REPLACEMENT SYSTEM VARIANCE REQUEST

THE LIMITATIONS OF THE REPLACEMENT SYSTEM VARIANCE REQUEST

TOWN

This form shall be attached to an application for the proposed replacement system which does not comply with the Rules. The LPI shall review the Replacement System Variance Request and Application and may approve the Request if all of the following requirements can be met, and the variance(s) requested fall within the limits of LPI's authority.

1. The proposed design meets the definition of a Replacement System from the rules.
2. A system cannot be designed and installed in total compliance with the Rules.
3. The design flow is less than 500 GPD.
4. There will be no change in use of the structure.
5. The replacement system is determined by the Site Evaluator and LPI to be the most practical method to treat and dispose of the wastewater.

GENERAL INFORMATION

Town of Augusta

Permit No. # 1298 E

Date Permit Issued Aug 2, 1989 (MONTH/DAY/YEAR)

Property Owner's Name: Leo Magee Tel. No. 622-7384

System's Location: Tasker Rd. (STREET)

Augusta (TOWN) Maine 04330 (ZIP)

Property Owner's Address: (STREET)
(if different from above)

(TOWN) (STATE) (ZIP)

SPECIFIC INSTRUCTIONS TO THE:

LPI:

If any of the variances exceed your approval authority and/or do not meet all of the requirements listed under the Limitations Section above, they you are to send this Replacement System Variance Request, along with the Application, to the Department for review and approval consideration before issuing a Permit. (See reverse side for Comments Section and your signature.)

SITE EVALUATOR:

If after completing the Application, you find that a variance for the proposed replacement system is needed, then complete the Replacement Variance Request with your signature on reverse side of form.

PROPERTY OWNER:

It has been determined by the Site Evaluator that a variance to the Rules is required for the proposed replacement system. This variance request is due to physical limitations of the site and/or soil conditions. Both the Site Evaluator and the LPI have considered the site/soil restrictions and have concluded that a replacement system in total compliance with the Rules is not possible.

The **OWNER** shall sign this statement. Therefore, having read both this Replacement Variance Request and the attached Application, I understand that the proposed system is not in total compliance with the Rules and hereby release all those concerned with this Variance, provided they have performed their duties in a reasonable and proper manner.

x Leo Magee

(PROPERTY OWNER'S SIGNATURE) (DATE)

VARIANCE CATEGORY	VARIANCE REQUESTED	LIMIT OF LPI'S APPROVAL AUTHORITY		VARIANCE REQUESTED TO:	
SOILS					
Soil Profile	Ground Water Table	to 6″		7	inches
Soil Condition	Restrictive Layer	to 6″		13	inches
from HHE-200	Bedrock	to 10″		—	inches
SETBACK DISTANCES (IN FEET)	**FROM:**	**TREATMENT TANK**	**DISPOSAL AREA**	**TREATMENT TANK**	**DISPOSAL AREA**
Potable Water Supplies	1. Well: > 2000 gal/day	100[a]	300[a]	—	—
	2. Well: < 2000 gal/day a. Neighbor's	50′[b]	60′[b]	—	—
	b. Property Owner's	25′	50′	25	50
	3. Water Supply Line	See note 'a'		—	—
Waterbodies	1. Perennial	50′	60′		50
	2. Intermittent	15′	20′	—	—
	3. Manmade drainage ditch	10′	15′	—	—
Downhill Slope	Greater than 3:1 (33%)	5′[c]	10′[c]	—	—
Buildings	1. With Basement	5′	10′	5	16′
	2. Without Basement	5′	10′	—	—
Property Line		4′	5′	—	—

OTHER

1. ~~Fill extension Grade to 3:1~~

2.

3.

Footnotes:

a. This setback distance cannot be reduced by variance. See Table 6-2.
b. Written Permission from the owner of a well is required when a replacement system will be located less than 100 feet but closer to that well than the system it is replacing.
c. Sufficient distance shall be maintained to assure that the toe of the fill does not extend to the 3:1 slope.

Thomas W Rudolph — SITE EVALUATOR'S SIGNATURE

7/13/89 — DATE

LPI STATEMENT

I, Mary R. Lubbe, LPI for the Town of Augusta have conducted an on-site inspection for the proposed replacement system and have determined to the best of my knowledge, that it cannot be installed in total compliance with the Rules, applicable Municipal Wastewater Disposal Ordinances, or the Local Shoreland Zoning Ordinance. As a result of my review of the Replacement System Variance Request, the Application, and my on-site investigation, I (check and complete either a or b):

☐ a. (☐ approve, ☐ disapprove) the variance request based on my authority to grant this variance. Note: If the LPI does not give his approval, he shall list his reasons for denial in **Comments** Section below and return to the applicant.

—OR—

☐ b. find that one or more of the requested Variances exceeds my approval authority as LPI. I (☑ recommend ~~☐ do not recommend~~) the Department's approval of the variances. Note: If the LPI does **not** recommend the Department's approval, he shall state his reasons in Comments Section below as to why the proposed replacement system is not being recommended.

Comments: _____

Mary R. Lubbe — LPI'S SIGNATURE

Aug. 2, 1989 — DATE

FOR USE BY THE DEPARTMENT ONLY

The Department has reviewed the variance(s) and (☑ does ~~☐ does not~~ give its approval. Any additional requirements, recommendations, or reasons for the Variance denial, are given in the attached letter.

Robert J McCarthy WWDPC — SIGNATURE OF THE DEPARTMENT

August 2, 1989 — DATE

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

07139441

PROPERTY ADDRESS

Town Or Plantation	Augusta
Street Subdivision Lot #	Tasker Road

PROPERTY OWNER'S NAME

Last: MaGee First: Leo

Applicant Name:	Leo MaGee
Mailing Address of Owner/Applicant (If Different)	R-7, B-313 Augusta Me 04330

AUGUSTA CAUTION: PERMIT REQUIRED PERMIT # 1,698 TOWN COPY

Date Permit Issued: 8.2.89 $ #40.00 FEE ☐ If Double Fee Charged

Harry R. Tuttle Local Plumbing Inspector Signature L.P.I. # 1550

OWNER/APPLICANT STATEMENT

I certify that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Local Plumbing Inspector to deny a Permit.

Leo MaGee
Signature of Owner/Applicant

Date

CAUTION: INSPECTION REQUIRED

I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules.

John O. Ricciarelli
Local Plumbing Inspector Signature

8.16.89
Date Approved

PERMIT INFORMATION

THIS APPLICATION IS FOR:

1.☐ NEW SYSTEM
2.■ REPLACEMENT SYSTEM
3.☐ EXPANDED SYSTEM
4.☐ EXPERIMENTAL SYSTEM

SEASONAL CONVERSION

to be completed by the LPI

5.☐ SYSTEM COMPLIES WITH RULES
6.☐ CONNECTED TO SANITARY SEWER
7.☐ SYSTEM INSTALLED - P# _____
8.☐ SYSTEM DESIGN RECORDED AND ATTACHED

IF REPLACEMENT SYSTEM:

YEAR FAILING SYSTEM INSTALLED ?

THE FAILING SYSTEM IS

1.☐ BED 3.☐ TRENCH
2.☐ CHAMBER 4.■ OTHER Unknown

THIS APPLICATION REQUIRES:

1.☐ NO RULE VARIANCE
2.☐ NEW SYSTEM VARIANCE
Attach New System Variance Form
3.■ REPLACEMENT SYSTEM VARIANCE
Attach Replacement System Variance Form
a.☐ Requires Local Plumbing Inspector Approval
b.■ Requires State and Local Plumbing Inspector Approval
4.☐ MINIMUM LOT SIZE VARIANCE

DISPOSAL SYSTEM TO SERVE:

1.■ SINGLE FAMILY DWELLING
2.☐ MODULAR OR MOBILE HOME
3.☐ MULTIPLE FAMILY DWELLING
4.☐ OTHER _____ SPECIFY

INSTALLATION IS:

COMPLETE SYSTEM

1.■ NON-ENGINEERED SYSTEM
2.☐ PRIMITIVE SYSTEM
(Includes Alternative Toilet)
3.☐ ENGINEERED (+ 2000 gpd)

INDIVIDUALLY INSTALLED COMPONENTS

4.☐ TREATMENT TANK (ONLY)
5.☐ HOLDING TANK _____ GAL.
6.☐ ALTERNATIVE TOILET (ONLY)
7.☐ NON-ENGINEERED DISPOSAL AREA (ONLY)
8.☐ ENGINEERED DISPOSAL AREA (ONLY)
9.☐ SEPARATED LAUNDRY SYSTEM

SIZE OF PROPERTY	ZONING
11,000±	Residential

TYPE OF WATER SUPPLY

Drilled Well

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK

1.■ SEPTIC: ■ Regular ☐ Low Profile
2.☐ AEROBIC

SIZE 1000 GALS.

WATER CONSERVATION

1.■ NONE
2.☐ LOW VOLUME TOILET
3.☐ SEPARATED LAUNDRY SYSTEM
4.☐ ALTERNATIVE TOILET
SPECIFY _____

PUMPING

1.☐ NOT REQUIRED
2.■ MAY BE REQUIRED (DEPENDING ON TREATMENT TANK LOCATION & ELEVATION)
3.☐ REQUIRED
DOSE: 55 GALS.

CRITERIA USED FOR DESIGN FLOW (BEDROOMS, SEATING) EMPLOYEES, WATER RECORDS, ETC.)

2 Bedroom

SOIL CONDITIONS USED FOR DESIGN PURPOSES

PROFILE	CONDITION
3	D

DEPTH TO LIMITING FACTOR: 7 "

SIZE RATINGS USED FOR DESIGN PURPOSES

1.☐ SMALL
2.☐ MEDIUM
3.■ MEDIUM-LARGE
4.☐ LARGE
5.☐ EXTRA-LARGE

DISPOSAL AREA TYPE/SIZE

1.☐ BED _____ Sq. Ft.
2.■ CHAMBER 400 Sq. Ft.
■ REGULAR ☐ H-20
3.☐ TRENCH _____ Linear Ft.
4.☐ OTHER: _____

DESIGN FLOW: 235 (GALLONS/DAY)

SITE EVALUATOR STATEMENT

On 7/13/89 (date) I conducted a site evaluation for this project and certify that the data reported is accurate. The system I propose is in accordance with the Subsurface Wastewater Disposal Rules.

Wm W. Richard
Site Evaluator Signature

51
SE#

7/13/89
Date

Approved for use as HHE 200 by Division of Health Engineering 9/87

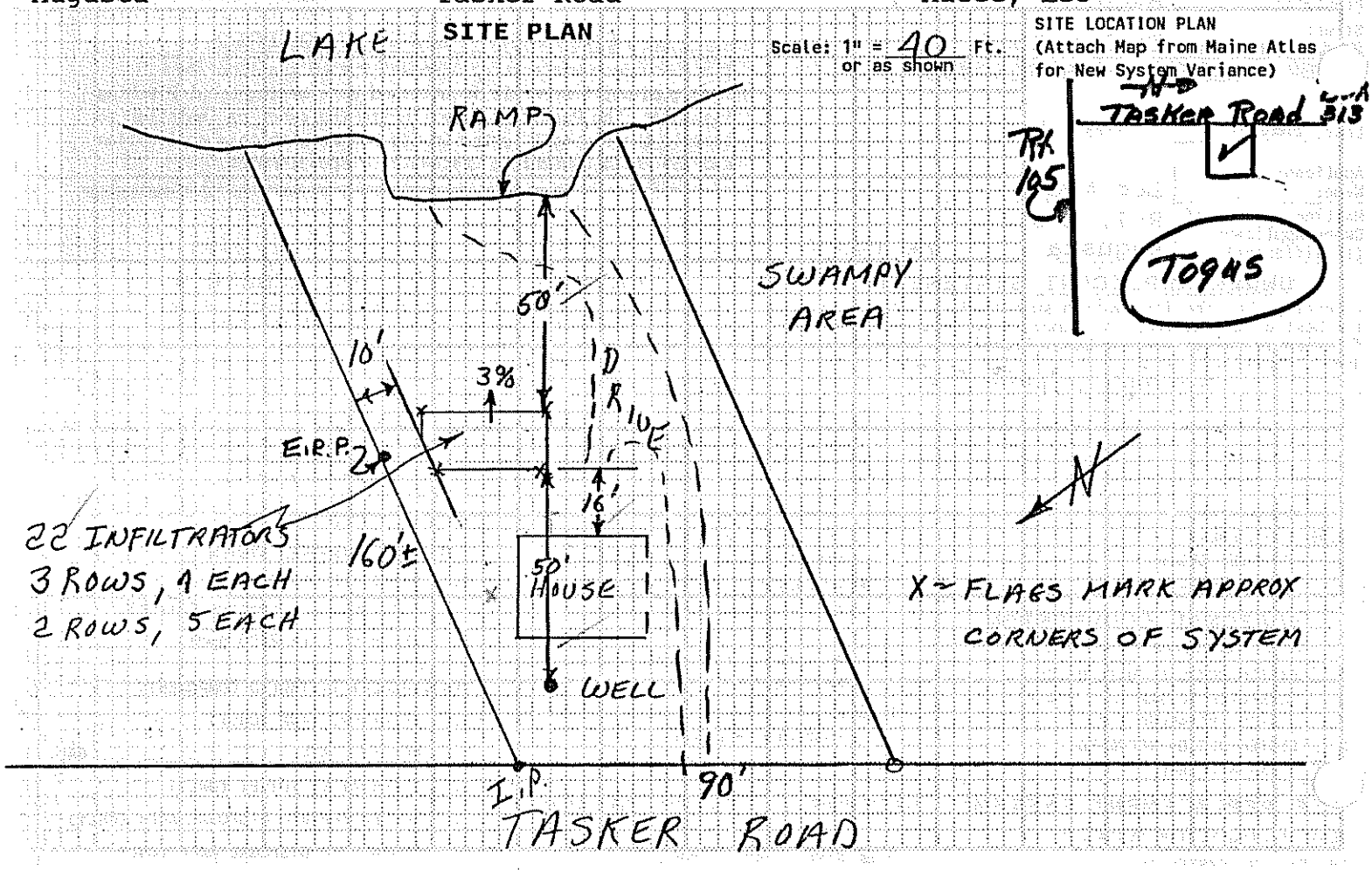
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

07 39441

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
Augusta	Tasker Road	MaGee, Leo

SITE PLAN

Scale: 1" = 40 Ft. or as shown



SITE LOCATION PLAN

(Attach Map from Maine Atlas for New System Variance)

SOIL DESCRIPTION AND CLASSIFICATION

(Location of Observation Holes Shown Above)

Observation Hole 1 ☐Test Pit ☒Boring

" Depth of Organic Horizon Above Mineral Soil

Inches	Texture	Consistency	Color	Mottling
0				
6	S.L.	FRIABLE	B	7H
10	FILL			
15				
20				
30		FIRM	G.B.	
40				
50				

Depth Below Mineral Surface

Soil Classification	Slope	Limiting Factor	
Profile 3 / Condition D	3 %	7	☒Ground Water ☐Restr. Layer ☐Bedrock

Observation Hole _____ ☐Test Pit ☐Boring

" Depth of Organic Horizon Above Mineral Soil

Inches	Texture	Consistency	Color	Mottling
0				
6				
10				
15				
20				
30				
40				
50				

Depth Below Mineral Surface

Soil Classification	Slope	Limiting Factor	
Profile _____ / Condition _____	%		☐Ground Water ☐Restr. Layer ☐Bedrock

Wm W. Richard
Site Evaluator Signature

51
SE#

7/13/89
Date

Approved for use as HHE 200 by Division of Health Engineering 9/87

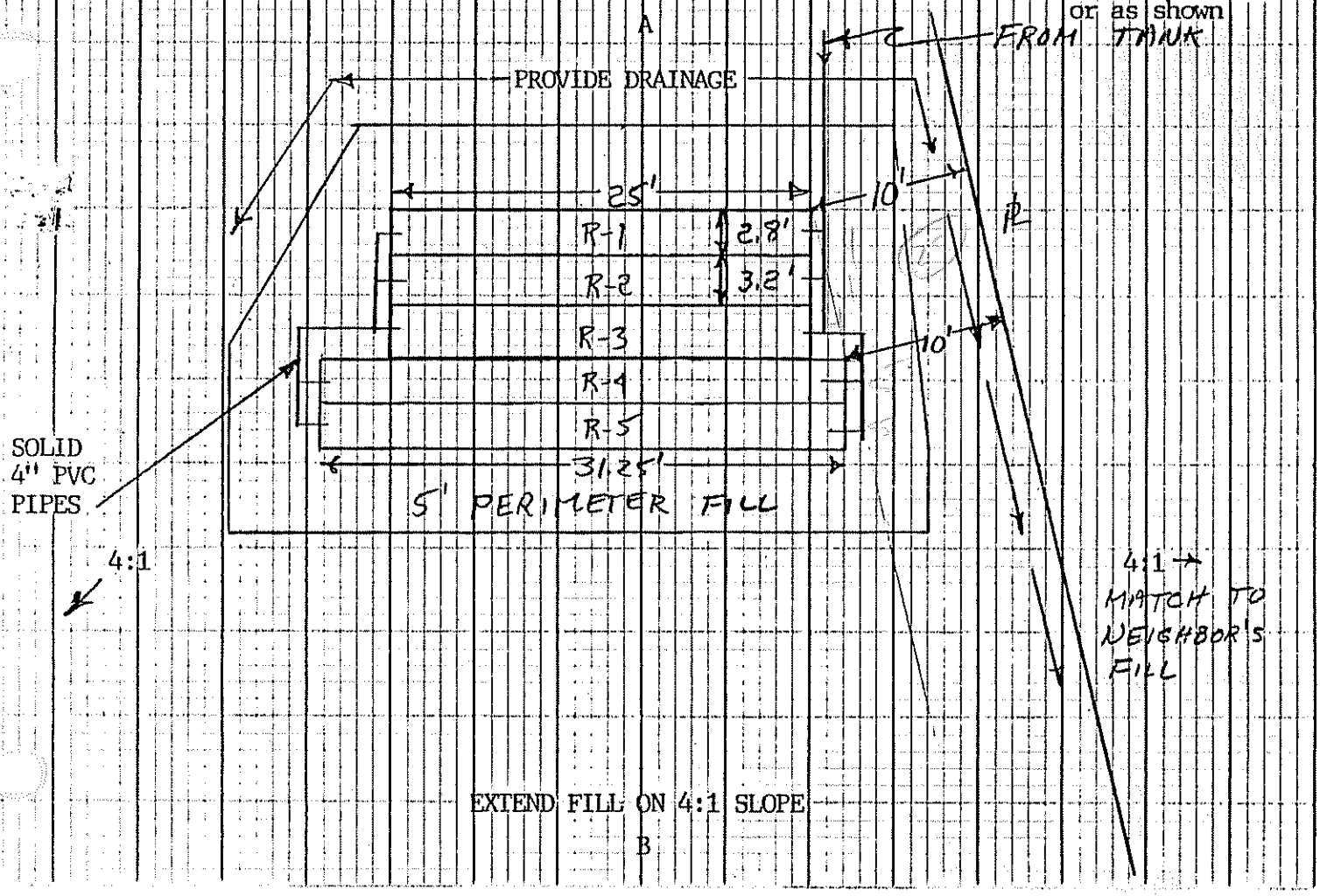
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering

Town, City, Plantation: Augusta | Street, Road, Subdivision: Tasker Road | Owners Name: Magee, Leo

SUBSURFACE WASTEWATER DISPOSAL PLAN

Scale 1" = 10 Ft. or as shown



FILL REQUIREMENTS

Depth of Fill (Upslope): 28"
Depth of Fill (Downslope): 34"

CONSTRUCTION ELEVATIONS

Reference Elevation is Row 1 only? 0
Bottom of Disposal Area All rows? -55
Top of Distribution Lines or Chambers -40

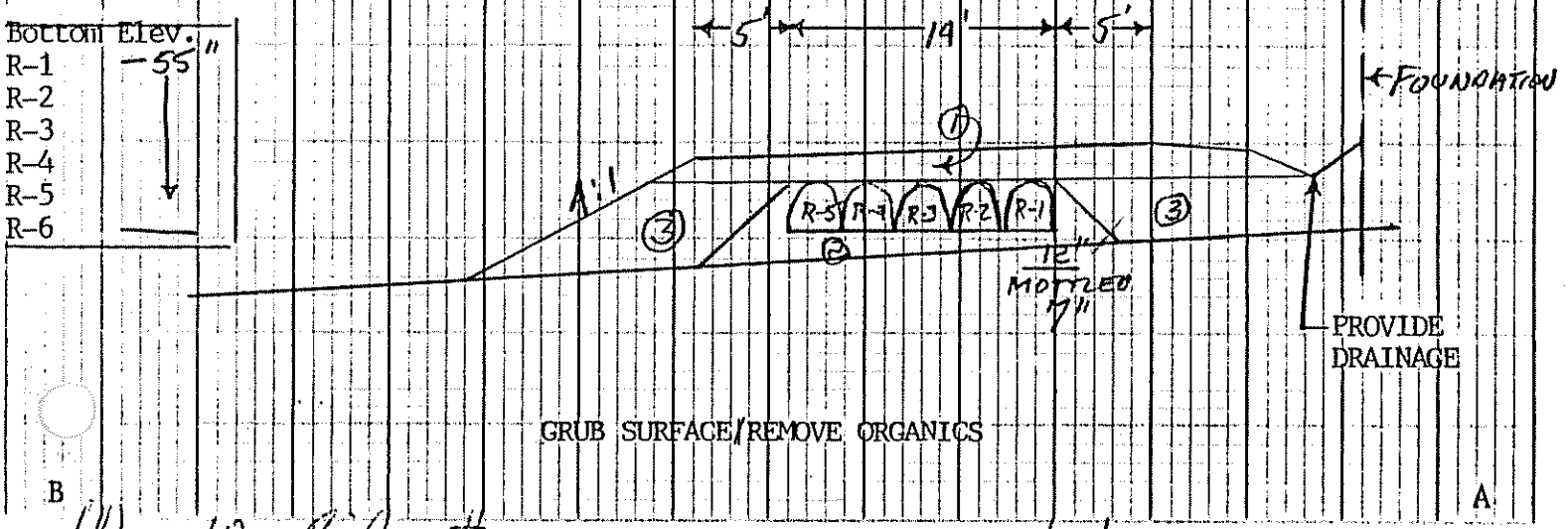
ELEVATION REFERENCE POINT LOCATION & DESCRIPTION

NAIL IN 10" Beech

DISPOSAL AREA CROSS SECTION

Scale: Vertical: 1 inch = 5 Ft. Horizontal: 1 inch = 10 Ft.

1;Loamy sand fill, loamed and seeded.(8" cover over units)(Extend to 4:1
2;Sandy gravel fill under between and out to 2:1 slope. 3; SAND FILL
R-1 through R-5 ; 5 rows, 4/5 Infiltrators each row.

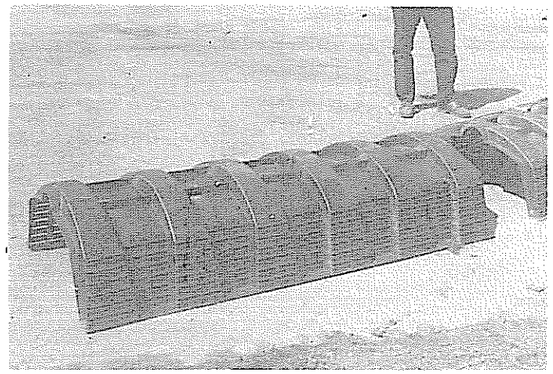


Wm W. Richard
Site Evaluator Signature

51
SE#

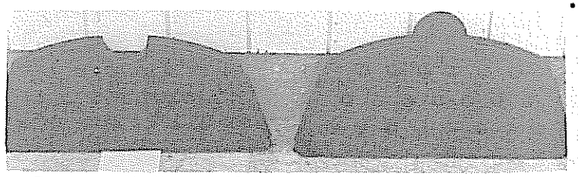
7/13/89
Date

Here's the invention that will change leaching field construction forever!
It's The Infiltrator System (patent pending) . . . a lightweight, low cost, high performance leaching field system, designed by an environmental engineer. Engineering studies show that The Infiltrator System will provide a long term acceptance rate (LTAR) equivalent to or better than the conventional pipe and stone used for trenches and bed



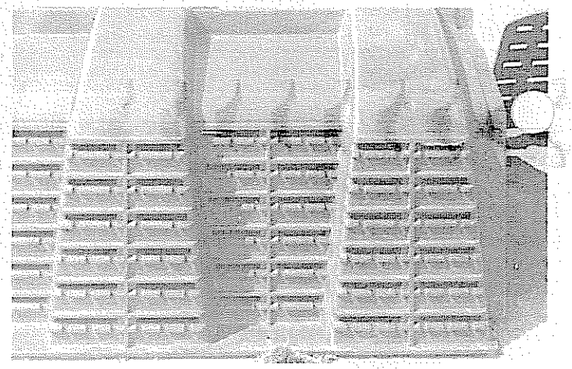
- Molded of high density structural polymer.
- Easily passed AASHTO H-10 Wheel test at University of Connecticut. H-20 units are also available.
- Unaffected by sewage effluent or ground chemicals.
- Each Infiltrator section is 76" long x 34" wide x 15 "high with 10" of space below the inlet pipe.
- Sections slide together easily to provide as much length as needed.
- Sections weight only 35 lbs., stack and nest easily for storage or transport.
- End caps are available with or without inlet fitting.
- Each unit has 264 Micro-Leaching Chambers™ along the sides for maximum effective soil interface.
- Bottom is completely open with no stone to create masking, allowing optimal biological mat formation.

- Optional inspection port or vent available.



Open end with splash plate used at beginning of each row.

Close end used at end of each row.



The exclusive **Micro-Leaching Chamber™** is a shielded opening that maximizes sidewall infiltrative efficiency. Each individual chamber incorporates a slot and a protective "eyebrow-like" rib creating a void area which minimizes soil compaction.
This unique design allows optimal biological mat formation and infiltration of the effluent into the surrounding soil. The design also prevents soil and silt from filtering into the unit. The open area created is approximately 2½ times that provided by a stone column.

Check these advantages of The Infiltrator

The Installer

- Complete system can be delivered in one truck.
- Easily installed by one man with backhoe, level and a rake.
- Reduced labor cost, less machine time.
- No waiting for stone
- No bucketing or clean-up of stone
- No need for heavy equipment.
- System can be inspected with only one visit.
- Structurally strong, efficient system you can be sure of.

The System Designer

- The Infiltrator is a high performance state-of-the-art system.
- Can be used instead of trenches, beds or concrete leaching chambers.
- System is flexible, adapts to topography of land.
- Following local regulations, system automatically provides a substantial unclaimed safety margin in effective area and storage capacity.
- Complete scientific back-up information available.
- 4½ square feet of soil interface per lineal foot, no stone masking.
- Large peakload capacity.

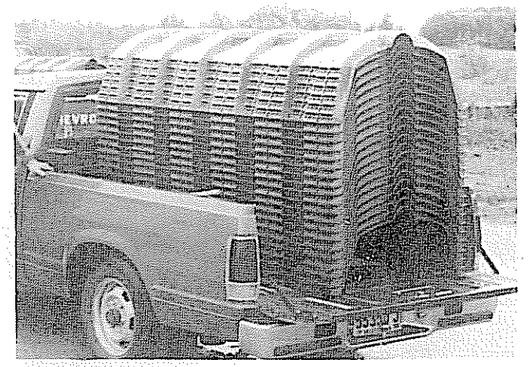
The Home Owner

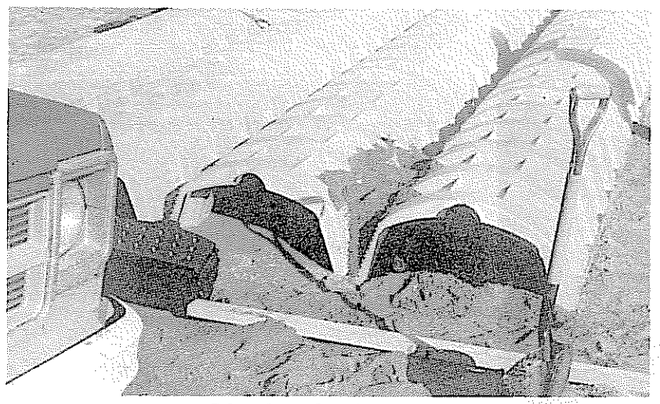
- No damage from heavy stone or boom trucks on lawn or garden.
- System can be installed more quickly than other, conventional systems.
- No spilled or leftover stone.

- System is engineered for high performance, long life

The Regulator

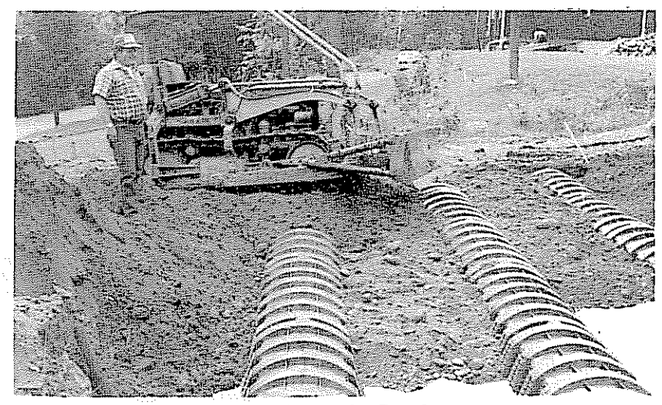
- Inspection is simpler, easy to perform.
- A considerable safety factor is provided in storage capacity and interface area.
- System is equal to or better than conventional trenches using stone and pipe.
- Eliminates concerns over poor quality or dirty stone.
- Assured, "engineered-in" performance.





Cluster System

Serial Trench System



Trench System

The facts about stone

It *does* provide support for distribution pipe, reduces effluent velocity, provides limited storage capacity and supports the side and top of the soil cavity.

It does *not* act as a filter for effluent or to prevent soil fines instrusion. In fact, stone emplacement can result in compaction of the infiltrative surface. Stone also masks from ⅓ to ½ of the infiltrative area. Finally, it occupies ⅔ of the cavity volume thus reduces storage capacity substantially. Dirty stone can have a high silt content, which will reduce the infiltrative efficiency.

The Infiltrator System Way

The Infiltrator System provides equal or better performance with far less labor, lower possibility of error and with a greater safety factor.

Simply excavate a 36" wide trench in the conventional manner. Rake the surface of sides and bottom. Set the units on the level trench base, sliding the joints together. Backfill the side voids by raking excavated native material back into the void, then complete the final backfill.

The end plate is the connecting point to feed from a distribution box, septic tank or in serial distribution from a higher trench line.

The job was never easier.

The Infiltrator is a product of Infiltrator Systems, Inc./ Patent Pending.

Distributed by

ECO–TEC, Inc.
Rte. 1, Box 2640
Litchfield, Maine 04350
207-582-2383
(Maine) 1-800-544-6411
(N.H.) 1-800-338-2164

Parking Lot Installation Using H-20 Infiltrator

INFILTRATOR SYSTEMS INC.

THE NO STONE LEACHING FIELD SYSTEM YOU CAN HAUL IN ONE TRUCK

The Infiltrator™

THE INFILTRATOR

ADDITIONAL EXCERPTS FOR BED TYPE DISPOSAL SYSTEMS

1.The distribution system shall be designed to uniformly distribute wastewater throughout the entire bed disposal area using one of the following distribution methods:(a) perforated distribution pipe installed and aligned so that the holes are located in the lower half of the pipe and meet the materials standards listed in Table 8-1. (b) Small diameter pressure pipe in a pressure distribution system.

2.Distribution lines shall be installed a maximum of 5 feet from the bed's stone edge and equally spaced with a maximum separation distance between lines of 5 feet.

3.A minimum total of 12 inches of stone as specified in Section 11.D.4 shall be used on the bottom of the bed disposal area. The distribution system shall be installed totally within the stone.

Section 11.D.4 Table 11-2 Stone Size Ratings %passing sieve

Rating	3"	2-1/2"	2"	1-1/2"	1"	3/4"	1/2"	#200
2-1/2"	100	90/100	50/100	0/35	0/10	0/8	0/5	0/3
2"	100	100	90/100	50/100	0/35	0/8	0/5	0/3
1-1/2"	100	100	100	90/100	60/100	0/35	0/8	0/3
1"	100	100	100	100	90/100	70/100	0/35	0/3
3/4"	100	100	100	100	100	80/100	0/35	0/3

4.The stone shall be completely covered with one of the following materials:(a) a minimum of 2 inch layer of compressed hay.(b)one layer of an approved non-woven filter fabric. (c) one inch of fiberglass insulation.

5. Clean backfill, 8-12 inches in depth, shall be carefully placed over the hay layer or approved substitute.

6. No portion of any bed disposal area shall be located under a paved area or any driveway or roadway.

ADDITIONAL EXCERPTS FOR CHAMBER TYPE DISPOSAL SYSTEMS

1.Only those chambers listed in Appendix D or having the Department's written approval shall be installed. 2.Only H-20 rated chambers shall be installed under driveways or parking areas. 3.Chambers shall be vented per manufacturer's specifications. 4.Allowance for use of sidewall shall be as specified in Appendix D. 5. When stone is required for chamber installation, the stone shall conform to Table 11-2,above.

Note: Due to the many chamber's on the market you should consult with your contractor and/or supplier of the chambers for specific recommendations. Infiltrator* chambers may be substituted for concrete chambers but the HHE-200 form and design must be changed. The reverse of this is also true.

IF YOU HAVE ANY QUESTIONS OR DOUBT THAT YOUR SYSTEM IS BEING INSTALLED PROPERLY, CONTACT THE SITE EVALUATOR THAT PERFORMED YOUR SITE EVALUATION AND PREPARED THE PLANS.

ADDITIONAL INFORMATION ABOUT YOUR SEPTIC SYSTEM

1. YOU SHOULD HAVE YOUR SEPTIC TANK PUMPED OUT AND CHECKED EVERY TWO YEARS OF MORE OFTEN TO PROLONG THE LIFE OF YOUR SYSTEM.

2. IF YOU PLAN TO INSTALL A GARBAGE DISPOSAL IN YOUR HOME YOU SHOULD HAVE THE NEXT AVAILABLE SIZE SEPTIC TANK INSTALLED. An alternative to this is the installation of a Zabel Industries Inc. Multi-purpose Filter, Model #A100 or equivalent on the outlet end of the septic tank.

3. Water softeners should drain to a separate grey water disposal system.

4. Your septic tank must be installed level and all joints, inspection covers etc. must be water tight. The same is necessary for a pump tank if your system requires one.

5. The outlet invert elevation should be equal to or higher than the finish grade of the septic field to avoid flooding of the tank and solids entering the field.

6. Your system is designed to handle laundry waste water provided a separated laundry system is not indicated on Page 1 of your HHE-200 form and the total daily design flow shown on Page 1 is not exceeded. If a low water toilet is required it must use less than 1.5 gallons per flush.

EXCERPTS FROM MAINE PLUMBING CODE

1. The vegetation and the organic horizon in the proposed disposal area and fill extensions shall be removed and the ground surface scarified to minimize glazing of the original soil.

2. The bottom of the disposal area and distribution line shall be level with a maximum grade tolerance of 1 inch per 100 feet.

3. Fill shall be free of foreign material, placed in 8 inch lifts and compacted as placed. Fill shall be sandy loam or coarser and specified on application.

4. The finish grade of the backfill over the disposal area shall be crowned from the center of the disposal area at a 3% slope and extend 3 ft. beyond the edge of the disposal area. At that point the fill shall be sloped at a uniform grade of no greater than 25% to the original ground. All stone used in disposal area shall be clean and conform to one of the size rating from Table 11-2. (SEE NEXT PAGE)

5. The land adjacent to the disposal area shall be graded to prevent both the accumulation of surface water on the disposal area, and the flow of surface water across the disposal area.

6. The finished disposal area and fill extensions shall be seeded to prevent erosion. (a) Grass, clover, trefoil, vetch, perennial wildflowers, or other herbaceous perennials may be utilized for disposal area surfaces. Woody shrubs are unacceptable. (b) Woody shrubs in conjunction with a hardy perennial ground cover may be used on fill extensions only.