

1ST SET: WILL BE SENT BY LPI TO ?

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Department of Human Services
Division of Health Engineering, Station 10
(207) 287-6672 FAX (207) 287-4172

PROPERTY LOCATION		>> Caution: Permit Required -- Attach In Space Below <<	
City, Town, or Plantation	BAR HARBOR	<div style="border: 1px solid black; padding: 5px;"> <p>BAR HARBOR PERMIT # 2959 STATE COPY</p> <p>Date Permit Issued: <u>12.07.00</u> \$ <u>5101.11</u> FEE <input type="checkbox"/> Double Fee Charged</p> <p><i>[Signature]</i> L.P.I. # <u>011321</u></p> </div>	
Street or Road	YOUNGS MOUNTAIN RD.		
Subdivision, Lot #			
OWNER/APPLICANT INFORMATION			
Name (last, first, MI)	REESE, ALGERNON B.	Owner	Applicant
Mailing Address of	5 YOUNGS MTN. RD.		
<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Applicant	BAR HARBOR, ME 04609		
Daytime Tel. #	(207) 288-2549	Municipal Tax Map #	14B Lot # 43
Owner or Applicant Statement		Caution: Inspections Required	
I state that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date _____		Local Plumbing Inspector Signature _____ (1st) Date Approved _____ _____ (2nd) Date Approved _____	

PERMIT INFORMATION

TYPE OF APPLICATION 1. <input checked="" type="checkbox"/> First Time System 2. <input type="checkbox"/> Replacement System Type Replaced: _____ Year Installed: _____ 3. <input type="checkbox"/> Expanded System a. <input type="checkbox"/> One-time exempted b. <input type="checkbox"/> Non-exempted 4. <input type="checkbox"/> Experimental System 5. <input type="checkbox"/> Seasonal Conversion	THIS APPLICATION REQUIRES 1. <input checked="" type="checkbox"/> No Rule Variance 2. <input type="checkbox"/> First Time System Variance a. <input type="checkbox"/> Local Plumbing Inspector Approval b. <input type="checkbox"/> State & Local Plumbing Inspector Approval 3. Replacement System Variance a. <input type="checkbox"/> Local Plumbing Inspector Approval b. <input type="checkbox"/> State & Local Plumbing Inspector Approval 4. <input type="checkbox"/> Minimum Lot Size Variance 5. <input type="checkbox"/> Seasonal Conversion Approval	DISPOSAL SYSTEM COMPONENT(S) 1. <input checked="" type="checkbox"/> Complete Non-engineered System 2. <input type="checkbox"/> Primitive System (graywater & airt toilet) 3. <input type="checkbox"/> Alternative Toilet, specify: _____ 4. <input type="checkbox"/> Non-Engineered Treatment Tank (only) 5. <input type="checkbox"/> Holding Tank, _____ gallons 6. <input type="checkbox"/> Non-engineered Disposal Field (only) 7. <input type="checkbox"/> Separated Laundry System 8. <input type="checkbox"/> Complete Engineered System (2000 gpd or more) 9. <input type="checkbox"/> Engineered Treatment Tank (only) 10. <input type="checkbox"/> Engineered Disposal Field (only) 11. <input type="checkbox"/> Pre-treatment, specify: 12. <input type="checkbox"/> Miscellaneous components
SIZE OF PROPERTY _____ sq. ft. <input type="checkbox"/> 30+ acres <input checked="" type="checkbox"/>	DISPOSAL SYSTEM TO SERVE MAX. 1. <input checked="" type="checkbox"/> Single Family Dwelling Unit, No. of Bedrooms <u>3</u> 2. <input type="checkbox"/> Multiple Family Dwelling, No. of Units _____ 3. <input type="checkbox"/> Other: _____ SPECIFY _____	TYPE OF WATER SUPPLY 1. <input checked="" type="checkbox"/> Drilled Well 2. <input type="checkbox"/> Dug Well 3. <input type="checkbox"/> Private 4. <input type="checkbox"/> Public 5. <input type="checkbox"/> Other: _____

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK 1. <input checked="" type="checkbox"/> Concrete a. <input type="checkbox"/> Regular b. <input checked="" type="checkbox"/> Low Profile 2. <input type="checkbox"/> Plastic 3. <input type="checkbox"/> Other: _____ CAPACITY <u>1000</u> gallons	DISPOSAL FIELD TYPE & SIZE 1. <input type="checkbox"/> Stone Bed 2. <input type="checkbox"/> Stone Trench 3. <input checked="" type="checkbox"/> Proprietary Device a. <input type="checkbox"/> Cluster array c. <input type="checkbox"/> Linear b. <input checked="" type="checkbox"/> Regular load d. <input type="checkbox"/> H-20 load 4. <input type="checkbox"/> Other: _____ SIZE <u>960</u> sq. ft. <input type="checkbox"/> lin. ft.	GARBAGE DISPOSAL UNIT 1. <input checked="" type="checkbox"/> No 3. <input type="checkbox"/> Maybe 2. <input type="checkbox"/> Yes >> Specify one below: a. <input type="checkbox"/> Multi-compartment Tank b. <input type="checkbox"/> Tanks in Series c. <input type="checkbox"/> Increase in Tank Capacity d. <input type="checkbox"/> Filter on Tank Outlet	DESIGN FLOW <u>270</u> gallons per day * BASED ON: 1. <input checked="" type="checkbox"/> Table 501.1 (dwelling unit/s) 2. <input type="checkbox"/> Table 501.2 (other facilities) SHOW CALCULATIONS -- for other facilities -- * 2-BEDROOM GARAGE APARTMENT + AUX. BATH HOUSE 3. <input type="checkbox"/> Section 503.0 (meter readings) ATTACH WATER-METER DATA
SOIL DATA & DESIGN CLASS PROFILE CONDITION DESIGN <u>3 / A1C / 1</u> at Observation Hole # <u>2</u> Depth <u>2.1</u> * Elevation _____ OF MOST LIMITING SOIL FACTOR	DISPOSAL FIELD SIZING 1. <input type="checkbox"/> Small -- 2.0 sq. ft./gpd 2. <input type="checkbox"/> Medium -- 2.6 sq. ft./gpd 3. <input checked="" type="checkbox"/> Medium-Large -- 3.3 sq. ft./gpd 4. <input type="checkbox"/> Large -- 4.1 sq. ft./gpd 5. <input type="checkbox"/> Extra Large -- 5.0 sq. ft./gpd	PUMPING 1. <input checked="" type="checkbox"/> Not Required (PRESUMED) 2. <input type="checkbox"/> May Be Required 3. <input type="checkbox"/> Required >> Specify only for engineered or experimental systems: DOSE: _____ gallons	

SITE EVALUATOR STATEMENT

I Certify that on 7-18-00 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

Allan E. Ott
Site Evaluator Signature
187
SE #
7-20-00
Date

ALLAN E. OTT
Site Evaluator Name Printed
(207) 288-3100
Telephone #

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
12071 287-5672 FAX 12071 287-4172

Town, City, Plantation
BAR HARBOR

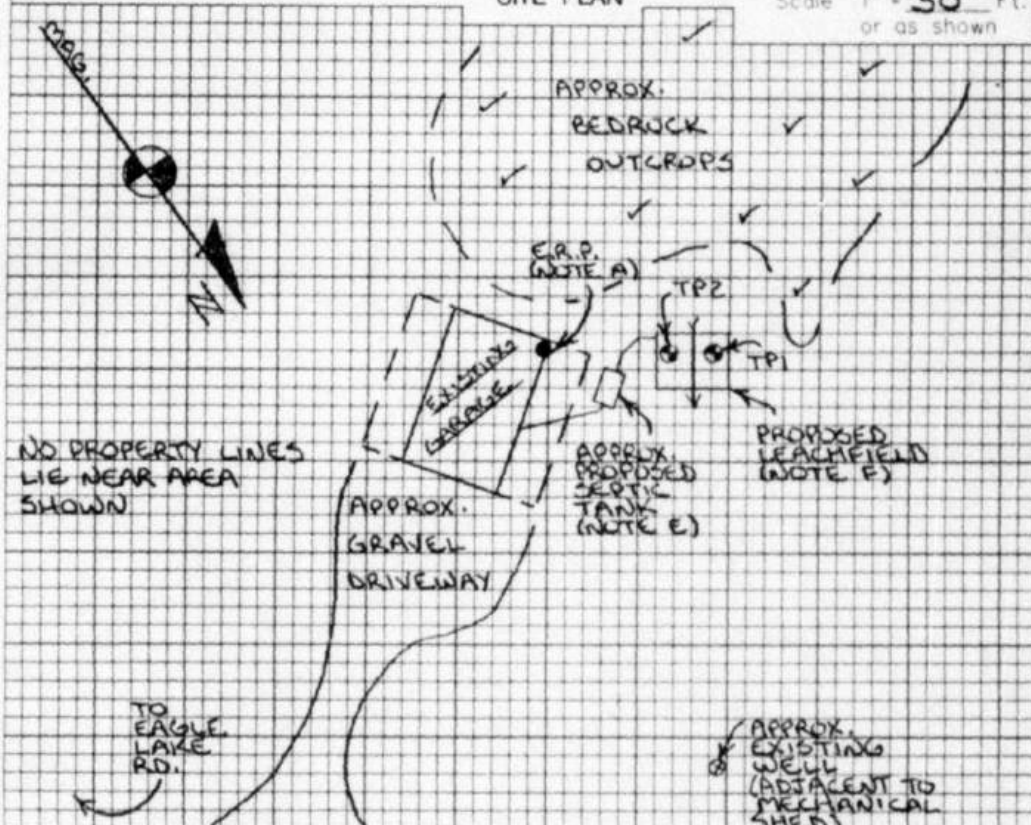
Street, Road Subdivision
YOUNGS Mtn. RD.

Owner's Name
ALGERNON B. REESE

SITE PLAN

Scale 1" = 50' Ft.
or as shown

SITE LOCATION PLAN



KEY:

- TEST PIT (TP)
- ↓ DIRECTION OF DOWNHILL SLOPE
- ELEVATION REFERENCE POINT (E.R.P.)

REFER ALSO TO ATTACHED SHEETS FOR THESE DESIGN NOTES (BY LETTER):

A	G
B	I
D	J
E	K
F	L

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

Observation Hole TP1 Test Pit Boring
2" Depth of Organic Horizon Above Mineral Soil

Depth (inches)	Texture	Consistency	Color	Mottling
0	COBBLY GRAVELLY FINE SANDY LOAM	FRIABLE	LIGHT GRAY STRAKS BROWN TO DARK YELLOWISH-BROWN	NONE EVIDENT
0 to 10				
10 to 20			OLIVE-BROWN	COMMON; MEDIUM; DISTINCT
20 to 30				
30 to 50	REFUSAL - PRESUMED BEDROCK			

Soil Classification: 2 **AmC**
Slope: ~2 %
Limiting Factor: 18"
 Ground Water
 Restrictive Layer
 Bedrock
 Pit Depth

Observation Hole TP2 Test Pit Boring
2" Depth of Organic Horizon Above Mineral Soil

Depth (inches)	Texture	Consistency	Color	Mottling
0	COBBLY GRAVELLY FINE SANDY LOAM	FRIABLE	DK. BROWN STRONG BROWN	NONE EVIDENT
0 to 10				
10 to 20		FIRM	DK. YEL-BROWN	COM; DISTINCT
20 to 30				
30 to 50	REFUSAL - PRESUMED BEDROCK			

Soil Classification: 3 **AmC**
Slope: ~4 %
Limiting Factor: 21"
 Ground Water
 Restrictive Layer
 Bedrock
 Pit Depth

Ally C. Ott
Site Evaluator Signature

187

7-20-00
Date

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

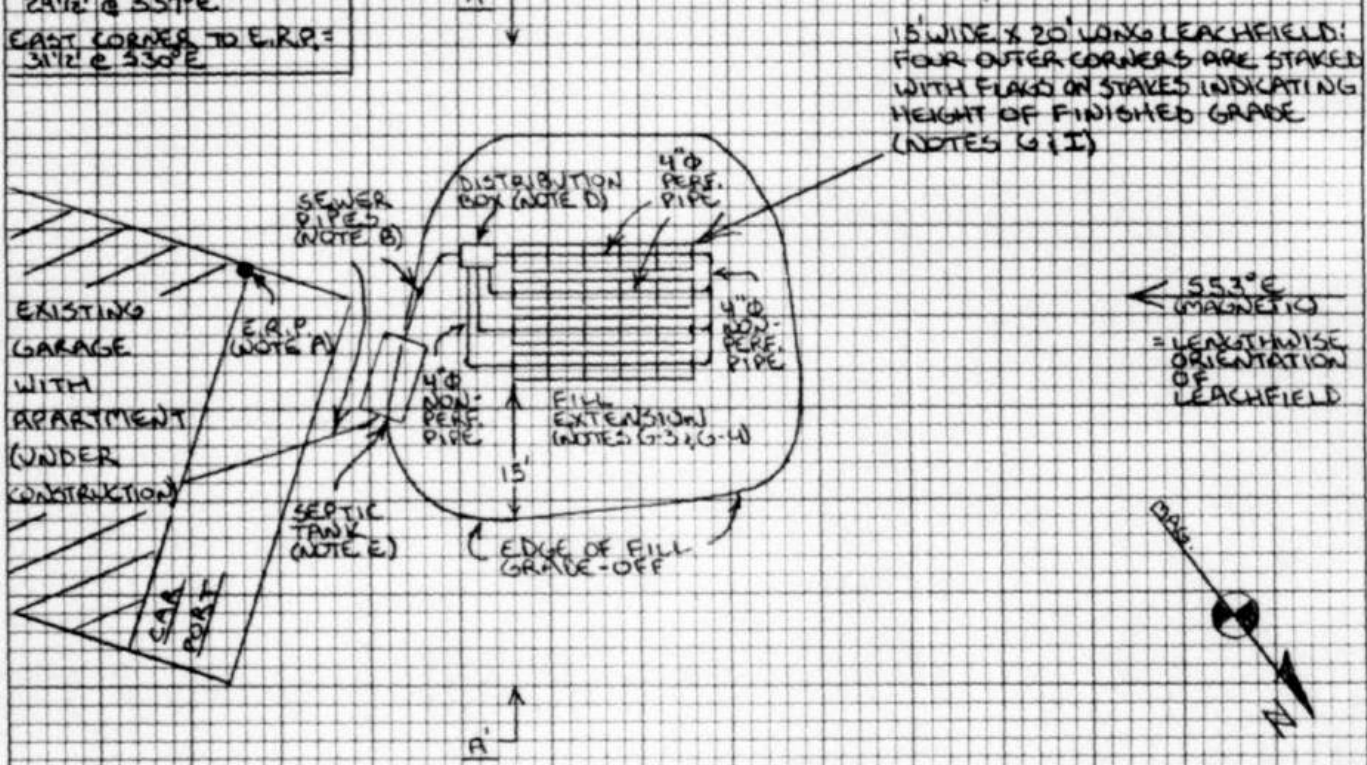
Department of Human Services
Division of Health Engineering
(207) 287-5672 FAX (207) 287-4172

Town, City, Plantation: **BAR HARBOR** Street, Road, Subdivision: **YOUNGS MTN. RD.** Owner's Name: **ALGERNON B. REESE**

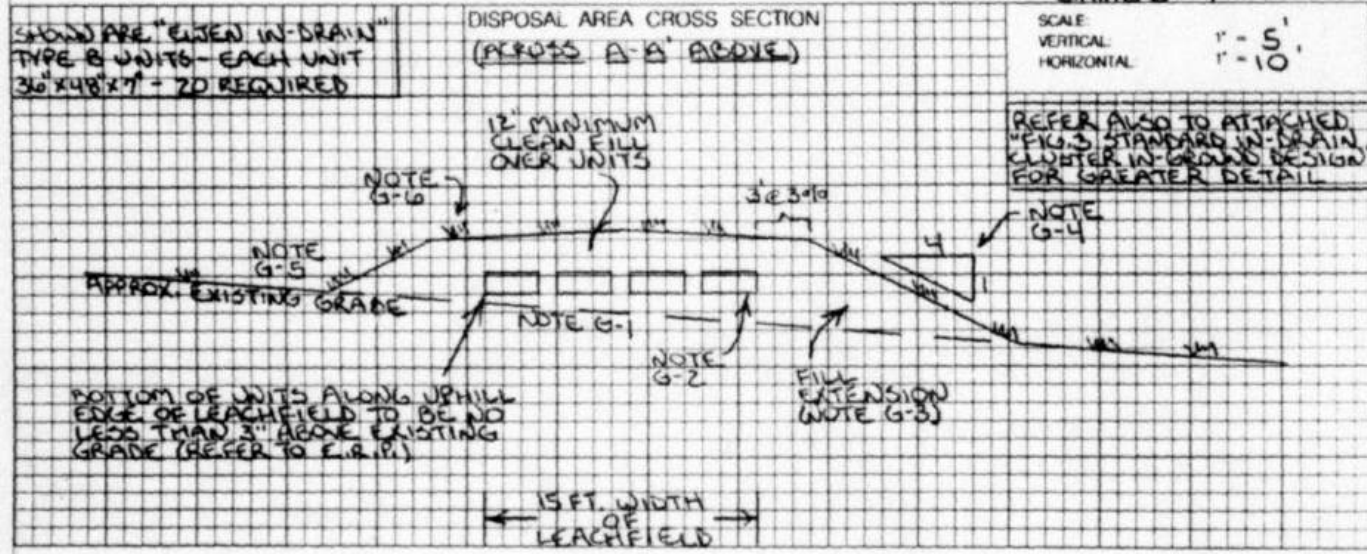
SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE 1" = 20' FT

FROM LEACHFIELD:
SOUTH CORNER TO E.R.P. =
29'1/2" @ 55°E
EAST CORNER TO E.R.P. =
31'1/2" @ 53°E



FILL REQUIREMENTS	CONSTRUCTION ELEVATIONS	ELEVATION REFERENCE POINT
Depth of Fill (Upslope) 22-23"	Finished Grade Elevation -23"	Location & Description: THE TOP OF THE YELLOW TRIM BOARD (LABELED) @ THE N.W. CORNER OF GARAGE Reference Elevation: E.R.P. 0'
Depth of Fill (Downslope) 26-29"	Top of Distribution Box or Proprietary Device -35"	
	Bottom of Disposal Area -42"	



Allyce J. [Signature]
Site Evaluator Signature

187
SF

7-20-00
Date

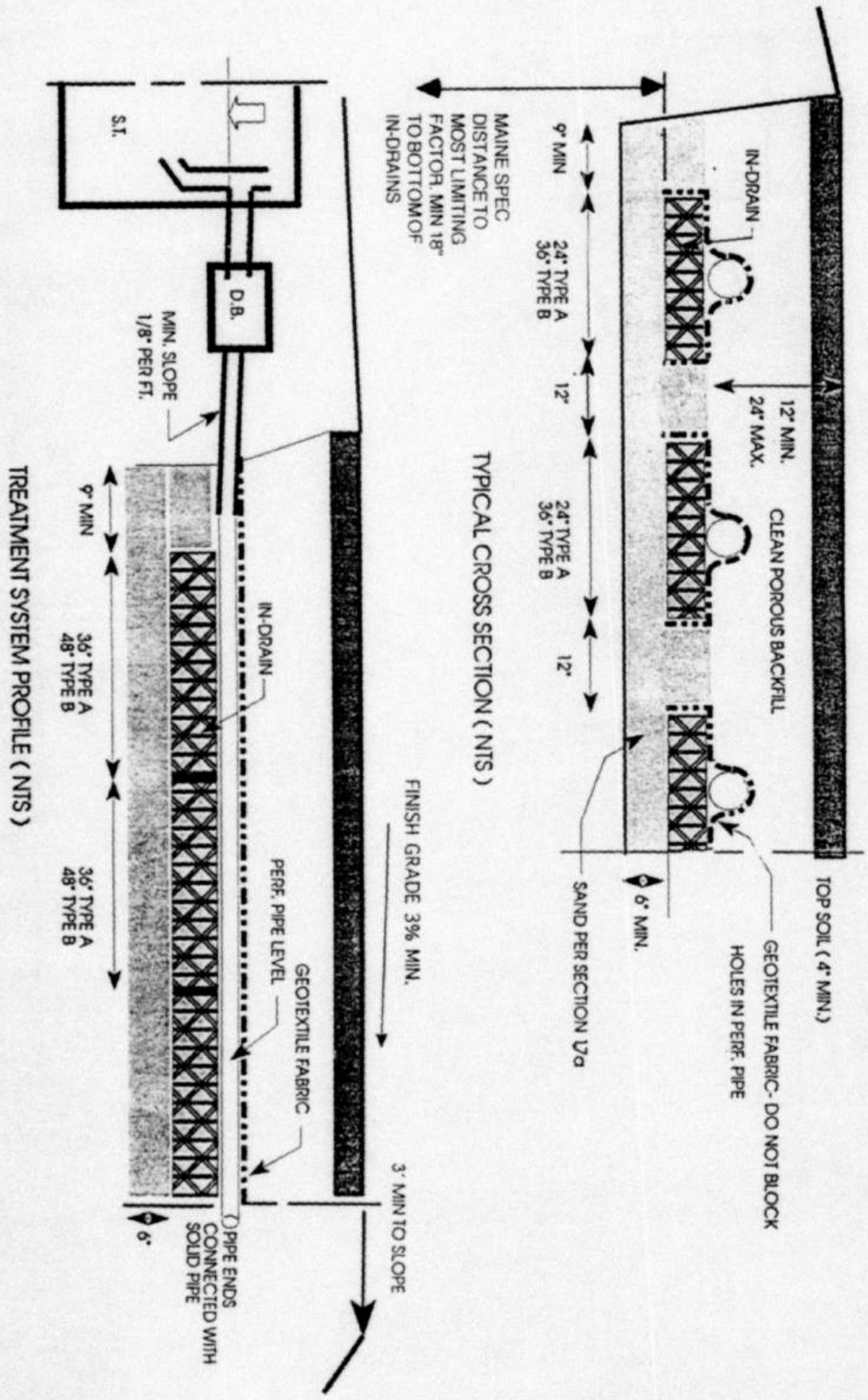


FIGURE 3. STANDARD IN-DRAIN CLUSTER IN-GROUND DESIGN

ALLAN E. OTT

Certified Professional Soil Scientist

DESIGN NOTES/SPECIFICATIONS

for Subsurface Wastewater

Disposal System

Attachment to HHE-200 form for:

ALGERNON B. REESE
owner/applicant

NOTE

- (A) Elevation Reference Point (ERP) is ~~at the same elevation as~~ 42" inches above ~~below~~ the bottom of the stone the bottom of the chambers within the proposed disposal area as staked. Disposal area (leachfield) shall be no lower than indicated.
- (B) Sewer Pipes: Use 3" diameter (minimum) approved, watertight materials. Insulate as necessary to protect from freezing; bury at least 1' deep; seed.
1. Building sewer: For gravity flow from building to septic tank, maintain minimum pitch of 1/4"/ft. (1/8"/ft. allowed with LPI's approval if using 4" diameter pipe.)
 2. Effluent line: For gravity flow below septic tank, maintain minimum pitch of 1/8"/ft.
- e Pump Needed: Gravity flow to disposal area is not feasible. See attached HHE-200 Forms for specifications of lift/pump chamber size and configuration.
- (D) Distribution Box: Serves as a worthwhile access point to disposal area. Set box perfectly level on firm base, and protect from freezing by covering with insulation.
- (E) Septic Tank:
1. Setback requirements which must be met when installing a septic tank can be found in Tables 700.2 through 700.4 of the Maine Subsurface Wastewater Disposal Rules.
 2. Pumping of the septic tank every 3 to 5 years is generally considered good maintenance practice. Otherwise, clogging of the disposal field could result, necessitating costly replacement. Installation of a riser over the cleanout cover of the tank greatly facilitates maintenance.
- (F) Disposal Areas: Setback requirements which must be met when installing a disposal field can be found in Tables 700.2 through 700.4 of the Maine Subsurface Wastewater Disposal Rules.

NOTE

(REFER ALSO TO ATTACHED
INSTALLATION INFORMATION
FROM ELTEN)

G

Disposal Area Construction Details:

1. The vegetation in the proposed disposal area and fill extensions shall be removed leaving as much of the original topsoil in place as possible. The ground surface shall then be raked/scarified to minimize glazing of the original soil.
2. The disposal area bottom and distribution line shall be level with a maximum grade tolerance of 2"/100 ft.
3. See Sec. 804.0 of the Maine Subsurface Wastewater Disposal Rules for backfill standards.
4. The finished grade of the backfill over the disposal area shall be crowned from the center of the disposal area at a 3% slope extending 3 ft. beyond the edge of disposal area. At that point, the fill shall be sloped at a uniform grade of no greater than that specified in Tables 600.2 through 600.4 of the Maine Subsurface Wastewater Disposal Rules.
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 it. Make sure that cellar drain line discharges away from disposal area.
6. The finished disposal area and fill extensions shall be seeded to establish vegetation 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.

-H-

Bed or Trench Area Details:

1. Disposal area stone depth shall extend at least 7" beneath the bottom of the distribution pipes and shall extend at least 1" above the top of the distribution pipes; stone shall be washed before delivery to site, free of fines, dust, clay or ashes, and no smaller than 3/4" or larger than 2 1/2" size
2. The disposal field stone shall be covered with a layer of filter fabric or 2" of compressed hay as the laying of distribution pipes progresses. See Sec. 805.3 of the Maine Subsurface Wastewater Disposal Rules for fabric requirements.
3. Immediately above the filter fabric or hay, backfill is required. It shall be a minimum of 8" in thickness, including at least 4" of soil or soil/soil amendment mix suitable for establishment of a good vegetative cover; such cover material shall also be placed over the entire filled area including the fill material extensions.

NOTE

- ① Chamber Disposal Area Details: Install approved chambers in accordance with manufacturer's instructions and Appendix B of the Maine Subsurface Wastewater Disposal Rules.
- ② Immediately after completion of final grading, the fill material shall be stabilized by mulching and seeding, or sodding. See **SEC. 806.4** of the Maine Subsurface Wastewater Disposal Rules for recommendations.
- ③ Maintenance: Conserve water whenever possible. Low volume plumbing fixtures or flow reducers on showers are strongly recommended. Also, do not park or drive vehicles over septic systems unless specifically designed for such use. See also Note E-2. Finally, garbage disposals should not be used with disposal fields; if such units are planned, contact Site Evaluator for additional information prior to installation.
- ④ For further information: Contact me, your town's Local Plumbing Inspector, or Div. of Health Engineering, Dept. of Human Services in Augusta, ME (tel. #207-287-5672) which administers the Rules, from which most of these specifications are derived.



ELJEN™

IN-DRAIN™ LEACHING SYSTEM



Trench and In-Ground Cluster Installation

1 Prepare site according to local and state regulations. **Do not install system on frozen or saturated ground.**

2 Remove all organic soil and roots at disposal and fill extension areas.

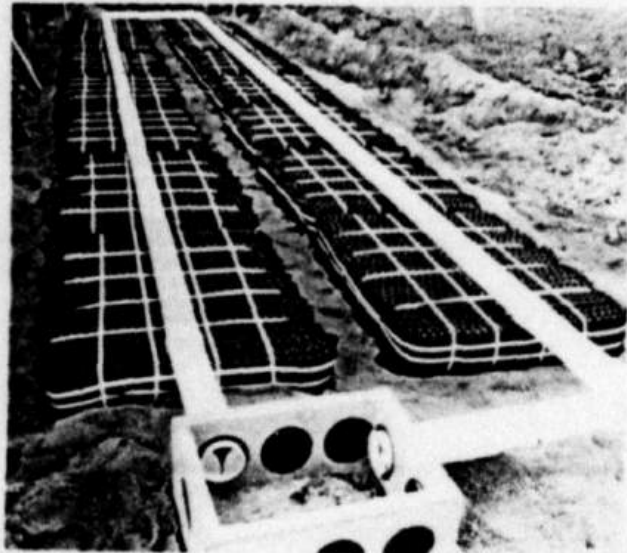
3 Scarify receiving layer to eliminate smearing.

4 Place 6" of D.O.T. or state highway specification **washed concrete sand** or sand known to be "medium to coarse with an effective size of .25 to 2.0 mm and no more than 5% passing a #200 sieve."

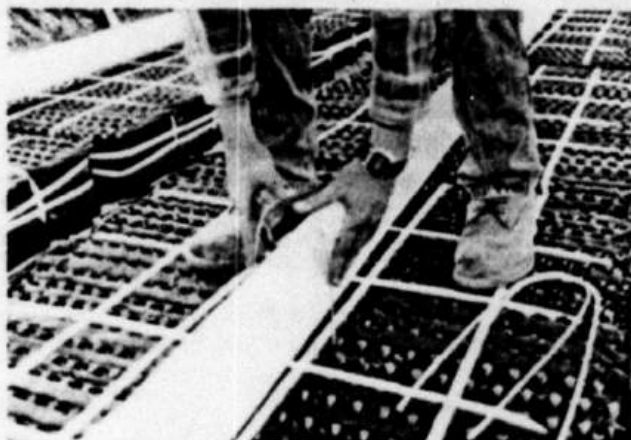
5 Avoiding footprints, place In-Drains with **painted stripe facing up**, end to end on sand in trench or bed. **Caution: Spacer cores can have sharp edges.**



6 Center 4" **perforated** distribution pipe over In-Drains. Use **solid pipe** over compacted sand from D-Box to In-Drains and to connect distribution lines at far end. **Connect mid-points on rows over 40' long.**



7 Install SSI Inc. flow equalizers or equal in D-Box. Use Type 1 in gravity systems, and Type P in pump systems.



8 Secure pipe with one Eljen clamp per In-Drain. Slide clamp into upfacing core. Force through fabric into sand.

9 Install Eljen cover fabric over rows of In-Drains. **Drape fabric straight down over pipe.** Secure with hand shoveled sand. **Don't block holes in perforated pipe.**



10 Place 12" medium to coarse sand (see step #4) between rows and 6" min. at the sides in trench or bed.

11 Complete backfill and loam to 12" min. over In-Drains. Fill should be clean, porous and devoid of large rocks. Use well graded sandy fill with a maximum 10% passing a #200 sieve. **Do not use wheeled equipment over system.** A light track machine may be used with caution, **avoiding crushing or shifting of pipe assembly.** Backfill in direction of perforated pipe.

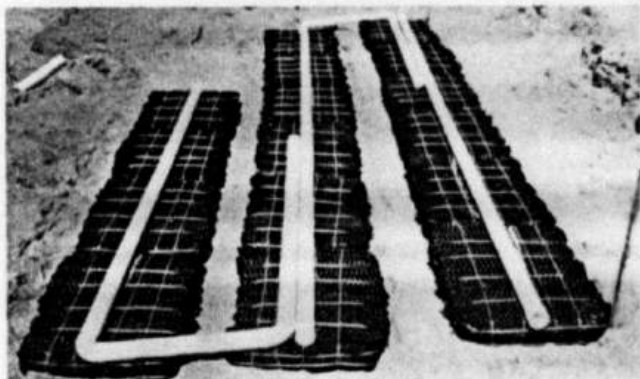
12 Divert surface runoff. Finish grade to prevent surface ponding. Seed loam and protect from erosion.

Raised or Fill Systems

- 1 Follow steps #1-3 for trench installation.
- 2 Compact fill, in max. 6" lifts, with a light tracked machine. Use clean soil free of organic material, clay, construction debris, stones larger than 6" and no more than 10% passing a #200 sieve.
- 3 Provide 6" sand bed, per trench step #4, directly under the In-Drains.
- 4 Complete system per trench steps #5-12.

Serial Distribution on Slopes

- 1 Site preparation is the same as for trench and fill systems. Groove receiving layer by raking or contour plowing at right angle to slope before placing fill or sand.
- 2 Install rows of In-Drains at design elevations.
- 3 Provide a well anchored D-Box with velocity reduction tee or baffle. D-Box serves as an inspection port.



- 4 Install a line of 4" **perforated** pipe on first row of In-Drains. Cap pipe at far end.
- 5 Place at least 10' of capped **perforated** overflow pipe at the far end and downhill side of the above pipe.
- 6 Connect overflow pipe to a line of **perforated** pipe on the next row of In-Drains with 2 elbows and a short length of **solid** pipe. Cap perforated pipe on opposite end.
- 7 Continue this procedure until the last row of In-Drains has an end capped line of **perforated** pipe.
- 8 Complete assembly by following steps #8-12 at trench installation.

Pumped Systems

- 1 Prepare disposal site as described above.
- 2 Provide a well anchored D-Box with a velocity reduction tee or baffle. Use SSI Inc. Type P flow equalizers or equal in the D-Box, one for each distribution line.
- 3 System assembly is the same as for gravity designs.
- 4 Pressure distribution does not result in reduced system size and is therefore not generally used for In-Drain disposal systems.

Design Manual Available

Effluent pretreatment offered by In-Drain technology generally allows **substantial reductions** in leach field size **compared to conventional stone or chamber systems**. Sizing formula conforms with code variations from state to state. Consult your area distributor for a state specific Design and Installation Manual.

Eljen Corporation

15 Westwood Rd., Storrs, CT., 06268
203-429-9486 • 800-444-1359
Fax 203-487-1124
Patent nos. 4,465,594 and 4,880,333
Additional Patents Pending

Distributed By:

Construction Consultants, Inc.
328 Federal Road, Route 4
Livermore, ME 04253-3090
207-897-4072
1-800-897-4072

LIMITED WARRANTY

1. Each In-Drain™ unit is warranted to the original purchaser against defects in materials and workmanship for one year from the date of manufacture when installed in accordance with manufacturer's instructions. Eljen Corp. must be notified within fifteen (15) days of the appearance of any defect during this period. Eljen Corp. will supply a replacement unit. Eljen Corp.'s liability specifically excludes the cost of removal and/or installation of the units.
2. The warranty does not extend to incidental, consequential, special or indirect damage. Specifically excluded from warranty coverage are: damage due to ordinary wear and tear, alteration, abuse or misuse, subjection to stresses or effluent loading greater than those prescribed in the design and installation instructions, the placement of improper materials by buyer into buyer's system, any event not caused by or under the control of Eljen Corp. In no event will Eljen Corp. be responsible for loss or damage to the buyer, the units, or any 3rd party resulting from its installation or shipment.
3. Buyer shall be solely responsible for insuring that installation of the system is completed in accordance with all applicable laws, codes, rules and regulations.
4. No warranties or representations at any time made by any representative of Eljen Corp. shall vary or expand the provisions hereof. No warranty applies to any party other than the original purchaser.

EXTENDED WARRANTY

Eljen offers a 10 year warranty for 1 and 2 family residential In-Drain systems. Conditions of system design, installation and maintenance apply. Please refer to detailed warranty available from Eljen or an authorized representative.

Eljen™ ... Products for a clean, healthy environment

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