

33 OVERLOOK

MATHEWS YOUNG

Richard Scott, P.E.
31 Shutesbury Road
Pelham, MA 01002

December 29, 1994

David Zarozinski
Amherst Health Department
Town Hall
Amherst MA 01002

Re: Septic System Repair at 33 Overlook Drive
Bruce & Sally MacDougall

On Thursday December 29, I conducted an as-built inspection of this newly repaired septic system. The as-built dimensions are shown in "clouds" on the enclosed plan copy.

All system components are installed. In plan view the leach trenches are shifted a small amount to preserve landscape trees. This small shift will not affect system performance and the field location remains over the test pits.

As a result of your review the elevations were revised prior to the start of construction earlier this week. Elevations as built were spot checked at approximately twelve locations. The results are all within a tolerance of +/- .05 feet and all pipe pitches are in accordance with Title 5.

The minimum 48 inch offset above the impermeable layer has been maintained and capacity of the system as constructed exceeds that required by Title 5 for a four bedroom house.

Work remaining to be done as of Thursday afternoon was simply to backfill all system components. Once the remaining work is complete, my recommendation is that you approve the installation for use.

If you should have any further questions on this project please don't hesitate to call me.

Sincerely,



Richard Scott P.E.

cc: MacDougalls
Paul Lussier

Dear Mother
I received your letter of the 10th and was
glad to hear from you. I am well and
hope these few lines will find you the same.

I have not much news to write at present.
The weather here is very pleasant now.
I have been out for a walk every day.

I have not much news to write at present.
The weather here is very pleasant now.
I have been out for a walk every day.

I have not much news to write at present.
The weather here is very pleasant now.
I have been out for a walk every day.

I have not much news to write at present.
The weather here is very pleasant now.
I have been out for a walk every day.

No.

THE COMMONWEALTH OF MASSACHUSETTS

BOARD OF HEALTH

TOWN OF AMHERST



Application for Disposal Works Construction Permit

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

33 OVERLOOK DRIVE LOT #90
BRUCE MACDONALD Location - Address or Lot No. 33 OVERLOOK DR. AMHERST, MA 01002
KARL'S EXCAVATING Owner RIVER DRIVE HARLEY MA 01035
Installer Address

Type of Building Dwelling (X) No. of Bedrooms 4 Expansion Attic (No) Garbage Grinder (No)
Other - Type of Building No. of persons Showers () - Cafeteria ()
Other fixtures

Design Flow 110 gallons per person per day. Total daily flow 440 gallons.
Septic Tank (X) Liquid capacity 2000 gallons Length 126" Width 68" Diameter - Depth 73"
Disposal Trench (X) No. 3 Width 36" Total Length 100' Total leaching area 577 sq. ft.
Seepage Pit No. Diameter Depth below inlet Total leaching area sq. ft.

Other Distribution box (Yes) Dosing tank (No)
Percolation Test Results Performed by P. SCOTT, P.E. WITNESS: D. ZARZINSKI, BPH Date 11-30-94
Test Pit No. 1 minutes per inch Depth of Test Pit 102" Depth to ground water DRY
Test Pit No. 2 10 minutes per inch Depth of Test Pit 96" Depth to ground water DRY

Description of Soil PIT #1 TO 4" TOPSOIL; TO 18" SUBSOIL; TO 102" DEPTH YELLOW-GREY SANDY TILL W/ FINES PIT #2 TO 6" TOPSOIL; TO 18" SUBSOIL; TO 96" DEPTH YELLOW-GREY SANDY TILL W/ FINES
Nature of Repairs or Alterations - Answer when applicable REPLACE LEACH FACILITY

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

Signed _____ Date _____
Application Approved By _____ Date _____
Application Disapproved for the following reasons: _____ Date _____

Permit No. _____ Issued _____ Date _____

THE COMMONWEALTH OF MASSACHUSETTS

BOARD OF HEALTH

OF Certificate of Compliance

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

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

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

DATE _____ Inspector _____

CHECK OR FILL IN WHERE APPLICABLE

1
2
3
4

5
6

7
8
9
10

11
12
13
14

15
16
17
18

19
20
21
22

23

24

OBSERVATION PITS

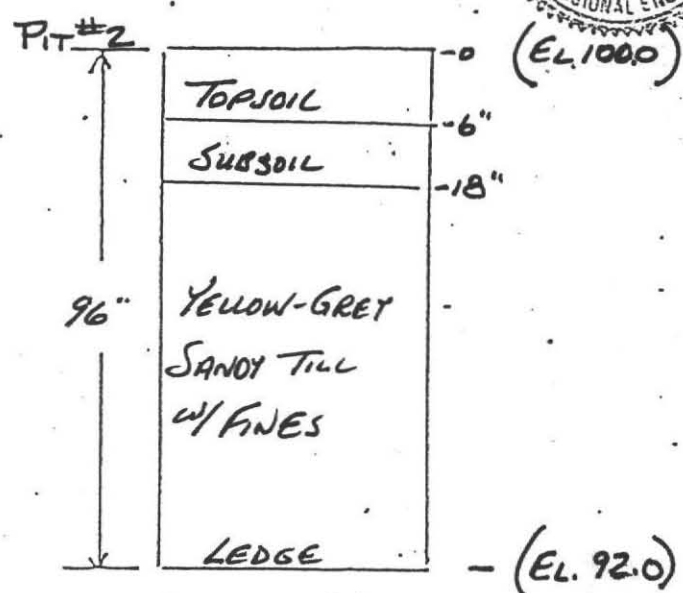
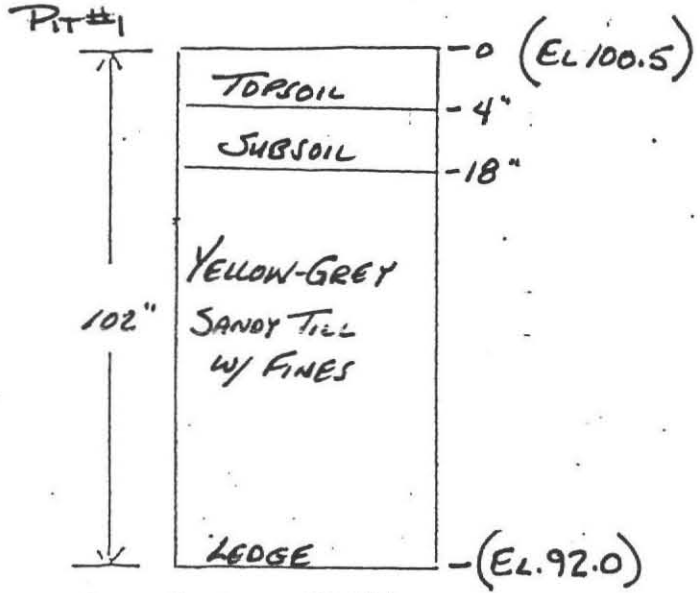
REQUESTED BY: BRUCE MacDOUGALL

LOCATION: 33 OVERLOOK DRIVE
AMHERST

MAILING ADDRESS: 33 OVERLOOK DR. AMHERST, MA 01002

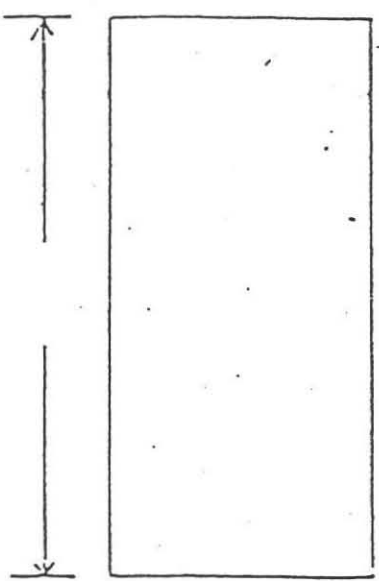


DATE: 11-30-94 OBSERVER: R. BOTT, P.E. WITNESS: D. ZARZEWSKI, BOCH



Groundwater DRY
Perc Rate _____

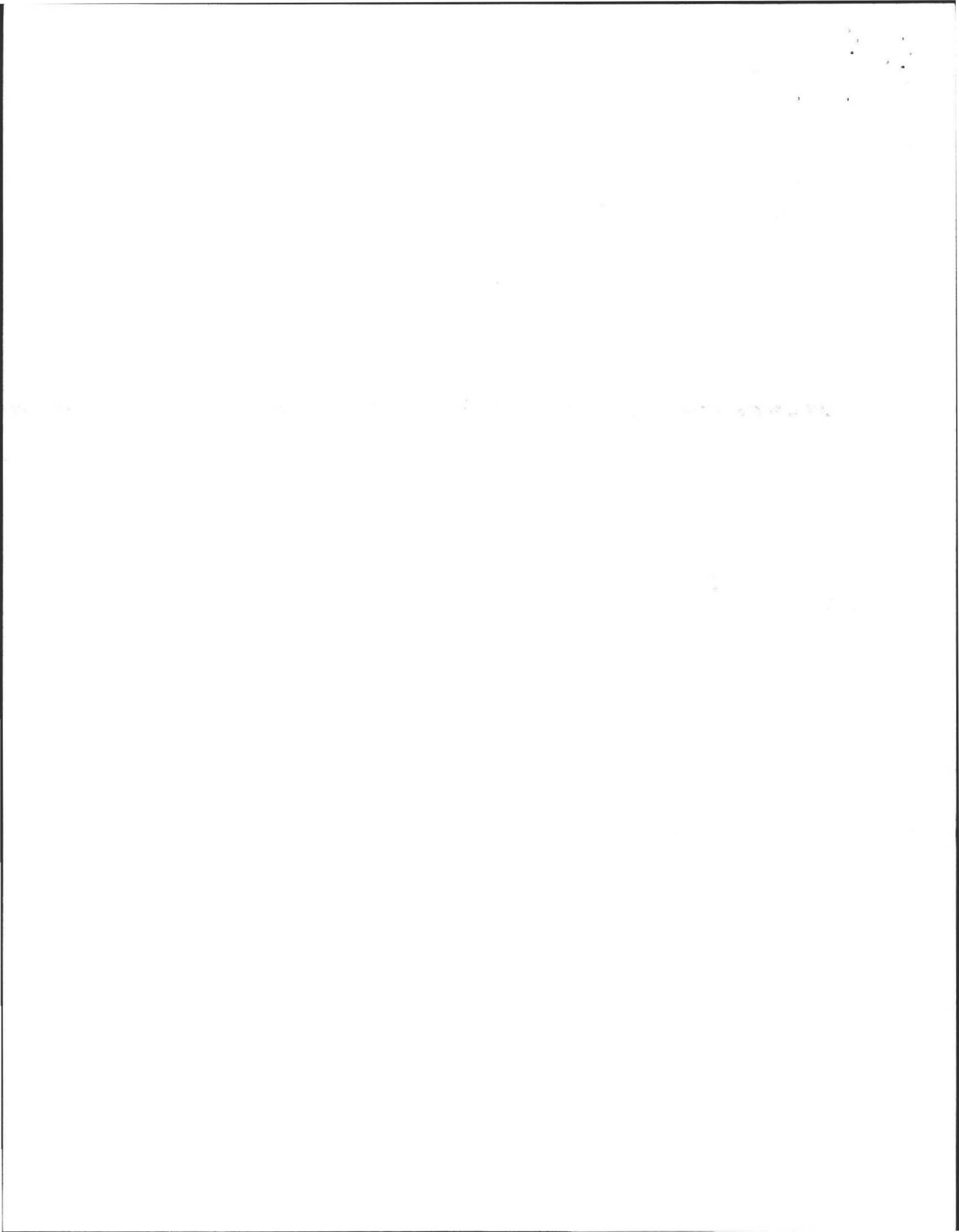
Groundwater DRY
Perc Rate _____



Groundwater _____
Perc Rate _____

PERC BOTTOM DEPTH = 48"
START SOAK @ 8:02
15 MINUTE SOAK
12" @ 8:17
11" @ 8:23
10" @ 8:31
9" @ 8:40
23 MIN. - OKAY
8" @ 8:49
7" @ 8:58
6" @ 9:08
28 MIN./3IN.

PERC RATE = 9.3 MIN./IN.
DESIGN RATE = 10 MIN./IN.

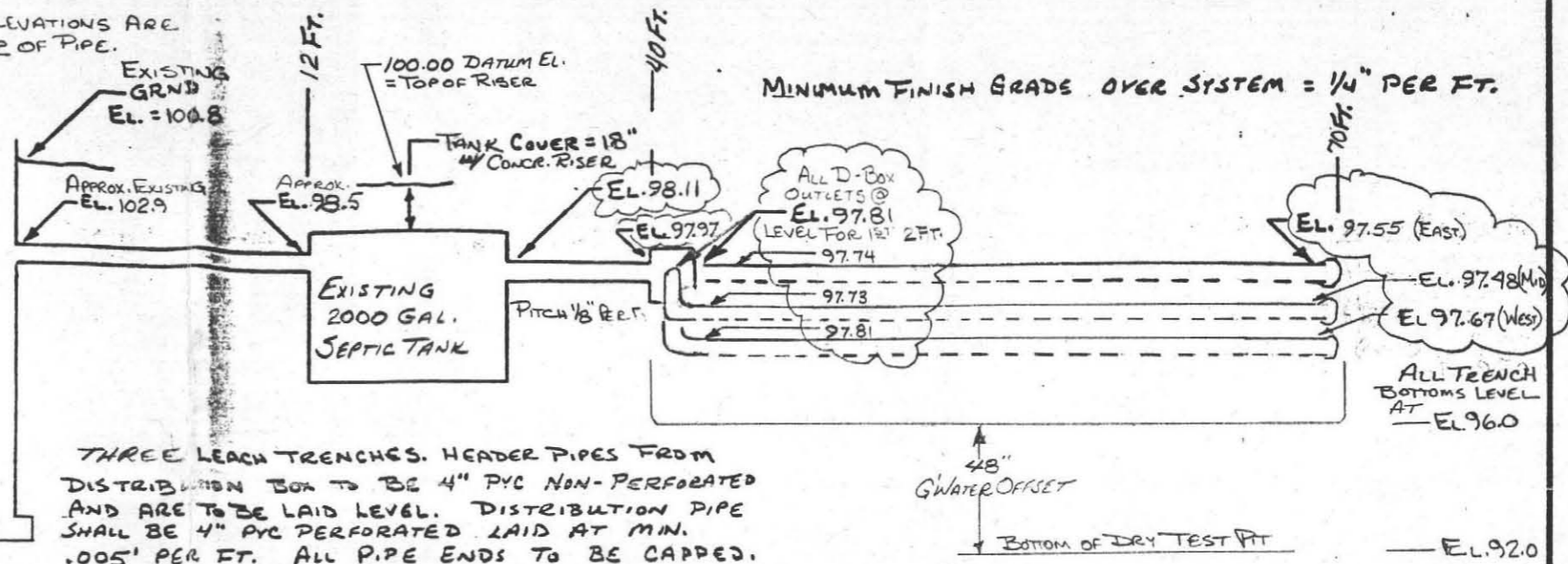


SYSTEM DESIGN CALCULATIONS

- 4 BEDROOM X 110 GAL. PER BR PER DAY = 440 GAL. PER DAY DESIGN FLOW.
- MINIMUM EFFECTIVE SEPTIC TANK VOLUME = $1.5 \times 440 = 660$ GAL
- SPECIFIED TANK VOLUME FOR THIS INSTALLATION = 2000 GAL. (EXISTING)
- PERCOLATION RATE = 10 MINUTES PER INCH →
- DESIGN LOADING = 100 GPD PER SQ. FT. OF EFFECTIVE SIDEWALL & 0.55 GPD PER SQ. FT. OF BOTTOM AREA.
- SPECIFIED LEACH TRENCHES ARE 3.0 FT. WIDE X 1.274 FT. AVERAGE EFFECTIVE DEPTH. ALLOWABLE LOADING PER FT. OF 1.274 FT. DEEP TRENCH = $1.0 \times 3.0 \times 0.55 + 2 \times 1.0 \times 1.274 \times 1.00 = 4.20$ GPD/FT.

- SPECIFIED TRENCH LENGTH = 100 FT. TOTAL
- ALLOWABLE VOLUME = $4.20 \times 100 + 6 \times 3.0 \times 1.274 \times 1.00 = 443$ GALLONS PER DAY (WITH CONSIDERATION OF TRENCH ENDS)

ALL ELEVATIONS ARE @ TOP OF PIPE.

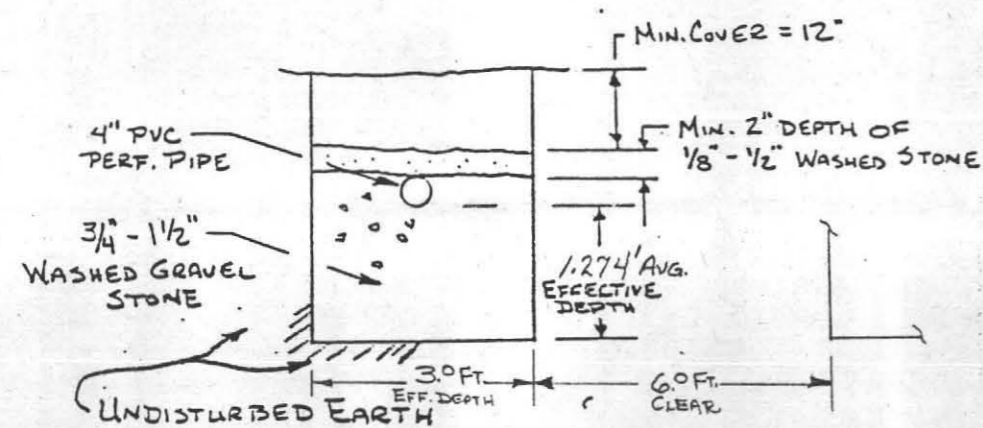


THREE LEACH TRENCHES. HEADER PIPES FROM DISTRIBUTION BOX TO BE 4" PVC NON-PERFORATED AND ARE TO BE LAID LEVEL. DISTRIBUTION PIPE SHALL BE 4" PVC PERFORATED LAID AT MIN. .005' PER FT. ALL PIPE ENDS TO BE CAPPED.

SYSTEM PROFILE - SECTION PARALLEL TO FLOW
(NOT TO SCALE)

* AVERAGE EFFECTIVE TRENCH DEPTH (AS-BUILT)
= 1.27 FT AVG FOR EAST TRENCH X 33 FEET LONG
+ 1.23 FT AVG FOR MID TRENCH X 43 FEET LONG
+ 1.36 FT AVG FOR WEST TRENCH X 24 FEET LONG
÷ 100 FEET TOTAL = 1.274 FT. DEPTH

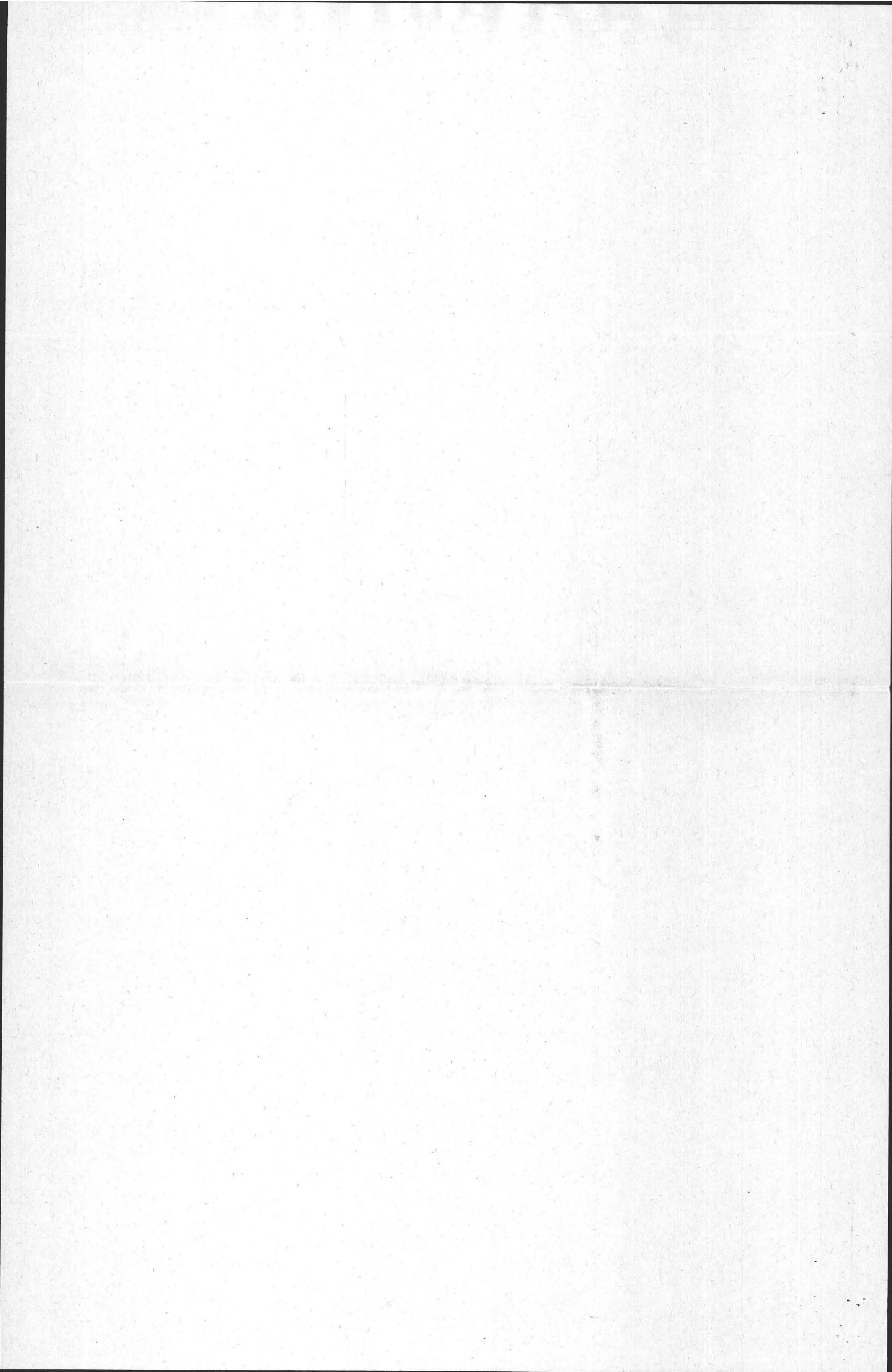
AS-BUILT ELEVATIONS IN "CLOUDS"
RMS 12-29-94



LEACH TRENCH SECTION
(NOT TO SCALE)



SEPTIC SYSTEM DESIGN		
At 33 OVERLOOK DRIVE AMHERST		
SCALE: AS SHOWN	APPROVED BY:	DRAWN BY RMS
DATE: 12-4-94		REVISED CORRECTED TO 4-BR CAPACITY RMS 12-28-94
FOR: BRUCE MAC DOUGALL		
		DRAWING NUMBER



NOTES

LEACH TRENCHES TO BE ORIENTED PARALLEL TO ELEVATION CONTOURS.

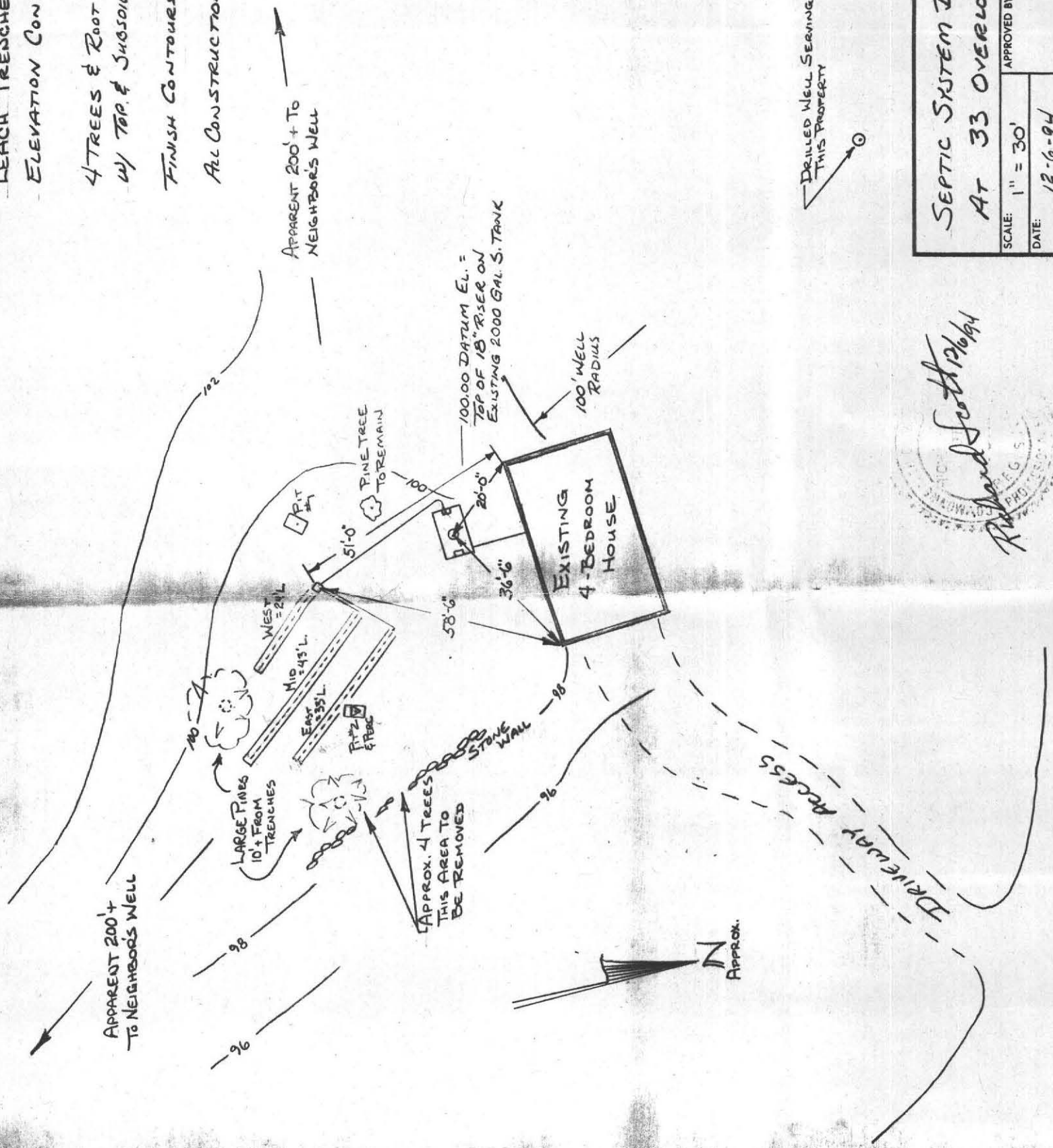
4 TREES & ROOT SYSTEMS TO BE REMOVED ALONG W/ TOP & SHOULDER FROM TRENCH AREA + 10' ALL SIDES

FINISH CONTOURS TO APPROXIMATE EXISTING

ALL CONSTRUCTION TO BE PER 310 CMR (TILES) (1978 REVISION)

APPARENT 200' + TO NEIGHBOR'S WELL

DRILLED WELL SERVING THIS PROPERTY



Richard Southworth
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF MASSACHUSETTS
 No. 12164

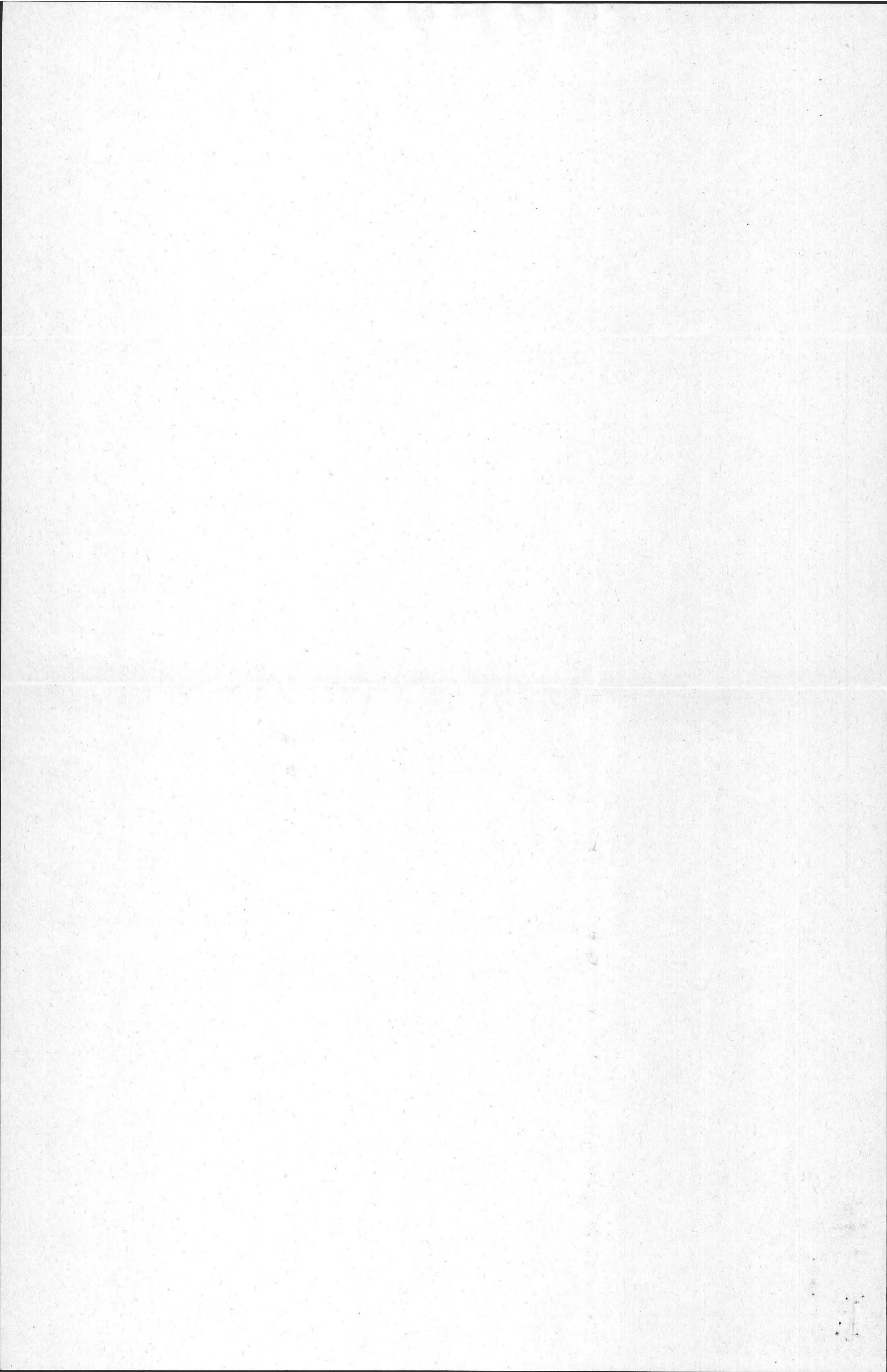
SEPTIC SYSTEM DESIGN
 AT 33 OVERLOOK DRIVE AMHERST

SCALE: 1" = 30'
 DATE: 12-6-94
 DRAWN BY: RMS
 REVISED TO INCLUDE AS-BUILT CONDITIONS RMS 12-27-94

FOR: BRUCE MACDOUGALL

OVERLOOK DRIVE

APPROVED BY:
 DRAWING NUMBER



SHUTESBURY

