M3L 47

Department of Human Services
Division of Health Engineering
(207)289-3826

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

S095-045

PROPERTY ADDRESS

Town Or Plantation	Augusta
Street Subdivision Lot #	574 Church Hill Rd

PROPERTY OWNERS NAME

Last: Doherty First: Edward

Applicant Name:	
Mailing Address of Owner/Applicant (If Different)	RR#1 Box 1066 Augusta, ME 04330

AUGUSTA 3250 TOWN COPY

Date Permit Issued: 6/15/1995 $ 60.00 FEE ☐ If Double Fee Charged

Local Plumbing Inspector Signature L.P.I. # 808

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.

Signature of Owner/Applicant — Date 6/15/95

Caution: Inspection Required

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

Local Plumbing Inspector Signature — Date Approved 11/8/95

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: _____

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. ☒ Requiring 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	TYPE OF WATER SUPPLY
2 1/2 AC±	RRES/SP/180	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 AND ELEVATION)
3. ☐ REQUIRED

DOSE: _____ GALS.

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

DESIGN FLOW: 450 (GALLONS/DAY)

SOIL CONDITIONS USED FOR DESIGN PURPOSES

PROFILE	CONDITION
9	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 _____ Sq. Ft.
   ☐ REGULAR ☐ H-20
3. ☐ TRENCH _____ Linear Ft.
4. ☒ OTHER: IAT

SITE EVALUATOR STATEMENT

On 6/2/95 (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.

Site Evaluator Signature — SE# 132 — Date 6/2/95

(Local Plumbing Inspector's Signature If permit is for Seasonal Conversion.)

Revised 6/14/95 To Change The Texture of The Fill Materials and Add Certain Drain IDA

REPLACEMENT SYSTEM VARIANCE REQUEST

THE LIMITATIONS OF THE REPLACEMENT SYSTEM VARIANCE REQUEST

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. 3250 E

Date Permit Issued 6/15/93 (MONTH/DAY/YEAR)

Property Owner's Name: Edward Doherty

Tel. No.

System's Location: Church Hill Rd. (STREET)

Augusta (TOWN) Maine 04330 (ZIP)

Property Owner's Address: RR#1 Box 1066 (STREET)
(If different from above)

Augusta (TOWN) ME (STATE) 04330 (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.

Edward M. Doherty (Rusty) — PROPERTY OWNER'S SIGNATURE

6/15/93 — 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"		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'	60'	90"
	3. Water Supply Line	See note 'a'			
Waterbodies	1. Perennial	50'	60'		70"
	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'		
	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.

[signature] 6/8/95

SITE EVALUATOR'S SIGNATURE DATE

LPI STATEMENT

I, George A. Souy Jr., 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:

[signature] 6/15/95

LPI'S SIGNATURE 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.

SIGNATURE OF THE DEPARTMENT DATE

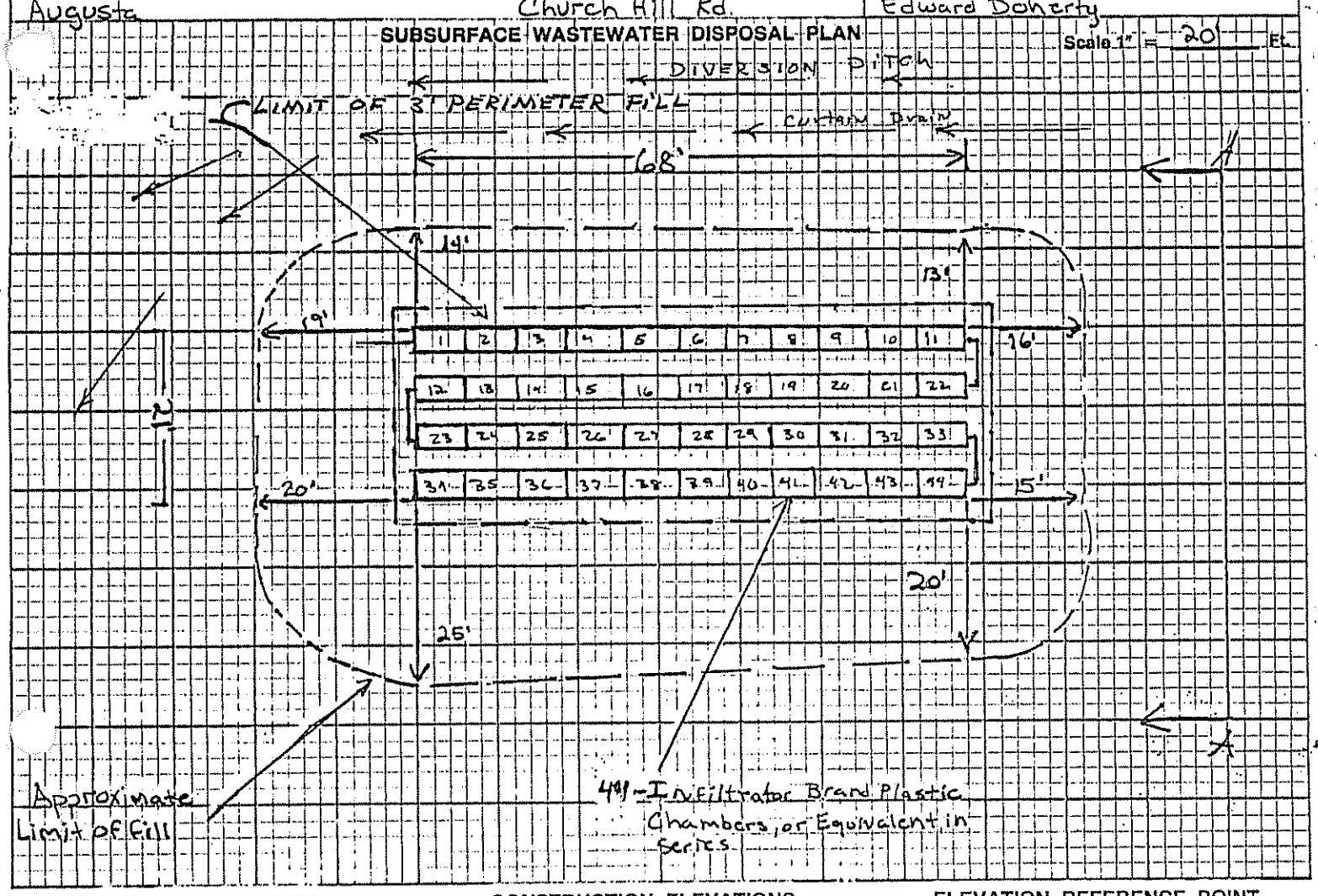
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering

Town, City, Plantation	Street, Road, Subdivision	Owners Name
Augusta	Church Hill Rd.	Edward Doherty

SUBSURFACE WASTEWATER DISPOSAL PLAN

Scale 1" = 20' Ft.



FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT LOCATION & DESCRIPTION
Depth of Fill (Upslope)	36"	Reference Elevation Is		PINE TREE WITH BM NAIL
Depth of Fill (Downslope)	43"	Bottom of Disposal Area		
		Top of Distribution Lines or Chambers		

DISPOSAL AREA CROSS SECTION

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

Section A-A

See Attached

Site Evaluator Signature: [signature]

SE#: 132

Date: 6/8/95

HHE-200 Rev.1/84

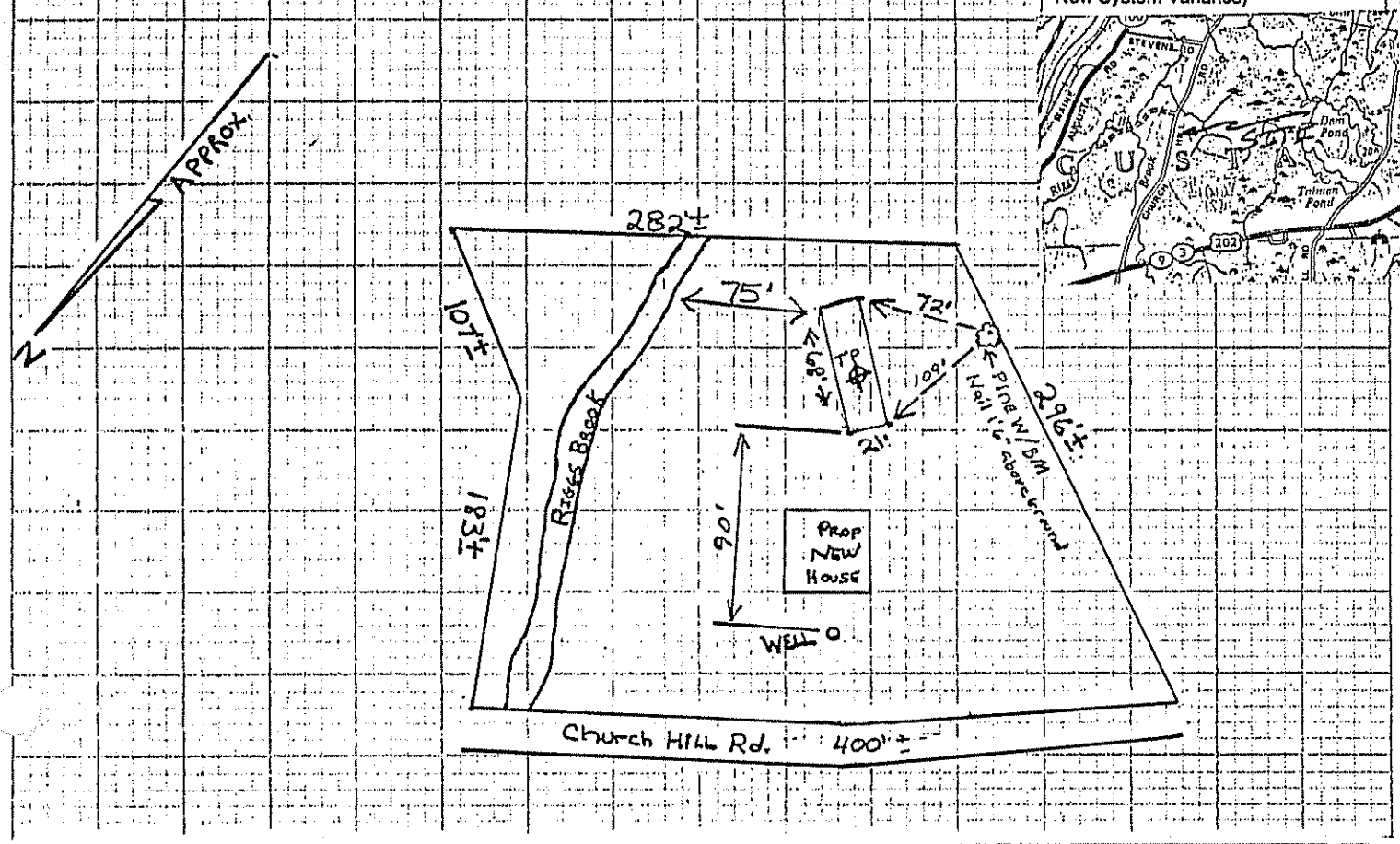
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering

Town, City, Plantation	Street, Road, Subdivision	Owners Name
Augusta	Church Hill Rd.	Edward Doherty

SITE PLAN Scale 1" = 100 Ft.

SITE LOCATION PLAN (Attach Map from Maine Atlas for New System Variance)



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole _____ ☐ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Depth	Texture	Consistency	Color	Mottling
0	Silt	Friable	Brown	
6	LOAM			
10				Evident
15				
20	Silt Clay	VERY FIRM	OLIVE	
30				
40				
50				

Soil	Classification	Slope	Limiting Factor	
9 (Profile)	D (Condition)	____ %	7	☒ Ground Water ☐ Restrictive Layer ☐ Bedrock

Observation Hole _____ ☐ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

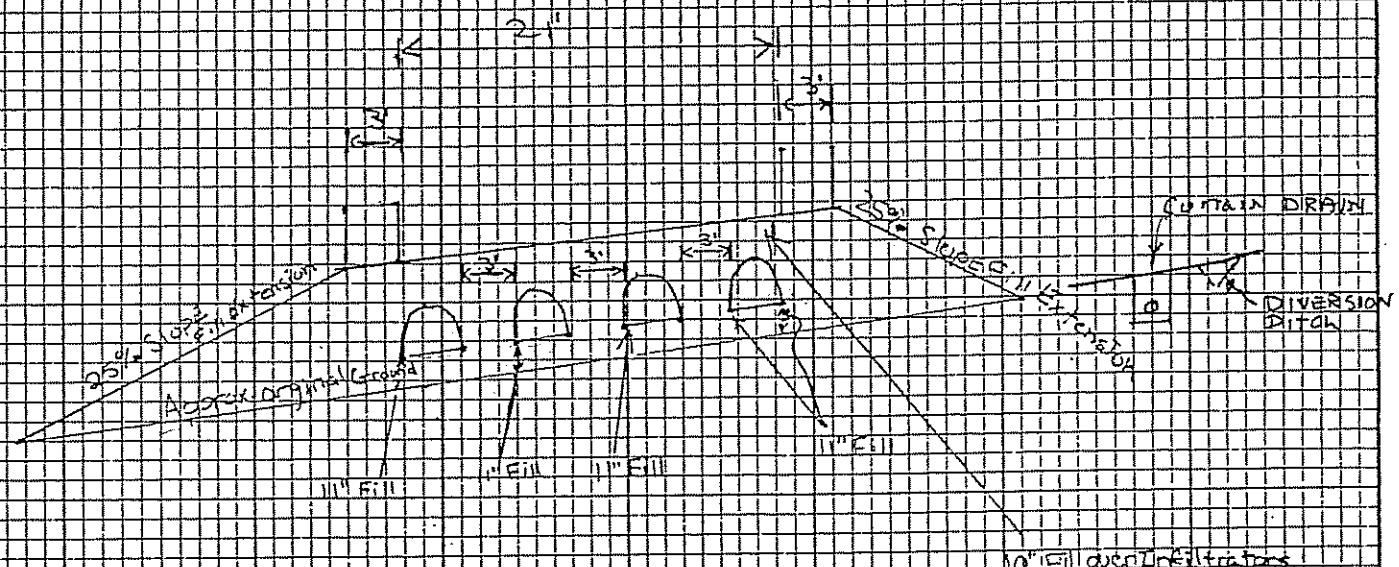
Depth	Texture	Consistency	Color	Mottling
0				
6				
10				
15				
20				
30				
40				
50				

Soil	Classification	Slope	Limiting Factor	
(Profile)	(Condition)	____ %		☐ Ground Water ☐ Restrictive Layer ☐ Bedrock

Site Evaluator Signature _____ SE# 132 Date 6/8/95

HHE-200 Rev. 1/84

INFILTRATOR CROSS SECTION



ORIGINAL GRADE Coarse Loamy Sand TDA 6/14/95

FILL UNDER INFILTRATORS TO BE ~~Sand Loam~~ TEXTURE.

FILL AROUND INFILTRATORS TO BE ~~Sandy Loam~~ TEXTURE Coarse Loamy Sand TDA 6/14/95

SITE EVALUATOR: Terry D. Adams

OWNER: Edward Doherty

NUMBER OF INFILTRATORS: 44

PERCENT SLOPE: 5-9%

LOCATION: Church Hill Rd.

ELEVATIONS:

REFERENCE PT. 0-00 BOTTOM TRENCH #1 -63

DATE:

SCALE: 1 Inch = 10' Horz. 1 INCH = 5 FEET Vert

BOTTOM TRENCH #2 -67 BOTTOM TRENC -71

#4 -76"

48

56

APPENDIX H

ALTERNATIVE DESIGN CONSIDERATIONS

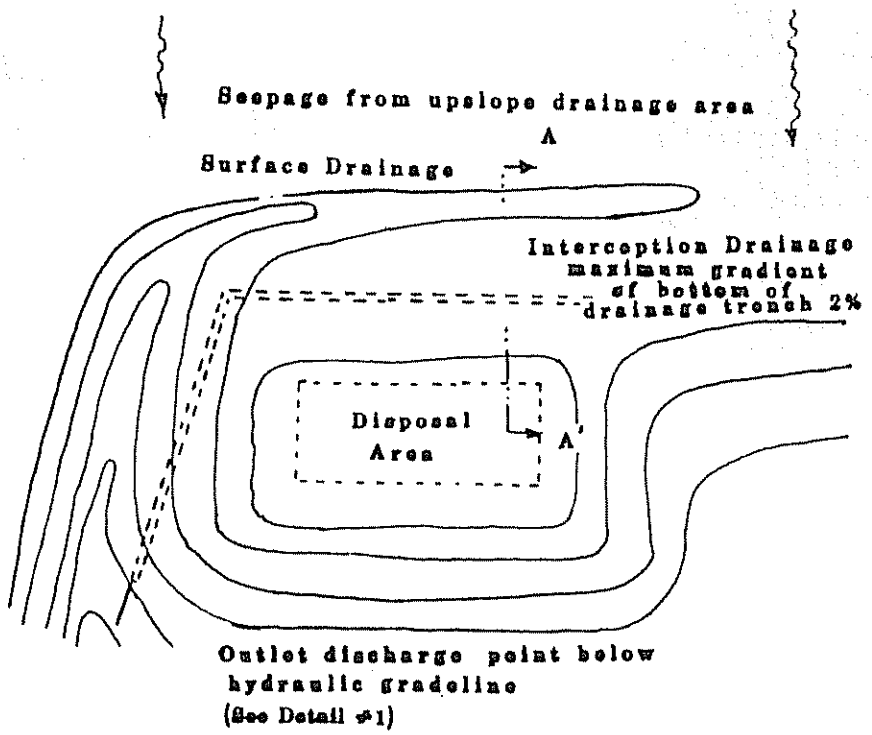
The State of Maine's Subsurface Wastewater Disposal Rules prohibit the installation of a new disposal system on a site with limiting soil and site conditions without an approved variance.

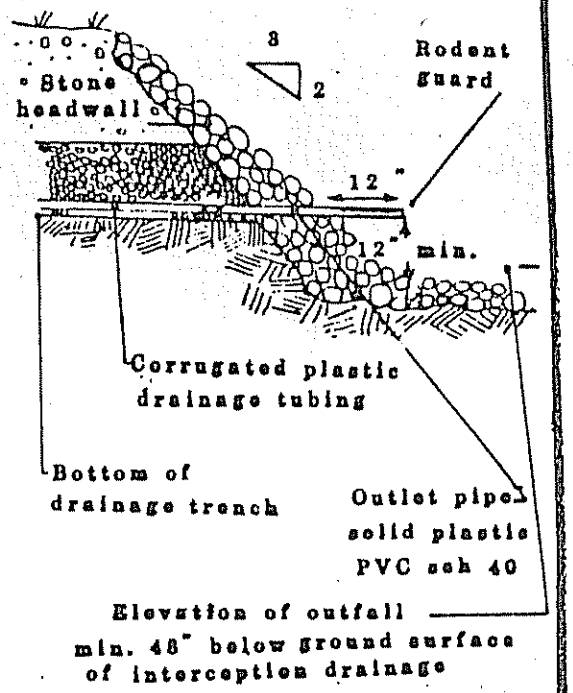
In certain situations, taking into consideration property size, soil type, drainage, slope, design flow, origin of water supply, land use zoning and other contributing factors, a Site Evaluator may determine that a site has the potential for an adequate disposal system (Sec. 16). When a site has been determined to have significant potential for a system installation (Table 16-1) and also has the required municipal endorsements, special design features should be included to improve upon the limiting soil and site conditions.

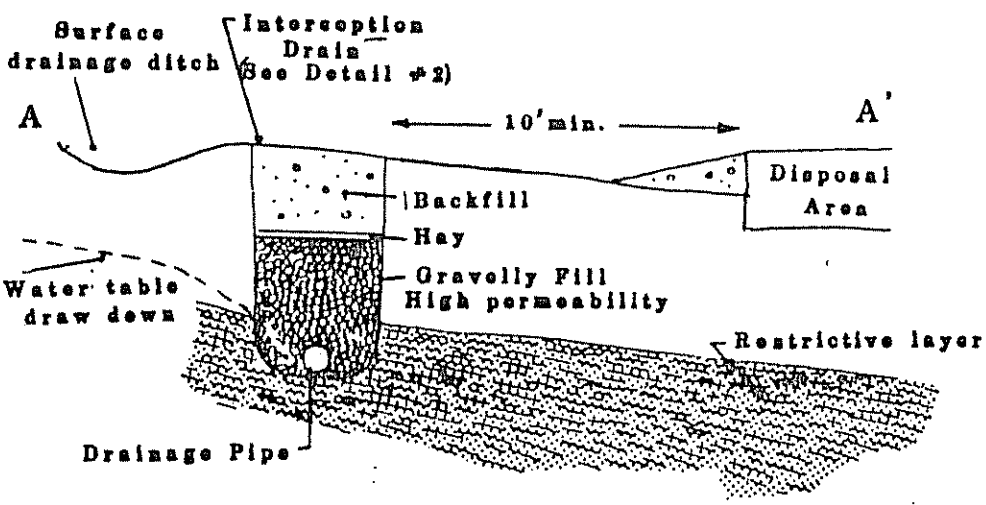
Curtain Drains

Seasonally high ground water tables that can severely limit the proper functioning of a disposal system sometimes may be effectively lowered by the construction of curtain drains. Curtain drains (interception drains) are installed upslope of the disposal site, approximately perpendicular to the flow of ground water, intercepting and diverting groundwater away from the disposal area. This is particularly effective in draining areas that are wet because of seepage from adjoining highlands.

Curtain drains are trenches in which permeable gravel fill or stone and 4" diameter perforated drainage pipe are placed. (See Figure H.1) The drains should be deep enough to provide protection against frost and extend into the impermeable layer.







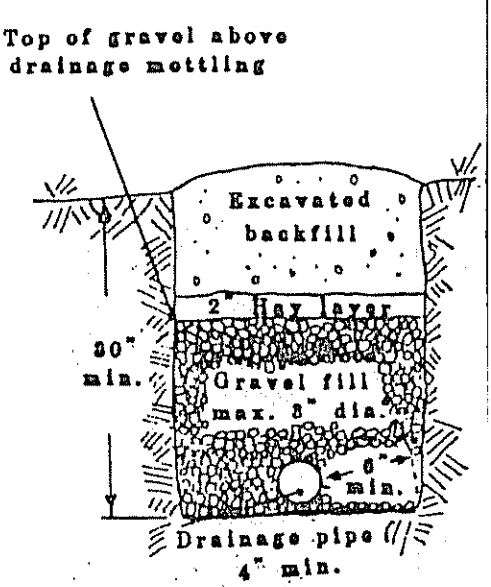


FIGURE H.1 Curtain Drain

Site Considerations

The successful design of curtain drains depends largely upon accurate analysis of the drainage problem. The ground water source and its movement to and through the disposal area must be correctly determined in order to properly size and design the curtain drains. Particular attention must be given to type of soil, ground water gradients, extent of the upslope drainage area, location and size of watercourses, and feasibility of projects. The most important factor in design of a curtain drain is locating an outlet to discharge the water at an elevation below the hydraulic grade line (See Figure H.1 Detail #1).

The soil profiles that may be practical to drain to make a site suitable for a disposal system are those having shallow perched water tables with lateral ground water flow on moderate slopes (such as Soil Profiles 1, 3, and 7). Soils that are saturated for prolonged periods particularly on level sites, or soils with artesian aquifers are not practical to drain.

Construction

To maximize interception of the ground water by the pipe, a coarse porous material such as gravel or crushed rock, must be placed around the drainage pipe. The porous material should also extend above the seasonal high water table elevation. The top of the gravel should be covered with a hay layer in order to prevent fines from entering the pipe. The soil excavated should be used for the remainder of the backfill trench. The porous material should extend to the stone headwall to reduce the problem of frost completely sealing the outlet from drainage.

The curtain drain outlet must be protected by screening to prevent small animals from entering the drainage pipe.

It should be approximately 12" above the streamchannel to allow for free drainage and to avoid siltation.

Maintenance

A properly designed and constructed curtain drain system should require little maintenance. The outlet should be inspected periodically to check for free drainage.

NOTES FROM THE SITE EVALUATOR Rev. 11/91

1. System shall be installed in accordance with the Maine State Plumbing Code.

2. Remove vegetation from the proposed disposal area and scarify original ground before placing fill.

3. Fill shall be clean, loamy sand placed in 8" compacted lifts.

4. All stone shall be of uniform size, and free of fines.

5. Site shall be graded in a manner which will divert surface water from the bed.

6. Grass, clover, trefoil, vetch, perennial wildflowers, or other herbaceous perennials may be planted on disposal area surfaces. Woody shrubs, in conjunction with a hardy perennial groundcover, may only be used on fill extensions.

7. If this application includes a new system variance request, it is assumed that this site is not part of a proposed subdivision.

8. "Permit By Rule" - When the toe of fill for a system extends closer than 100' to a wetland or waterbody, even though the system itself is 100' or more from the wetland or waterbody, or when a system requires a Replacement System Variance, the applicant may be required to file a "Permit By Rule" notification form or a complete application form with the D.E.P..

"Permit By Rule" does not take the place of any other local, state, or federal approvals which may be needed for the proposed activity. In specific instances, the activities may require a shoreland zoning permit from the town, a lease from the Bureau of Public Lands (207-289-3061) if the work extends onto state owned submerged lands, or a permit from the U.S. Army Corps of Engineers (207-623-8367).

9. If a system requires a pump, it shall be vented in accordance with standard practice. It is recommended that the required audible high water alarm be installed on the premises on a different electrical circuit from the pump.

10. As a general rule, a septic tank should be cleaned every two years. It is recommended that no commercial septic tank additives be used.

11. If design includes concrete chambers, the vertical dimension is assumed to be 13" thick. If other chambers are substituted, construction elevations will change.

12. This site evaluation and design has been done in compliance with the Maine State Plumbing Code. The approval and/or design may be subject to more restrictive local ordinances. The local Plumbing Inspector is to be contacted for final review approval.

13. By signature on this application, the client agrees with location of lot lines, wells and other physical features shown and further agrees to limit North By East Associates liability to the original cost of installation of the system or North By East Associates' total fee for services rendered on this project, whichever is greater.