on deep holes		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All impervious layers removed	Visual	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <i>(WHERE)</i>
No remaining A/B horizons	Visual	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater conditions match plan and deep holes	Visual/check plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vented if under impervious cover per plan (15.241)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vent is protected from precipitation and animal entry		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cover of a minimum of 9" over leach area		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pipe slope equal to 0.005	Check w/transit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leach area per design (15.241)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Excavation is level and at required depth	Visual/check plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> ?
Removal of 5 ft material and replacement (if in fill)	Visual/check plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Back fill material is acceptable	Visual	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Final contours correct per plan	Check with plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface/subsurface drainage away from leach area		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Final grade and side slopes are stable		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Distribution lines are capped, vented, or connected together		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> - NOT FINISHED BUT CLOSE
Impermeable barrier (15.255[2])		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Retaining wall inspected by PE		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retaining wall is water-proofed		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retaining wall/barrier is at correct depth/height		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

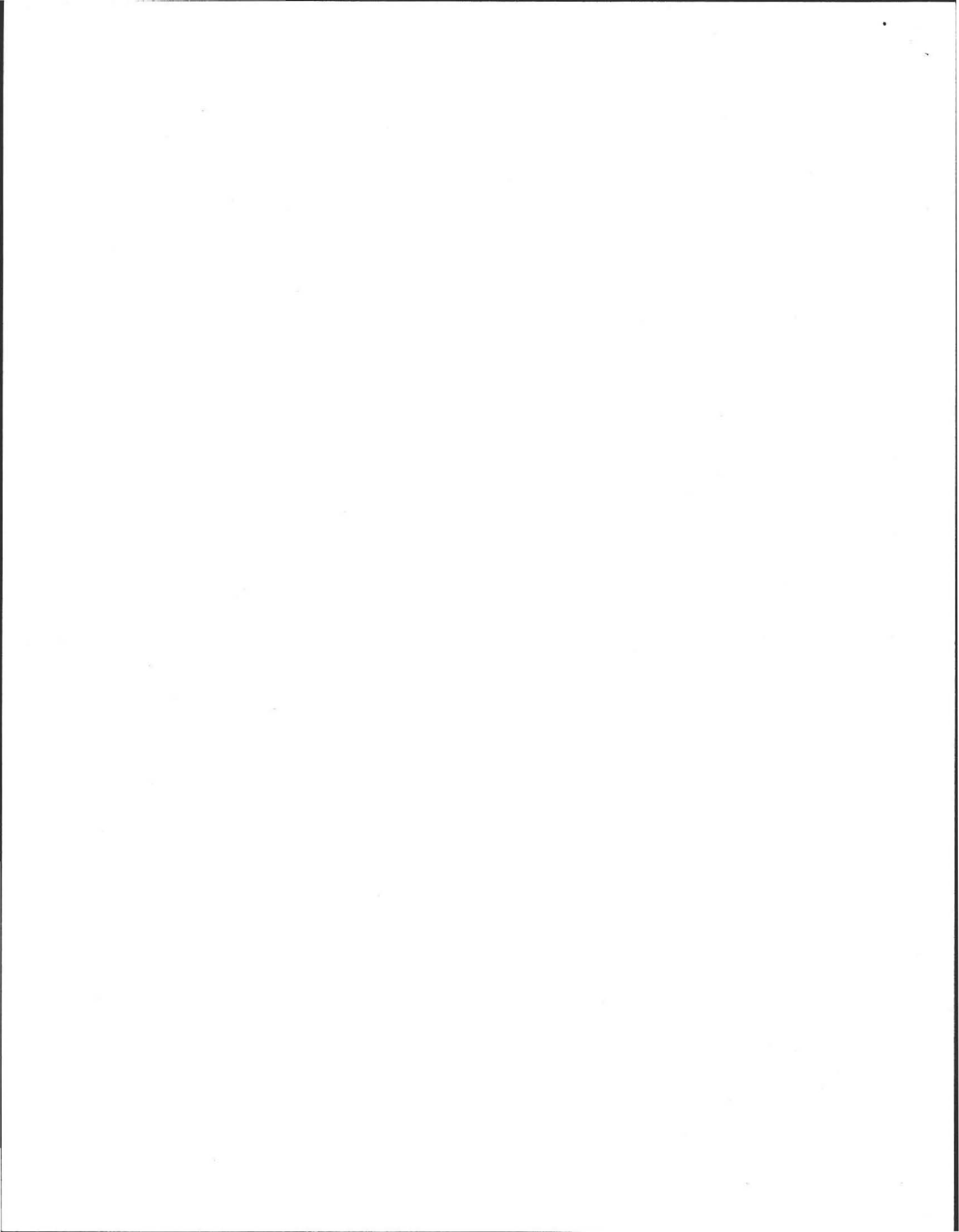




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B. Application Checklist (cont.)

		Approved	N/A	Problem
f) Leaching trenches (310 CMR 15.251)				
Number of trenches:	<u>2</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Depth of trenches:	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Width of trenches:	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trench spacing per plan		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stone is double-washed [3/4" to 1 1/2"] (15.247)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Leaching fields (310 CMR 15.242)				
Length of field:	<u>43'</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Width of field:	<u>14'</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Min. of 2 distribution lines	<u>2</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Separation distance conforms to plan		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stone is double-washed [3/4" to 1 1/2"] (15.247)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Leaching Pits (310 CMR 15.253)				
Number of pits:	_____	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Depth of pits:	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stone is double-washed [3/4" to 1 1/2"] (15.247)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Each pit has min. 1 20" access cover		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Piping network and configuration of pits/chambers per plan		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Tight Tank (310 CMR 15.260)				
Tank is set level with 6" stone under	Visual and with level	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tank is proper size per plan	Visual with plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pumping contract has been provided		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Covers to grade	Visual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A/V alarm set at 3/5 tank capacity	Check floats by raising	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A/V alarm test on separate circuit	Set off alarm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





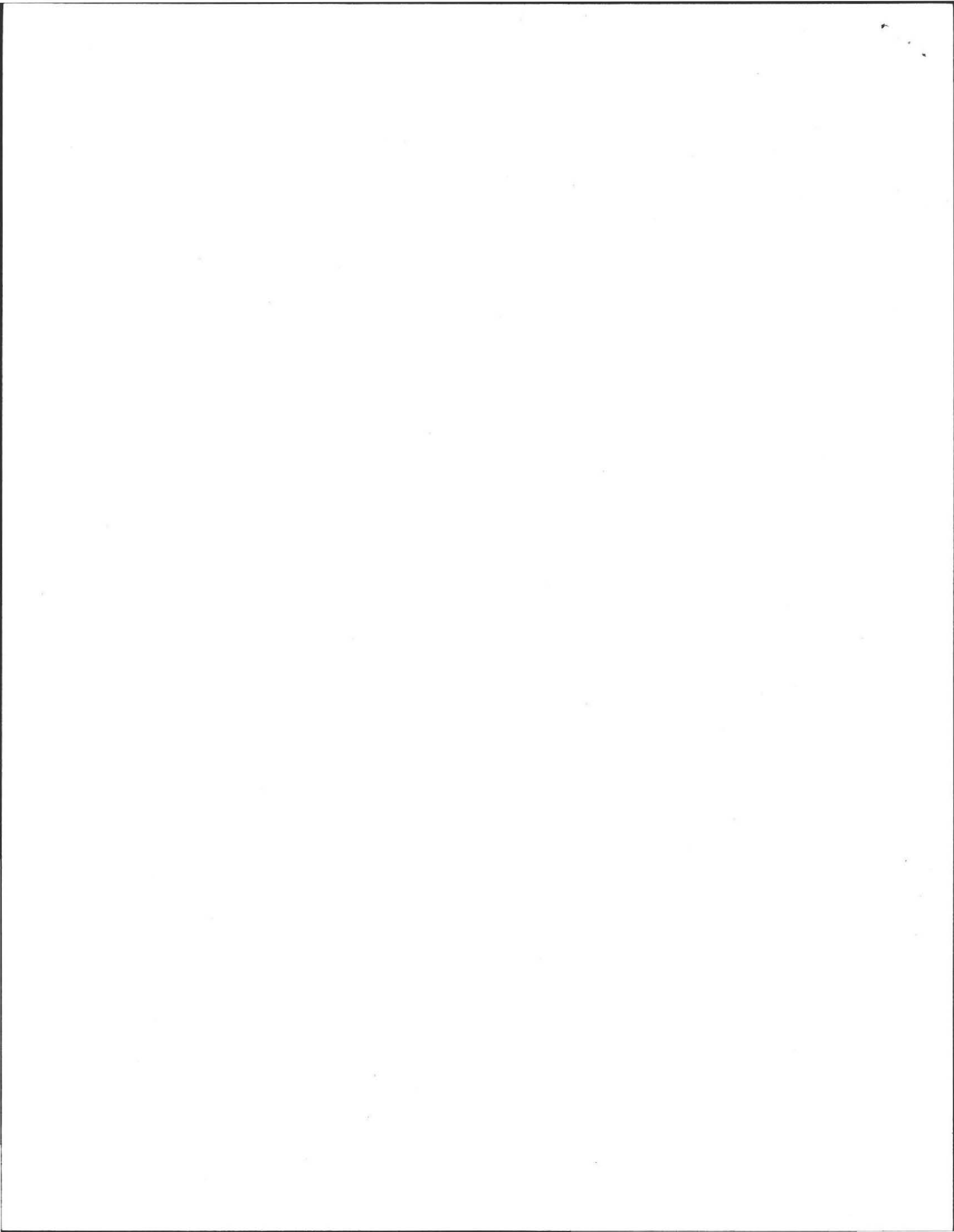
Commonwealth of Massachusetts
 City/Town of
Septic System Installation Checklist

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:



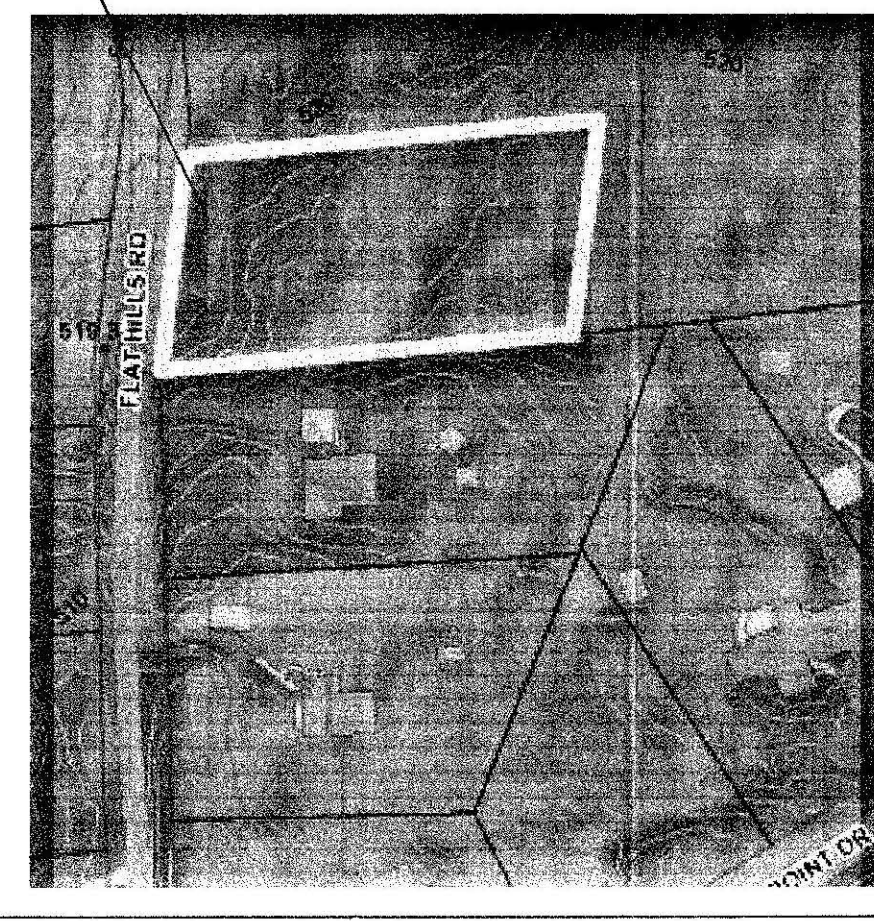
GRAVITY SLOPE SEPTIC SYSTEM OPERATION AND MAINTENANCE NOTES FOR HOMEOWNER:

- 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.
- 5) WIPE ALL OIL AND GREASE FROM COOKWARE AND DISPOSE IN TRASH NOT SEPTIC.
- 6) All Toilets and Faucets must be confirmed to not be leaking, because one leaking fixture can fill a septic system in ONE DAY.

NOTE TO HOMEOWNER: FILL, 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.

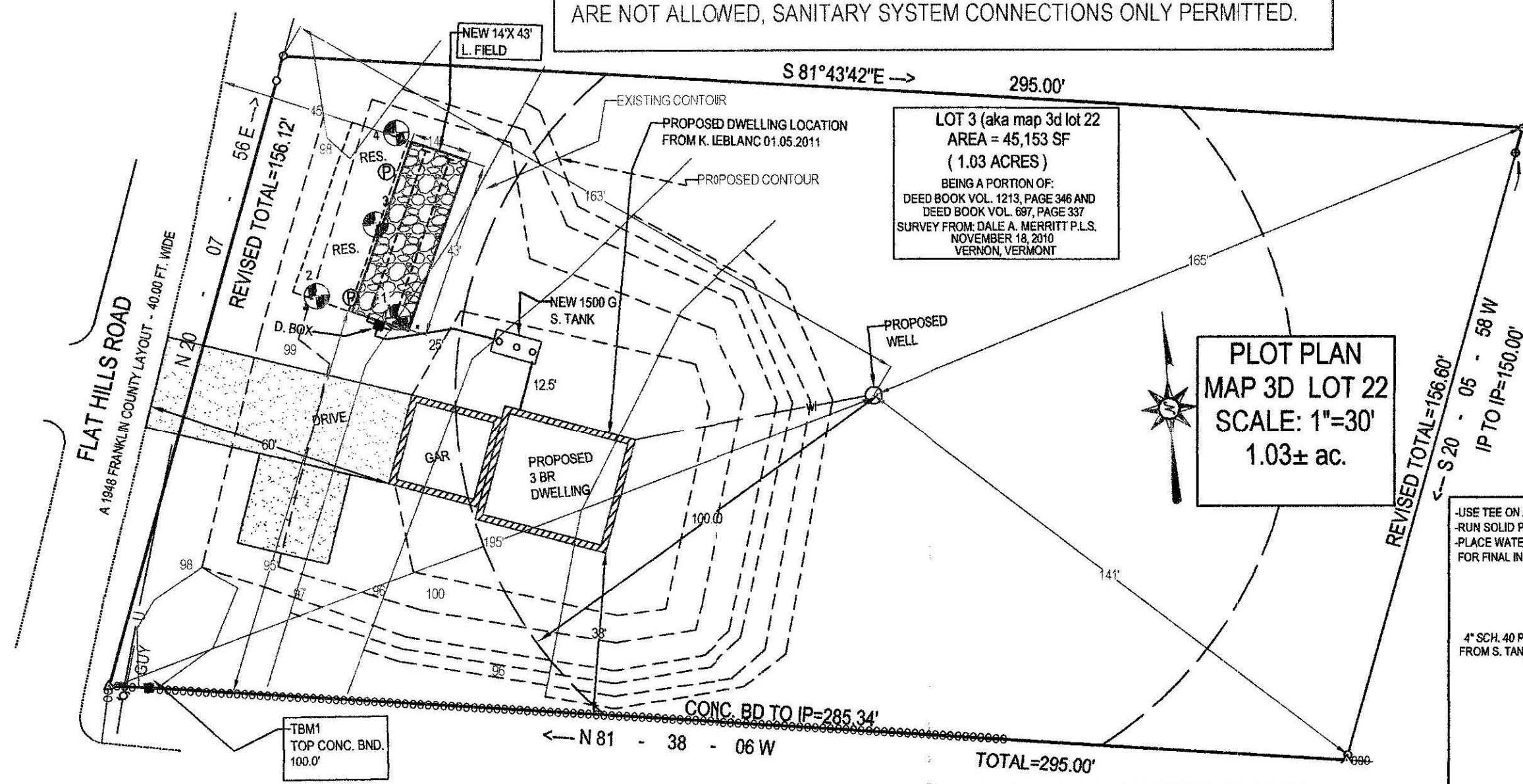
NOTE TO HOMEOWNER AND CONTRACTOR:
 CONNECTIONS FROM HEATING SYSTEM, AIRCONDITIONERS, SUMP PUMPS, WATER WELL FILTRATION UNITS AND HEAT PUMPS ARE NOT ALLOWED, SANITARY SYSTEM CONNECTIONS ONLY PERMITTED.

SUBJECT LOT LOCATION lot 22

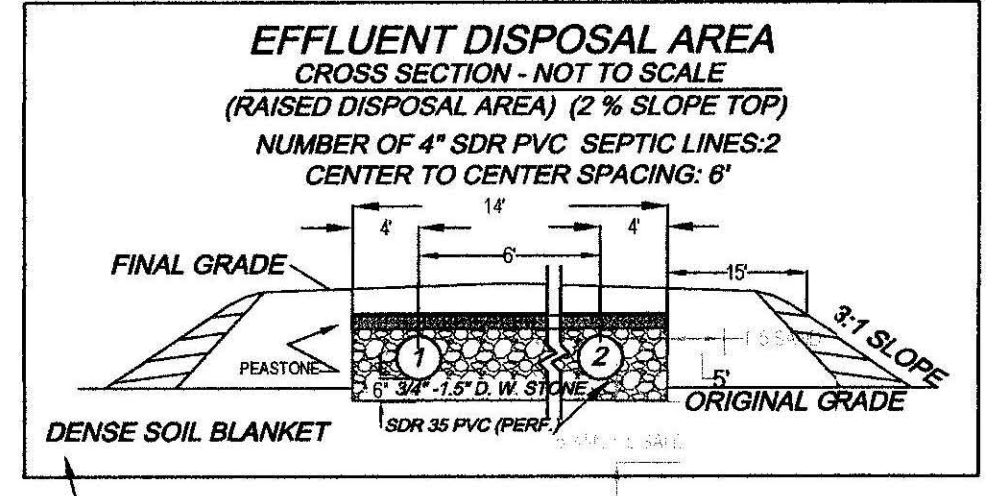
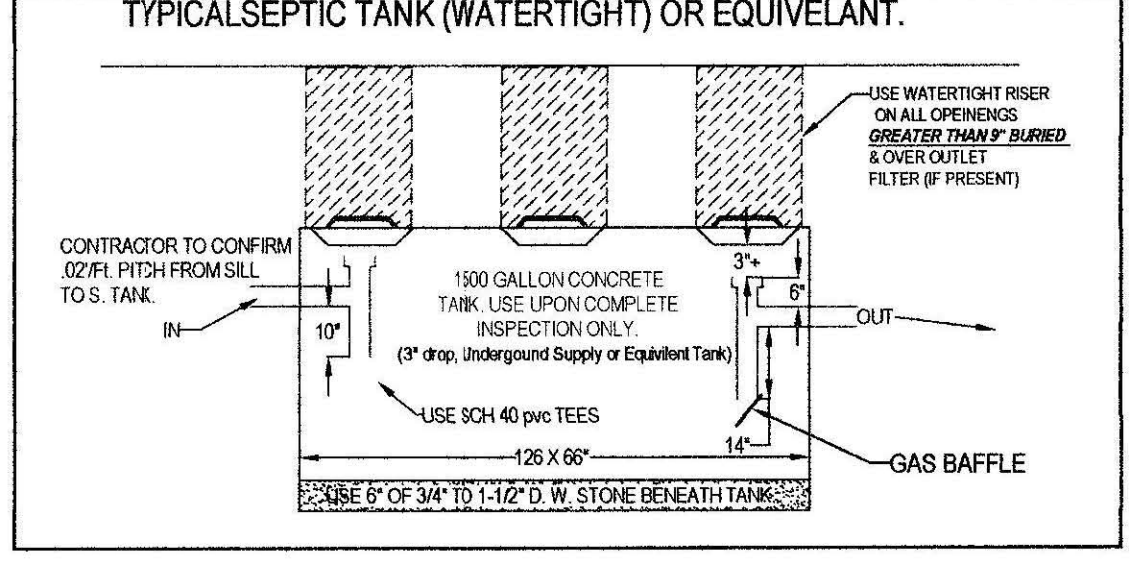
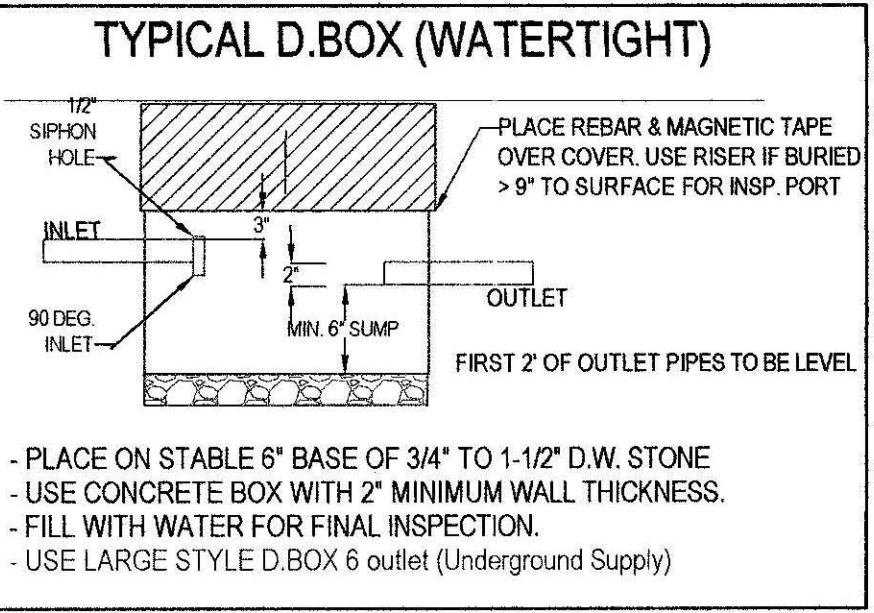
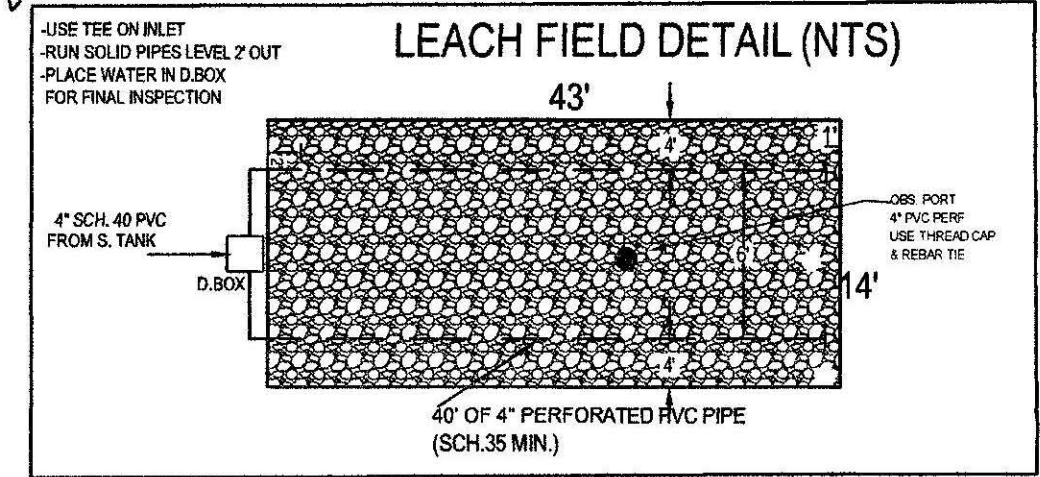


DESIGN NOTES AND CALCULATIONS:
 1.) 3 BEDROOM HOME X 110 GPD /BR = 330 GPD. REQUIRED,

- USE ONE FIELD: 14' WIDE X 43' LONG WITH 6" OF 1/2" 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 = 445.5 GPD
- 3. GARBAGIE DISPOSAL NOT ALLOWED.
- 4. NO OTHER PRIVATE WELLS WITHIN 100 FEET OF SAS.
- 5. NO OTHER WETLANDS WITHIN 100 FEET OF SAS.
- 6. USE NEW 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.
- 7. USE LARGE STYLE (6 OUTLET) D.BOX ONLY.
- 7A 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.
- 8. USE (75"-1 1/2") STONE UNDER TANK & D. BOX FOR 6" FOR STABLE BASE.
- USE ONLY DBL. WASHED APPROVED (75"-1.5") FOR PLACEMENT IN LEACH AREA.
- 9. USE PROPER SCH. 40 PVC TEES AS SHOWN.
- 10. PRE & POST CONTOURS NOTED AS NECESSARY, RESERVE AS NOTED (not required for repairs).
- 11. SLOPE CALCS (SEE CONTOURS). SUBGRADE INSP. REQ'D.
- 13. USE FIELD 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 30" MIN. AS NEEDED (INSPECTION REQUIRED).
- CLEAR IPAST BASE OF B (MIN. 30") & SCARIFY UNDER BED PRIOR TO TITL V SAND/STONE PLACEMENT.
- EXCAVATE EXISTING LOAM, SUB AND ANY EXISTING DEBRIS, DIRTY FILL OR PRIOR SYSTEM IF PRESENT.
- 15. SOIL EVALUATION BY A. WEISS, RS. ON 09.03.2009 (G. COURTEMANCHE, BOH AGENT).
- DEPTH OF PERC. 44 & 44"
- PERC RATE = 3 & 3 MIN / IN.
- CLASS 1(LS) SOIL RATING
- 16. NO TREES WITHIN 10 FT. OF NEW LEACH FIELD.
- 17. ENGINEER & TOWN (IF REQUIRED) TO INSPECT SUBGRADE, TOWN AND ENGINEER INSPECT AT FINAL
- 18. BM=100.00 @ (TOP OF CONC. BOUND as noted), CONFIRM PROPER PIPE SLOPES
- USE INSPECT SCH. 40 PIPE FOR PIPE FROM HOUSE TO NEW OR EXISTING TANK
- 19. GRADE MULCH AND SEED OVER SAS AS NOTED.
- 20. INSTALLATION IN LOW GROUNDWATER SEASON RECOMMENDED.
- 21. 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.

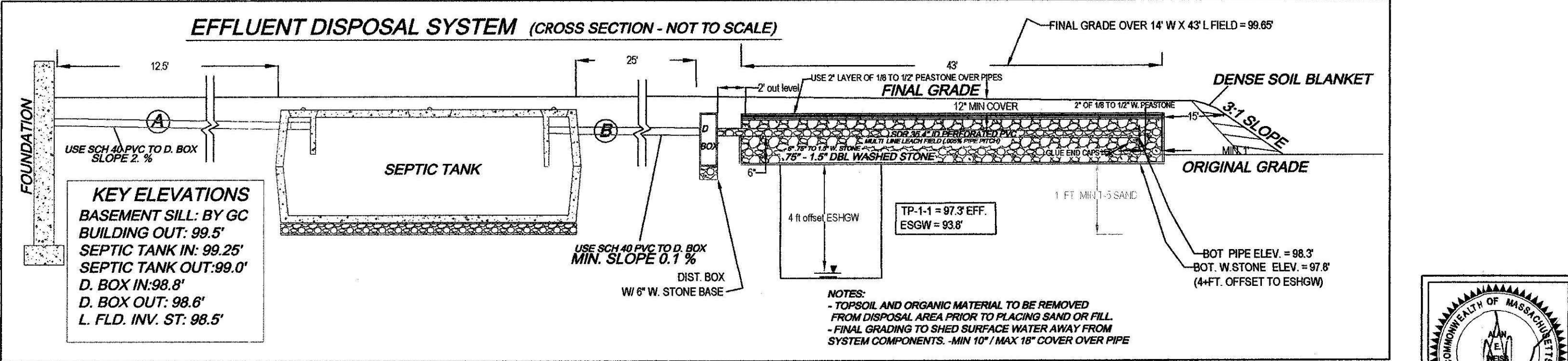


PLOT PLAN MAP 3D LOT 22
 SCALE: 1"=30'
 1.03± ac.



TEST PIT LOG:

TP-1 EFF. ELEV: 97.3' EFF.				TP-2 EFF. ELEV: 97.3'			
DEPTH	HORIZ.	TEXTURE	MATERIAL	DEPTH	HORIZ.	TEXTURE	MATERIAL
0-10"	A	FSL	10 YR 3.3 FRIABLE, LOOSE	0-10"	A	FSL	10 YR 3.3 FRIABLE, LOOSE
10-26"	Bw	LS	10 YR 6.6 FRIABLE, MED. SAND	10-26"	Bw	LS	10 YR 6.6 FRIABLE, MED. SAND
26-108"	C1	LS	10 YR 4.3 F-MED. SND ABL. TILL GRANULAR, LOOSE 15% GRAV. & BOULDERS	26-120"	C1	LS	10 YR 4.3 F-MED. SND ABL. TILL GRANULAR, LOOSE 15% GRAV. & BOULDERS
OXIDES: 42"				OXIDES: 42"			
EHWT: 42"				EHWT: 42"			
STANDING H2O: NOT OBSERVED				STANDING H2O: NOT OBSERVED			
WEEPING: NOT OBSERVED				WEEPING: NOT OBSERVED			
BEDROCK: 108"+				BEDROCK: 108"+			



TEST PIT LOG:

TP-3 EFF. ELEV: 97.3' EFF.				TP-4 EFF. ELEV: 97.3'			
DEPTH	HORIZ.	TEXTURE	MATERIAL	DEPTH	HORIZ.	TEXTURE	MATERIAL
0-10"	A	FSL	10 YR 3.3 FRIABLE, LOOSE	0-12"	A	FSL	10 YR 3.3 FRIABLE, LOOSE
10-24"	Bw	LS	10 YR 6.6 FRIABLE, MED. SAND	12-24"	Bw	LS	10 YR 4.5 FRIABLE, MED. SAND
24-108"	C1	LS	10 YR 4.3 F-MED. SND ABL. TILL GRANULAR, LOOSE 15% GRAV. & BOULDERS	24-104"	C1	LS	10 YR 4.3 F-MED. SND ABL. TILL GRANULAR, LOOSE 15% GRAV. & BOULDERS
OXIDES: 42"				OXIDES: 42"			
EHWT: 42"				EHWT: 42"			
STANDING H2O: NOT OBSERVED				STANDING H2O: NOT OBSERVED			
WEEPING: NOT OBSERVED				WEEPING: NOT OBSERVED			
BEDROCK: 120"+				BEDROCK: 120"+			

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 PLAN FOR KEN LEBLANC
 MAP 3D LOT 22, FLAT HILLS ROAD
 AMHERST, MA

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

PHONE: (413) 321-5957
 FAX: (413) 323-4916
 e-Mail: AEW@CS@charter.net

DATE: 01.06.2011
 SCALE: 1"=30'

DRAWN BY: AEW
 CHECKED BY: AEW

REVISED:
 DRAWING NUMBER: 110-3512-1220

Town of



AMHERST

Massachusetts

AMHERST HEALTH DEPARTMENT, 70 BOLTWOOD WALK, AMHERST, MA 01002
(413) 259-3077 (413) 259-2404 - FAX Environmental Health Division (413) 259-3078

February 14, 2011

RE: Request for permit to install a Drinking Well for a new residence at lot 22 Flat Hills Road

Dear Amherst Board of Health:

I have reviewed the plan for installation of a drinking well at Lot 22 Flat Hills Road, currently owned by Kenneth Leblanc. In my opinion the proposed well plan design meets the requirements of the Amherst Board of Health Regulations for Private Wells as adopted on October 30, 2008.

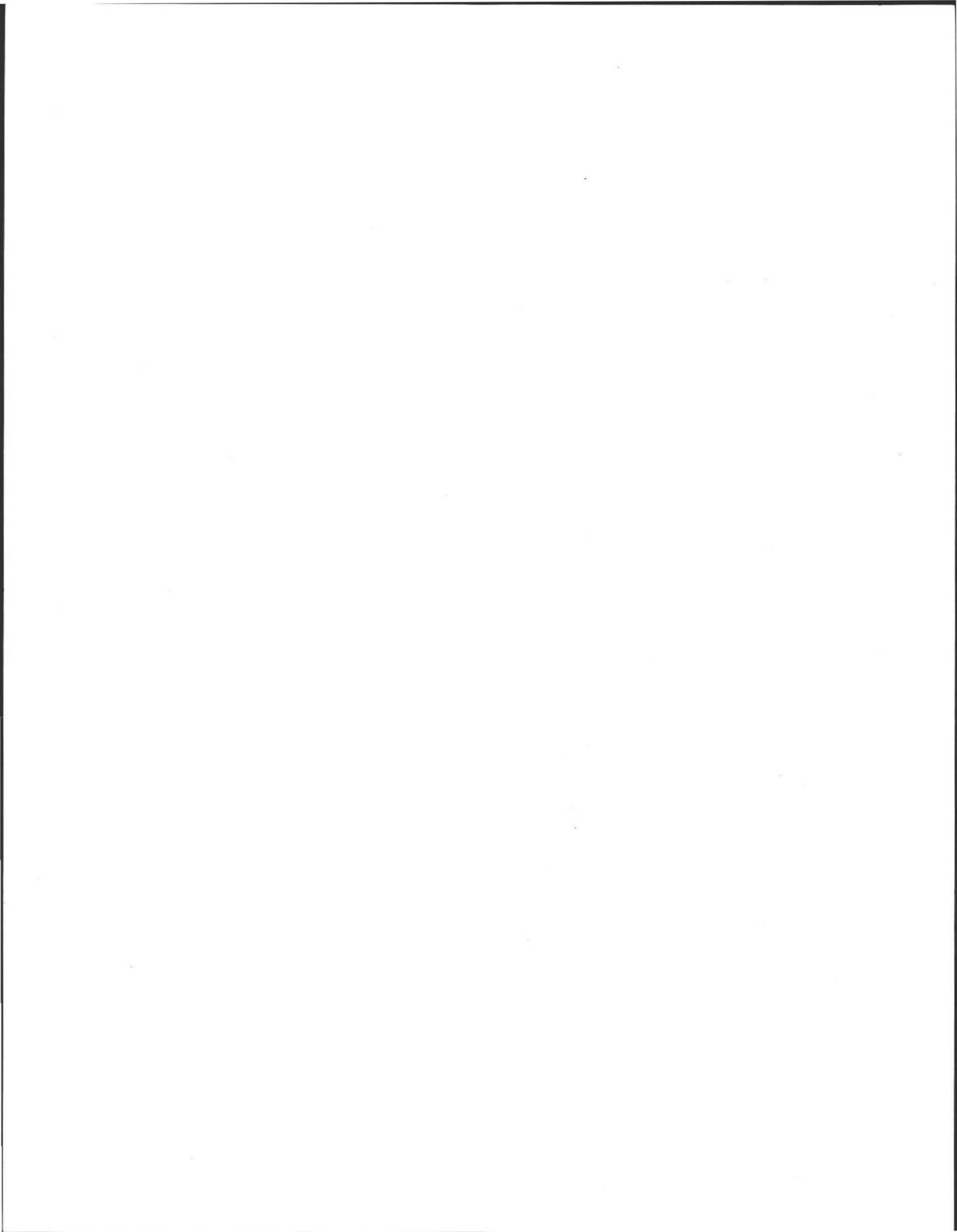
This property is undeveloped at this time. A septic system design has been approved by this office for this location. I was present during the perc test conducted on 12/03/2009.

Mr. Alan Weiss of Cold Spring Environmental Consultants will attend the 02/22/2011 Board of Health meeting to discuss and review the drinking well site in relation to the new septic design, as well as answer any questions you may have.

Respectfully submitted

Gary Courtemanche
Assistant Sanitarian

MAKE SMOKING HISTORY





**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

February 9, 2011

**Mr. Gary Courtemanche, Health Inspector
Amherst Board of Health
Bangs Center
Amherst, MA 01002**

RE: Request for New Private well at for new Residence at Lot 22 Flat Hills Road,

Dear Mr. Courtemanche,

In accordance with your Regulations for Private wells Please note the following.

1. A plan detailing the location of the proposed well is attached.
2. All potential sources of contamination (septics, underground tanks are noted within 200 feet.
3. The current land uses include residential and agricultural past and present.
4. Notification of all abutters within 150 by Certified Return Receipt Mail is completed concurrently.

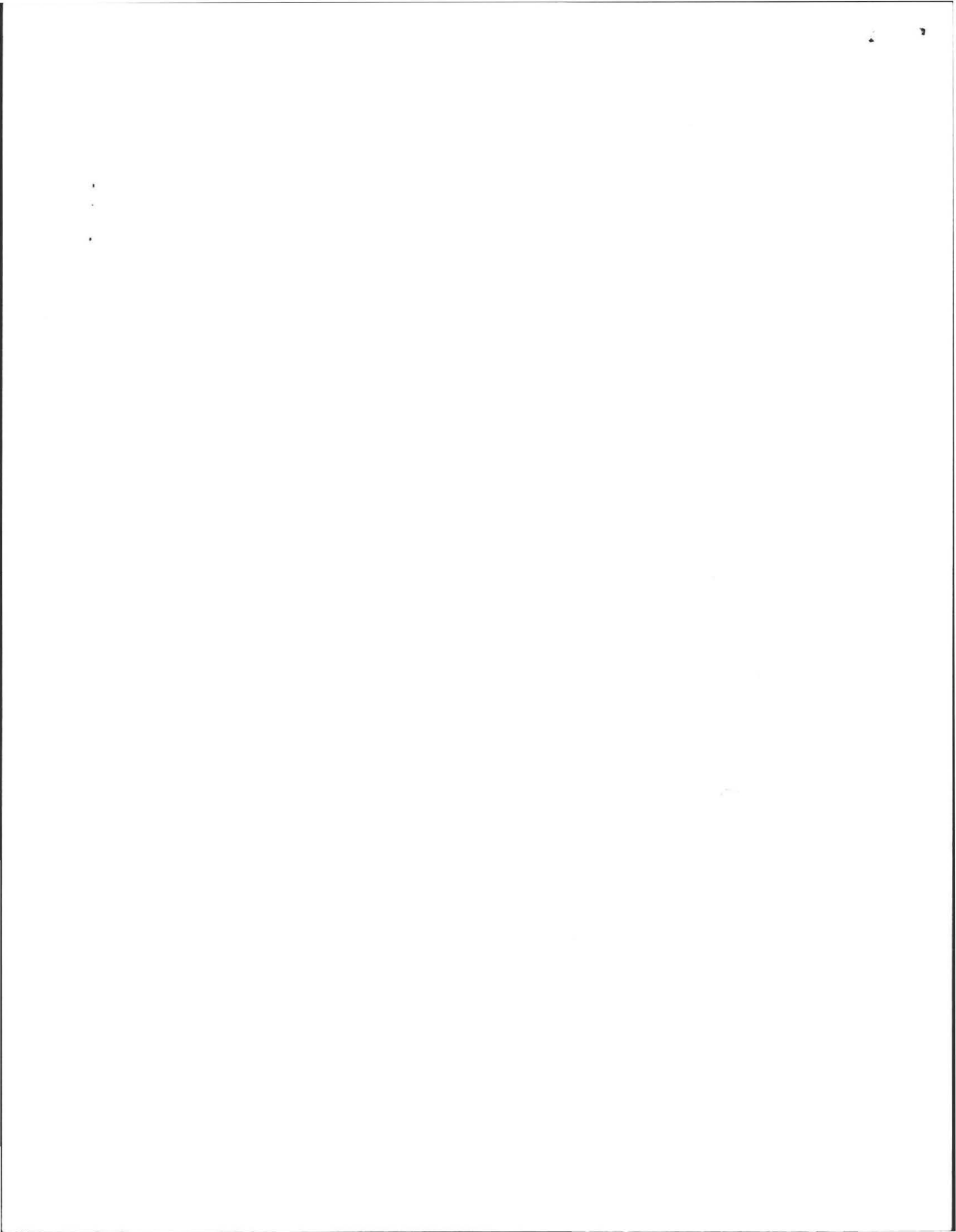
Feel free to contact me with any questions.

**Alan Weiss, RS
Principal Hydrogeologist**

Cold Spring Environmental, Inc

Cc: Applicant, C/O Ken Leblanc

8257



Town of



AMHERST

Massachusetts

AMHERST HEALTH DEPARTMENT, 70 BOLTWOOD WALK, AMHERST, MA 01002
(413) 259-3077 (413) 259-2404 - FAX Environmental Health Division (413) 259-3078

APPLICATION FOR A WELL CONTRUCTION PERMIT

I hereby petition the Board of Health of the Town of Amherst for a Well Construction Permit (WCP) to install a private well in the Town of Amherst.

ATTACHED IS A PLAN SHOWING THE PROPOSED LOCATION OF THE WELL (WITH ORIGINAL DATE, STAMP AND SIGNATURE OF AN ENGINEER REGISTERED SANITARIAN, OR REGISTERED LAND SURVEYOR) MEETING ALL THE REQUIREMENTS OF AMHERST RULES AND REGULATIONS FOR PRIVATE WELLS.

1. Address of Property: Map 3D, Lot 22, Flat Hills Rd.
2. Assessor of Parcel Number: Map 3D / Lot 22
3. Name of Owner: Ken Leblanc Telephone Number: _____
Address of Owner: P.O.B. 307 S. Hadley Rd.
- ✓ 4. Name of Well Driller: Cushman + Sons 01075
(Must be registered with Massachusetts Water Resources Commission)
5. Purpose of Well: *Drinking (X) Agricultural Only ()

The undersigned acknowledges that he must, before commencing construction or use of the system which is the matter of this application, secure any and all other permits which may be required by the laws of the Town of Amherst and the Commonwealth of Massachusetts, and agree to abide by all regulations of the Town of Amherst and the Commonwealth of Massachusetts concerning private wells.

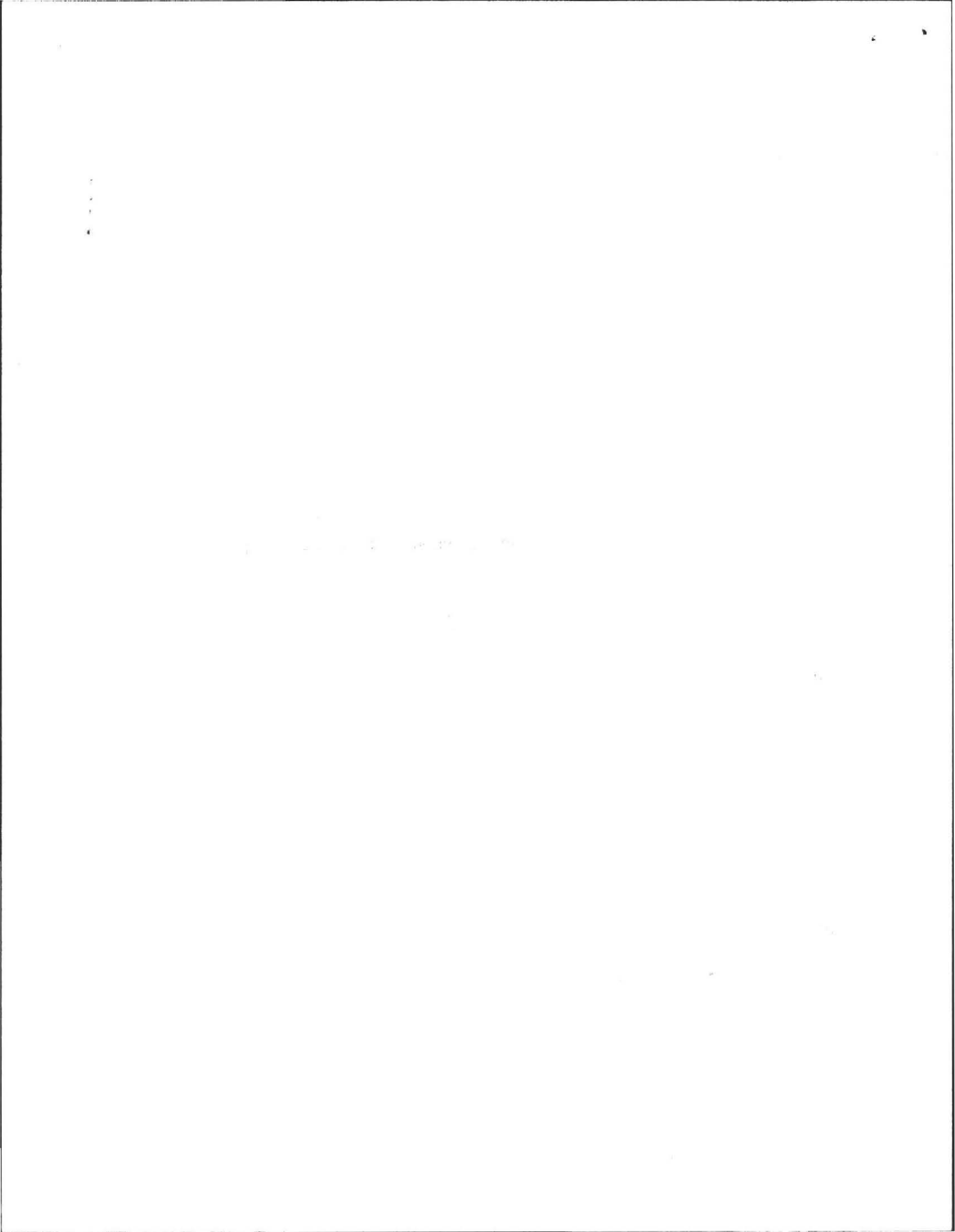
- The undersigned also understands that if a private well is to be used for drinking purposes, a **BUILDING PERMIT** affecting the structure the well is to serves **WILL NOT BE ISSUED UNTIL A Water Supply Certificate** has been granted by the Amherst Board of Health.

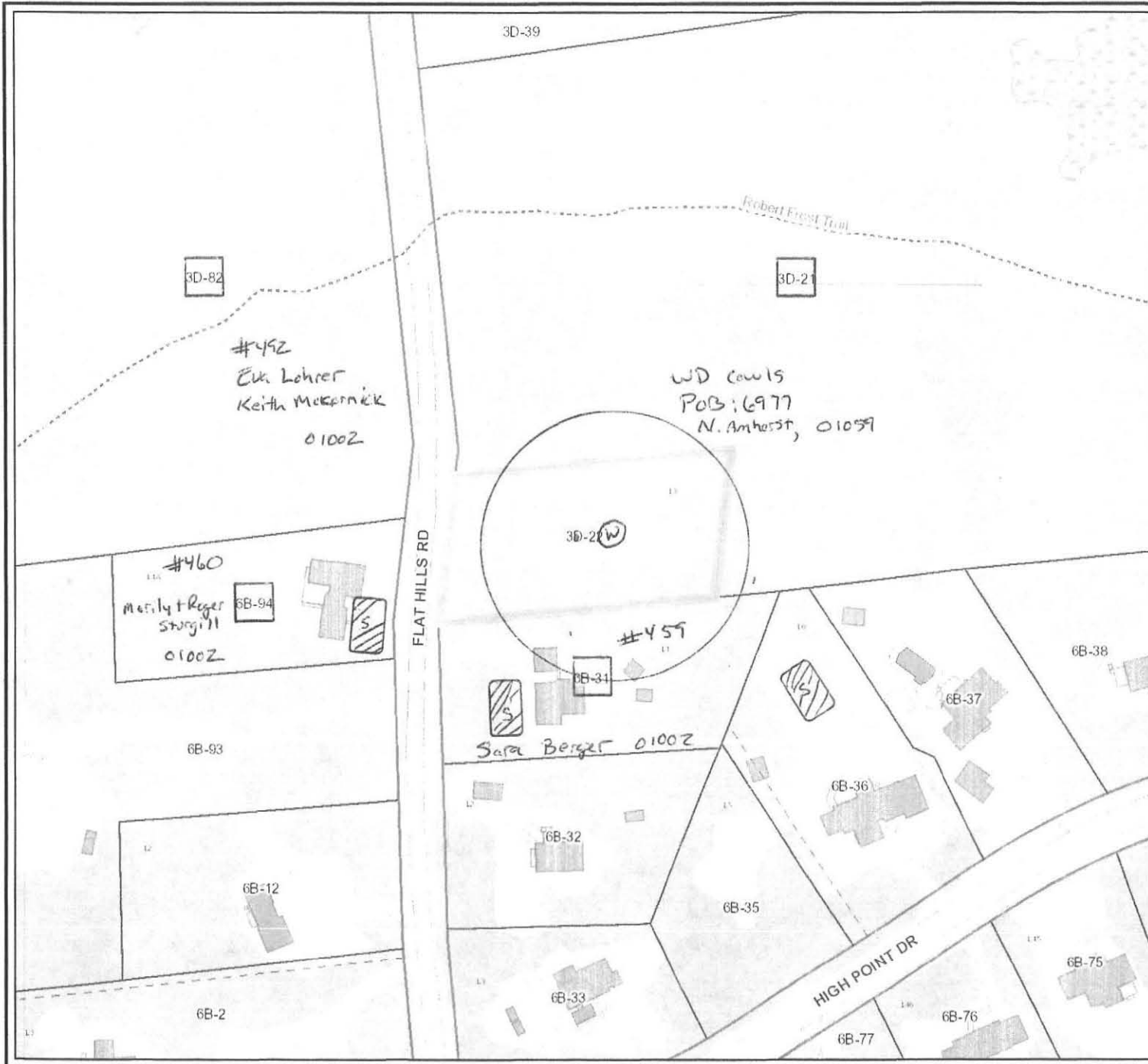
✓ Name of Applicant: Ken Leblanc Fee: \$100.00 ✓

✓ Signature: Kenneth C Leblanc Date: 2-10-11

WELL PERMIT # 11-06

IMPORTANT NOTE: Please provide a written description of visible prior and current land uses within 200 feet of the proposed well location which represent a potential source of contamination. Also, provide the proof that the owner of the property within 150 ft of the proposed well and all property abutters have been notified by certified mail, return receipt requested, of the applicant's intention to install a well.





- | | |
|---------------------------|------------------------|
| Property Map | Sidewalks |
| Property Lines | Transportation |
| Hydrographic Property | Paved street polygons |
| Right of Way Line | Unpaved street polyg |
| Town Boundary | Bridges |
| Other Property Lines | Bridge decking and str |
| Former Property Line | Foot Bridge |
| Subdivision Lot Line | Rail Bridge |
| Easements | |
| Basemap | |
| Trails | |
| Rail Lines | |
| Structures | |
| Building | |
| Foundation or in const | |
| Outbuilding or Miscell | |
| Deck, Porch, Stairs or | |
| Mobile home, Trailer | |
| Swimming Pool | |
| Building Ruins | |
| Water storage tank | |
| Rivers and Streams | |
| Streams | |
| Major Culverts | |
| Hydro Connector | |
| Headwalls, Floodwalls | |
| Landcover | |
| Bruah and scrub vege | |
| Tree and forest vege | |
| Cultivated field | |
| Gravel pile | |
| Quarry | |
| Misc Impervious Surfe | |
| Parking | |
| Parking Paved | |
| Parking Unpaved | |
| Driveways | |
| Driveway Paved | |
| Driveway Unpaved | |

Horizontal Datum: MA Stateplane Coordinate System, Zone 4151, Datum NAD83, Feet
 Vertical Datum: NAVD88, Feet

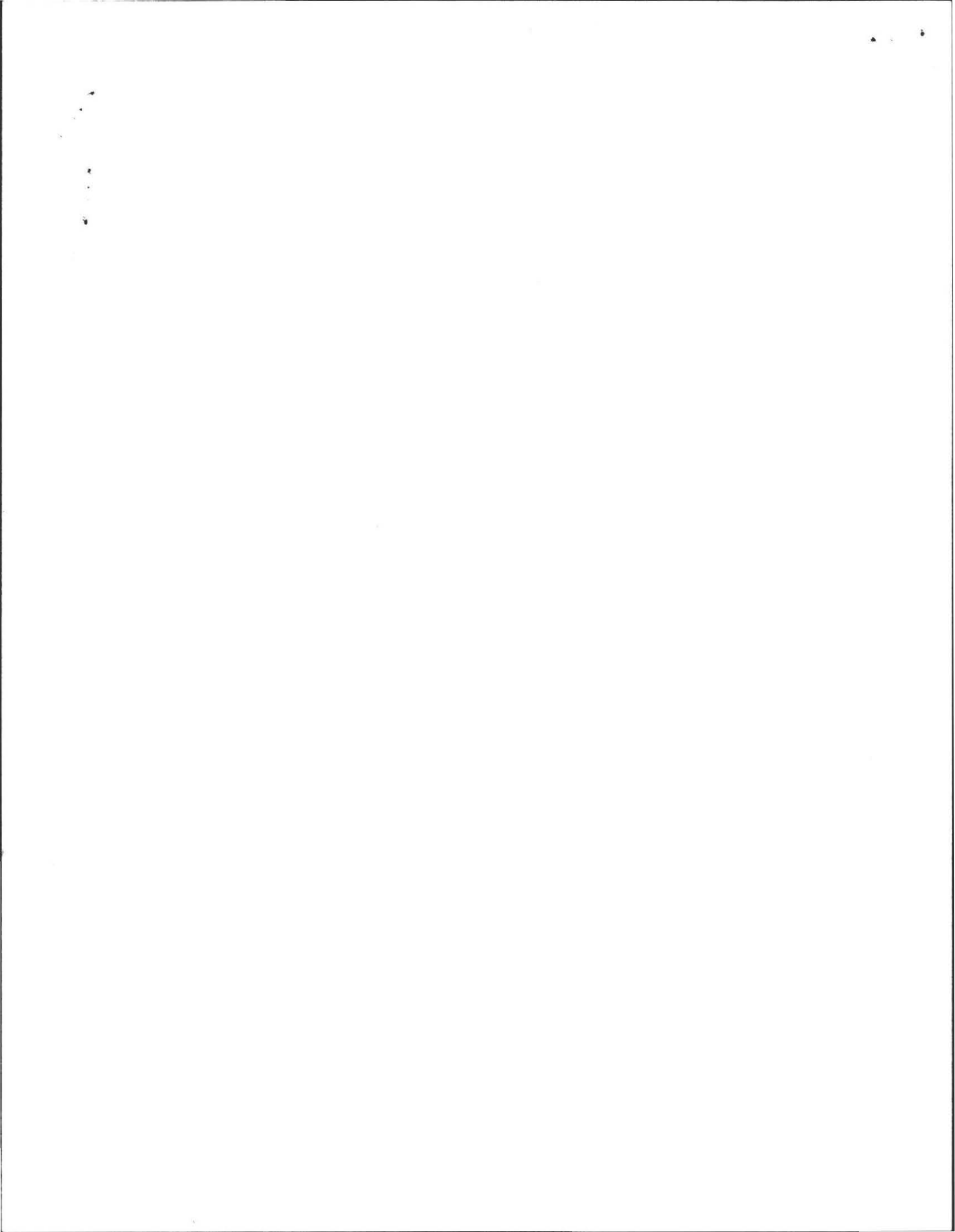
Planimetric & topographic basemap features compiled at 1"=40' scale from April, 2009 Aerial Photography. Parcels compiled to match the basemap; revisions are ongoing.

The information depicted on this map is for planning purposes only. It may not be adequate for legal boundary definition, regulatory interpretation, or property conveyance purposes. Utility structures and underground utility locations are approximate and require field verification.

THE TOWN OF AMHERST MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY, OR SUITABILITY OF THESE DATA. THE TOWN OF AMHERST DOES NOT ASSUME ANY LIABILITY ASSOCIATED WITH THE USE OR MISUSE OF THIS INFORMATION.

1" = 150 ft





Well Completion Report Codes

Section 2

Work Performed	Work Performed Code
Decommission	DC
Deepen	DP
Hydrofracture	HF
New Well	NW
Repair	RP
Replacement	RE

Section 3

Well Type	Well Type Code
Cathodic Protection	CTPR
Domestic	DMST
Geoconstruction	GCON
Geothermal Closed Loop	GTCL
Geothermal Open Loop	GTOL
Industrial	INDS
Injection	INJC
Irrigation	IRRG
Monitoring	MONT
Public Water Supply	PBWS
Recovery	RCVR
Test Wells	TSTW

Section 4

Drilling Method	Drilling Method Code
Air Hammer	AH
Air Rotary	AR
Auger	AG
Cable Tool	CT
Casing Advancement	CA
Core	CR
Direct Push	DP
Drive and Wash	DW
Dug	DG
Mud Rotary	MR
Reverse Rotary	RR
Sonic	SN

Section 5

Overburden Lithology Name	Overburden (OB) Code	Overburden Color	Overburden Color Code	Bedrock Name	Bedrock (BR Code)
Artificial Fill	AF	Black	BL	Amphibolite	AM
Boulders	B	Bluish Gray	BG	Basalt	BS
Clay	CL	Brown	BR	Conglomerate/Breccia	CG/BR
Coarse Sand	CS	Dark Gray	DG	Diorite	DI
Cobbles	C	Greenish Gray	GG	Gabbro	GB
Fine Sand	FS	Light Gray	LG	Gneiss	GN
Fine to Coarse Sand	FCS	Reddish Brown	RB	Granite	GR
Gravel	G	Yellowish Brown	YB	Limestone	LS
Medium Sand	MS			Marble	MA
Organics	O			Quartzite	QZ
Sand & Gravel	SG			Rhyolite	RH
Silt	SI			Sandstone	SS
Silty Clay	SICL			Schist	SC
Silty Sand	SIS			Shale	SH
Silty Sand & Gravel	SISG			Slate/Phyllite	SL/PH
Till	T			Pegmatite	PM

Section 6

Casing Type	Casing Type Code	Thickness	Thickness (NO CODE)
Certa-Lok	CTL	Schedule 5	
Fiberglass	FBG	Schedule 10	
Galvanized Pipe	GLP	Schedule 40	
HDPE	HDP	Schedule 80	
NSF Coated Steel	NCS	Schedule 160	
PVC	PVC	SDR 13.5	
Stainless Steel	SST	SDR 17	
Steel	STL	SDR 21	
		SDR 26	
		SDR 32.5	
		SDR 40	
		17#	
		19#	

Section 7

Screen Type	Screen Code
Carbon Steel	CST
Continuous Wire PVC	CWP
Galvanized Wire Wrapped	GWV
Perforated Pipe	PPF
Pre-pack PVC	PPP
Pre-pack Stainless	PPS
Slotted PVC	SLP
Stainless Steel Vee Wire	SSV
Stainless Steel Well Point	SSP

Section 8

Annular Seal/Filter Pack/Abandonment Material Code	Purpose	Purpose Code
Bentonite Chips/Pellets	Fill	FL
Bentonite Grout	Filter	FT
Cement/Bentonite Grout	Seal	AS
Concrete		
Sand		
Native Material		

Section 10

Method	Method Code
Air Blow with Drill Stem	AB
Air Lift	AL
Bailing	BL
Constant Rate Pump	CR
Variable Rate Pump	VR
Slug	SG

Section 12

Pump Description	Pump Description Code	Horsepower
3 Wire Variable Speed Submersible	3WVS	1/2 20
2 Wire Variable Speed Submersible	2WVS	3/4 25
2 Wire Constant Speed Submersible	2WSS	1 30
3 Wire Constant Speed Submersible	3WSS	1 1/2 40
Constant Speed Submersible Turbine	CSST	2 50
Variable Speed Submersible Turbine	VSST	3 60
Jet	JET	5 75
Line Shaft Turbine	LST	7 1/2 100
Centrifugal	CENT	10 125
		15 150
		200

Section 13

Surface Seal Type	Well Seal Type Code
Cement	CM
Cement/Bentonite	CB
Concrete	CT
None	NO

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

Map 3D (was part of 3D 121 when Perced)

Location <u>Lot 22, Flat Hills Rd</u>	Owner's Name <u>Ken Leblanc: Hens By Leblanc</u>
Map/Parcel# <u>3D / 22</u>	Address <u>POB. 307, S. Hadley, MA.</u>
Lot#	Telephone# <u>250-8324</u>
Installer's Name <u>Rue Drive Excav.</u>	Designer's Name <u>Alane Weiss</u>
Address <u>Hadley, MA. 01035</u>	Address <u>Belchertown, MA.</u>
Telephone# <u>584-1814</u>	Telephone# <u>413-323-5957</u>

Type of Building Residence (New) Lot Size 1.03 Ac. sq. ft.
 Dwelling - No. of Bedrooms 3 Bedroom Dwellg Garbage grinder No
 Other - Type of Building New Residence No. of persons _____ Showers (), Cafeteria ()
 Other Fixtures _____
 Design Flow (min. required) 110 gpd Calculated design flow 330 Design flow provided 445 gpd
 Plan: Date 1/5/2011 Number of sheets 1 Revision Date _____
 Title New Septic System Design.
 Description of Soil(s) Class 1: LS
 Soil Evaluator Form No. _____ Name of Soil Evaluator A. Weiss Date of Evaluation 12-03-2009

DESCRIPTION OF REPAIRS OR ALTERATIONS Complete New Design / Home + Well.

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 Kenneth C. Leblanc Date 2-10-11

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 150.00

COMMONWEALTH OF MASSACHUSETTS

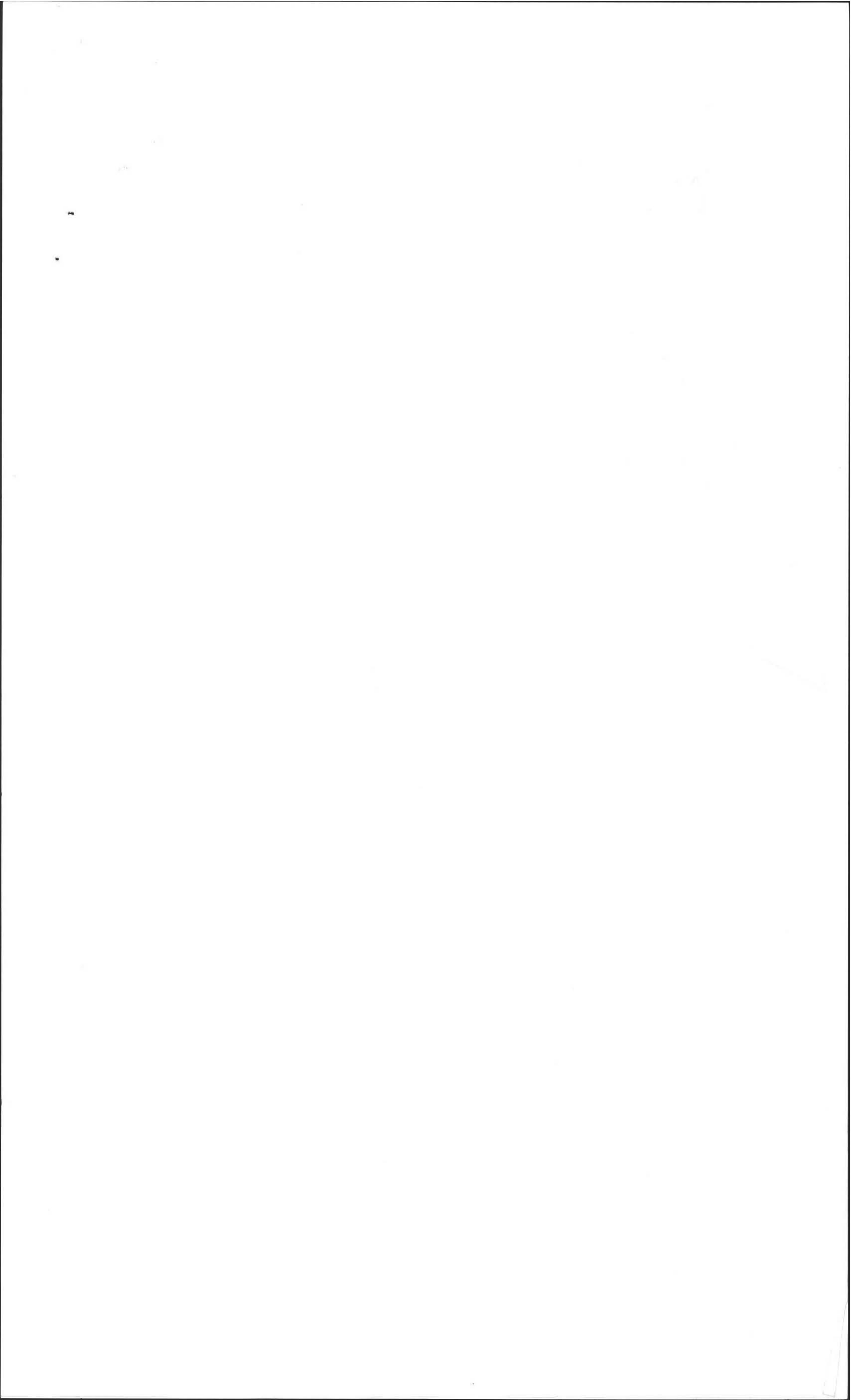
Board of Health, Amherst, MA.

DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct () Repair () Upgrade () Abandon () an individual sewage disposal system at Flat Hills (LOT 3D 21) as described in the application for Disposal System Construction Permit No. _____, dated 2/11/11.

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 2/11/11 Board of Health [Signature]





**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

Percolation Test/MA Soil Evaluation

Prepared by:

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

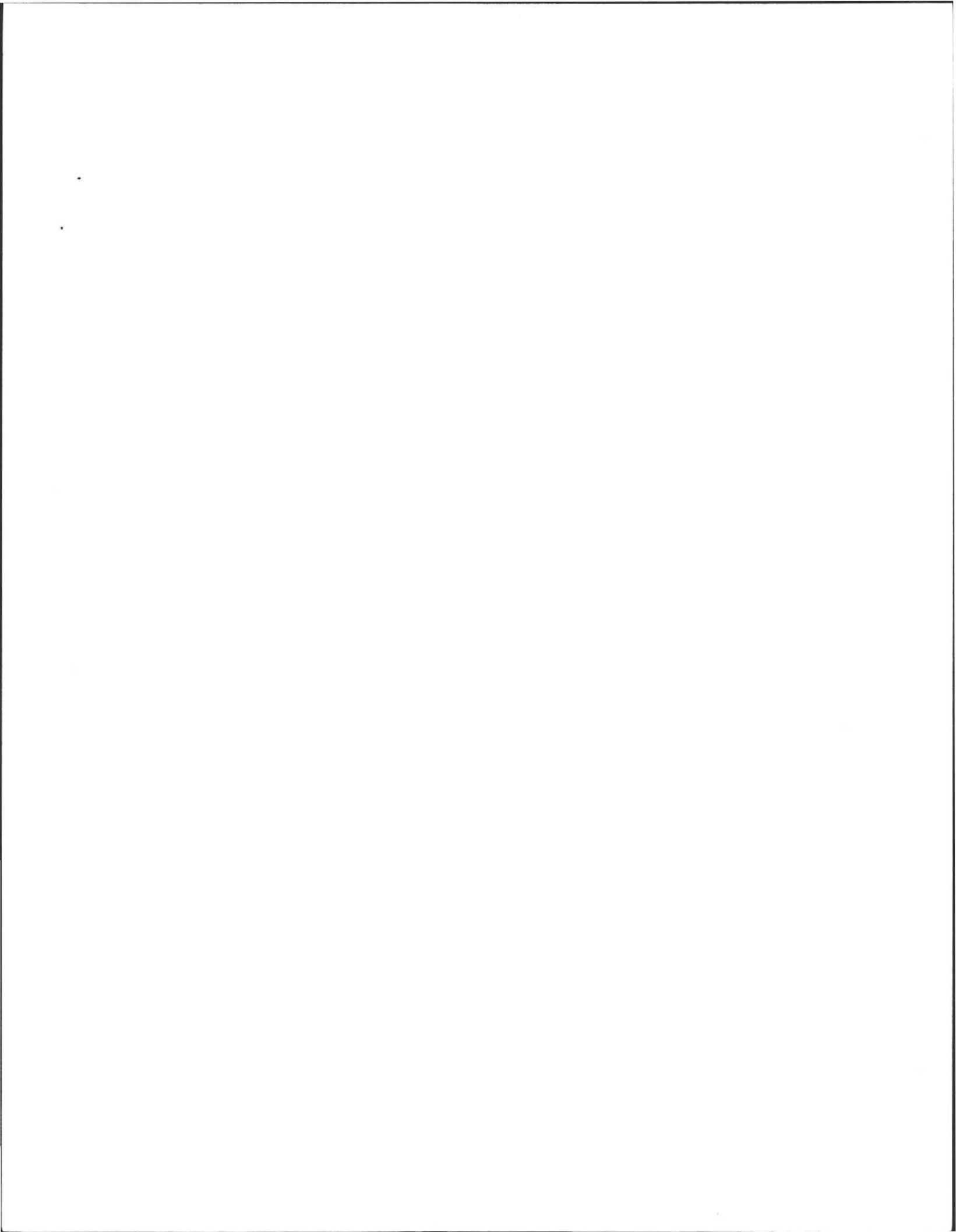
Prepared for:

WD Cows
Cinda Jones, President
WD Cows
POB 9677
N. Amherst, MA. 01059-9677

Project Number: 109-3285-12003

Site: 3 Lots Flat Hills Road
Map 6A lot 91, Map 3D, Lot 39, Map 3D, Lot 21✓
Amherst, Massachusetts

Date: December 3, 2009

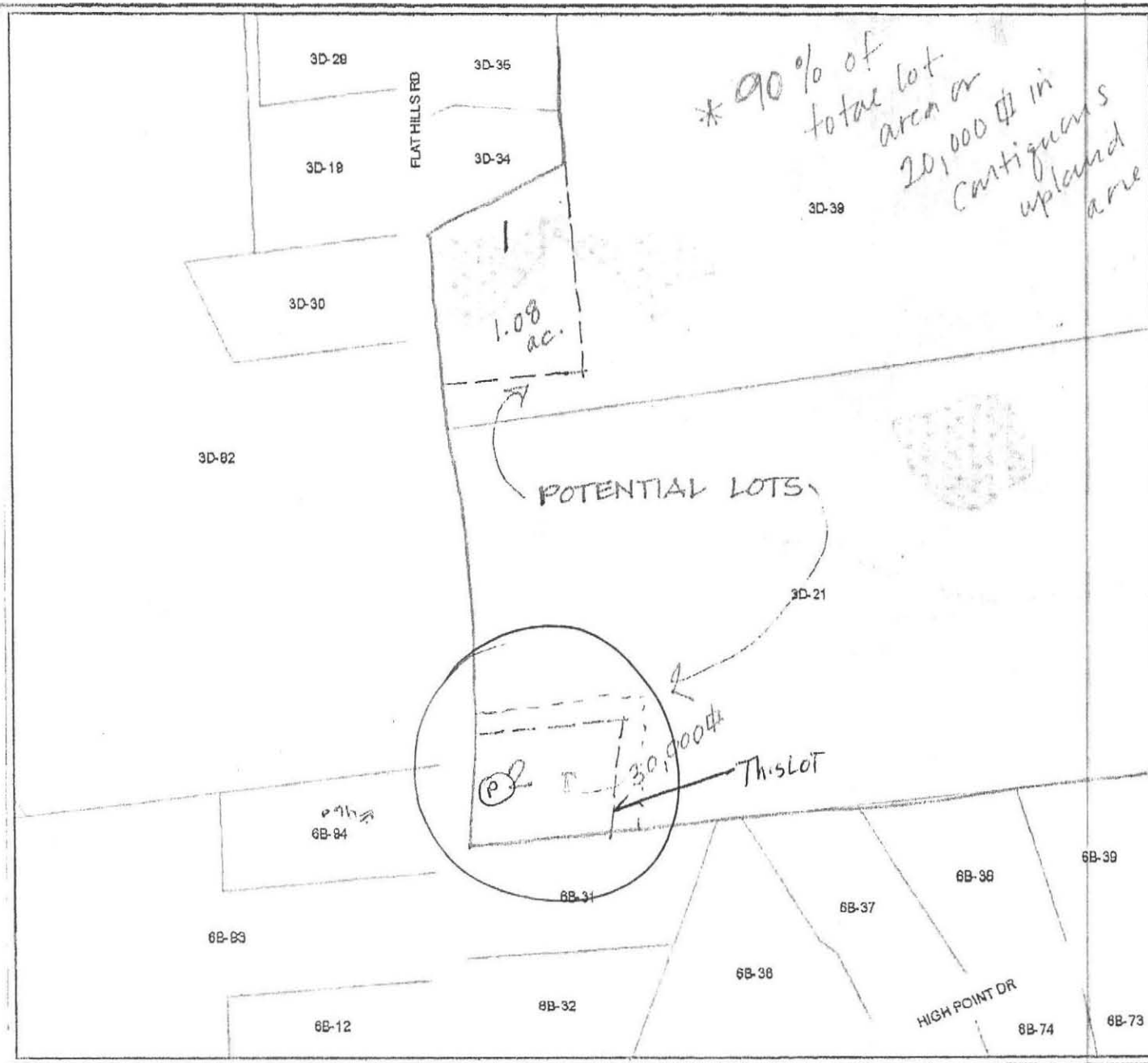


RO District

150' min. Frontage

30,000 sq ft min. Area.

No sewer/in



Flat Hills Johnson-Ruc



- Property Map
- Property Lines
 - Property Line
 - Hydrographic Property
 - Right of Way Lines
 - Town Boundary
 - Historic Property Lines
 - Former Property Line
 - Subdivision Lot Line
 - Easements
- Basemap
- Trees
 - Rail Lines
 - Structures
 - Building
 - Foundation
 - Manhole
 - Plat / Dock
 - Water Tank
 - Sketched Structure
 - Rivers and Streams
 - Streams
 - Headwall, Floodwall
 - Hydro Connector
 - Major Culverts
 - Major Drainage Ditch
 - Transportation
 - Pavement
 - Unpaved Road
 - Tree Cover

Horizontal Datum: MA Stateplane Co Zone 1151, Datum NAD83, Feet

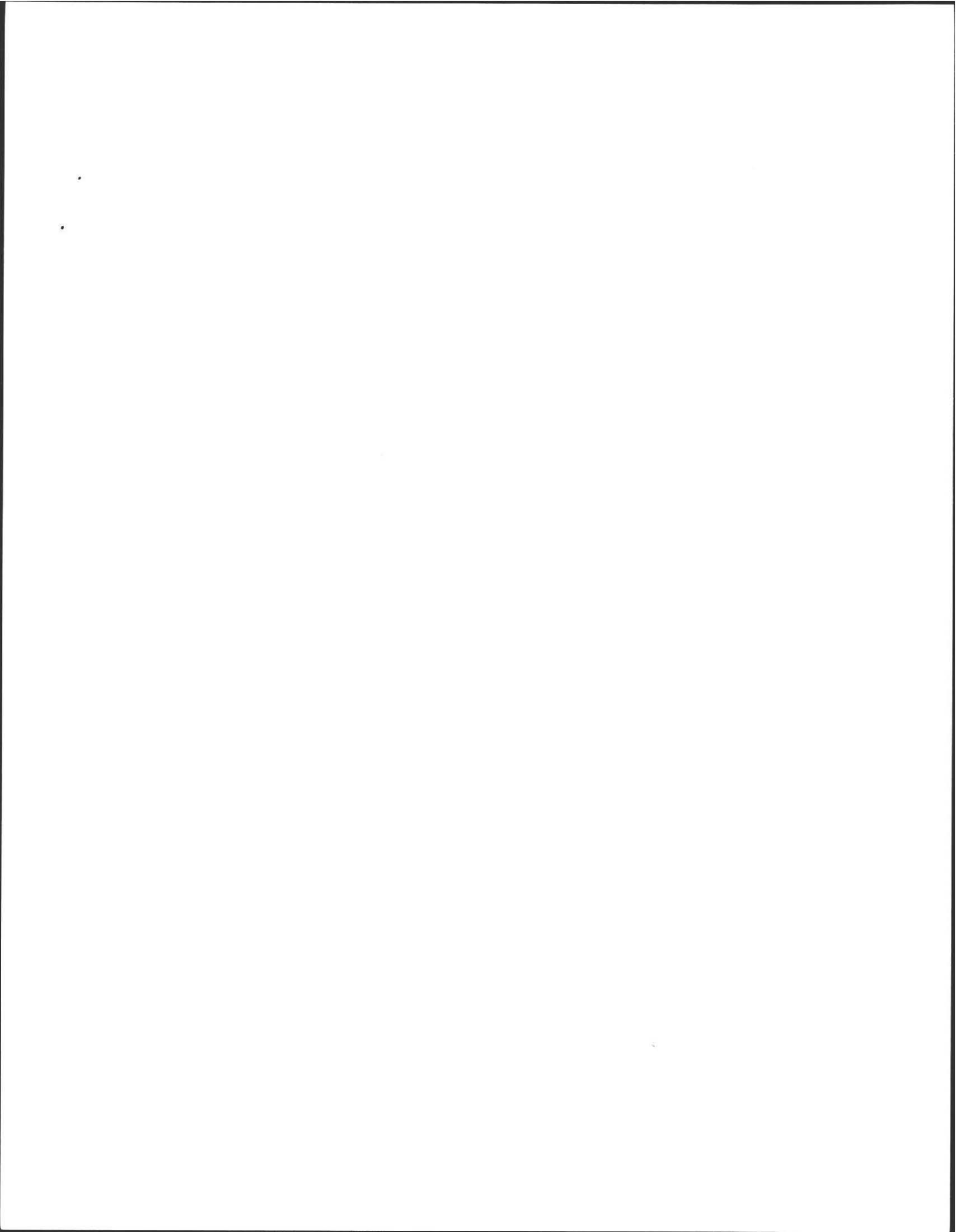
Planimetric basemap features compiled 1"=100' scale from April, 1999 Aerial Aerial Photography; April, 2004. Purpose "best-fit" methodology to match the are ongoing.

The information depicted on this map purposes only. It may not be adequate definition, regulatory interpretation, or conveyance purposes. Utility structure utility locations are approximate and verification.

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1" = 200 ft

Amherst GIS Viewer





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: 12/3/09

Commonwealth of Massachusetts

Amherst, Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: A. Weiss

Date: 12/3/09

Witnessed By: G. Co. Truiche
(access from #40)

Location Address or Lot # Lot #2 Flat Hills Rd Map Sp. 21, Southwest Part	Owner's Name, Address, and Telephone # W D Cools 134 Montague RD. N. Amherst.
New Construction <input checked="" 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)

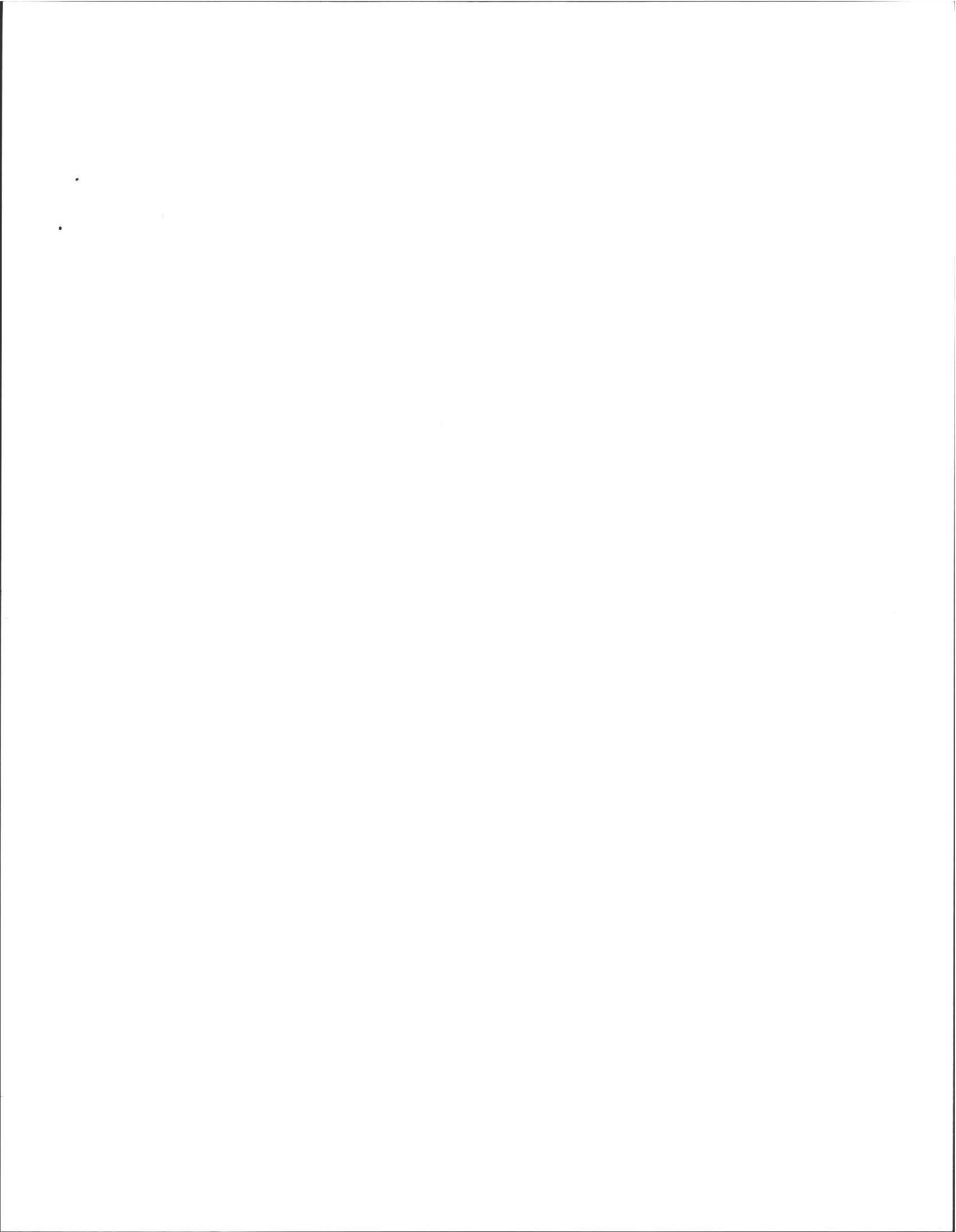
Wetlands Conservancy Program Map (map unit)

Current Water Resource Conditions (USGS): Month

Range: Above Normal Normal Below Normal

Other References Reviewed: _____





Location Address or Lot No. Access from #460
LOT 2, Flat Hills Rd
Map 3D, LOT 21

On-site Review

Deep Hole Number 1-74 Date: 12-3-09 Time: 11:00 Weather Sun 60°F

Location (identify on site plan) _____

Land Use _____ Slope (%) 2 Surface Stones many

Vegetation Deciduous

Landform Terraced

Position on landscape (sketch on the back)

Distances from:
 Open Water Body 100'± feet Drainage way 50'± feet
 Possible Wet Area 100'± feet Property Line 25'± feet
 Drinking Water Well 100'± feet Other _____

DEEP OBSERVATION HOLE LOG*

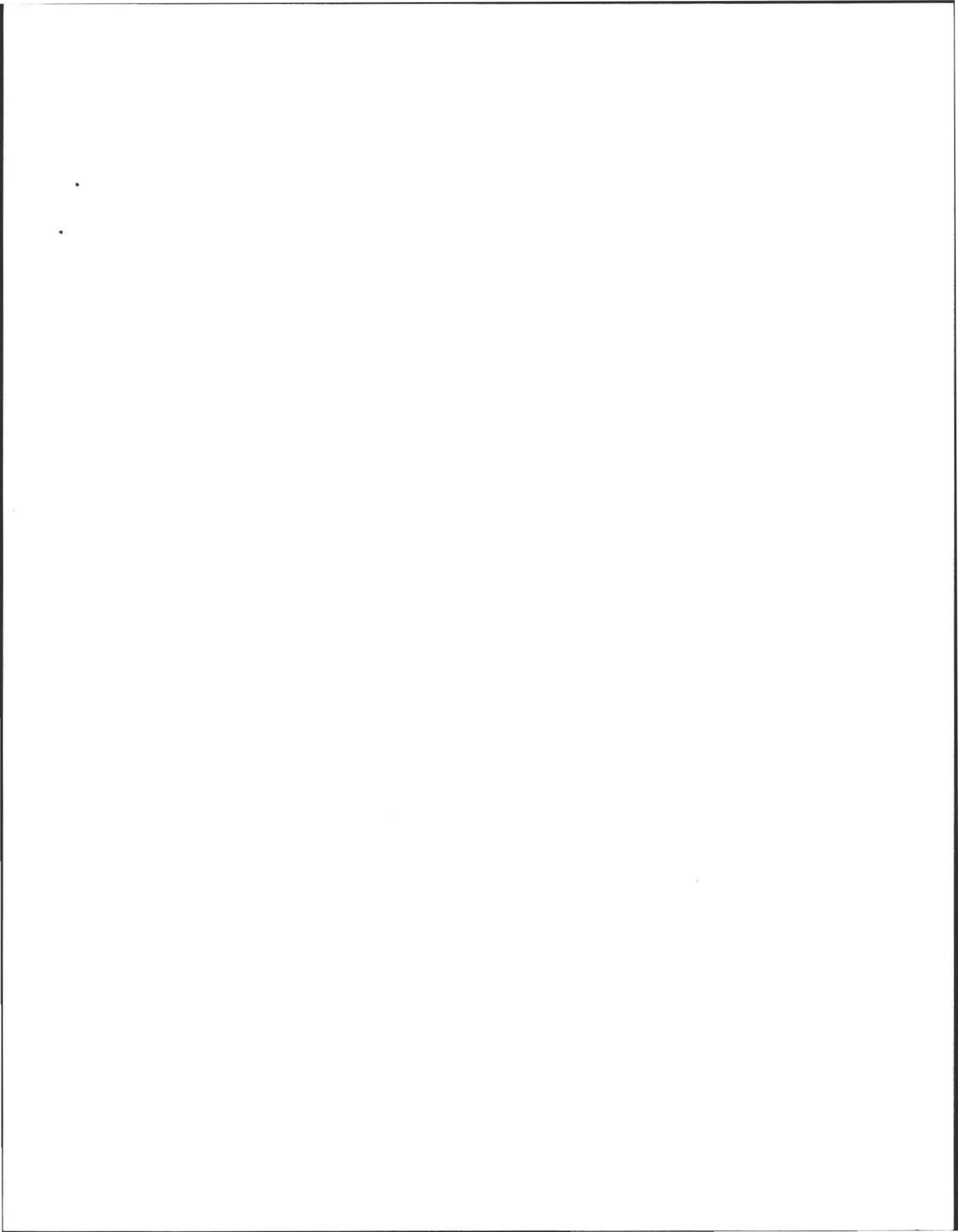
#1
#2
#3
#4

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Moisture	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-10" 10-26" 26-108"	A B C ₁	FSL LS LS	10YR 3/3 10YR 4/6 10YR 4/3	42" 2.5y 4/2 10YR 6/4	- Frakle, Loose. - F-M F Sandy, Loose. F.M. Abtation till, 15% Stones
0-10" 10-26" 26-108"	A B C ₁	FSL LS LS	10YR 3/3 10YR 4/6 10YR 4/3	42" 2.5y 4/2 10YR 6/4	- Frakle - F.M. Sandy, Loose. - F-M. Sandy Abtation till 15% Stones mod Loose.
0-10" 10-24" 24-104"	A B C	FSL LS LS	↓	10YR 4/6 2.5y 4/1 42"	Same as #1 + 2
0-12" 12-24" 24-	A B C	FSL LS LS	↓	10YR 4/6 2.5y 4/1	Same as #1 + 2

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) Abtation till Depth to Bedrock: 108" T
 Depth to Groundwater: Standing Water in the Hole: NOT Weeping from Pit Face: NOT
 Estimated Seasonal High Ground Water: 42"





Location Address or Lot No. LOT #2 Flat Hills RD.
Map 3D, LOT 21

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*		
Date:	<u>12/2/09</u>	Time: <u>10:55</u>
Observation Hole #	<u>P₁</u>	<u>P₂</u>
Depth of Perc	<u>43"</u>	<u>44"</u>
Start Pre-soak	<u>10:56</u>	<u>11:05</u>
End Pre-soak	<u>11:11</u>	<u>11:40</u>
Time at 12"	<u>11:11</u>	<u>11:40</u>
Time at 9"	<u>11:22</u>	<u>11:52</u>
Time at 6"	<u>11:40</u>	<u>12:08</u>
Time (9"-6")	<u>18</u>	<u>16</u>
Rate Min./inch	<u>6 ^{min}/_{IN.}</u>	<u>6 ^{min}/_{IN.}</u>

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

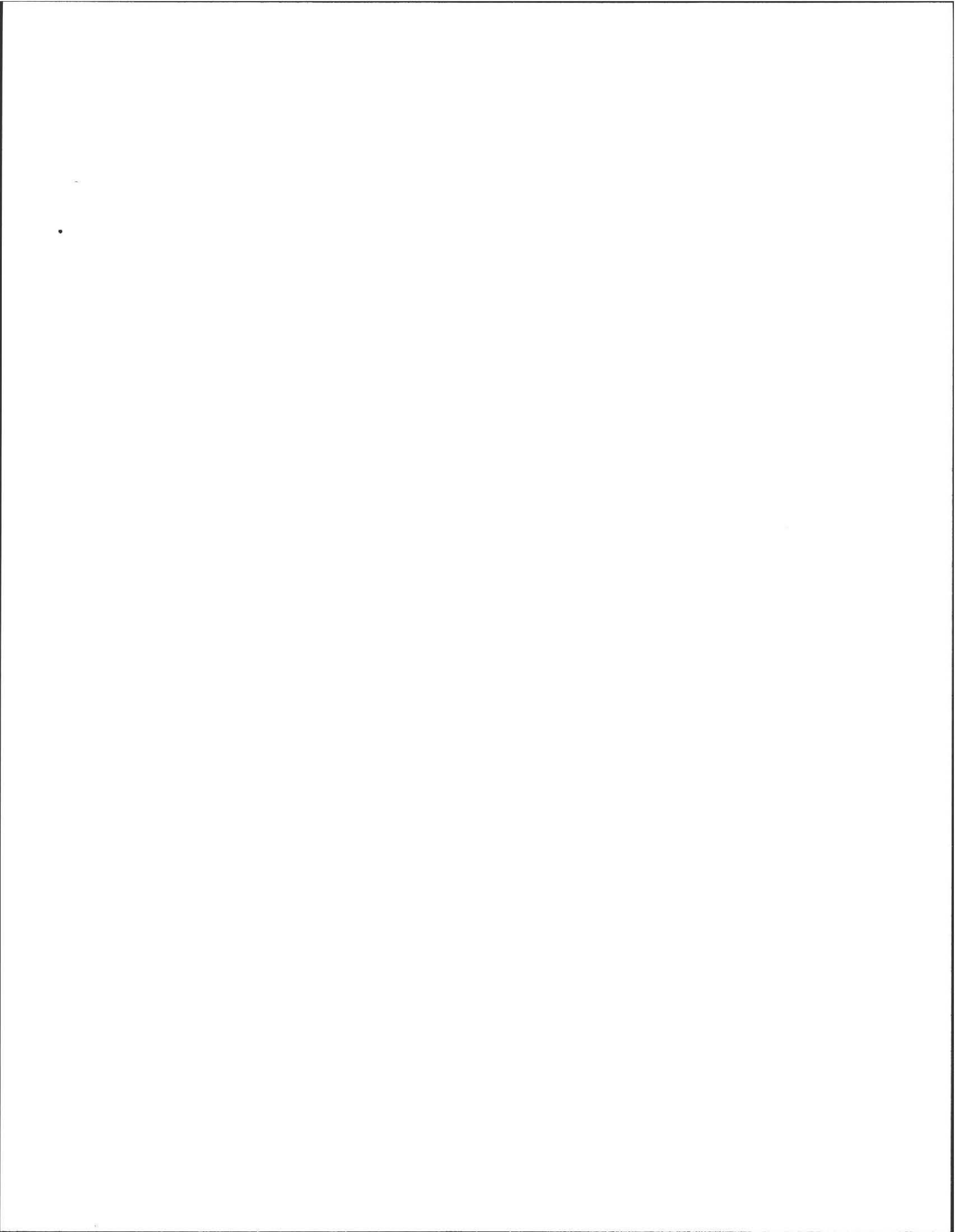
Site Passed Site Failed

Performed By: A. Weiss

Witnessed By: G. Costamucha

Comments: _____





Location Address or Lot No. MAP 3D LOT 21
LOT # 2, Access Fee
#460 Flat Hills 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 42" 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? —

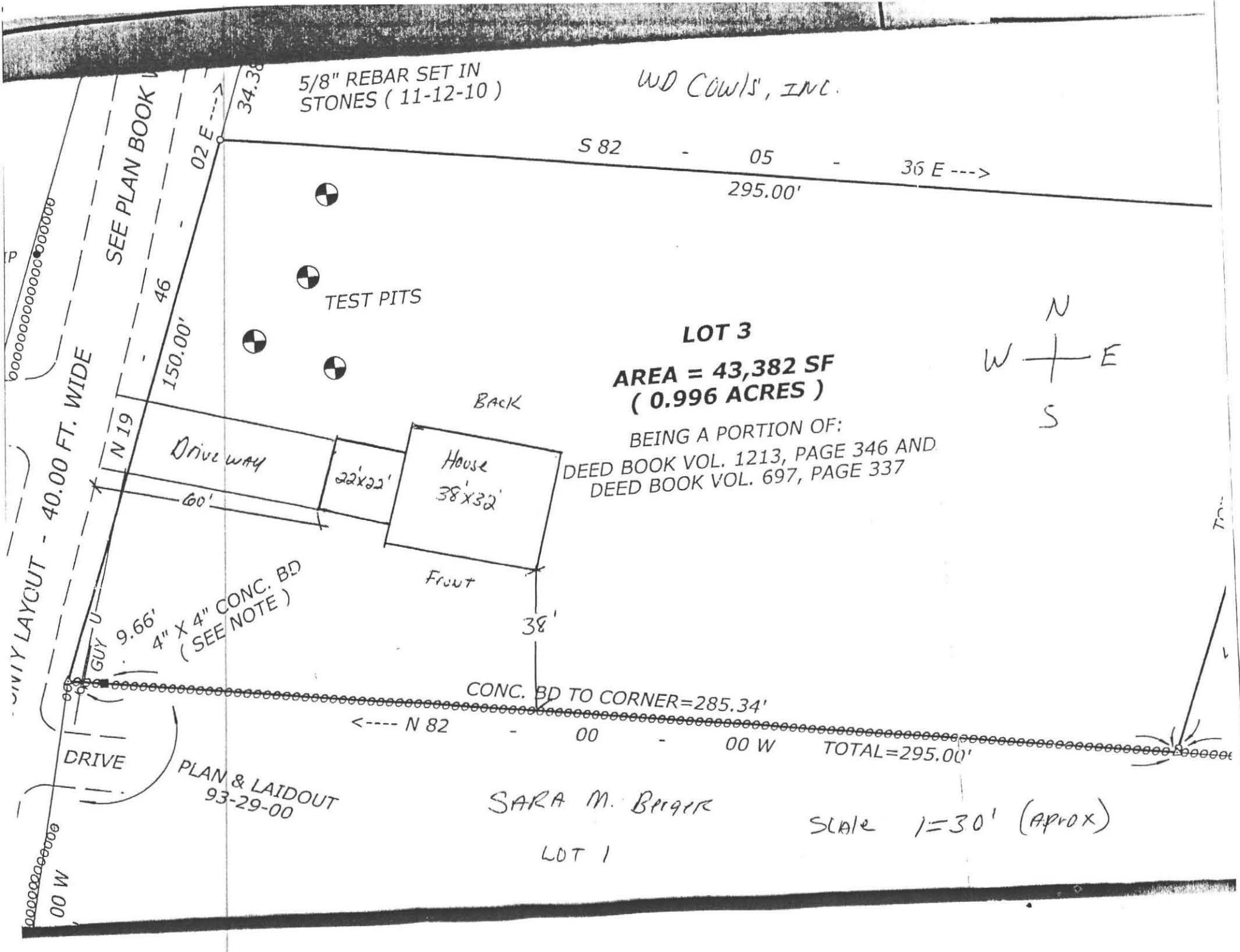
Certification

I certify that on 6/15 (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 Ac Date 12-3-09



•
•
•



5/8" REBAR SET IN STONES (11-12-10)

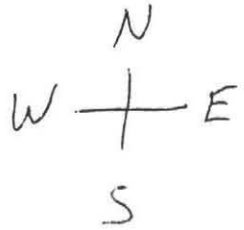
WD COWLS, INC.

S 82 - 05 - 36 E --->
295.00'

SEE PLAN BOOK I
40.00 FT. WIDE
N 19
150.00'
46
34.38
02 E --->

TEST PITS

LOT 3
AREA = 43,382 SF
(0.996 ACRES)



BEING A PORTION OF:
DEED BOOK VOL. 1213, PAGE 346 AND
DEED BOOK VOL. 697, PAGE 337

Driveway

22'x22'

House
38'x32'

BACK

FRONT

9.66'
4" X 4" CONC. BD
(SEE NOTE)

CONC. BD TO CORNER = 285.34'

<--- N 82 - 00 - 00 W TOTAL = 295.00'

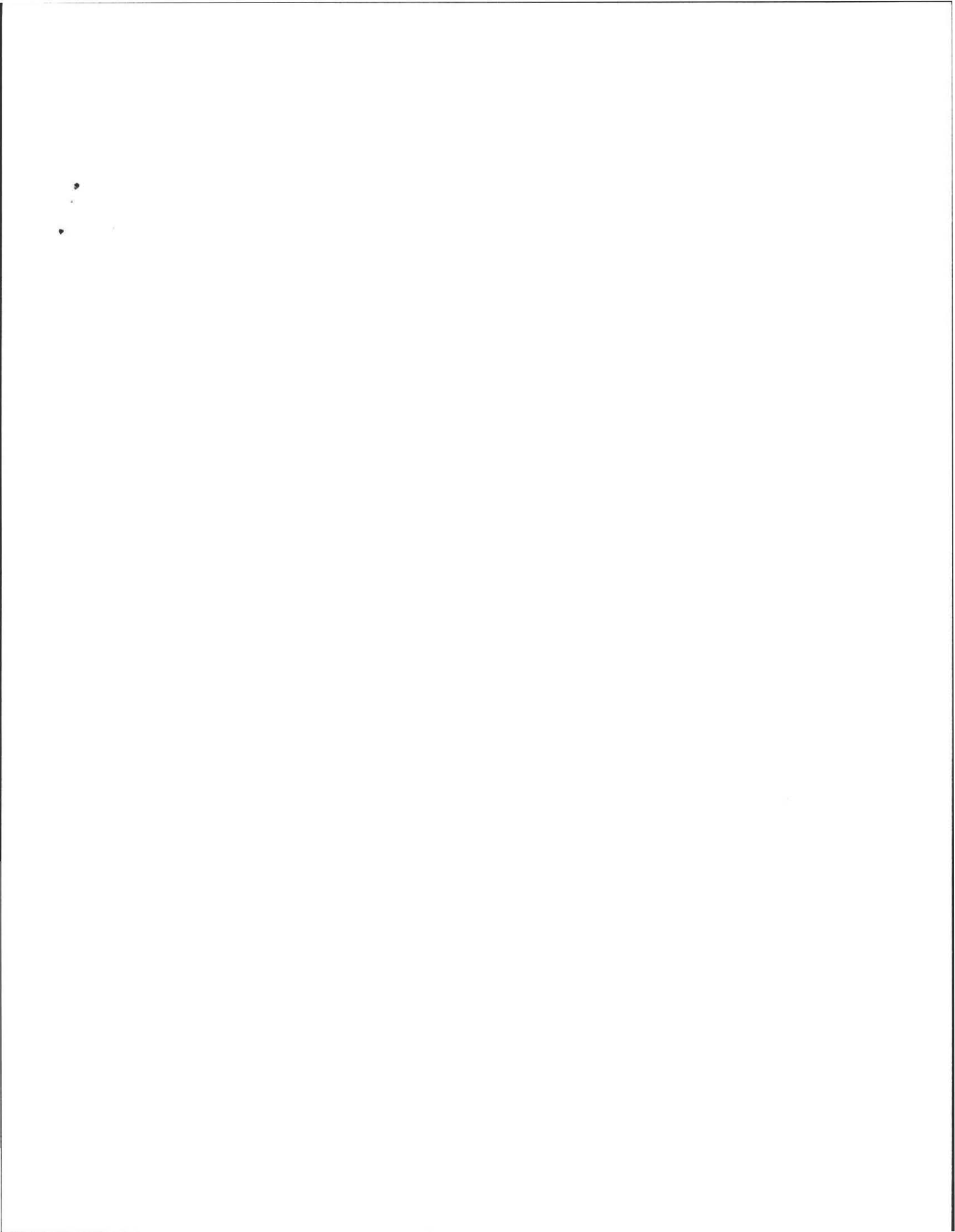
DRIVE

PLAN & LAYOUT
93-29-00

SARA M. BERGER

Scale 1=30' (APPROX)

LOT 1



Town of



AMHERST

Massachusetts

AMHERST HEALTH DEPARTMENT, 70 BOLTWOOD WALK, AMHERST, MA 01002
(413) 259-3077 (413) 259-2404 - FAX Environmental Health Division (413) 259-3078

February 14, 2011

RE: Request for permit to install a Drinking Well for a new residence at lot 22 Flat Hills Road

Dear Amherst Board of Health:

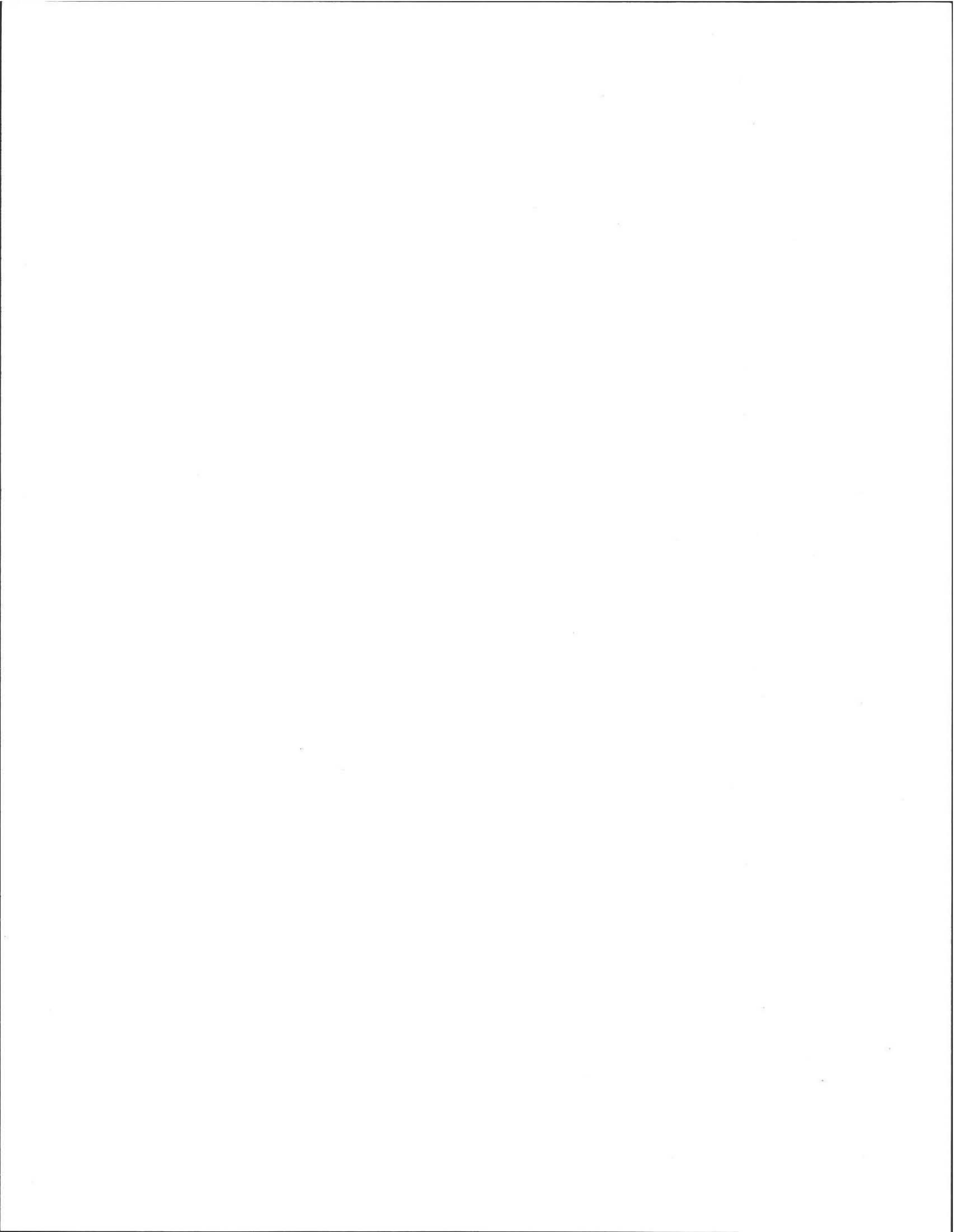
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Mr. Alan Weiss of Cold Spring Environmental Consultants will attend the 02/22/2011 Board of Health meeting to discuss and review the drinking well site in relation to the new septic design, as well as answer any questions you may have.

Respectfully submitted

Gary Courtemanche
Assistant Sanitarian





**COLD SPRING ENVIRONMENTAL
CONSULTANTS INC.**

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

- Percolation Tests
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- Regulatory Compliance
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- Second Opinions

February 9, 2011

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Amherst Board of Health
Bangs Center
Amherst, MA 01002**

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Dear Mr. Courtemanche,

In accordance with your Regulations for Private wells Please note the following.

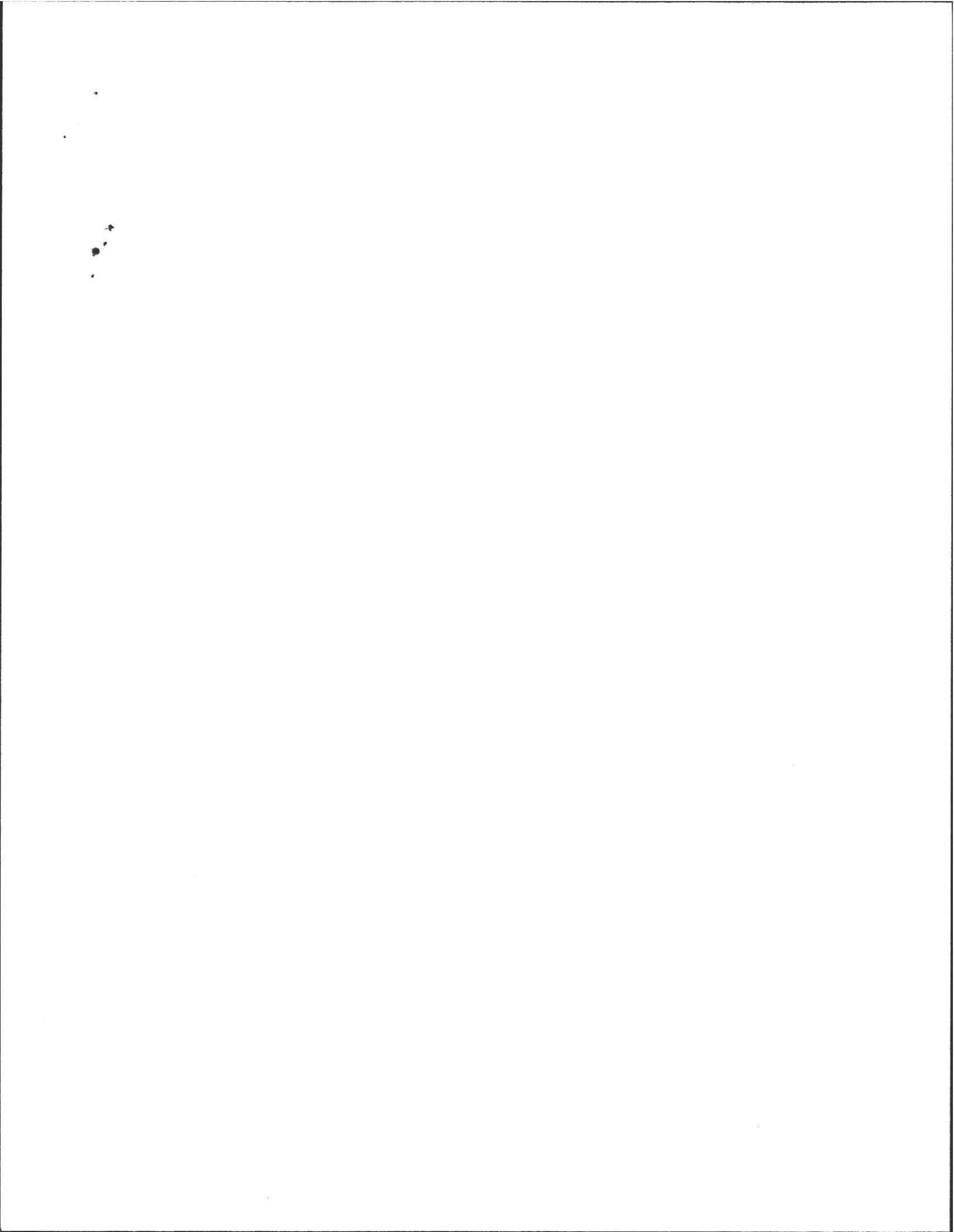
1. A plan detailing the location of the proposed well is attached.
2. All potential sources of contamination (septics, underground tanks are noted within 200 feet.
3. The current land uses include residential and agricultural past and present.
4. Notification of all abutters within 150 by Certified Return Receipt Mail is completed concurrently.

Feel free to contact me with any questions.

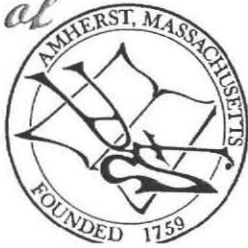
**Alan Weiss, RS
Principal Hydrogeologist**

Cold Spring Environmental, Inc

Cc: Applicant, C/O Ken Leblanc



Town of



AMHERST

Massachusetts

AMHERST HEALTH DEPARTMENT, 70 BOLTWOOD WALK, AMHERST, MA 01002 -
(413) 259-3077 (413) 259-2404 - FAX Environmental Health Division (413) 259-3078

APPLICATION FOR A WELL CONSTRUCTION PERMIT

I hereby petition the Board of Health of the Town of Amherst for a Well Construction Permit (WCP) to install a private well in the Town of Amherst.

ATTACHED IS A PLAN SHOWING THE PROPOSED LOCATION OF THE WELL (WITH ORIGINAL DATE, STAMP AND SIGNATURE OF AN ENGINEER REGISTERED SANITARIAN, OR REGISTERED LAND SURVEYOR) MEETING ALL THE REQUIREMENTS OF AMHERST RULES AND REGULATIONS FOR PRIVATE WELLS.

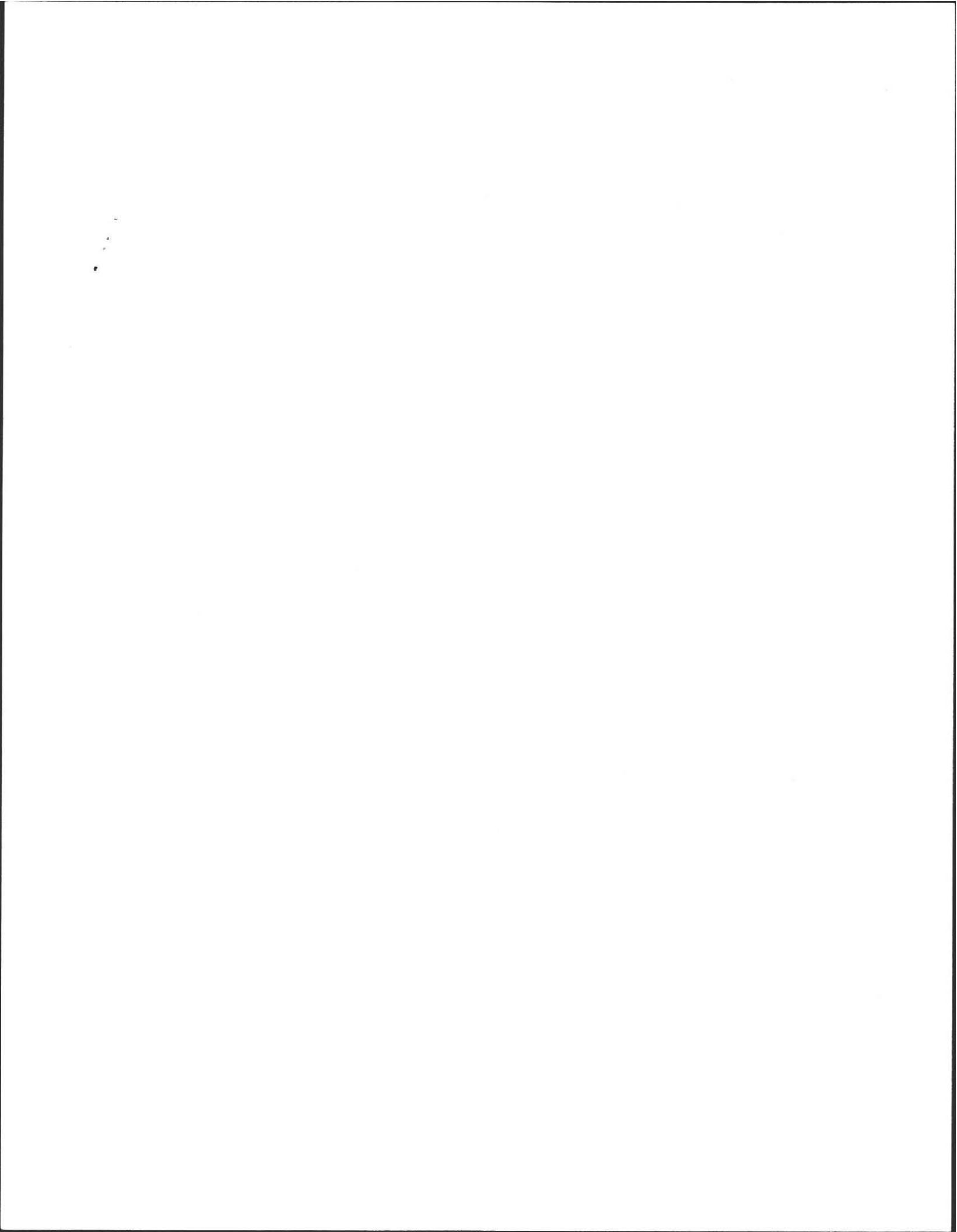
1. Address of Property: Map 3D, Lot 22, Flat Hills Rd.
2. Assessor of Parcel Number: Map 3D / Lot 22
3. Name of Owner: Ken Leblanc Telephone Number: _____
Address of Owner: P.O.B. 307 S. Hadley, MA.
- ✓ 4. Name of Well Driller: Cushman + Son (OK) 01075
(Must be registered with Massachusetts Water Resources Commission)
5. Purpose of Well: *Drinking (X) Agricultural Only ()

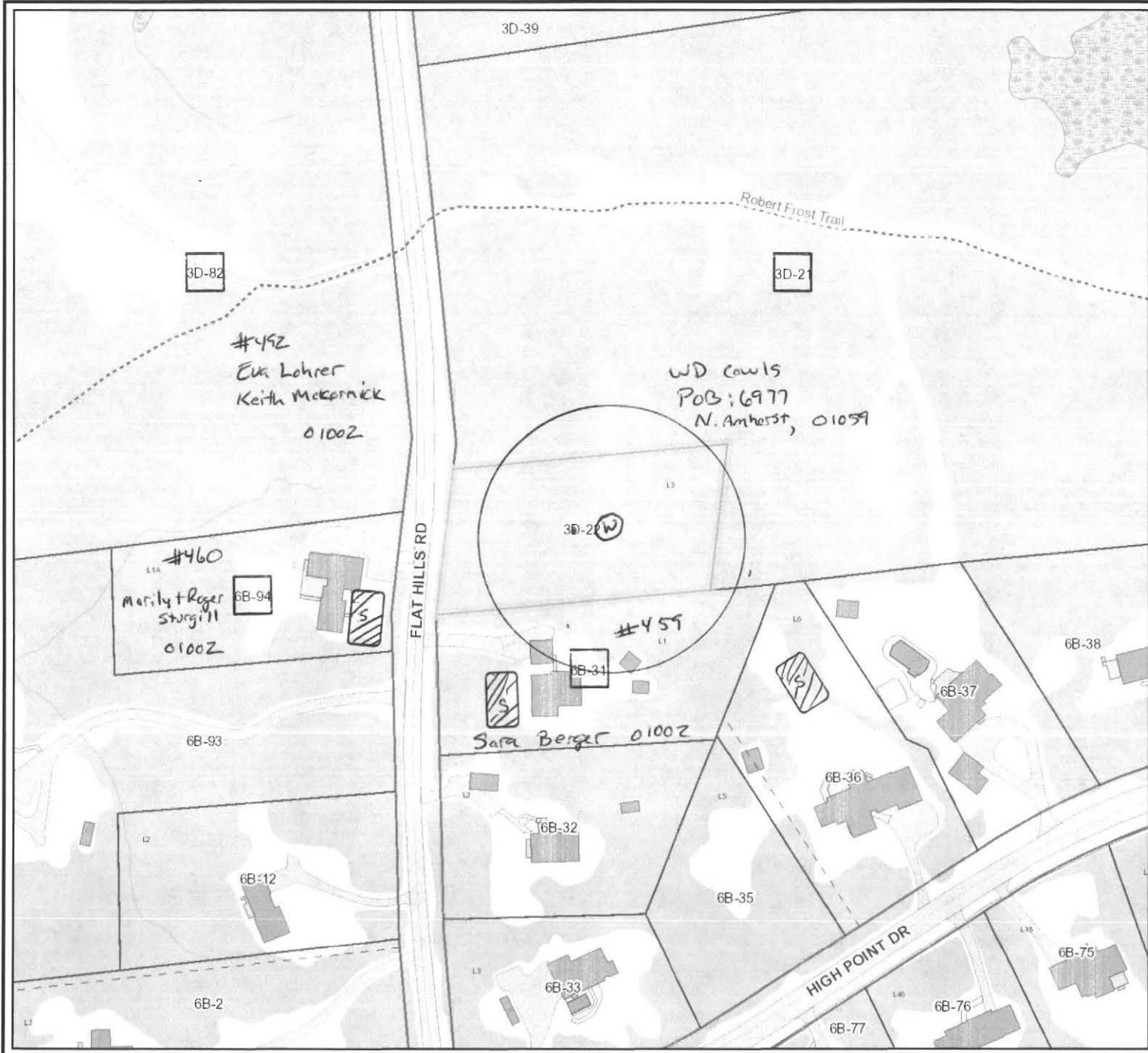
The undersigned acknowledges that he must, before commencing construction or use of the system which is the matter of this application, secure any and all other permits which may be required by the laws of the Town of Amherst and the Commonwealth of Massachusetts, and agree to abide by all regulations of the Town of Amherst and the Commonwealth of Massachusetts concerning private wells.

- The undersigned also understands that if a private well is to be used for drinking purposes, a **BUILDING PERMIT** affecting the structure the well is to serve **WILL NOT BE ISSUED UNTIL A Water Supply Certificate** has been granted by the Amherst Board of Health.

✓ Name of Applicant: Ken Leblanc Fee: \$100.00 ✓
 ✓ Signature: Kenneth C. Leblanc Date: 2-10-11
 WELL PERMIT # 11-06

IMPORTANT NOTE: Please provide a written description of visible prior and current land uses within 200 feet of the proposed well location which represent a potential source of contamination. Also, provide the proof that the owner of the property within 150 ft of the proposed well and all property abutters have been notified by certified mail, return receipt requested, of the applicant's intention to install a well.





- Property Map**
- Property Lines
 - Property Line
 - Hydrographic Property
 - Right of Way Line
 - Town Boundary
 - Other Property Lines
 - Former Property Line
 - Subdivision Lot Line
 - Easements
- Sidewalks**
- Transportation
 - Paved street polygons
 - Unpaved street polyg
 - Bridges
 - Bridge decking and str
 - Foot Bridge
 - Rail Bridge
- Basemap**
- Trails
 - Rail Lines
 - Structures
 - Building
 - Foundation or in constr
 - Outbuilding or Miscell
 - Deck, Porch, Stairs or
 - Mobile home, Trailer
 - Swimming Pool
 - Building Ruins
 - Water storage tank
 - Rivers and Streams
 - Streams
 - Major Culverts
 - Hydro Connector
 - Headwalls, Floodwalls
 - Landcover
 - Brush and scrub vege
 - Tree and forest vege
 - Cultivated field
 - Gravel pile
 - Quarry
 - Misc Impervious Surfa
 - Parking
 - Parking Paved
 - Parking Unpaved
 - Driveways
 - Driveway Paved
 - Driveway Unpaved

Horizontal Datum: MA Stateplane Coordinate System, Zone 4151, Datum NAD83, Feet
 Vertical Datum: NAVD88, Feet

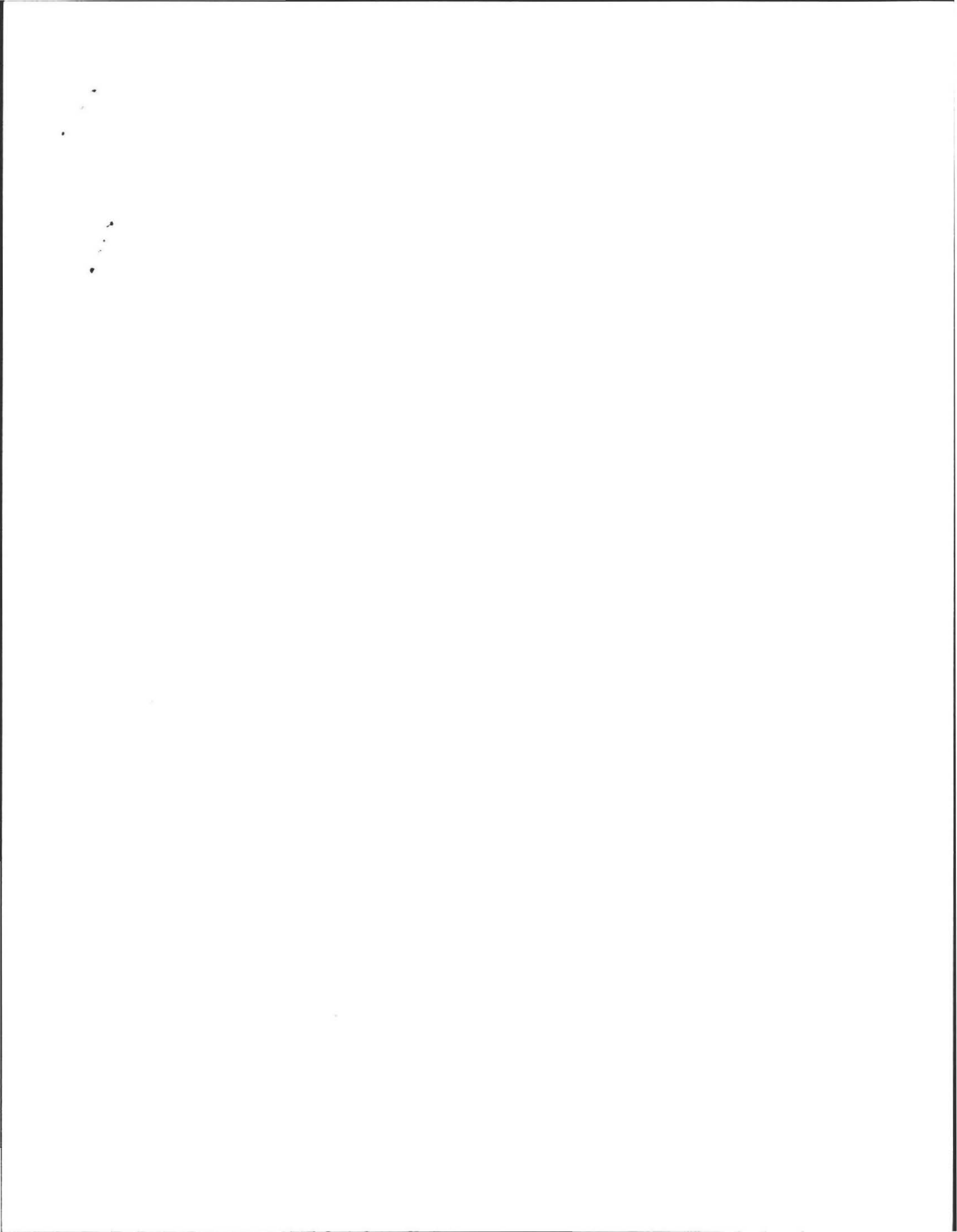
Planimetric & topographic basemap features compiled at 1"=40' scale from April, 2009 Aerial Photography. Parcels compiled to match the basemap; revisions are ongoing.

The information depicted on this map is for planning purposes only. It may not be adequate for legal boundary definition, regulatory interpretation, or property conveyance purposes. Utility structures and underground utility locations are approximate and require field verification.

THE TOWN OF AMHERST MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY, OR SUITABILITY OF THESE DATA. THE TOWN OF AMHERST DOES NOT ASSUME ANY LIABILITY ASSOCIATED WITH THE USE OR MISUSE OF THIS INFORMATION.

1" = 150 ft





PERMITS/INSP PAYMENT RECPT#: 11069610
TOWN OF AMHERST
TOWN HALL
4 BOLTWOOD AVENUE
AMHERST MA 01002

DATE: 02/11/11 TIME: 15:38
CLERK: mirj DEPT:

PAID BY:
PAYMENT METH: CHECK 1325

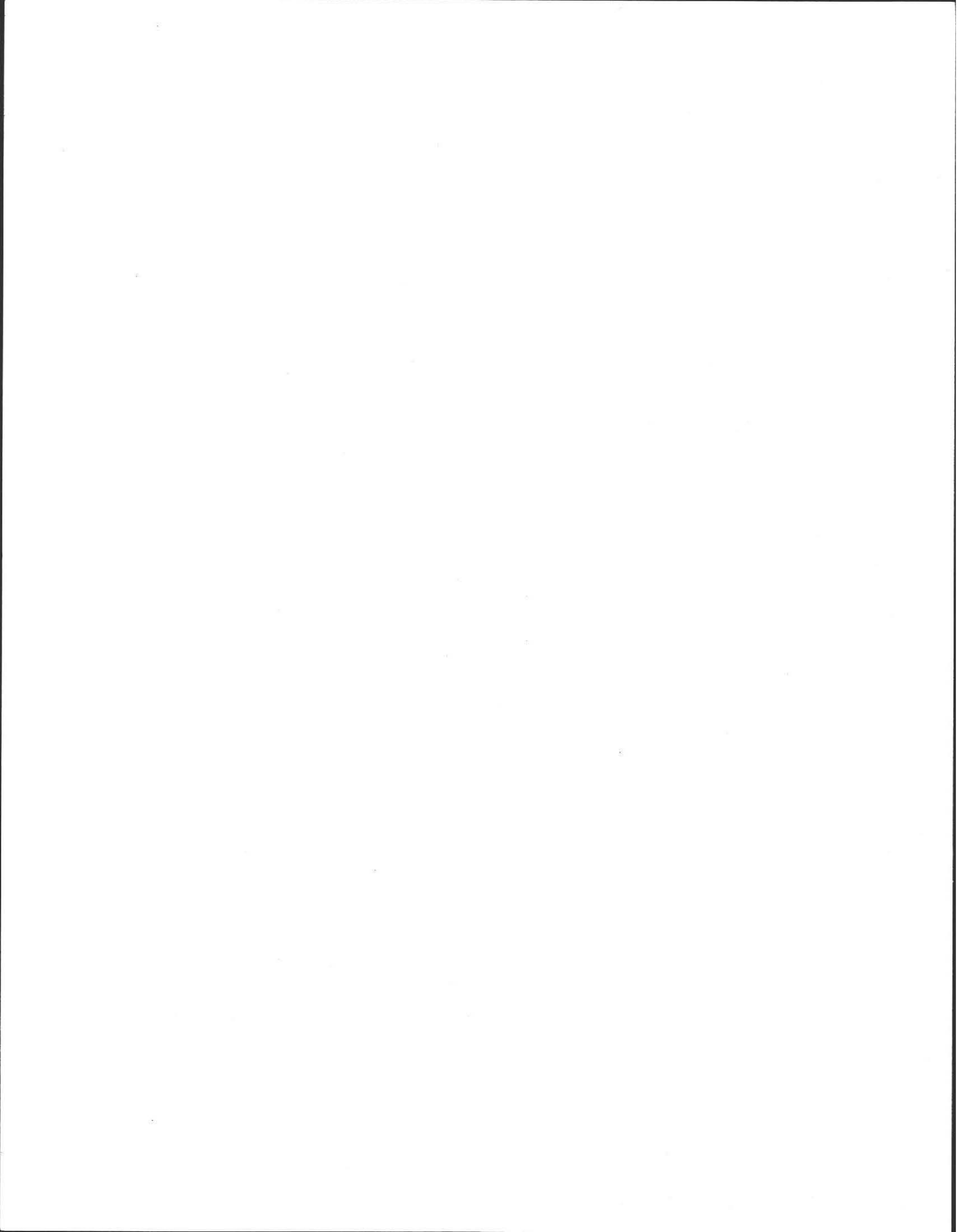
REFERENCE:

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

SITE ADDRESS: P.O BOX 307 S.HADLEY

FEEs:
HEA017 SEPTIC TANK PER 150.00

TOTAL PAID: 150.00



PERMITS/INSP PAYMENT RECPT#: 11069612
TOWN OF AMHERST
TOWN HALL
4 BOLTWOOD AVENUE
AMHERST MA 01002

DATE: 02/11/11 TIME: 15:40
CLERK: mirj DEPT:

PAID BY:
PAYMENT METH: CHECK 1326

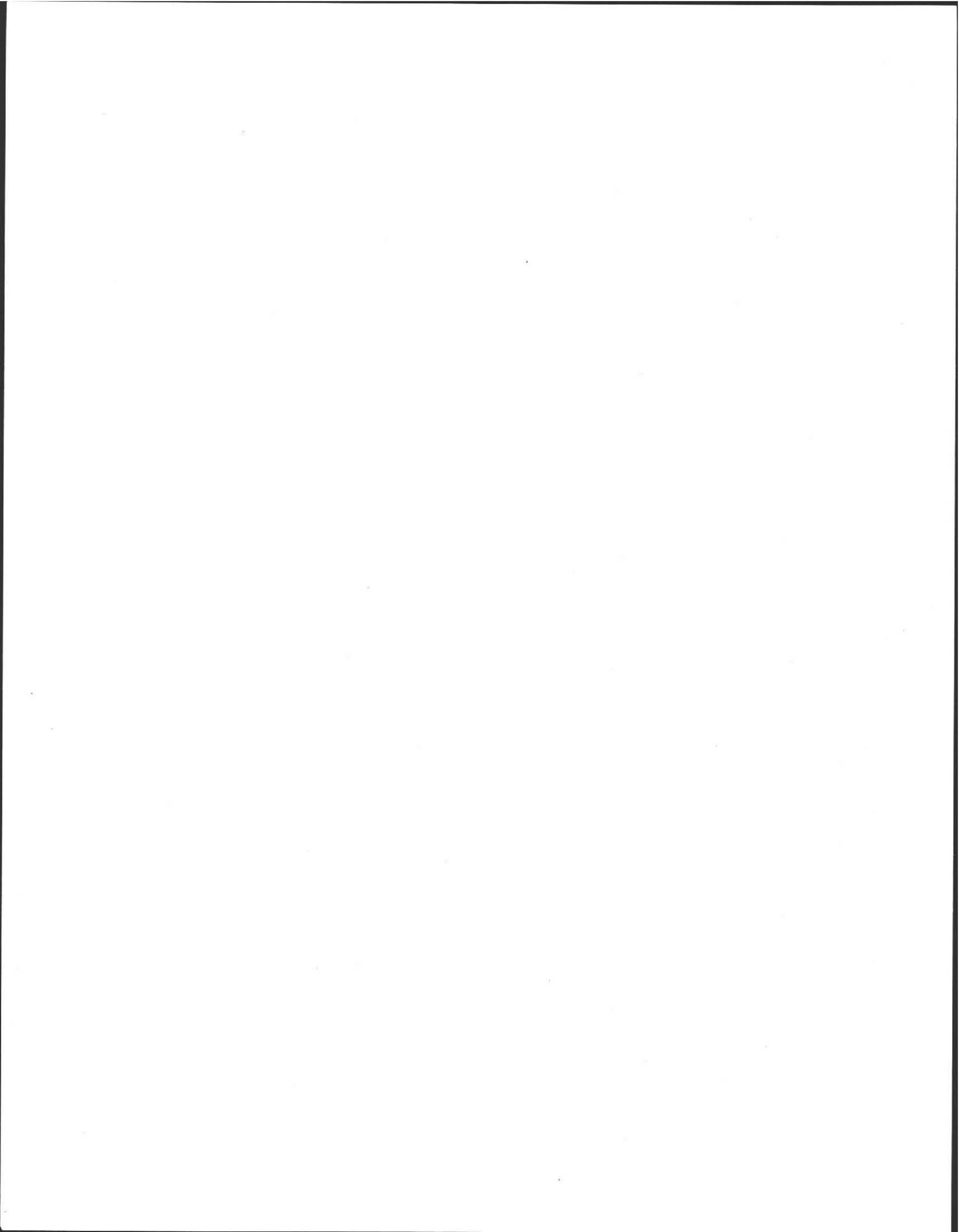
REFERENCE:

AMT TENDERED: 100.00
AMT APPLIED: 100.00
CHANGE: .00

SITE ADDRESS: P.O BOX 307 S.HADLEY

FEES:
HEA059 WELL PERMITS 100.00

TOTAL PAID: 100.00

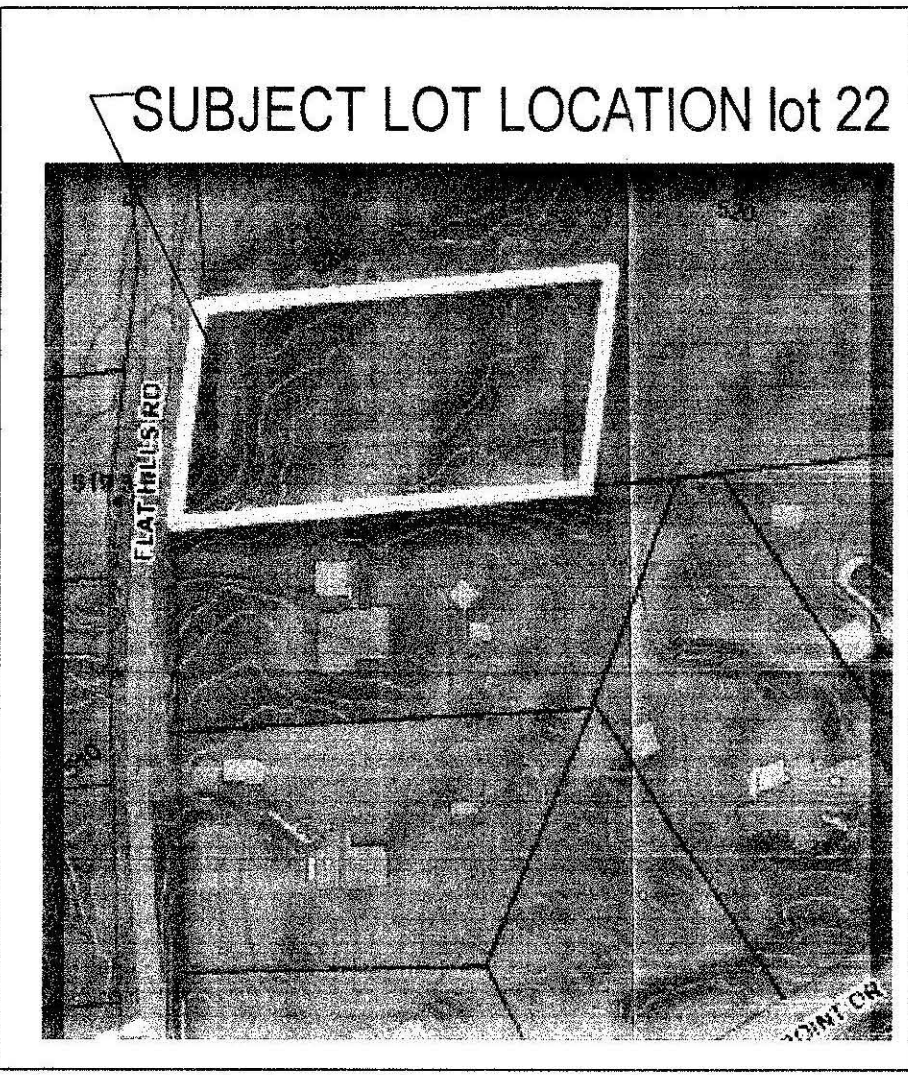


GRAVITY SLOPE SEPTIC SYSTEM OPERATION AND MAINTENANCE NOTES FOR HOMEOWNER.

- 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.
- WIPE ALL OIL AND GREASE FROM COOKWARE AND DISPOSE IN TRASH NOT SEPTIC.
- All Toilets and Faucets must be confirmed to not be leaking, because one leaking fixture can fail a septic system in ONE DAY.

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NOTE TO HOMEOWNER AND CONTRACTOR: CONNECTIONS FROM HEATING SYSTEM, AIRCONDITIONERS, SUMP PUMPS, WATER WELL FILTRATION UNITS AND HEAT PUMPS ARE NOT ALLOWED, SANITARY SYSTEM CONNECTIONS ONLY PERMITTED.



DESIGN NOTES AND CALCULATIONS:

1.) 3 BEDROOM HOME X 110 GPD /BR = 330 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 = 445.5 GPD

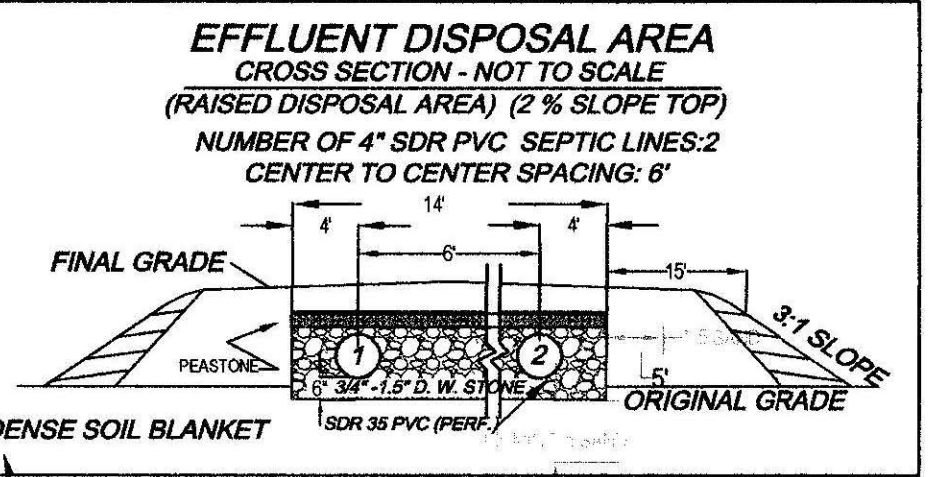
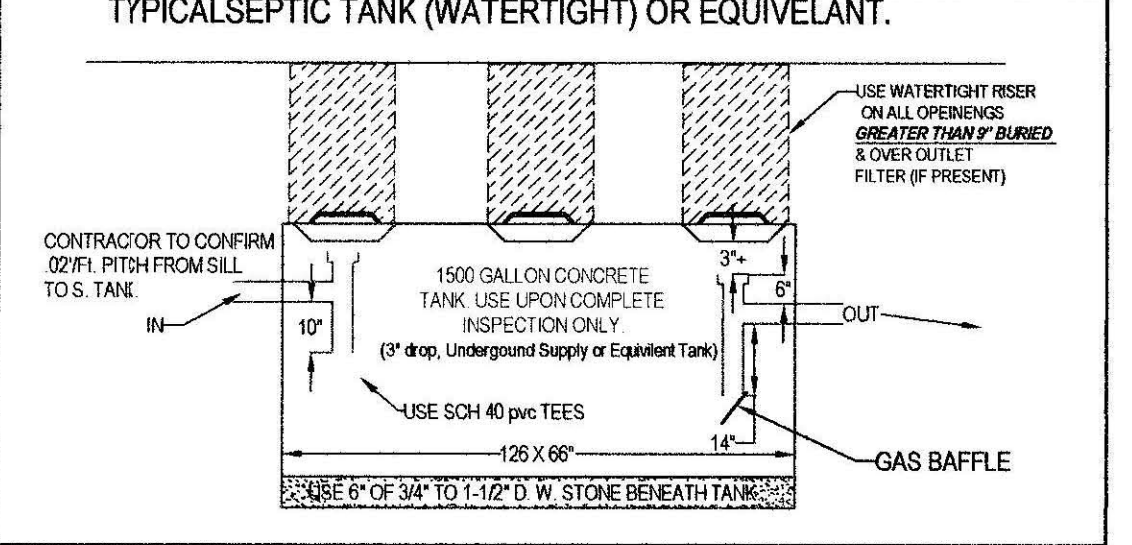
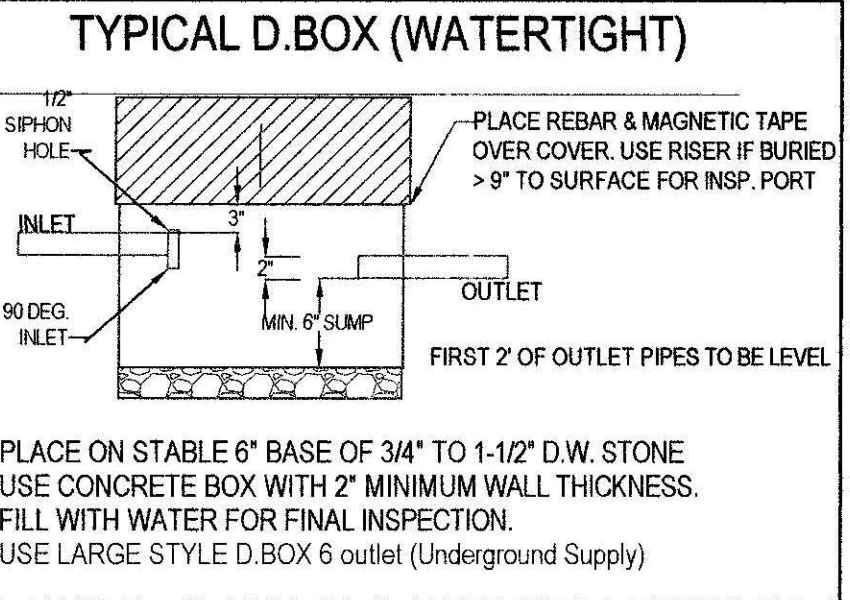
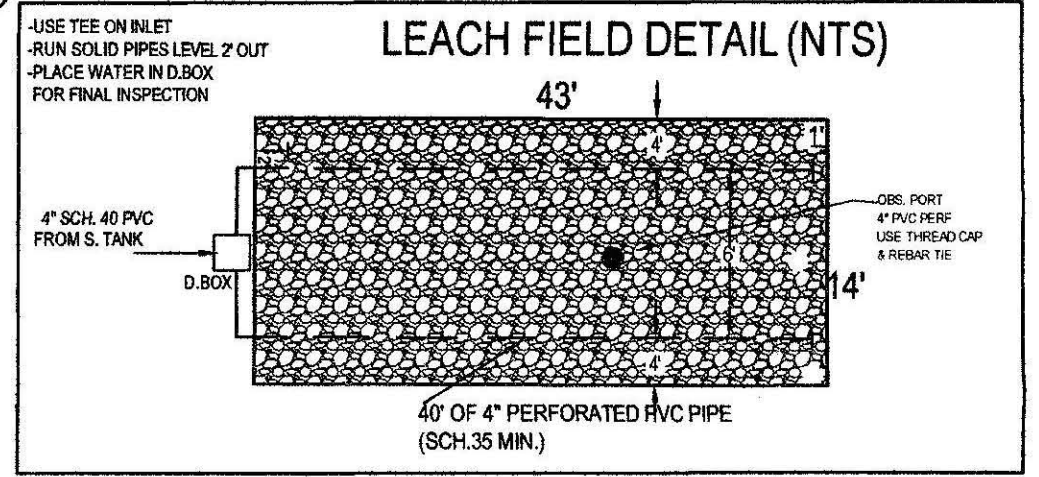
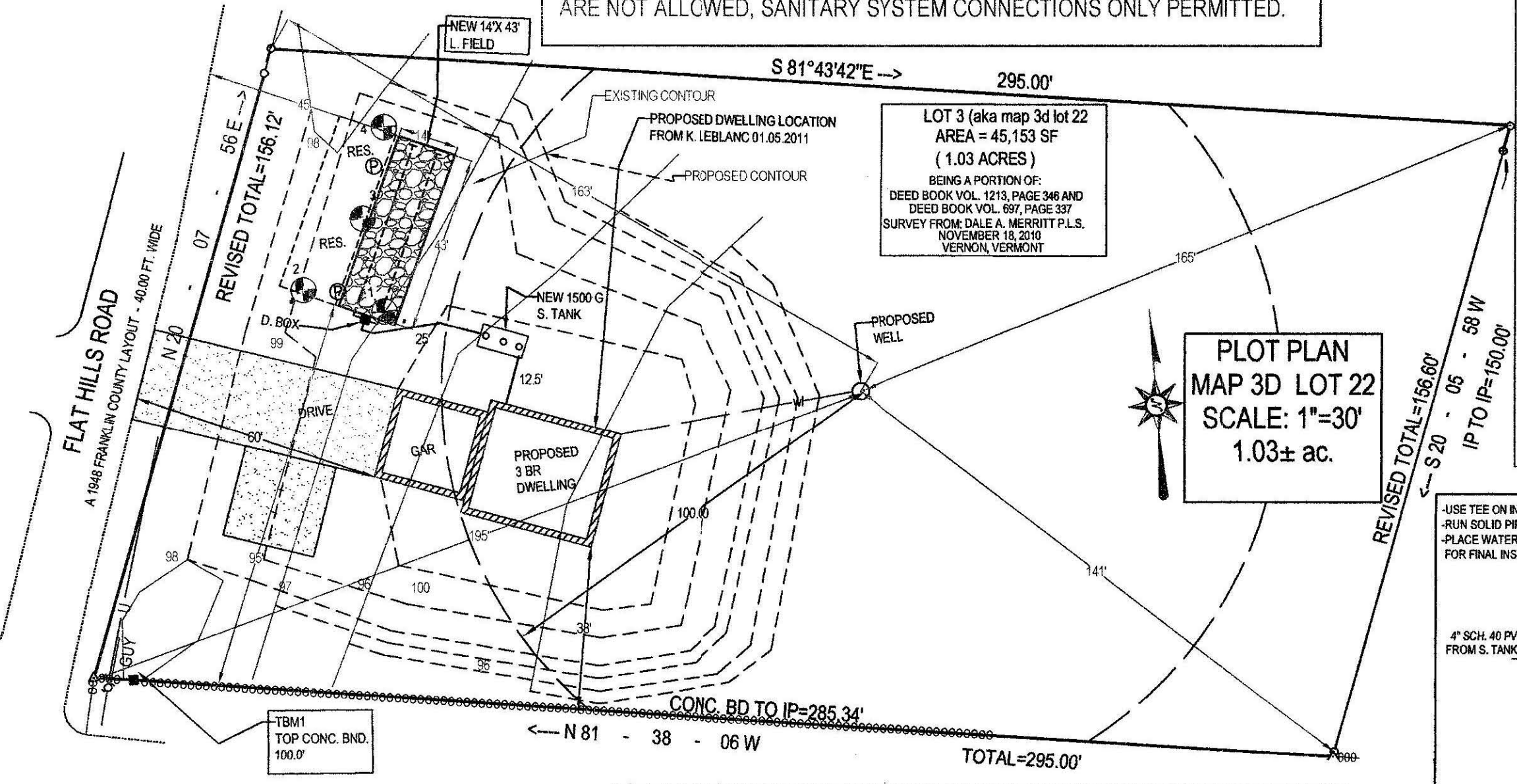
- GARBAGE DISPOSAL NOT ALLOWED, ...
- NO OTHER PRIVATE WELLS WITHIN 100 FEET OF SAS.
- NO OTHER WETLANDS WITHIN 100 FEET OF SAS
- USE NEW S. TANK AS NOTED & MAINTAIN 0.02 PITCH FROM SILL TO S. TANK
- INSTALL & INSPECT SCH. 40 TEES / BAFFLES (10" INLET, 14" OUTLET).

NOTE:

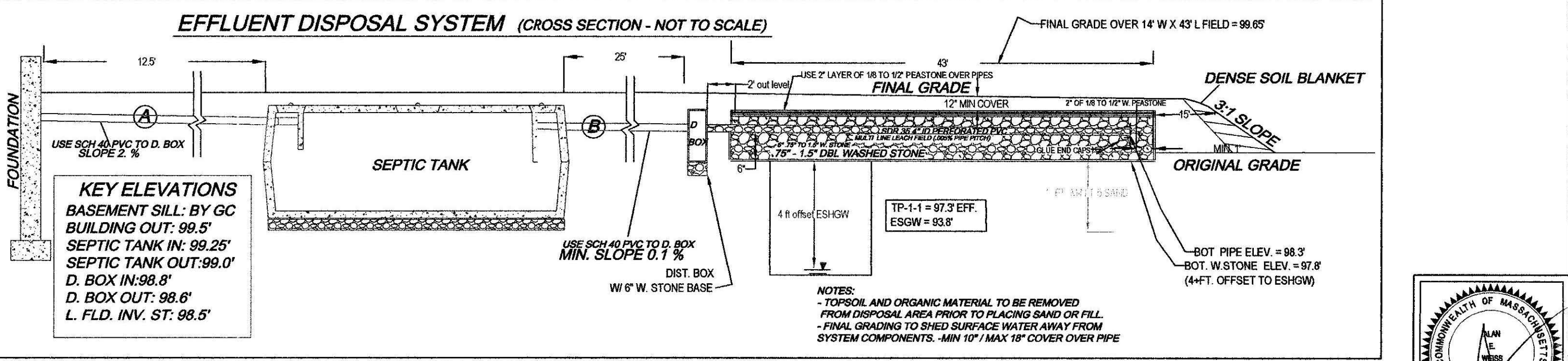
- ALL COMPONENTS OF NEW SYSTEM MUST BE MARKED WITH MAGNETIC TAPE. BE SURE TO MAINTAIN 3" CLEARANCE FROM TOP OF TEES TO BOTTOM OF TANK COVERS & BOXES.
- USE LARGE STYLE (6 OUTLET) D.BOX ONLY.
- 7A. ALL D. BOX OUTLET PIPES LEVEL FOR FIRST 2'. BOXES MUST HAVE 2" CONC. WALLS

NOTE:

- D. BOXES WITH MORE THAN 9" OF COVER SOIL MUST HAVE RISERS TO 6" OF SURFACE.
- 8. USE (75"-1 1/2") STONE UNDER TANK & D. BOX FOR 6" FOR STABLE BASE. -USE ONLY DBL. WASHED APPROVED (75"-1.5") FOR PLACEMENT IN LEACH AREA.
- 9. USE PROPER SCH. 40 PVC TEES AS SHOWN.
- 10. PRE & POST CONTOURS NOTED AS NECESSARY. RESERVE AS NOTED (not required for repairs).
- 11. SLOPE CALCS (SEE CONTOURS), SUBGRADE INSP. REQ'D.
- 13. USE FIELD 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 30" MIN. AS NEEDED (INSPECTION REQUIRED).
- CLEAR: PAST BASE OF B (MIN. 30") & SCARIFY UNDER BED PRIOR TO TITL V SAND/STONE PLACEMENT.
- EXCAVATE EXISTING LOAM, SUB AND ANY EXISTING DEBRIS, DIRTY FILL OR PRIOR SYSTEM IF PRESENT.
- 15. SOIL EVALUATION BY A. WEISS, RS. ON 09.03.2009 (G. COURTEMANCHE, BOH AGENT).
- DEPTH OF PERC. 44 & 44"
- PERC RATE = 3 & 3 MIN / IN.
- CLASS 1(LS) SOIL RATING
- 16. NO TREES WITHIN 10 FT. OF NEW LEACH FIELD.
- 17. ENGINEER & TOWN (IF REQUIRED) TO INSPECT SUBGRADE. TOWN AND ENGINEER INSPECT AT FINAL
- 18. BM=100.00 @ (TOP OF CONC. BOUND AS NOTED), CONFIRM PROPER PIPE SLOPES
- USE/INSPECT SCH. 40 PIPE FOR PIPE FROM HOUSE TO NEW OR EXISTING TANK
- 19. GRADE MULCH AND SEED OVER SAS AS NOTED.
- 20. INSTALLATION IN LOW GROUNDWATER SEASON RECOMMENDED.
- 21. 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.



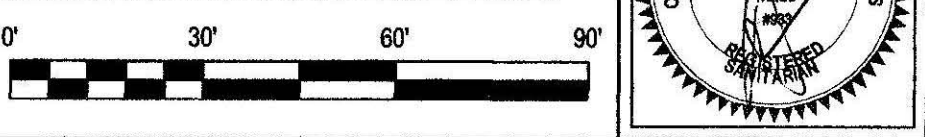
TEST PIT LOG:				SOIL EVALUATOR: A. WEISS, RS				DATE OF EVALUATION: 12.03.2009				
TP-1 EFF. ELEV: 97.3' EFF.				TP-2 EFF. ELEV: 97.3'								
DEPTH:	HORIZ:	TEXTURE:	(MORSELL)	MATERIAL:	DEPTH:	HORIZ:	TEXTURE:	(MORSELL)	MATERIAL:			
0-10"	A	FSL	10 YR 3.3	FRIABLE, LOOSE	0-10"	A	FSL	10 YR 3.3	FRIABLE, LOOSE			
10-26"	Bw	LS	10 YR. 6.6	FRIABLE, MED. SAND	10-26"	Bw	LS	10 YR. 6.6	FRIABLE, MED. SAND			
26-108"	C1	LS	10 YR 4.3	F-MED. SND ABL. TILL GRANULAR, LOOSE 15% GRAV. & BOULDERS	26-120"	C1	LS	10 YR 4.3	F-MED. SND ABL. TILL GRANULAR, LOOSE 15% GRAV. & BOULDERS			
OXIDES: 42"				10 YR 6.8, 2.5 Y 4.2	OXIDES: 42"				10 YR 6.8, 2.5 Y 4.2			
EHWT: 42"					EHWT: 42"							
STANDING H2O: NOT OBSERVED					STANDING H2O: NOT OBSERVED							
WEEPING: NOT OBSERVED					WEEPING: NOT OBSERVED							
BEDROCK: 108"+					BEDROCK: 108"+							



TEST PIT LOG:				SOIL EVALUATOR: A. WEISS, RS				DATE OF EVALUATION: 12.03.2009				
TP-3 EFF. ELEV: 97.3' EFF.				TP-4 EFF. ELEV: 97.3'								
DEPTH:	HORIZ:	TEXTURE:	(MORSELL)	MATERIAL:	DEPTH:	HORIZ:	TEXTURE:	(MORSELL)	MATERIAL:			
0-10"	A	FSL	10 YR 3.3	FRIABLE, LOOSE	0-12"	A	FSL	10 YR 3.3	FRIABLE, LOOSE			
10-24"	Bw	LS	10 YR. 6.6	FRIABLE, MED. SAND	12-24"	Bw	LS	10 YR. 4.5	FRIABLE, MED. SAND			
24-108"	C1	LS	10 YR 4.3	F-MED. SND ABL. TILL GRANULAR, LOOSE 15% GRAV. & BOULDERS	24-104"	C1	LS	10 YR 4.3	F-MED. SND ABL. TILL GRANULAR, LOOSE 15% GRAV. & BOULDERS			
OXIDES: 42"				10 YR 5.8, 2.5 Y 4.1	OXIDES: 42"				10 YR 6.8, 2.5 Y 4.1			
EHWT: 42"					EHWT: 42"							
STANDING H2O: NOT OBSERVED					STANDING H2O: NOT OBSERVED							
WEEPING: NOT OBSERVED					WEEPING: NOT OBSERVED							
BEDROCK: 120"+					BEDROCK: 120"+							

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 PLAN FOR KEN LEBLANC
MAP 3D LOT 22, FLAT HILLS ROAD
AMHERST, MA

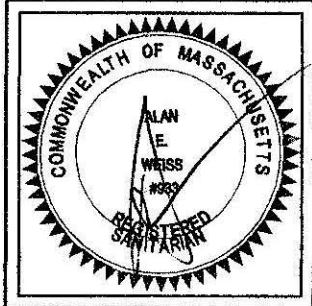
Cold Spring Environmental Consultants Inc.
350 Old Enfield Road
Belchertown, MA. 01007

PJFD.NC: (413) 323-5957
Fax: (413) 323-4916
e-Mail: ACEWCES@charter.net

DATE: 01.06.2011
SCALE: 1"=30'

DRAWN BY: AEW
CHECKED BY: AEW

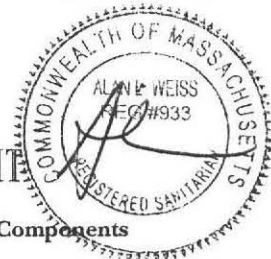
REVISED:
DRAWING NUMBER: 110-3512-1220



COMMONWEALTH OF MASSACHUSETTS

Board of Health, Annerst, MA.

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT



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

Map 3D (was part of 3D 121 when parcel)

Location <u>Lot 22, Flat Hills Rd</u>	Owner's Name <u>Ken Leblanc; Hens By Leblanc</u>
Map/Parcel# <u>3D / 22</u>	Address <u>P.O.B. 307, S. Hadley, MA</u>
Lot#	Telephone# <u>250-8324</u>
Installer's Name <u>River Drive Excav.</u>	Designer's Name <u>Alan Weiss</u>
Address <u>Hadley, MA 01035</u>	Address <u>Belchertown, MA</u>
Telephone# <u>584-1814</u>	Telephone# <u>413-323-5957</u>

Type of Building Residence (New) Lot Size 1.03 Ac. sq. ft.
 Dwelling - No. of Bedrooms 3 Bedroom Dwellng Garbage grinder No
 Other - Type of Building New Residence No. of persons _____ Showers (), Cafeteria ()
 Other Fixtures _____
 Design Flow (min. required) 110 gpd Calculated design flow 330 Design flow provided 445 gpd
 Plan: Date 1/5/2011 Number of sheets 1 Revision Date _____
 Title New Septic System Design
 Description of Soil(s) Class 1: LS
 Soil Evaluator Form No. _____ Name of Soil Evaluator A. Weiss Date of Evaluation 12-03-2009

DESCRIPTION OF REPAIRS OR ALTERATIONS Complete New Design/ Home + Well.

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 _____ Date _____

Inspections _____

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.

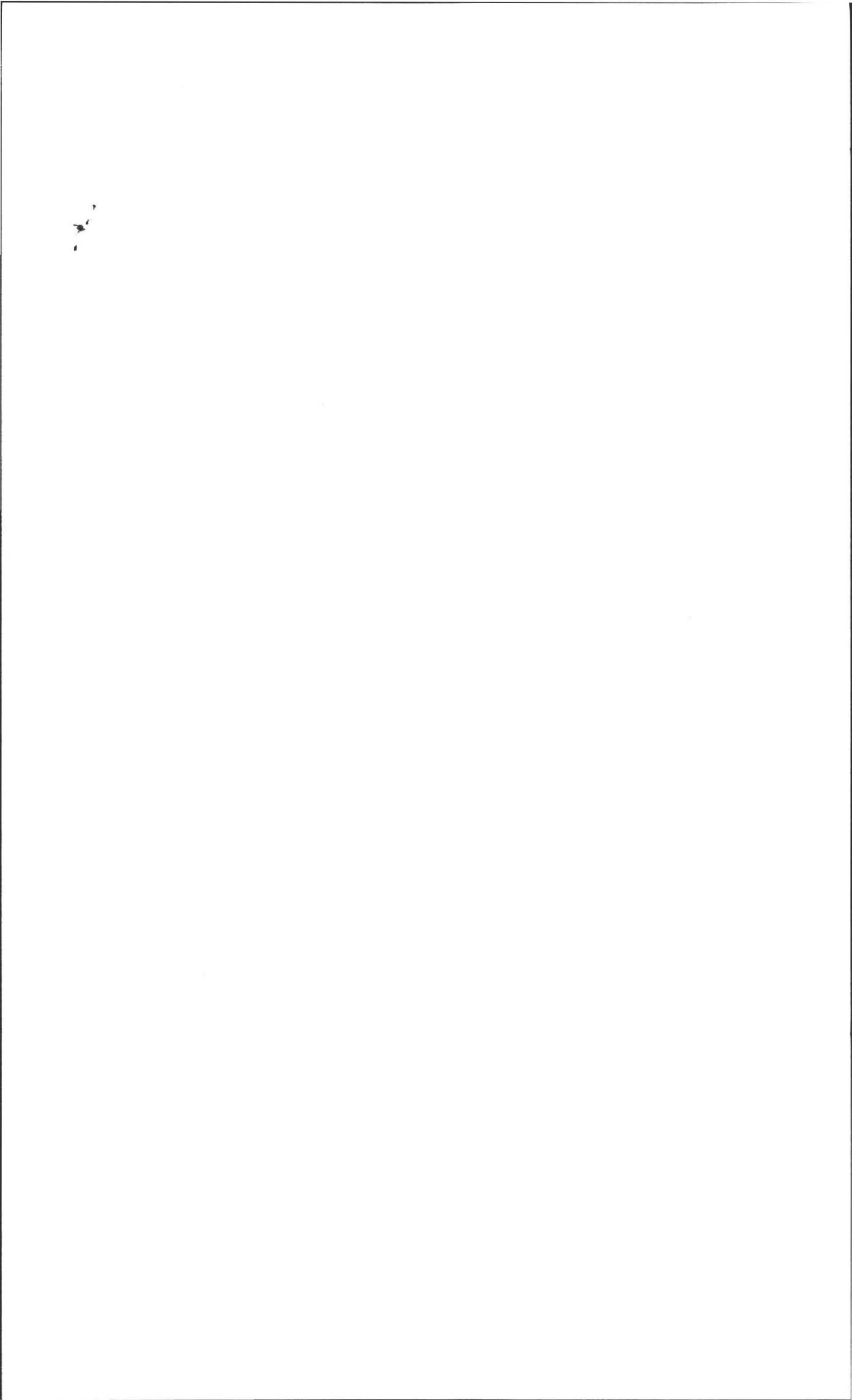
COMMONWEALTH OF MASSACHUSETTS

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.



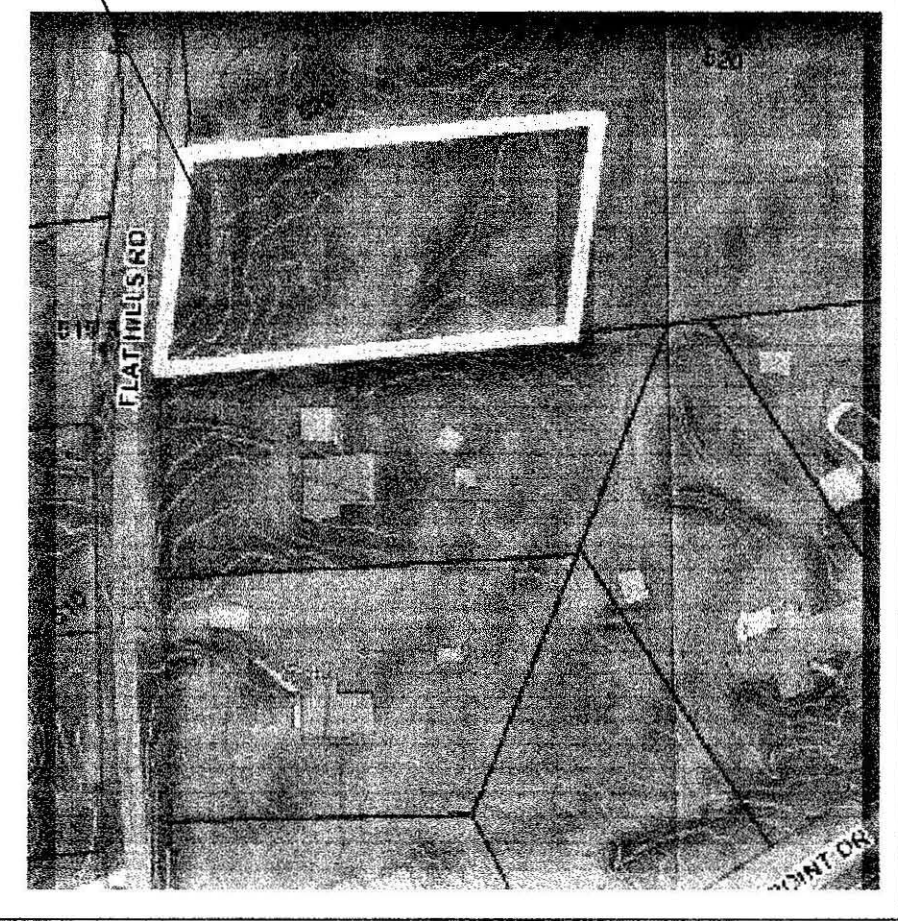
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- 1) HAVE TANK PUMPED EVERY 2 YEARS.
- 2) MAINTAIN AREA OVER SEPTIC SYSTEM AS GRASSY OR SIMILAR GROUND COVER.
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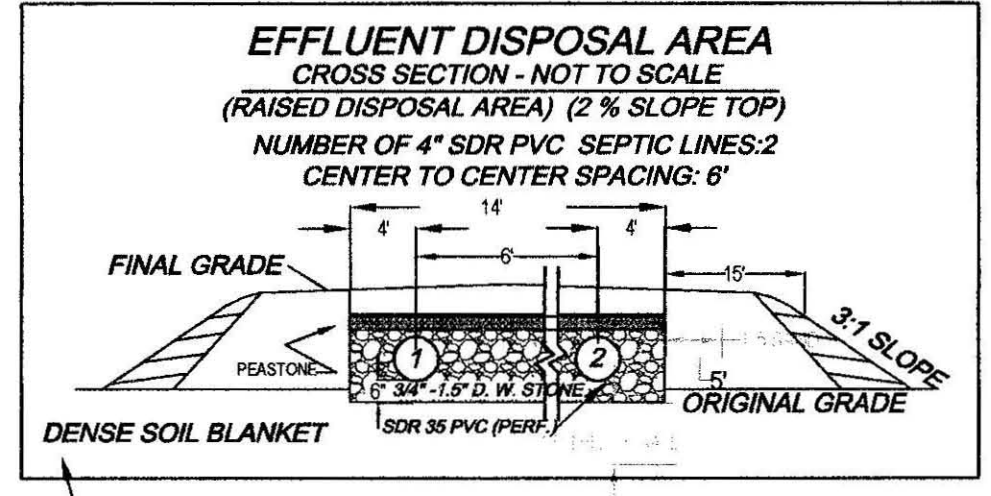
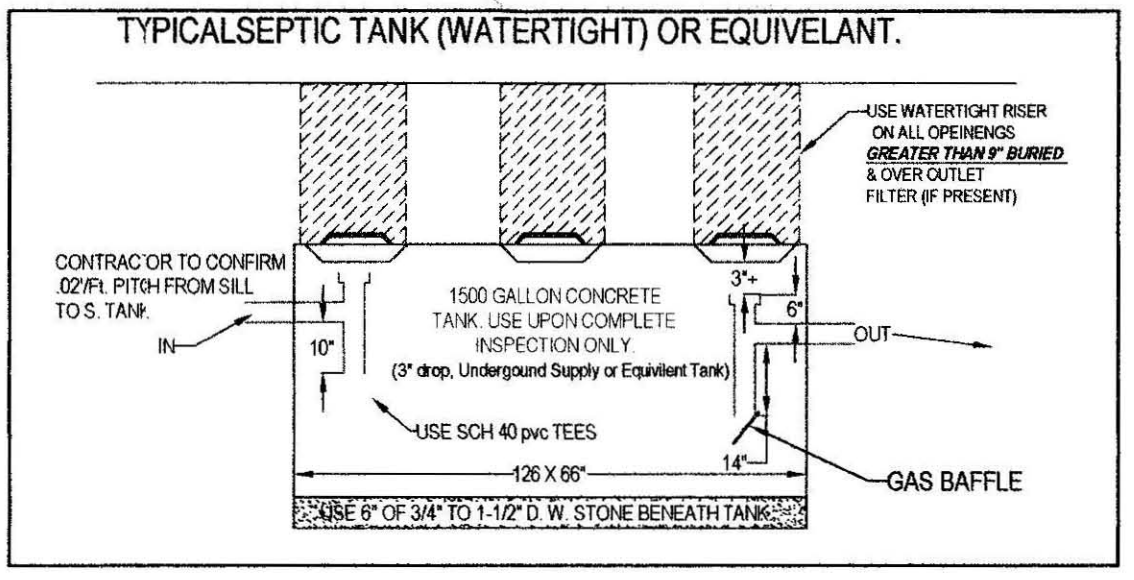
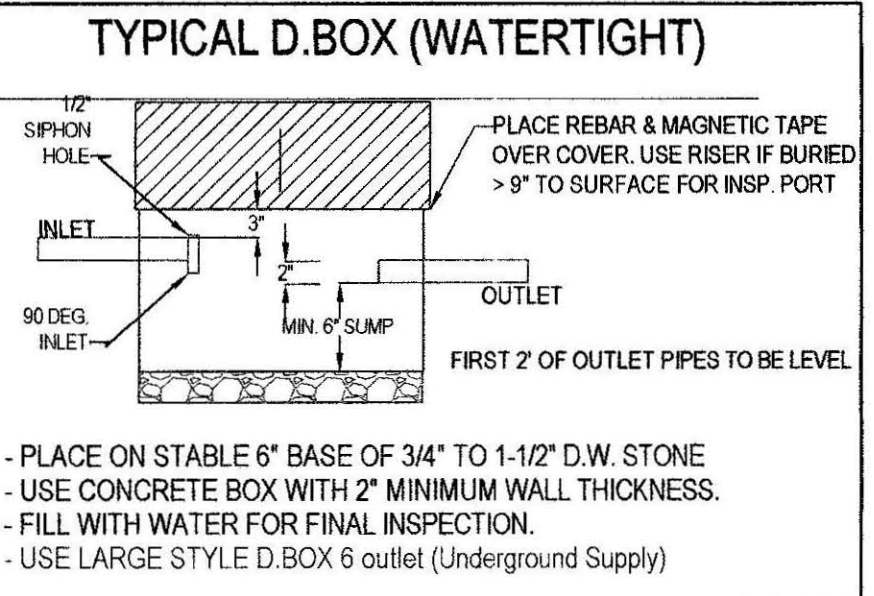
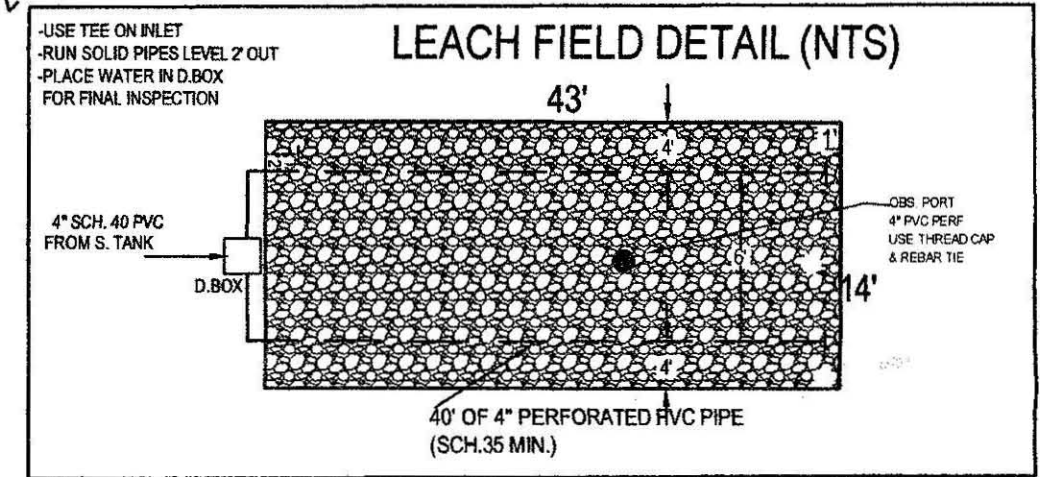
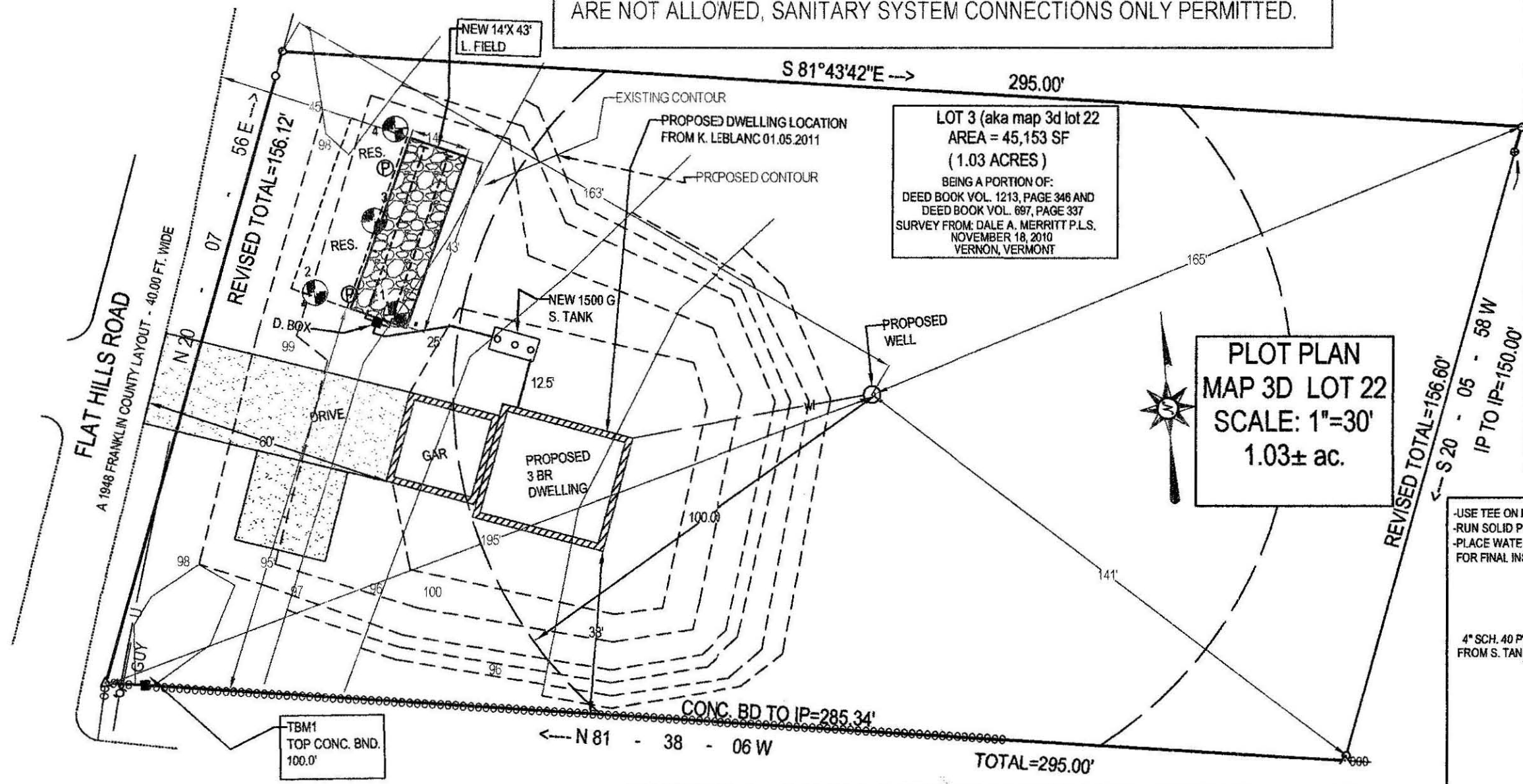
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SUBJECT LOT LOCATION lot 22



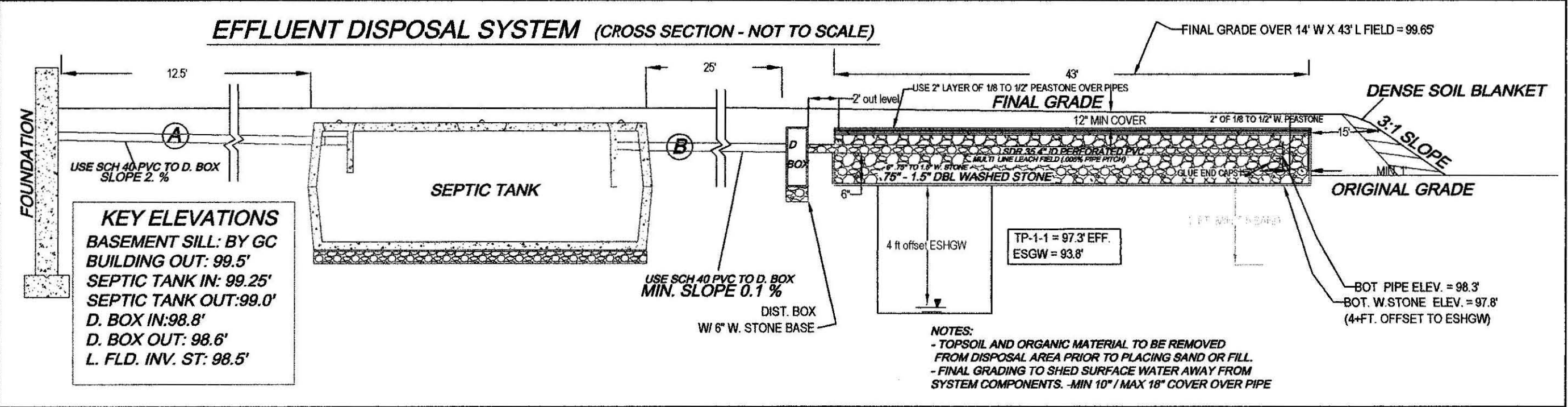
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- 10. PRE & POST CONTOURS NOTED AS NECESSARY. RESERVE AS NOTED (not required for repairs).
- 11. SLOPE CIALCS (SEE CONTOURS). SUBGRADE INSP. REQD.
- 13. USE FIELD DUE TO TOPOGRAPHY AND SPACE OF LOT WITH RESPECT TO LOCATION AND ELEVATION OF RESIDENCE (310 CMR 15.240)
- 14. USE 2% MIN. SLOPE OVER SAS
- CLEAR TOP AND SUB TO 30" MIN. AS NEEDED (INSPECTION REQUIRED).
- CLEAR IPAST BASE OF B (MIN. 30") & SCARIFY UNDER BED PRIOR TO TITL V SAND/STONE PLACEMENT.
- EXCAVATE EXISTING LOAM, SUB AND ANY EXISTING DEBRIS, DIRTY FILL OR PRIOR SYSTEM IF PRESENT.
- 15. SOIL EVALUATION BY A. WEISS, RS. ON 09.03.2009 (G. COURTEMANCHE, BOH AGENT).
- DEPTH OF PERC. 44 & 44"
- PERC RATE = 3 & 3 MIN / IN.
- CLASS 1(LS) SOIL RATING
- 16. NO TREES WITHIN 10 FT. OF NEW LEACH FIELD.
- 17. ENGINEER & TOWN (IF REQUIRED) TO INSPECT SUBGRADE, TOWN AND ENGINEER INSPECT AT FINAL
- 18. BM=100.00 @ (TOP OF CONC. BOUND as noted), CONFIRM PROPER PIPE SLOPES
- USE/INSPECT SCH. 40 PIPE FOR PIPE FROM HOUSE TO NEW OR EXISTING TANK
- 19. GRADE MULCH AND SEED OVER SAS AS NOTED.
- 20. INSTALLATION IN LOW GROUNDWATER SEASON RECOMMENDED.
- 21. 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.



TEST PIT LOG:

TP-1 EFF. ELEV. 97.3' EFF.				TP-2 EFF. ELEV. 97.3'					
DEPTH:	HORIZ:	TEXTURE:	(MONSELL)	MATERIAL:	DEPTH:	HORIZ:	TEXTURE:	(MONSELL)	MATERIAL:
0-10"	A	FSL	10 YR 3.3	FRIABLE, LOOSE	0-10"	A	FSL	10 YR 3.3	FRIABLE, LOOSE
10-26"	Bw	LS	10 YR 6.6	FRIABLE, MED. SAND	10-26"	Bw	LS	10 YR 6.6	FRIABLE, MED. SAND
26-108"	C1	LS	10 YR 4.3	F-MED. SND ABL. TILL GRANULAR, LOOSE 15% GRAV. & BOULDERS	26-120"	C1	LS	10 YR 4.3	F-MED. SND ABL. TILL GRANULAR, LOOSE 15% GRAV. & BOULDERS
OXIDES: 42"				10 YR 6.8, 2.5 Y 4.2	OXIDES: 42"				10 YR 6.8, 2.5 Y 4.2
EHW: 42"					EHW: 42"				
STANDING H2O: NOT OBSERVED					STANDING H2O: NOT OBSERVED				
WEEPING: NOT OBSERVED					WEEPING: NOT OBSERVED				
BEDROCK: 108"+					BEDROCK: 108"+				

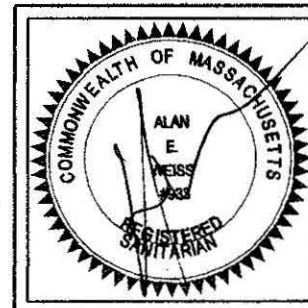
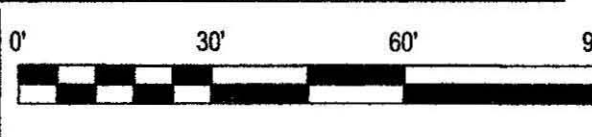


TEST PIT LOG:

TP-3 EFF. ELEV. 97.3' EFF.				TP-4 EFF. ELEV. 97.3'					
DEPTH:	HORIZ:	TEXTURE:	(MONSELL)	MATERIAL:	DEPTH:	HORIZ:	TEXTURE:	(MONSELL)	MATERIAL:
0-10"	A	FSL	10 YR 3.3	FRIABLE, LOOSE	0-12"	A	FSL	10 YR 3.3	FRIABLE, LOOSE
10-24"	Bw	LS	10 YR 6.6	FRIABLE, MED. SAND	12-24"	Bw	LS	10 YR 4.5	FRIABLE, MED. SAND
24-108"	C1	LS	10 YR 4.3	F-MED. SND ABL. TILL GRANULAR, LOOSE 15% GRAV. & BOULDERS	24-104"	C1	LS	10 YR 4.3	F-MED. SND ABL. TILL GRANULAR, LOOSE 15% GRAV. & BOULDERS
OXIDES: 42"				10 YR 5.8, 2.5 Y 4.1	OXIDES: 42"				10 YR 6.8, 2.5 Y 4.1
EHW: 42"					EHW: 42"				
STANDING H2O: NOT OBSERVED					STANDING H2O: NOT OBSERVED				
WEEPING: NOT OBSERVED					WEEPING: NOT OBSERVED				
BEDROCK: 120"+					BEDROCK: 120"+				

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 PLAN FOR KEN LEBLANC
 MAP 3D LOT 22, FLAT HILLS 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: ACWES@charter.net

DATE: 01.06.2011
 SCALE: 1"=30'

DRAWN BY: AEW
 CHECKED BY: AEW

REVISED:
 DRAWING NUMBER: 110-3512-1220

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

Map 3D (was part of 3D 121 when parcel)

Location <u>Lot 22, Flat Hills Rd</u>	Owner's Name <u>Ken Leblanc: Hens By Leblanc</u>
Map/Parcel# <u>3D / 22</u>	Address <u>POB. 307, S. Hadley, MA</u>
Lot#	Telephone# <u>250-8324</u>
Installer's Name <u>River Drive Excav.</u>	Designer's Name <u>Alan Weiss</u>
Address <u>Hadley, MA 01035</u>	Address <u>Belchertown, MA</u>
Telephone# <u>584-1814</u>	Telephone# <u>413-323-5957</u>

Type of Building Residence (New) Lot Size 1.03 Ac. sq. ft.

Dwelling - No. of Bedrooms 3 Bedroom Dwellng Garbage grinder W/O

Other - Type of Building New Residence No. of persons _____ Showers (), Cafeteria ()

Other Fixtures _____

Design Flow (min. required) 110 gpd Calculated design flow 330 Design flow provided 445 gpd

Plan: Date 1/5/2011 Number of sheets 1 Revision Date _____

Title New Septic System Design

Description of Soil(s) Class 1: LS

Soil Evaluator Form No. _____ Name of Soil Evaluator A. Weiss Date of Evaluation 12-03-2009

DESCRIPTION OF REPAIRS OR ALTERATIONS Complete New Design/ Home + Well.

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 Kenneth C. Blane Date 2-10-11

Inspections _____

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.

COMMONWEALTH OF MASSACHUSETTS

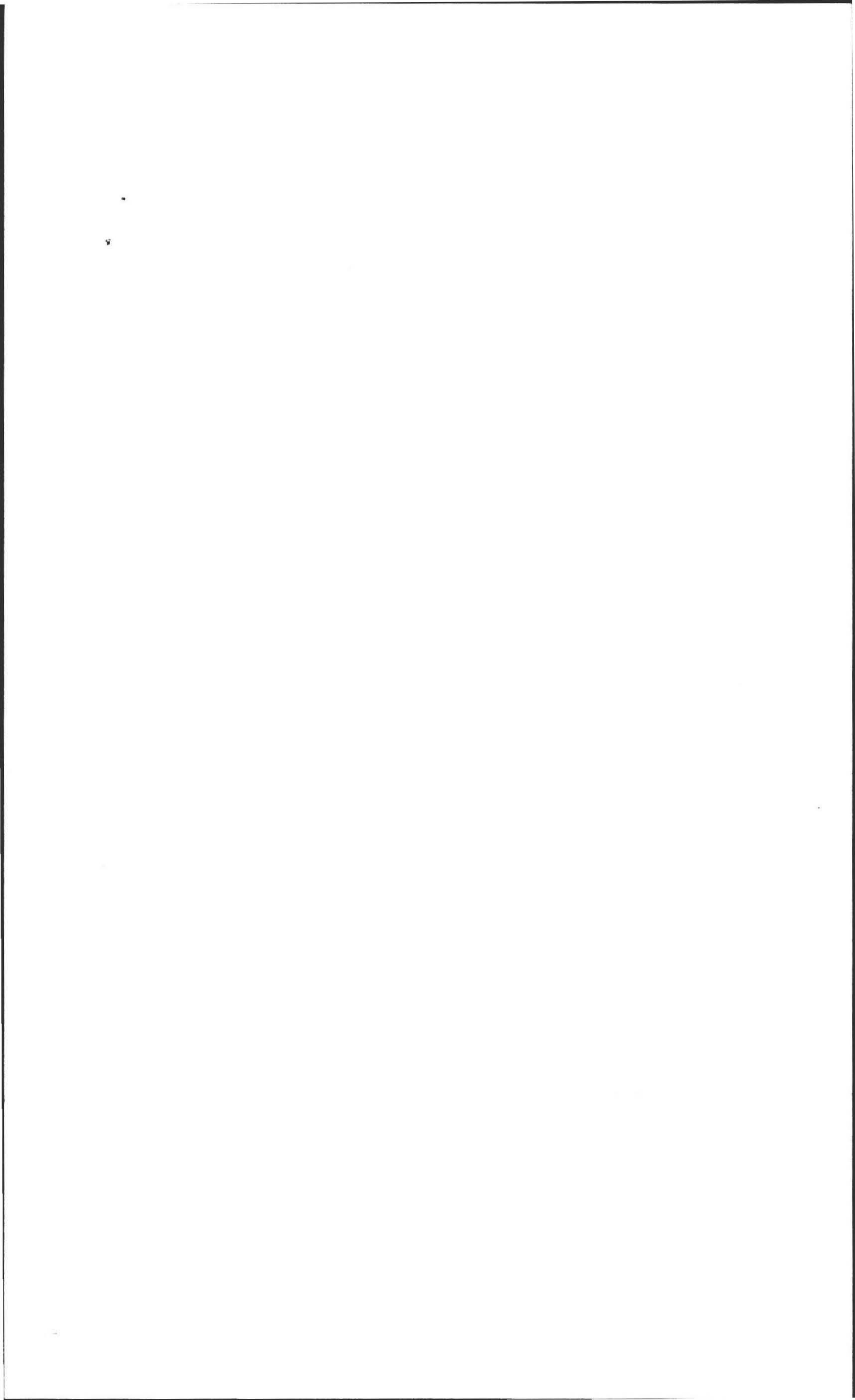
Board of Health, _____, MA.

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.





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

Percolation Test/MA Soil Evaluation

Prepared by:

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

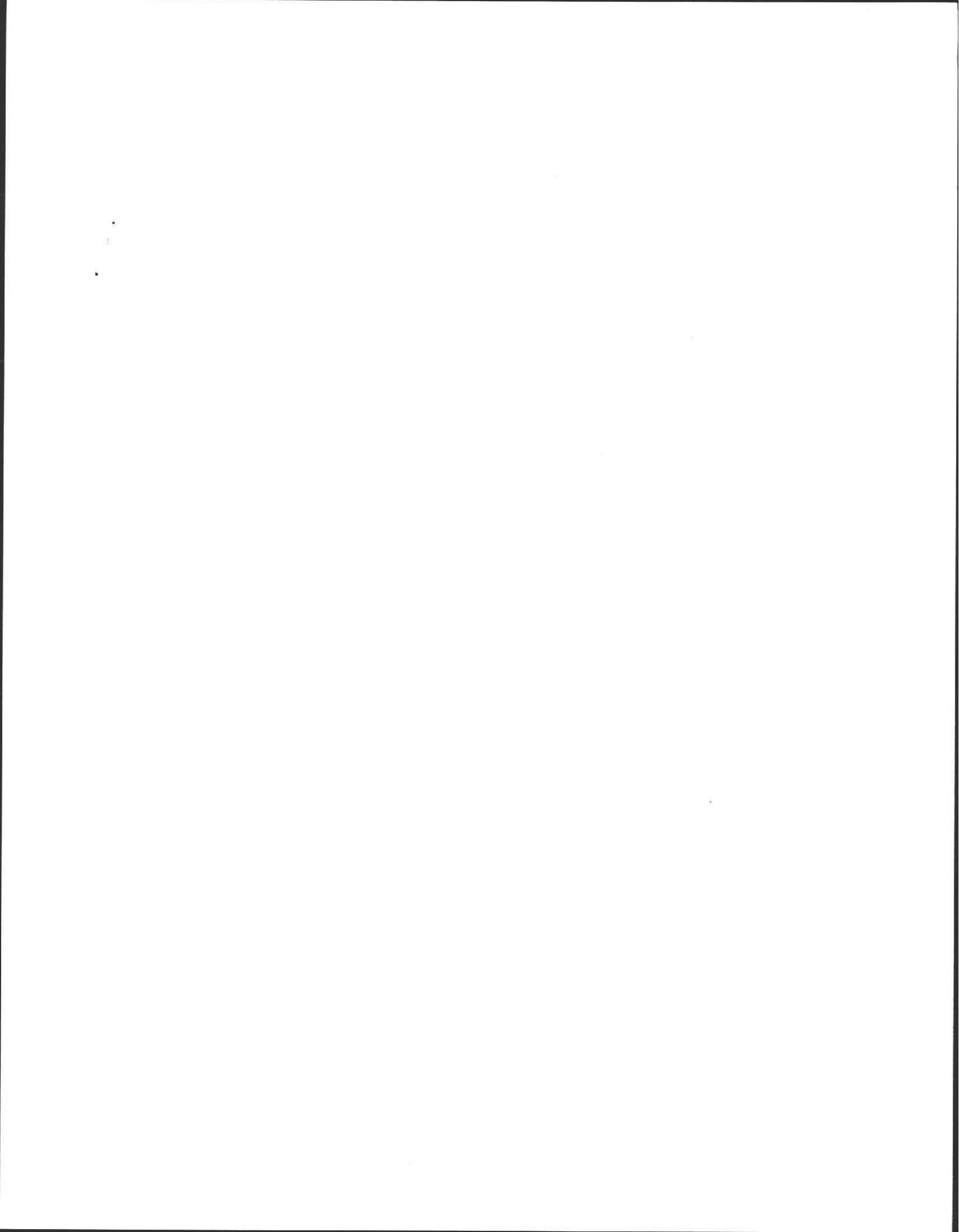
Prepared for:

WD Cows
Cinda Jones, President
WD Cows
POB 9677
N. Amherst, MA. 01059-9677

Project Number: 109-3285-12003

Site: 3 Lots Flat Hills Road
Map 6A lot 91, Map 3D, Lot 39, Map 3D, Lot 21✓
Amherst, Massachusetts

Date: December 3, 2009

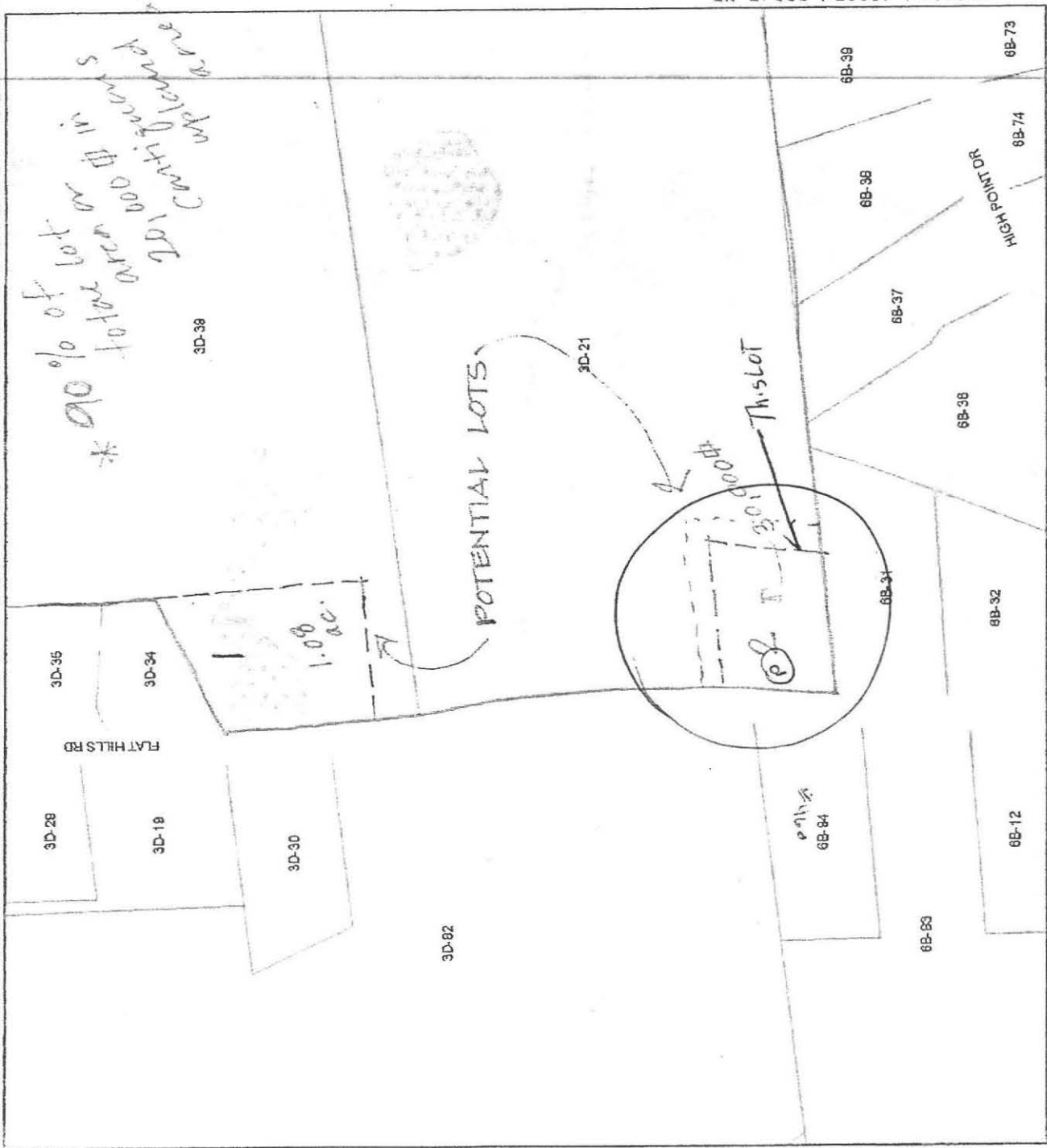


BC District 150' min. Frontage 30,000 ft min. Area. N. 50' x 1/4

Flat Hills Johnson-Ruc

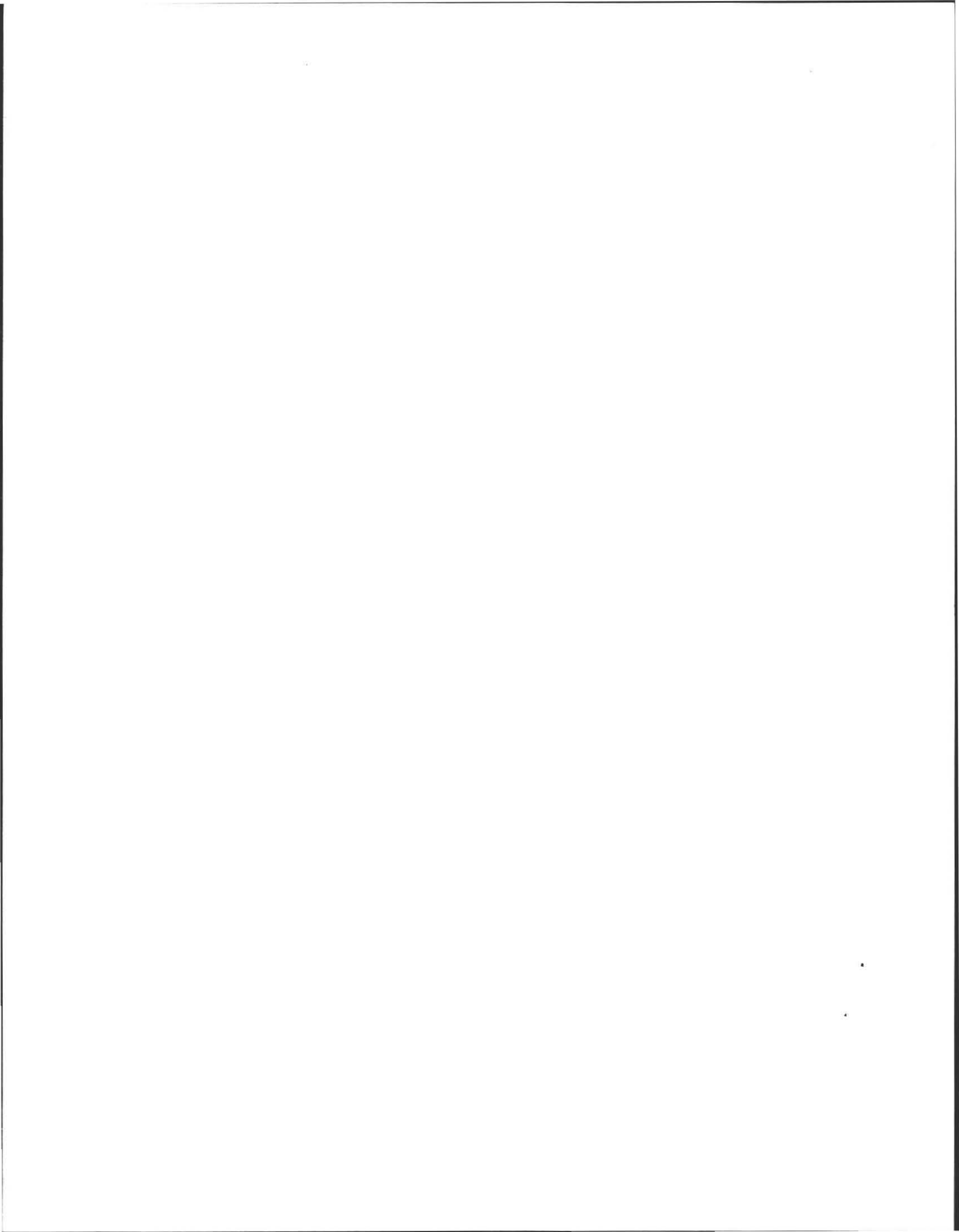


- Property Map
- Property Line
 - Hydrographic Feature
 - Water Body
 - Rail Line
 - Town Boundary
 - Highway
 - Public Property Line
 - Private Property Line
 - Subdivision Lot Line
 - Easements
- Basemap
- Traffic
 - Rail Lines
 - Structures
 - Building
 - Foundation
 - Vegetation
 - River/Dock
 - Water Tank
 - Sinkhole Structure
 - Rivers and Streams
 - Wells
 - Headwall, Floodwall
 - Hydro Connector
 - Major Culverts
 - Major Drainage Ditch
 - Transposition
 - Pavement
 - Unpaved Road
 - Tree Cover



Horizontal Datum: NAD 83, Massachusetts State Plane
 Zone 18N
 Vertical Datum: NAVD83, Feet
 The information depicted on this map is for informational purposes only. It may not be adequate for engineering, regulatory, or other purposes. Utility locations are approximate and not verified.
 THE TOWN OF AMHERST MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, OR SUITABILITY OF THESE DATA. THE TOWN OF AMHERST DOES NOT ASSUME ANY LIABILITY FOR INFORMATION ASSOCIATED WITH THE USE OF A GIS.

1" = 200 ft
 Amherst GIS Viewer





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

Licensed Site Professional

Registered Sanitarian

Hydrogeologist

President

•Subsurface Investigations

•ZIE Site Investigations

•Pollution Remediation

•Percolation Tests and

Septic Designs

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

Date: 12/3/09

Commonwealth of Massachusetts

Amherst, Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: A. Weiss
Witnessed By: G. Co. Truiche
(access from #42)

Date: 12/3/09

Location Address or Lot # Lot #2 Flat Hills Rd Map 3D, 21, Subst part	Owner's Name, Address, and Telephone # W D Couls 134 Montague RD. N. Amherst.
New Construction <input checked="" 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)

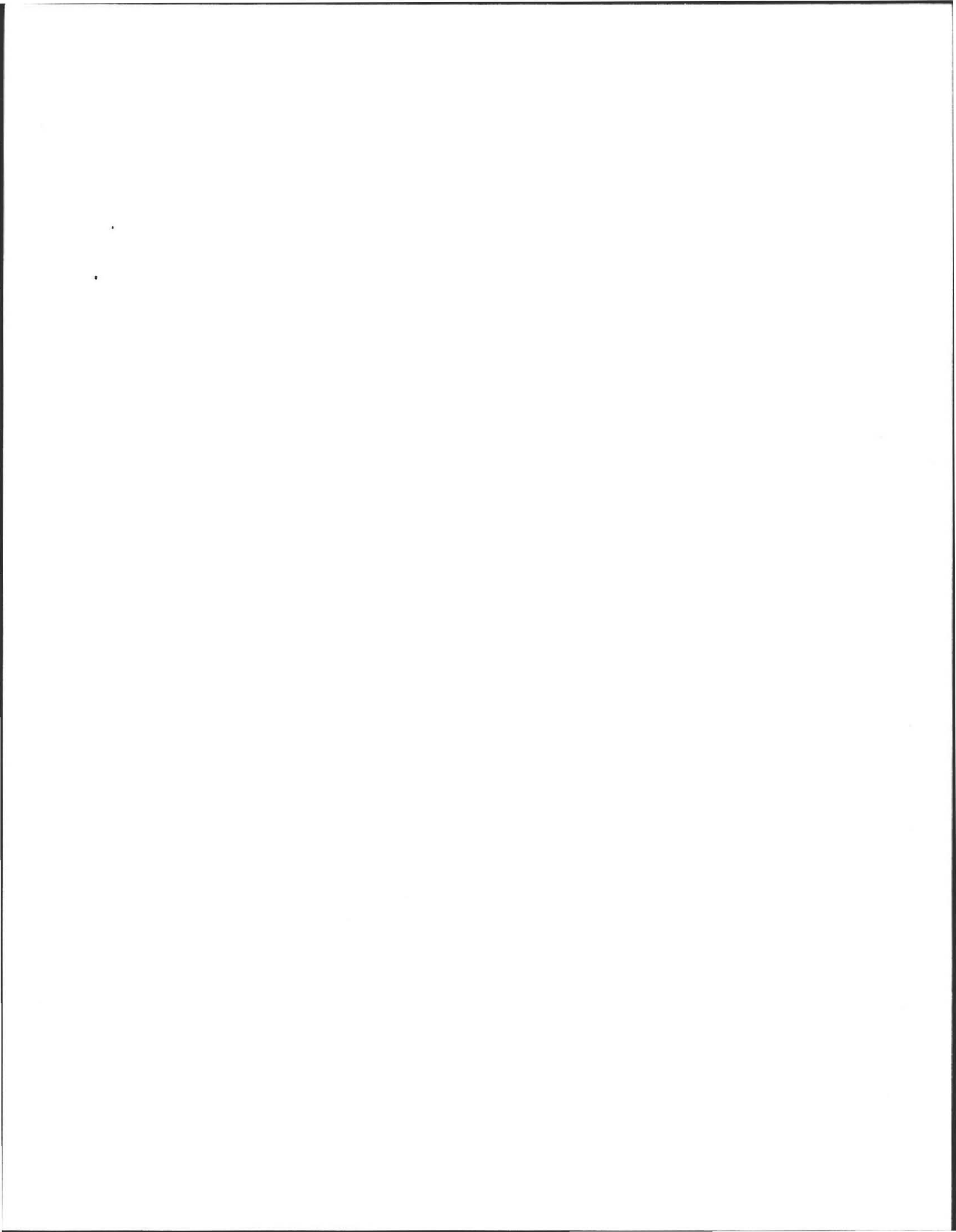
Wetlands Conservancy Program Map (map unit)

Current Water Resource Conditions (USGS): Month

Range :Above Normal Normal Below Normal

Other References Reviewed: _____





Location Address or Lot No. Access from #460
LOT 2, Flat Hills Rd
Mga 3D, LOT 21

On-site Review

Deep Hole Number 1-24 Date: 12-3-07 Time: 11:00 Weather Sun 66°F

Location (identify on site plan) _____

Land Use _____ Slope (%) 2 Surface Stones many

Vegetation Deciduous

Landform Terrace

Position on landscape (sketch on the back)

Distances from:

Open Water Body 100 ft feet Drainage way 50 ft feet
 Possible Wet Area 100 ft feet Property Line 25 ft feet
 Drinking Water Well 100 ft feet Other _____

DEEP OBSERVATION HOLE LOG

#1

#2

#3

#4

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Moisture	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-10" 10-26" 26-108"	A B C ₁	FSC LS LS	10YR 3/1 10YR 6/6 10YR 4/3	42" 2.5 4/2 10YR 6/4	- Frakle, Loose. - F.M. Sandy, Loose. F.M. Abkated till, 15% Stones
0-10" 10-26" 26-108"	A B C ₁	FSL LS LS	10YR 3/3 10YR 6/6 10YR 4/3	42" 2.5 4/2 10YR 6/4	- Frakle - F.M. Sandy, Loose. - F.M. Sandy Abkated till 15% Stones mod Loose.
0-10" 10-24" 24-104"	A B C	FSC LS LS	↓	10YR 6/4 2.5 4/1 42"	Same as #1 + 2
0-12" 12-24" 24-	A B C	FSL LS LS	↓	10YR 6/4 2.5 4/1	Same as #1 + 2

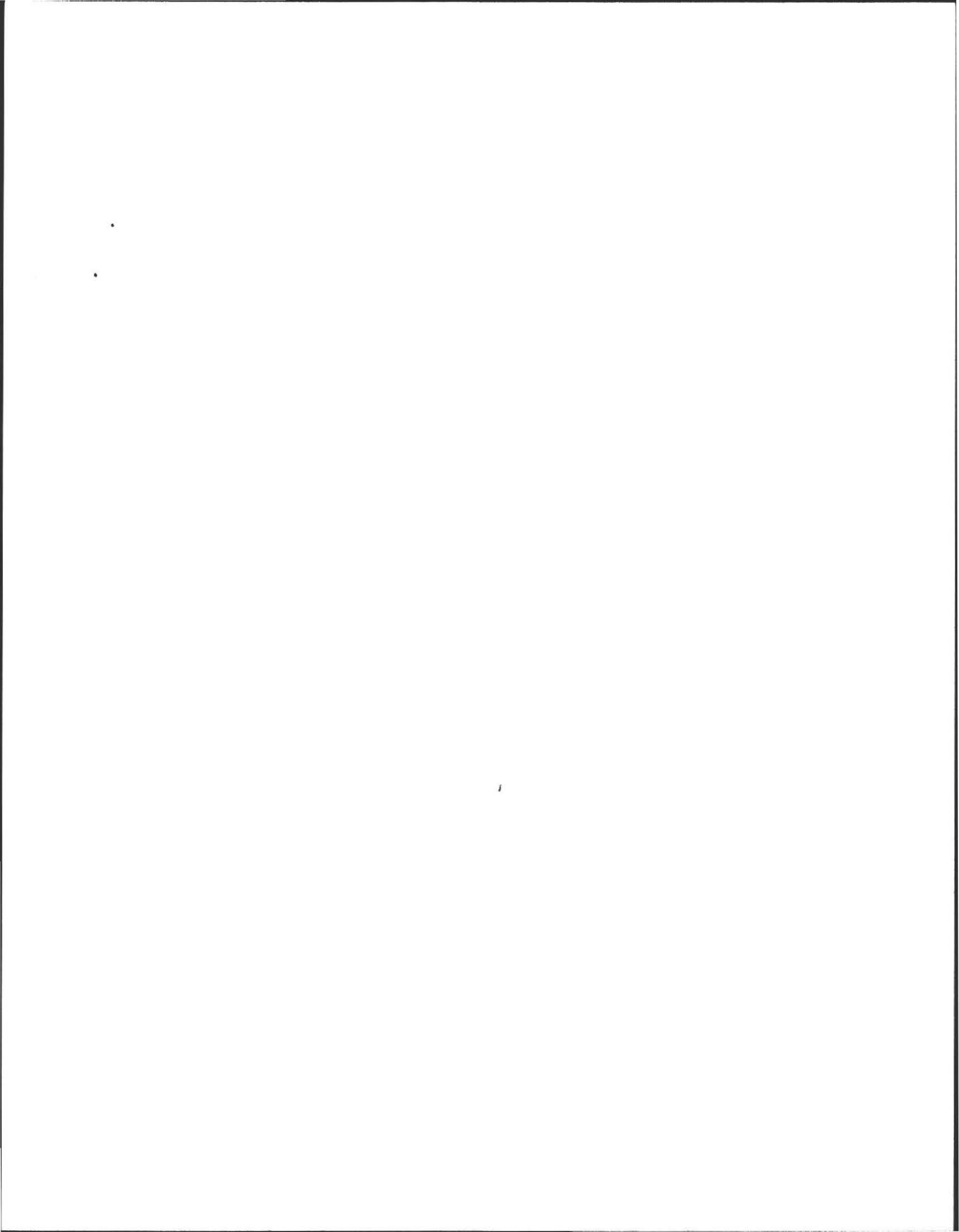
* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) Abkated fill Depth to Bedrock: 106 ft

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

Estimated Seasonal High Ground Water: 42"





Location Address or Lot No. LOT #2 Flat Hills Rd.
Map 3D, LOT 21

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*		
Date: <u>12/3/09</u>		Time: <u>10:55</u>
Observation Hole #	<u>P₁</u>	<u>P₂</u>
Depth of Perc	<u>43"</u>	<u>44"</u>
Start Pre-soak	<u>10:56</u>	<u>11:05</u>
End Pre-soak	<u>11:11</u>	<u>11:40</u>
Time at 12"	<u>11:11</u>	<u>11:40</u>
Time at 9"	<u>11:22</u>	<u>11:52</u>
Time at 6"	<u>11:40</u>	<u>12:08</u>
Time (9"-6")	<u>18</u>	<u>16</u>
Rate Min./inch	<u>6 ^{MIN}/_{IN.}</u>	<u>6 ^{MIN}/_{IN.}</u>

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

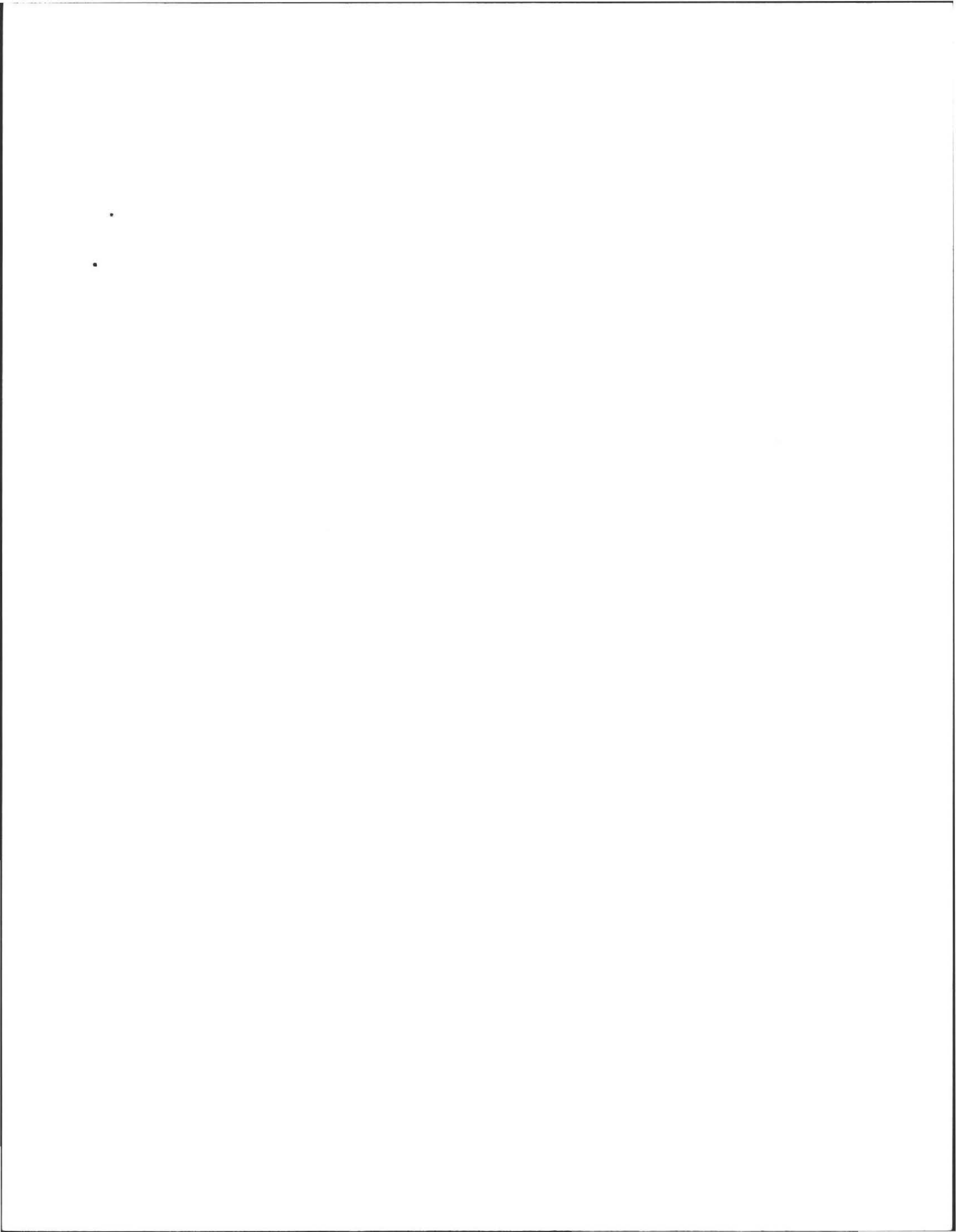
Site Passed Site Failed

Performed By: A. Weiss

Witnessed By: G. Costa Mudge

Comments: _____





Location Address or Lot No. MAP 3D LOT 21
LOT # 2, Access Foa
#460 Flat Hills 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 42' 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

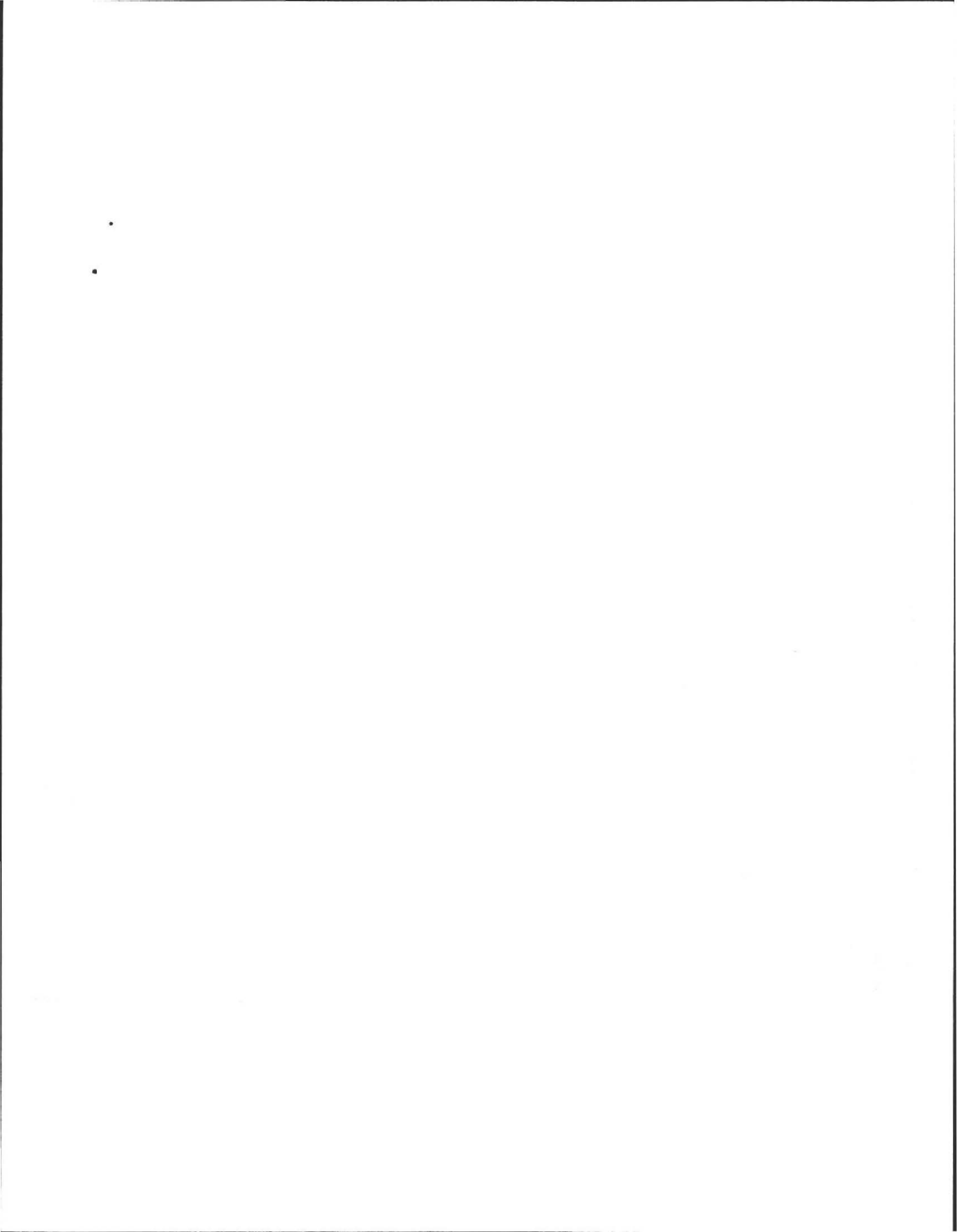
If not, what is the depth of naturally occurring pervious material? _____

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 Ae Date 12-3-09





5/8" REBAR SET IN STONES (11-12-10)

WD Cowls, INC.

S 82 - 05 - 36 E --->
295.00'

SEE PLAN BOOK
46
150.00'

DRIVE LAYOUT - 40.00 FT. WIDE

34.38

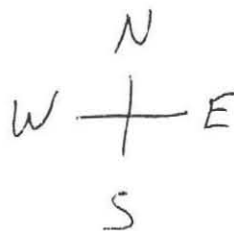
02 E --->

TEST PITS

LOT 3

AREA = 43,382 SF
(0.996 ACRES)

BEING A PORTION OF:
DEED BOOK VOL. 1213, PAGE 346 AND
DEED BOOK VOL. 697, PAGE 337



Back

Driveway

22'x22'

House
38'x32'

9.66'
4" X 4" CONC. BD
(SEE NOTE)

Front

38'

CONC. BD TO CORNER=285.34'

←--- N 82

00

00 W

TOTAL=295.00'

DRIVE

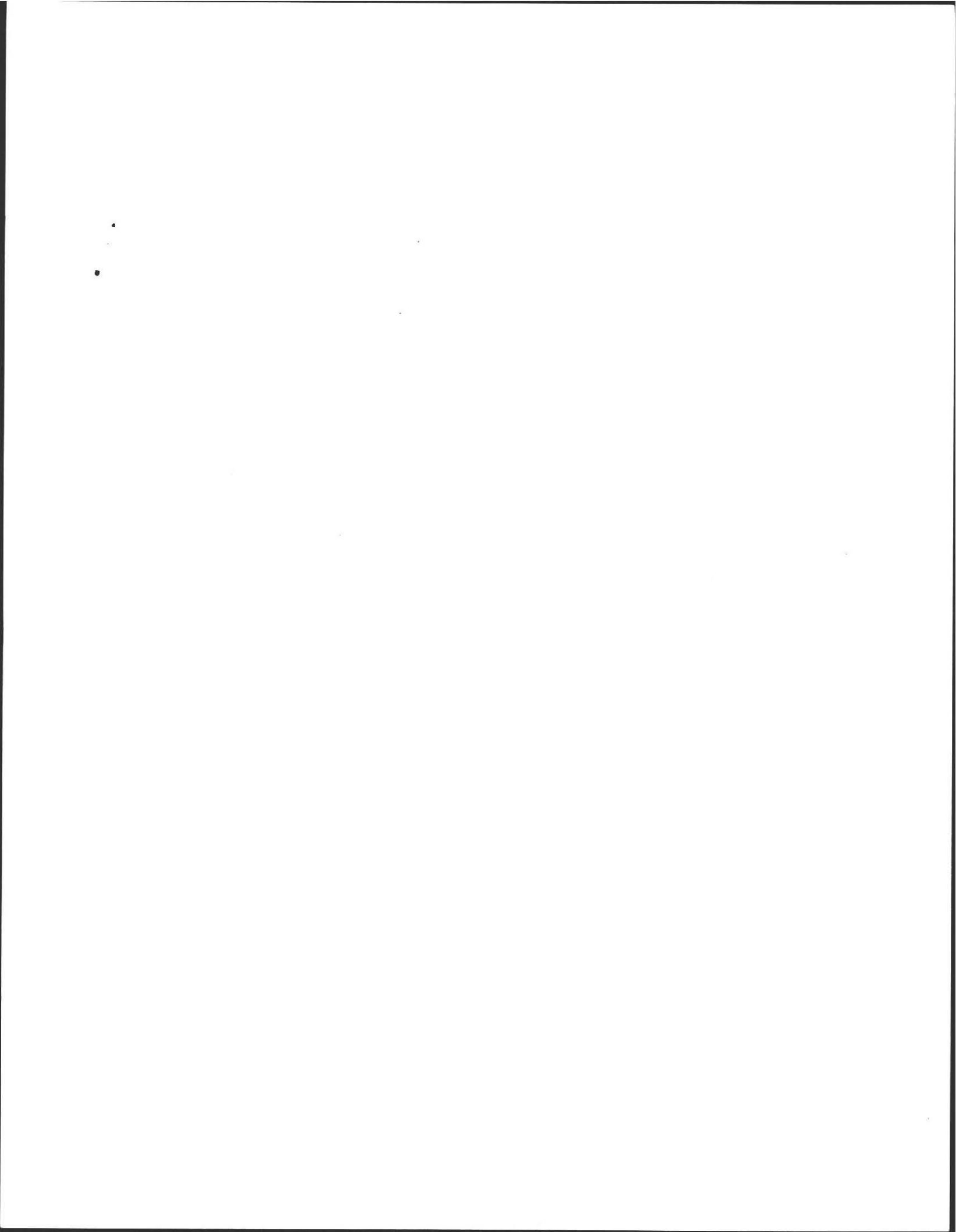
PLAN & LAIDOUT
93-29-00

SARA M. BERGER

SCALE 1=30' (APPROX)

LOT 1

00 W



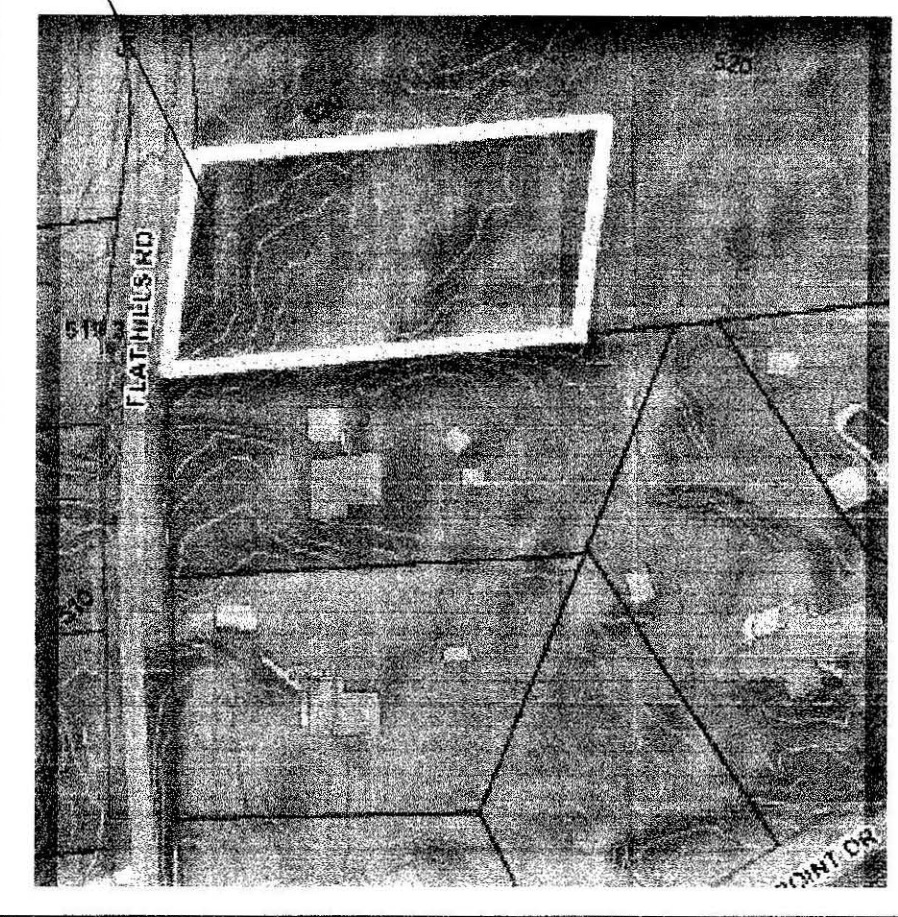
GRAVITY SLOPE SEPTIC SYSTEM OPERATION AND MAINTENANCE NOTES FOR HOMEOWNER.

- 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.
- WIPE ALL OIL AND GREASE FROM COOKWARE AND DISPOSE IN TRASH NOT SEPTIC.
- All Toilets and Faucets must be confirmed to not be leaking, because one leaking fixture can fail a septic system in ONE DAY.

NOTE TO HOMEOWNER: FILL, 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.

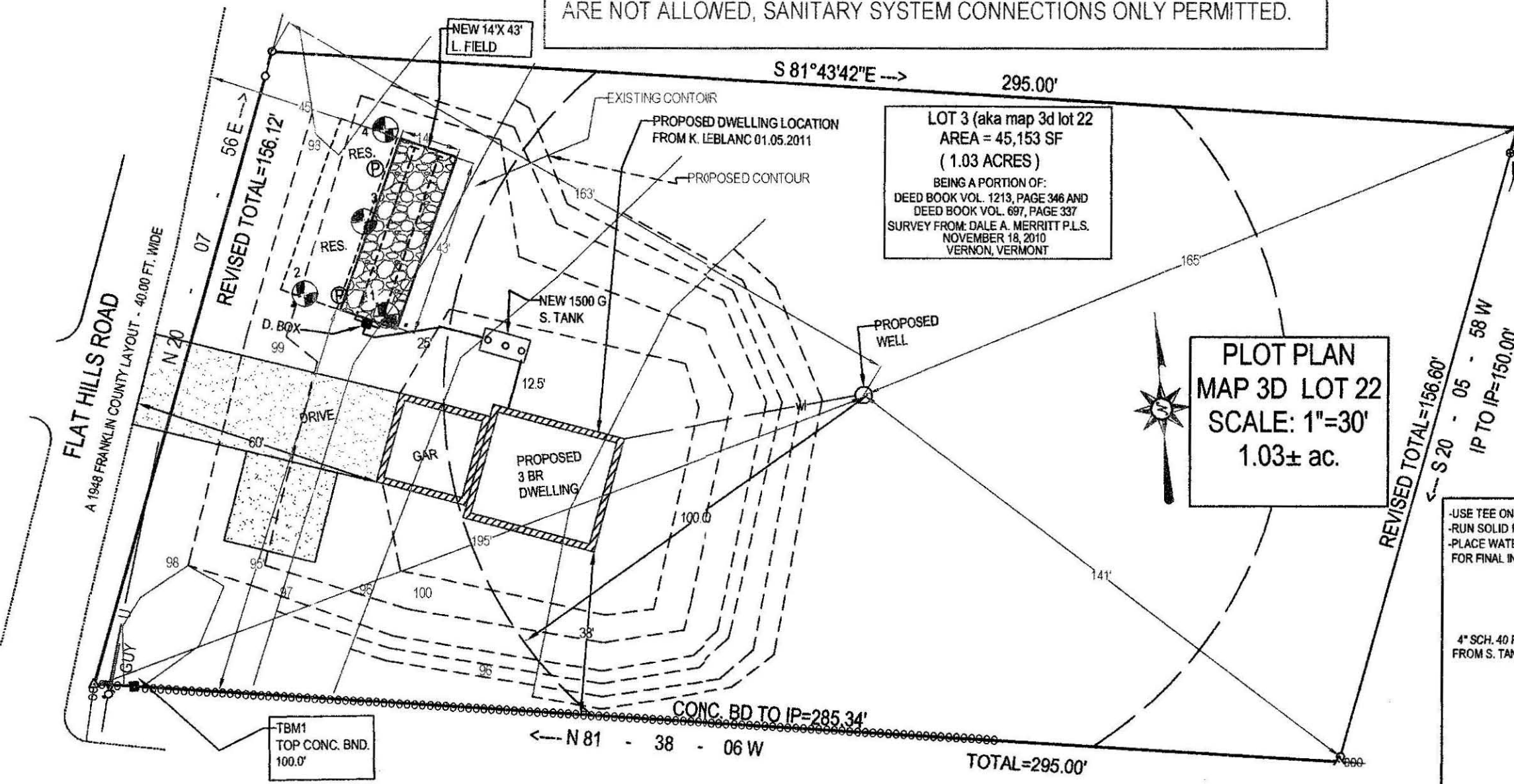
NOTE TO HOMEOWNER AND CONTRACTOR: CONNECTIONS FROM HEATING SYSTEM, AIR CONDITIONERS, SUMP PUMPS, WATER WELL FILTRATION UNITS AND HEAT PUMPS ARE NOT ALLOWED, SANITARY SYSTEM CONNECTIONS ONLY PERMITTED.

SUBJECT LOT LOCATION lot 22

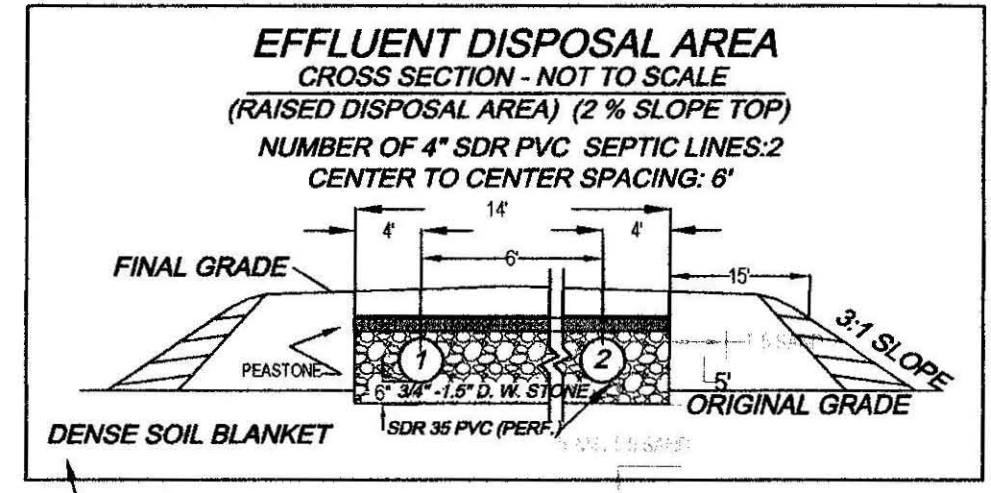
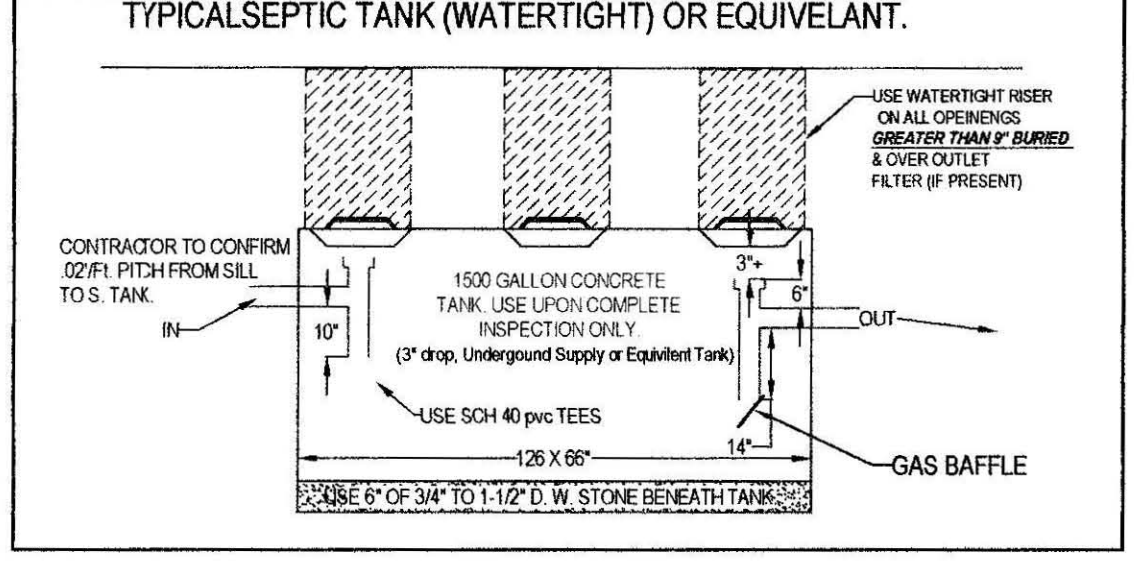
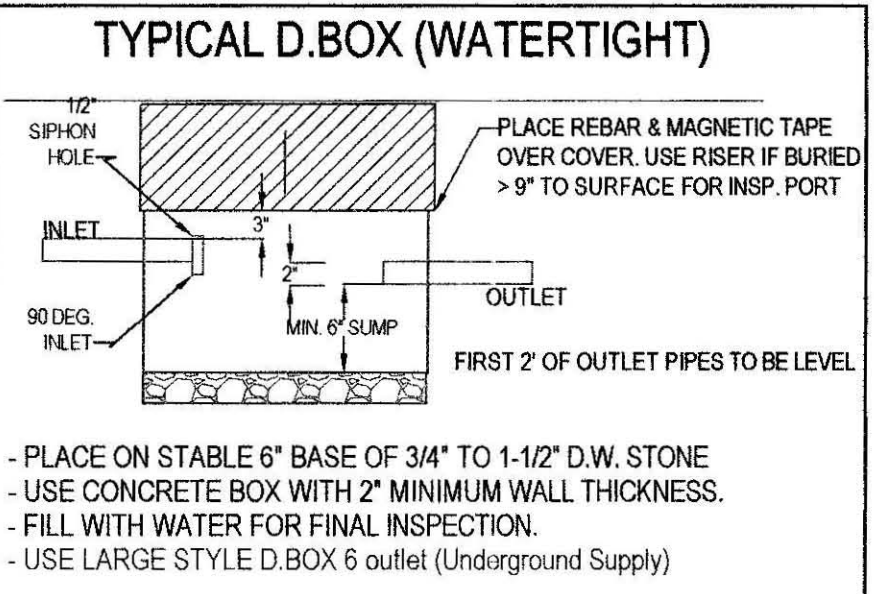
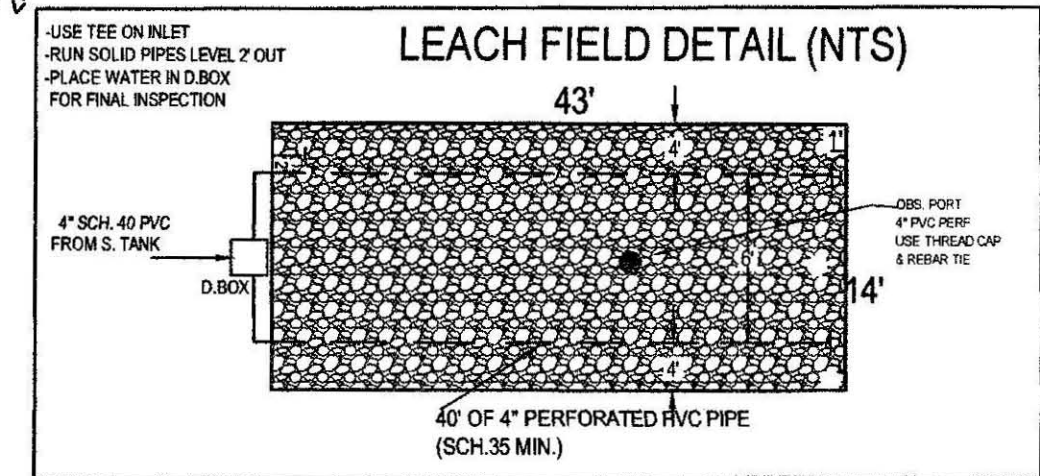


DESIGN NOTES AND CALCULATIONS:

- 3 BEDROOM HOME X 110 GPD / BR = 330 GPD. REQUIRED.
- Use ONE FIELD: 14' WIDE X 43' LONG WITH 6" OF 1/2" TO 1/4" DBL WASHED STONE BELOW INVERT**
 - BOTTOM AREA: 14' W X 43' L = 802 SF.
 - SIDE AREA: 0 SF.
 - TOTAL AREA: 802 SF X 0.74 GAL/SF = 445.5 GPD
- GARBAGE DISPOSAL NOT ALLOWED.
- NO OTHER PRIVATE WELLS WITHIN 100 FEET OF SAS.
- NO OTHER WETLANDS WITHIN 100 FEET OF SAS.
- USE NEW 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 (6 OUTLET) D.BOX ONLY.
- ALL D. BOX OUTLET PIPES LEVEL FOR FIRST 2' BOXES MUST HAVE 2" CONC. WALLS
 - D. BOXES WITH MORE THAN 9" OF COVER SOIL MUST HAVE RISERS TO 6" OF SURFACE.
- USE (75"-1 1/2") STONE UNDER TANK & D. BOX FOR 6" FOR STABLE BASE.
 - USE ONLY DBL. WASHED APPROVED (75"-1.5") FOR PLACEMENT IN LEACH AREA.
- 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. REQD.
- 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 30" MIN. AS NEEDED (INSPECTION REQUIRED).
 - CLEAR PAST BASE OF B (MIN. 30") & SCARIFY UNDER BED PRIOR TO TITLE V SAND/STONE PLACEMENT.
 - EXCAVATE EXISTING LOAM, SUB AND ANY EXISTING DEBRIS, DIRTY FILL OR PRIOR SYSTEM IF PRESENT.
- SOIL EVALUATION BY A. WEISS, RS. ON 09.03.2009 (G. COURTEMANCHE, BOH AGENT).
 - DEPTH OF PERC. 44 & 44"
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 - CLASS 1 (LS) 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 @ (TOP OF CONC. BOUND as noted), CONFIRM PROPER PIPE SLOPES
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- 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.

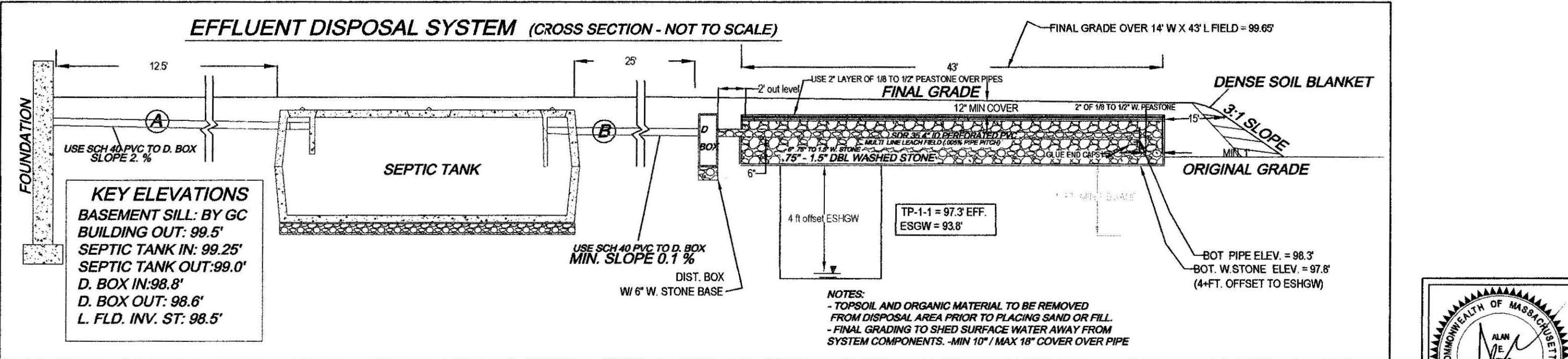


**PLOT PLAN
MAP 3D LOT 22
SCALE: 1"=30'
1.03± ac.**



TEST PIT LOG:

TP-1 EFF. ELEV: 97.3' EFF.				SOIL EVALUATOR: A. WEISS, RS				DATE OF EVALUATION: 12.03.2009			
DEPTH	HORIZ.	TEXTURE	MOISTURE	MATERIAL	DEPTH	HORIZ.	TEXTURE	MOISTURE	MATERIAL		
0-10"	A	FSL	10 YR 3.3	FRIABLE, LOOSE	0-10"	A	FSL	10 YR 3.3	FRIABLE, LOOSE		
10-26"	Bw	LS	10 YR 6.6	FRIABLE, MED. SAND	10-26"	Bw	LS	10 YR 6.6	FRIABLE, MED. SAND		
26-108"	C1	LS	10 YR 4.3	F-MED. SND ABL. TILL	26-120"	C1	LS	10 YR 4.3	F-MED. SND ABL. TILL		
OXIDES: 42"				10 YR 6.8, 2.5 Y 4.2	OXIDES: 42"				10 YR 6.8, 2.5 Y 4.2		
EHWT: 42"					EHWT: 42"						
STANDING H2O: NOT OBSERVED					STANDING H2O: NOT OBSERVED						
WEEPING: NOT OBSERVED					WEEPING: NOT OBSERVED						
BEDROCK: 108"+					BEDROCK: 108"+						



TEST PIT LOG:

TP-3 EFF. ELEV: 97.3' EFF.				SOIL EVALUATOR: A. WEISS, RS				DATE OF EVALUATION: 12.03.2009			
DEPTH	HORIZ.	TEXTURE	MOISTURE	MATERIAL	DEPTH	HORIZ.	TEXTURE	MOISTURE	MATERIAL		
0-10"	A	FSL	10 YR 3.3	FRIABLE, LOOSE	0-12"	A	FSL	10 YR 3.3	FRIABLE, LOOSE		
10-24"	Bw	LS	10 YR 6.6	FRIABLE, MED. SAND	12-24"	Bw	LS	10 YR 4.5	FRIABLE, MED. SAND		
24-108"	C1	LS	10 YR 4.3	F-MED. SND ABL. TILL	24-104"	C1	LS	10 YR 4.3	F-MED. SND ABL. TILL		
OXIDES: 42"				10 YR 5.8, 2.5 Y 4.1	OXIDES: 42"				10 YR 6.8, 2.5 Y 4.1		
EHWT: 42"					EHWT: 42"						
STANDING H2O: NOT OBSERVED					STANDING H2O: NOT OBSERVED						
WEEPING: NOT OBSERVED					WEEPING: NOT OBSERVED						
BEDROCK: 120"+					BEDROCK: 120"+						

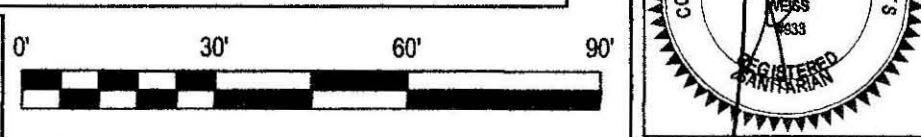
**SEPTIC SYSTEM PLAN FOR KEN LEBLANC
MAP 3D LOT 22, FLAT HILLS ROAD
AMHERST, MA**

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

PJFO.NC: (413) 323-5957
FAC: (413) 323-4916
e-Mail: ACWESS@charter.net

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.



DATE: 01.06.2011
SCALE: 1"=30'
DRAWN BY: AEW
CHECKED BY: AEW
REVISED:
DRAWING NUMBER: 110-3512-1220

3 lot - Flax Hill Rd.





**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

Percolation Test/MA Soil Evaluation

Prepared by:

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

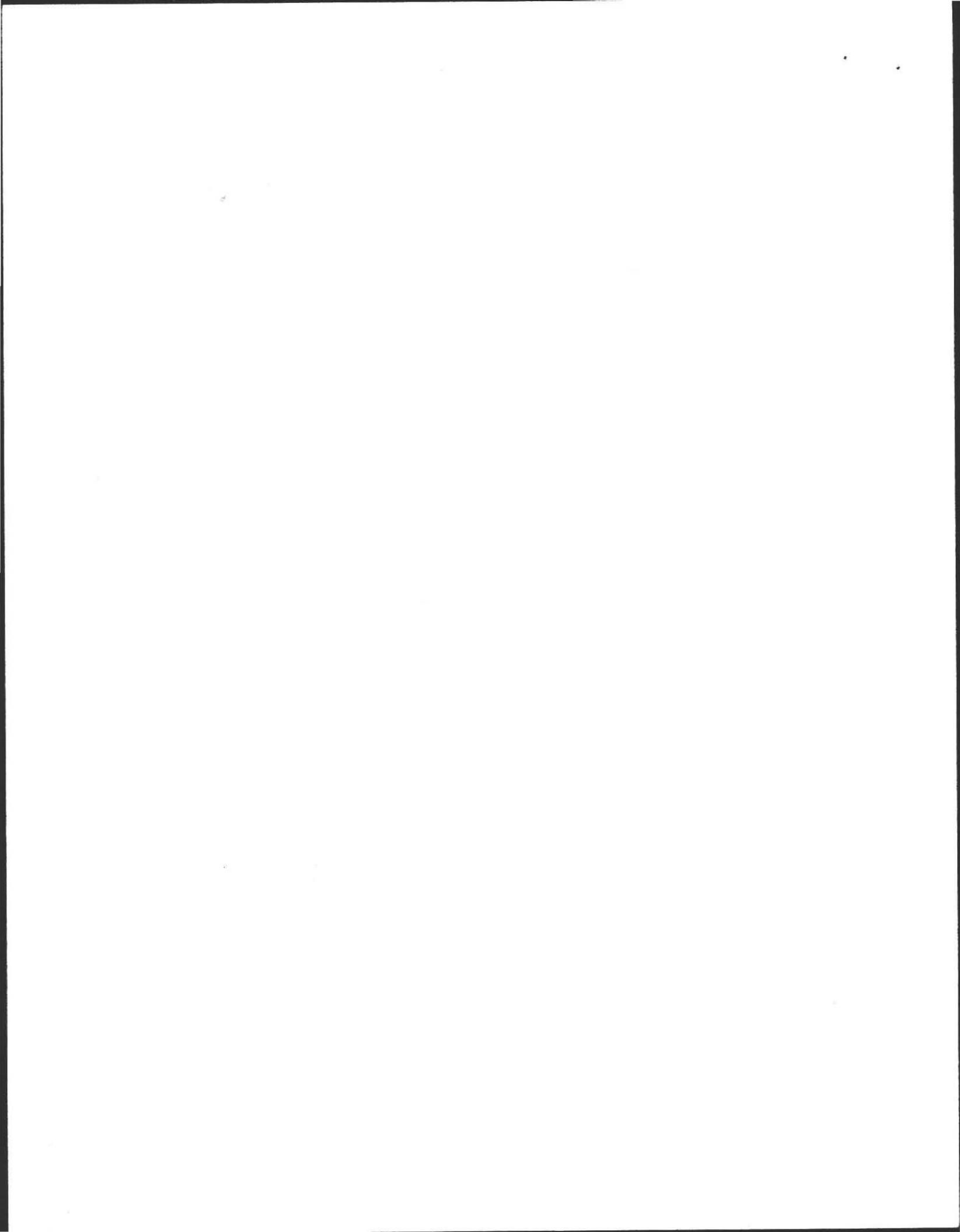
Prepared for:

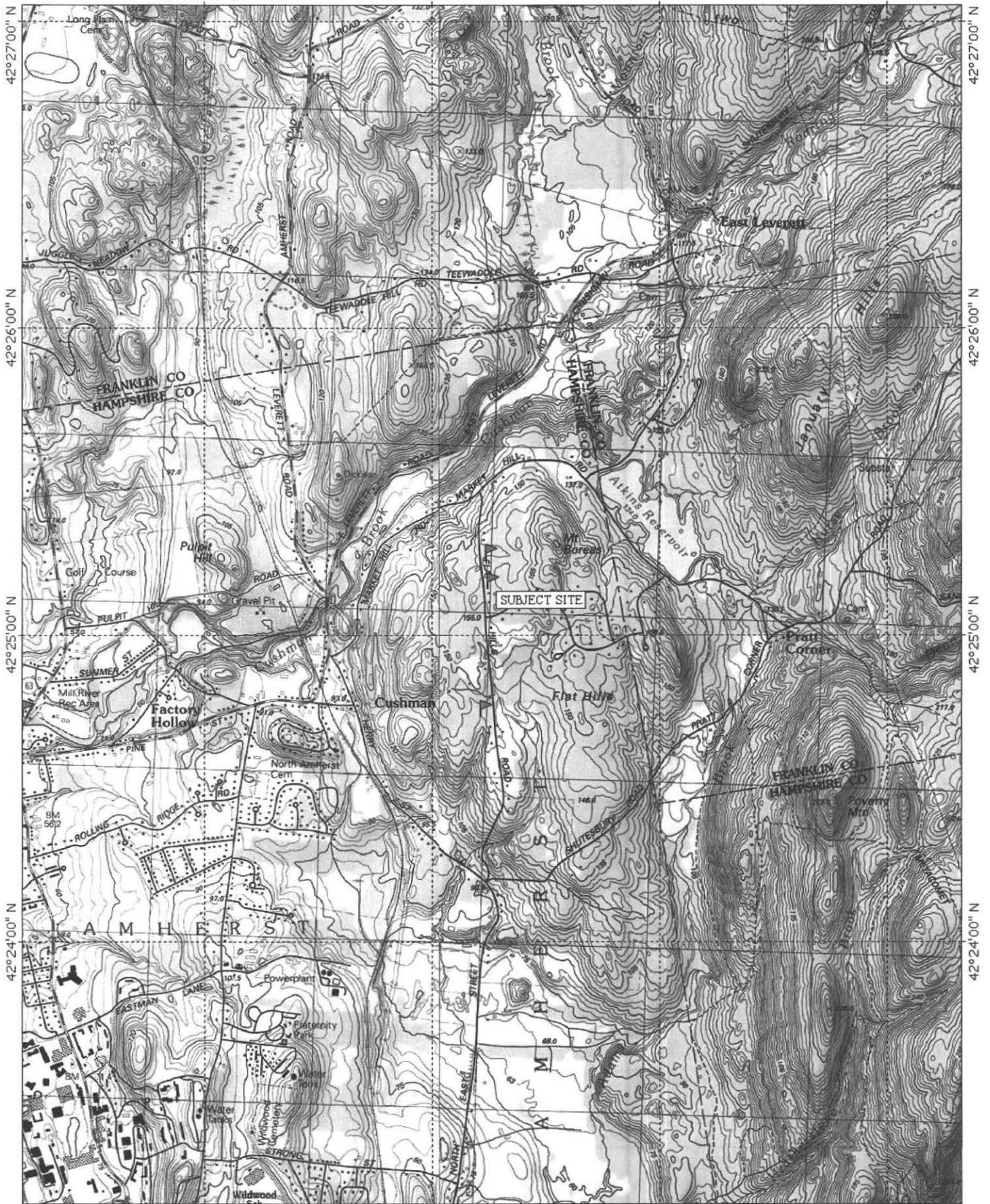
WD Cows
Cinda Jones, President
WD Cows
POB 9677
N. Amherst, MA. 01059-9677

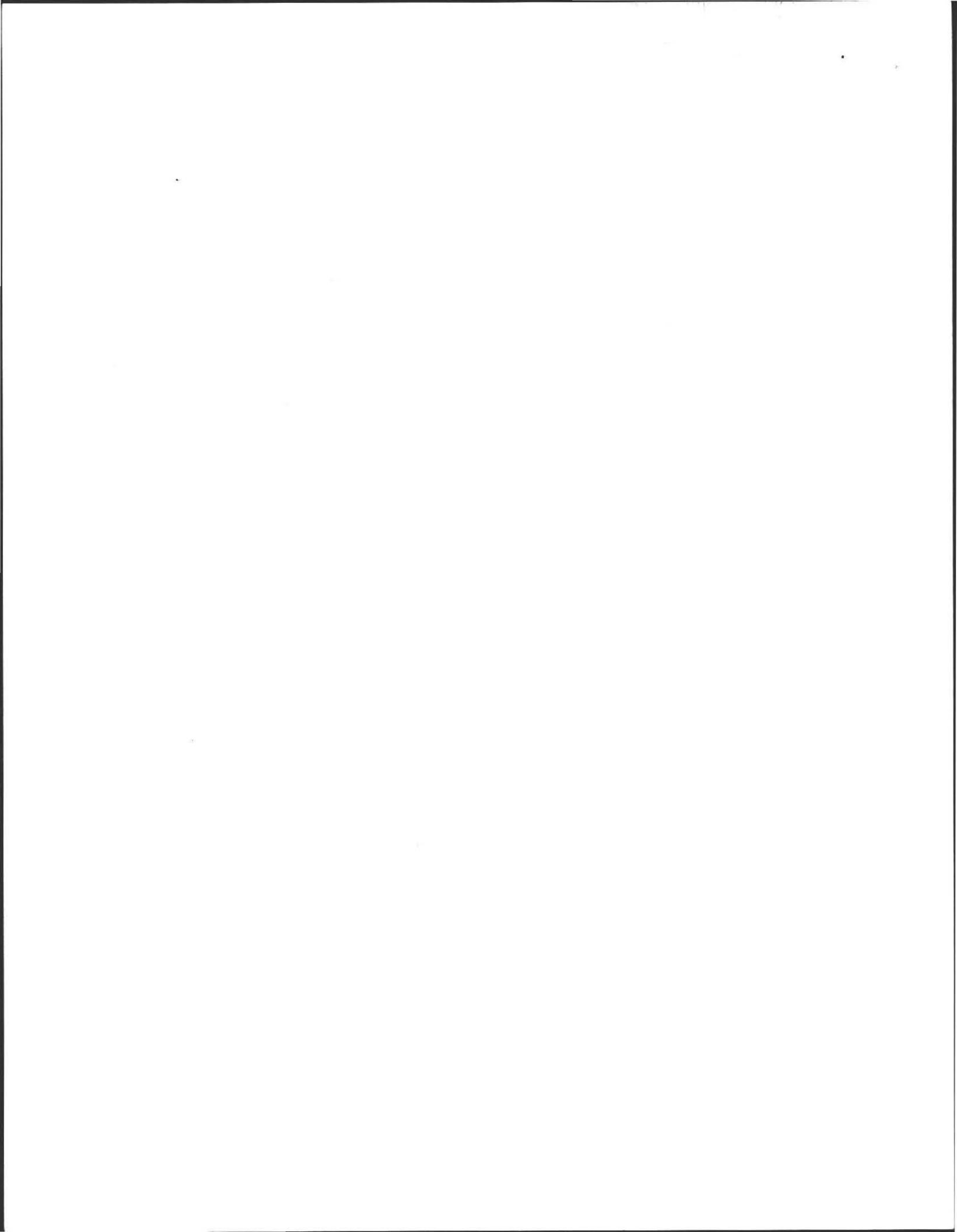
Project Number: 109-3285-12003

Site: 3 Lots Flat Hills Road
Map 6A lot 91, Map 3D, Lot 39, Map 3D, Lot 22
Amherst, Massachusetts

Date: December 3, 2009







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: 12/3/09

Commonwealth of Massachusetts
Amherst, Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: A. Weiss
Witnessed By: G. Courtmarche
(across from #460)

Date: 12/3/09

Location Address or Lot # Lot #2 Flat Hills RD Map 3D, 21, S. west part New Construction <input type="checkbox"/> Repair <input checked="" type="checkbox"/>	Owner's Name, Address, and Telephone # W D Couls 134 Montague RD. N. Amherst.
---	--

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) _____

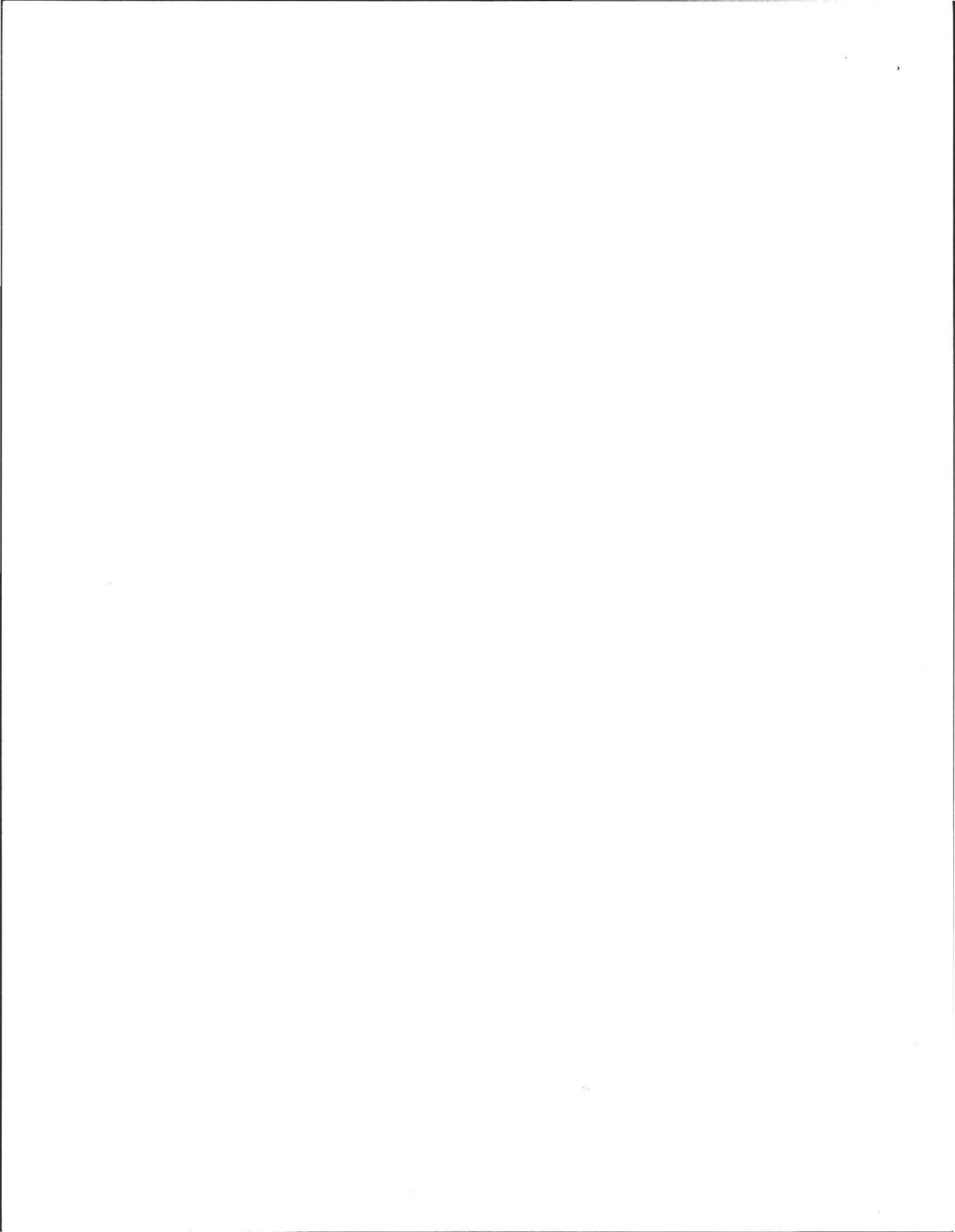
Wetlands Conservancy Program Map (map unit) _____

Current Water Resource Conditions (USGS): Month _____

Range :Above Normal Normal Below Normal

Other References Reviewed: _____





Location Address or Lot No. Access from #460
LOT 2, Flat Hills RD
Map 3D, LOT 21

On-site Review

Deep Hole Number 1-4 Date: 12-3-09 Time: 11:00 Weather SUN 60°F

Location (identify on site plan) _____

Land Use _____ Slope (%) 2 Surface Stones many

Vegetation Deciduous

Landform Terraced

Position on landscape (sketch on the back)

Distances from:

Open Water Body 100+ feet Drainage way 50+ feet
 Possible Wet Area 100+ feet Property Line 25+ feet
 Drinking Water Well 100+ feet Other _____

DEEP OBSERVATION HOLE LOG*

#1
=

#2
=

#3
=

#4
=

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-10" 10-26" 26"-108"	A B C ₁	FSC LS LS	10YR 3/1 10YR 6/6 10YR 4/3	42" 2.5Y 4/2 10YR 6/4	- friable, loose. - F.M. Sandy, loose. F.M. Ablation till, 15% Stones
0-10" 10-26" 26"-108"	A B C ₁	FSL LS LS	10YR 3/3 10YR 6/6 10YR 4/3	42" 2.5Y 4/2 10YR 6/4	- friable - F.M. Sandy, loose. - F.M. Sandy Ablation till 15% stones mod loose.
0-10" 10-24" 24"-104"	A B C	FSC LS LS	↓	10YR 4/8 2.5Y 4/1 42"	Same as #1 + 2
0-12" 12-24" 24-	A B C	FSL LS LS	↓	10YR 6/6 2.5Y 4/1	Same as #1 + 2

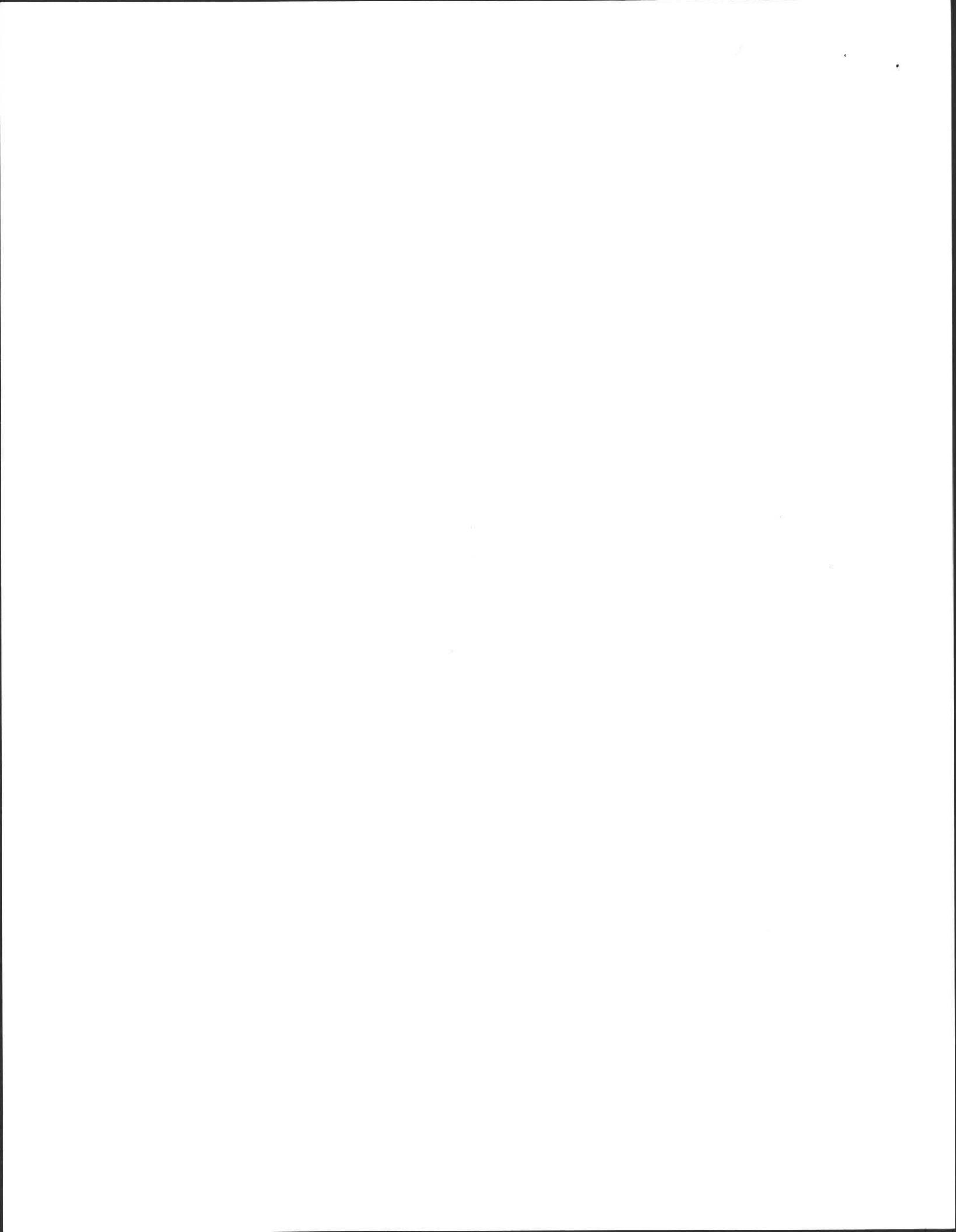
* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) Ablation till Depth to Bedrock: 106"

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

Estimated Seasonal High Ground Water: 42"





Location Address or Lot No. LOT #2 Flat Hills Rd.
Mqo 3D, Lot 21

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*		
Date: ..	<u>12/3/09</u>	Time: <u>10:55</u>
Observation Hole #	<u>A₁</u>	<u>P₂</u>
Depth of Perc	<u>43"</u>	<u>44"</u>
Start Pre-soak	<u>10:56</u>	<u>11:05</u>
End Pre-soak	<u>11:11</u>	<u>11:40</u>
Time at 12"	<u>11:11</u>	<u>11:40</u>
Time at 9"	<u>11:22</u>	<u>11:52</u>
Time at 6"	<u>11:40</u>	<u>12:08</u>
Time (9"-6")	<u>18</u>	<u>16</u>
Rate Min./Inch	<u>6 MIN / IN.</u>	<u>6 MIN / IN.</u>

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

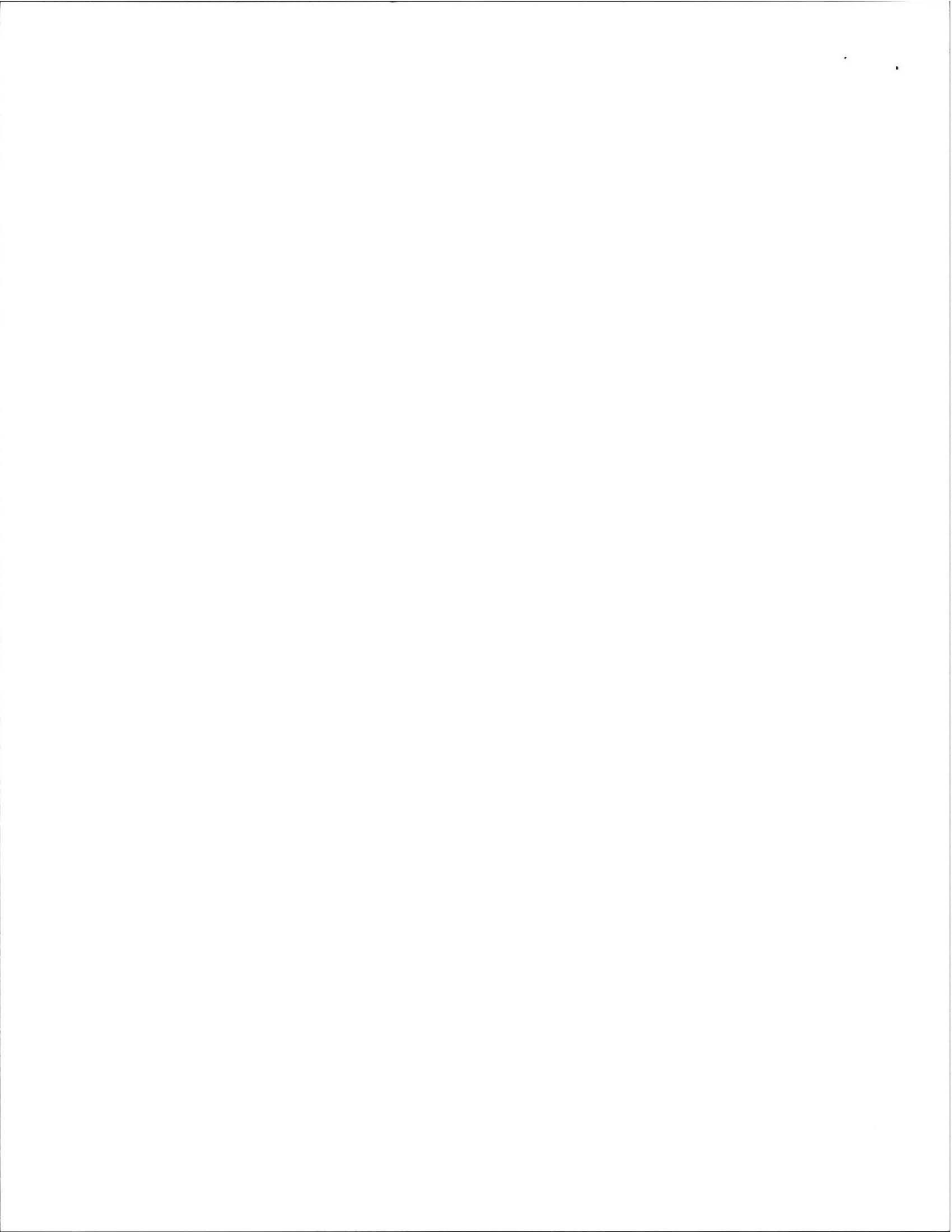
Site Passed Site Failed

Performed By: A. Weiss

Witnessed By: G. Carste Murchie

Comments: _____





Location Address or Lot No. MAP 3D LOT 21
LOT # 2, Access From
#460 Flat Hills 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 42" 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 *Ac* Date 12-3-09

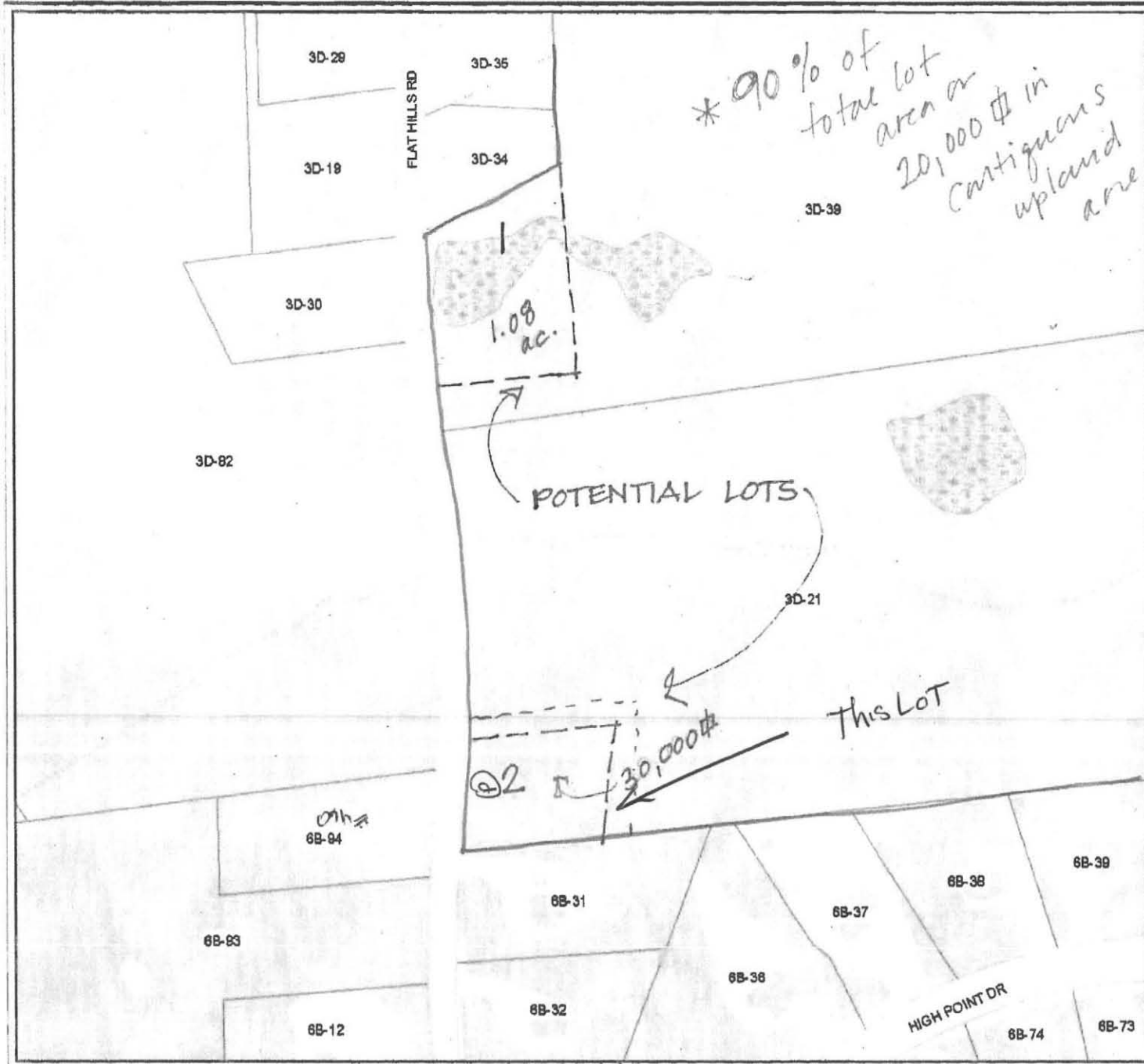


RO District

150' min. Frontage

30,000 \$ min. Area.

No sewer/n



* 90% of total lot area or 201,000 \$ in Castiguan's upland acreage

Flat Hills f Johnson-Ruc



- Property Map
- Property Lines
 - Property Line
 - Hydrographic Property
 - Right of Way Line
 - Town Boundary
 - Historic Property Lines
 - Former Property Line
 - Subdivision Lot Line
 - Easements
- Basemap
- Trails
 - Rail Lines
 - Structures
 - Building
 - Foundation
 - Miscellaneous
 - Flar / Cook
 - Water Tank
 - Sketched Structure
 - Rivers and Streams
 - Streams
 - Headwalls, Floodwall
 - Hydro Connector
 - Major Culverts
 - Major Drainage Ditch
 - Transportation
 - Pavement
 - Unpaved Road
 - Tree Cover

Horizontal Datum: MA Stateplane Co Zone 4151, Datum NAD83, Feet

Planimetric basemap features compiled 1"=100' scale from April, 1999 Aerial Photography; April, 2004. Parc a "beel-fl" methodology to match the are ongoing.

The information depicted on this map purposes only. It may not be adequate definition, regulatory interpretation, or conveyance purposes. Utility structure utility locations are approximate and r verification.

THE TOWN OF AMHERST MAKES / EXPRESSED OR IMPLIED, CONCE ACCURACY, COMPLETENESS, RE SUITABILITY OF THESE DATA. THE AMHERST DOES NOT ASSUME AN ASSOCIATED WITH THE USE OR I INFORMATION.

1" = 200 ft

Amherst GIS Viewer

