
SEPTIC TANKS PUMPED
SWIMMING POOLS FILLED
NOT SAME TRUCK

CERTIFIED INSTALLER / LPI TRAINING

We Will Be Covering..

- HHE-200 FORMS
- Site EVALUATION PROCESS
- PERMITING
- BACKFILL MATERIAL
- INSPECTIONS
- COMPLAINTS
- ISSUES

Section 11A.2 Dig Safe Law

The “Dig Safe Law” 23 MRSA §3360-A(D) places certain notification requirements on any person doing excavations, including any operation in which earth, rock or other material on or below the ground is moved or otherwise displaced by means of power tools, power equipment or explosives, except tilling of the soil and gardening or agricultural purposes.

Under legislation passed in 2008, as of Jan. 1, 2013, a person certified by the DEP in erosion control best practices must be on-site of any activity that disturbs more than one cubic yard of soil –including earth moving, logging or landscaping operations– in the shoreland zone until work is complete and the site stabilized. The shoreland zone is an area defined as within 250 feet of rivers, wetlands, lakes and the ocean and 75 feet of certain streams.

Certification is obtained by attending a daylong course offered by DEP and having a construction site evaluation by staff from one of Maine's non-regulatory soil and water conservation districts. Recertification must be obtained every three years, and can be done by attending a continuing education course or through a DVD training and recertification quiz.

Bill Laflamme, phone (207) 215-9237, fax (207) 287-2814

This does not affect the LPI from finalizing a permit

It will be the option of the LPI to notify DEP if someone is not certified who is working in the Shoreland Zone

Enforcement action will take place Mid to Late Summer and actions of enforcement will be finalized at that time

Voluntary Contractor Certification

Initial certification requires attendance at a basic installers training course and the submission to the Division of copies of the first pages of the designs for two systems installed and inspected.

To maintain certification a minimum of **6 hours continuing education each five years** thereafter will be required.

A listing of Certified installers shall be maintained by the Division of Environmental Health. Copies of the list are distributed to all Local Plumbing Inspectors and Site Evaluators and to anyone from the general public requesting it. The list is also posted on the Division of Environmental Health's web site.

Maine Department of Health & Human Services
Maine Center for Disease Control & Prevention
Division of Environmental Health – Subsurface Wastewater Unit

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Voluntary Certification Program

Subsurface Wastewater Disposal System Installer

In association with the Maine Department of Environmental Protection, Nonpoint Source Training and Resource Center the Division of Environmental Health is pleased to offer a voluntary certification program for individuals who install subsurface wastewater disposal systems. The Maine Subsurface Wastewater Disposal Rules, CMR 241, do not require certification as a condition of obtaining a permit for the purpose of installing a subsurface wastewater disposal system; however possession of this certification **may allow the installer to sign an affidavit (HHE-238B) to cover the first system inspection noted in Section 111.5.1 of the Rules if the local plumbing inspector is in agreement.**

Once issued the certification is good for five (5) years. The following criteria must be met for initial certification by the Department:

1. Attendance at one (1) Basic System Installation Training Session conducted by the Subsurface Wastewater Program; and
2. Submission of page one from two (2) HHE-200 Forms which were permitted and installed by the applicant and inspected and found in compliance with the Rules by the Local Plumbing Inspector. **PLEASE MAKE SURE THAT THE 1ST AND 2ND INSPECTIONS ARE DONE ON THESE HHE FORMS.**

The certification will be automatically renewed after five (5) years if the certified individual submits proof of attendance at subsurface waster related training session(s) providing a minimum of 6 contact hours within the past certification period. Individuals attending JETCC sponsored sessions will be credited automatically. It is the responsibility of the certified individual to insure that proof of attendance is provided to the Division of Environmental Health.

Mail to: **Maine Department of Health & Human Services**
Division of Environmental Health
Attn: Wendy Austin
11 State House Station
Augusta, Maine 04333-0011

Name: _____

Company: _____

Address: _____

Municipality: _____ State: ____ Zip: _____

Telephone: _____ Email: _____

Training Session Attended: _____ Date: _____

Revised 12/10/09

This form
PLUS
2 signed
copies of page
one of the
HHE-200 form
from
installations

FINAL INSPECTION MUST BE SIGNED OFF

Maine Center for Disease Control and Prevention
An Office of the Department of Health and Human Services
John E. Baldacci, Governor Brenda M. Harvey, Commissioner

DIVISION OF ENVIRONMENTAL HEALTH

SUBSURFACE WASTEWATER PROGRAM

AFFIDAVIT OF SITE PREPARATION

This affidavit is to be completed by a certified system installer and submitted to the Local Plumbing Inspector to document compliance with **Section 111.5.1** of the Maine Subsurface Wastewater Disposal Rules, **144 CMR 241.** ***Permission to utilize this document in lieu of a site preparation inspection by the Local Plumbing Inspector must be verified when the permit is issued.*** This affidavit is ***not*** to be utilized in place of the system inspection described in **Section 111.5.2** of the Rules.

INSTALLER NAME: _____
(Please Print)

CERTIFICATION NUMBER: _____

SSWD PERMIT NUMBER: _____

PERMIT ISSUE DATE: _____

PROPERTY OWNER NAME: _____

PROPERTY ADDRESS: _____

MUNICIPALITY: _____

By signing and submitting this document to the Local Plumbing Inspector, I certify that all construction activities noted in **Section 111.5.1** including removal of all vegetation from the disposal field area and fill extensions as specified in **Section 801.3**; roughening of the ground surface as specified in **Section 801.4**; establishment of a transitional horizon as specified in **Section 801.5**; and placement of erosion control devices as specified in **Section 801.2** have been completed in full compliance with the Maine Subsurface Wastewater Disposal Rules, **144 CMR 241** for the referenced SSWD permit.

INSTALLER SIGNATURE: _____

DATE SUBMITTED: _____

By signing and accepting this document from the Certified Installer, I acknowledge that a site preparation inspection was not conducted for the referenced SSWD permit.

LPI SIGNATURE: _____

ACCEPTANCE DATE: _____

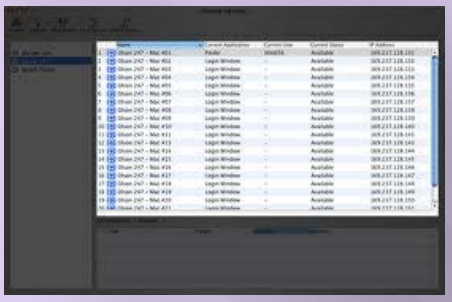
HHE-238-B (Revision 01/2008)

MUST BE ATTACHED TO EACH PERMIT

THIS FORM ONLY TO BE USED AFTER THE LPI'S APPROVAL

What does being a certified contractor allow you to do ?

Status of being certified



Puts you on a list of certified installers when someone request who to hire

Allows the Plumbing Inspector to waive the first inspection

Educate themselves on proper installation techniques

Section 11D.1
CONSTRUCTION

THE INSTALLER OF THE SYSTEM SHALL MAKE CERTAIN THAT THE SYSTEM AND ALL ITS COMPONENT PARTS ARE INSTALLED IN CONFORMANCE WITH THE REQUIREMENTS OF THIS CODE, THE SE PLAN AND ANY OTHER SPECIAL ENGINEERING REQUIREMENTS.

Section 11D.2
SOIL AND BACKFILL MATERIAL

THE INSTALLER OF THE SYSTEM SHALL MAKE CERTAIN THAT THE CONSTRUCTION AND INSTALLATION ARE PERFORMED WITHOUT AFFECTING THE CAPACITY OF THE SOIL AND BACKFILL MATERIAL TO ABSORB AND TREAT THE EFFLUENT.

Types of Systems

Conventional
septic tank & Stone Disposal Field / Proprietary device

Primitive
Alternative toilet & Grey water disposal field – Hand carried water only

Limited
Cistern of no more than 1000 gallon capacity
Alternative toilet
Septic tank or outlet filter
Grey water disposal field

Grey wastewater disposal field
(laundry, hot tub, etc..)
Septic tank or outlet filter

CONVENTIONAL SYSTEM
90 GPD/BED-Min. 2 Bed

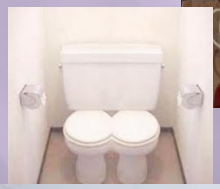
SEPTIC TANK, STONE OR PROPRIETARY TYPE FIELD, PRESSURIZED WATER

Design flow based on 90 GPD/Bed

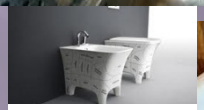
NO MINIMUM NUMBER OF FIXTURES





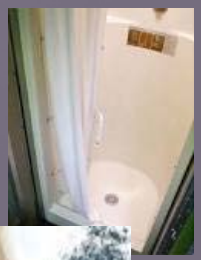











CONVENTIONAL SYSTEM
90 GPD/BED-Min. 2 Bed

1 BEDROOM 90 GPD ?

MIN. 2 BED = 180 GPD

If this was located in THE FORKS PLT.

23 BEDROOMS = 2070 GPD, SEPTIC TANKS CAPACITY WOULD = 5,750

TABLE 6A
SEPTIC TANK CAPACITY FOR DWELLING UNITS

Number of bedrooms per Unit	Minimum septic tank liquid capacity per Unit
1 Bedroom	750 gallons
2 Bedrooms	750 gallons
3 Bedrooms	1,000 gallons
4 Bedrooms	1,000 gallons
5 Bedrooms	1,250 gallons or
For each additional bedroom	250 gallons per bedroom

5 bedrooms = 1250 gallons

Additional 18 bedrooms = 18 x 250 = 4,500 Gallons

Total tank(s) capacity = 5,750 gallons

Primitive

Alternative toilet & stone or proprietary device Grey water disposal field – Hand carried/Hand Pumped water only

25 gallons of grey wastewater per day

limited to lavatory, shower/tub or sink

A septic tank is not required

Limited

Alternative toilet, Septic tank or outlet filter & stone or proprietary device Grey water disposal field

100 gallons of grey wastewater per day

Cistern of no more than 1000 gallon capacity

not more than 3 grey wastewater fixtures.

Grey wastewater disposal systems
Section 4P

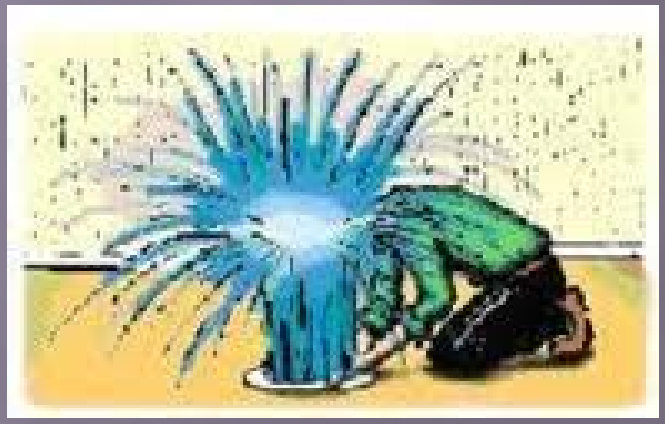
Septic tank or filter required:

A grey wastewater disposal field for single-family dwelling units served by pressurized water requires a septic tank or an outlet filter.

If exclusively used for hot tub or swimming pool filter backwash, laundry waste systems, backwash from water treatment system, and single-family dwelling units served by non-pressurized water, may use an external effluent filter without a septic tank, except when determined not practical by the LPI.

An internal filter may be used An internal effluent filter may include, but is not limited to, a tank with an owner-serviceable outlet filter or a manufactured filtering device.

OR



NOT A LEGAL DISPOSAL FIELD COMPONANT

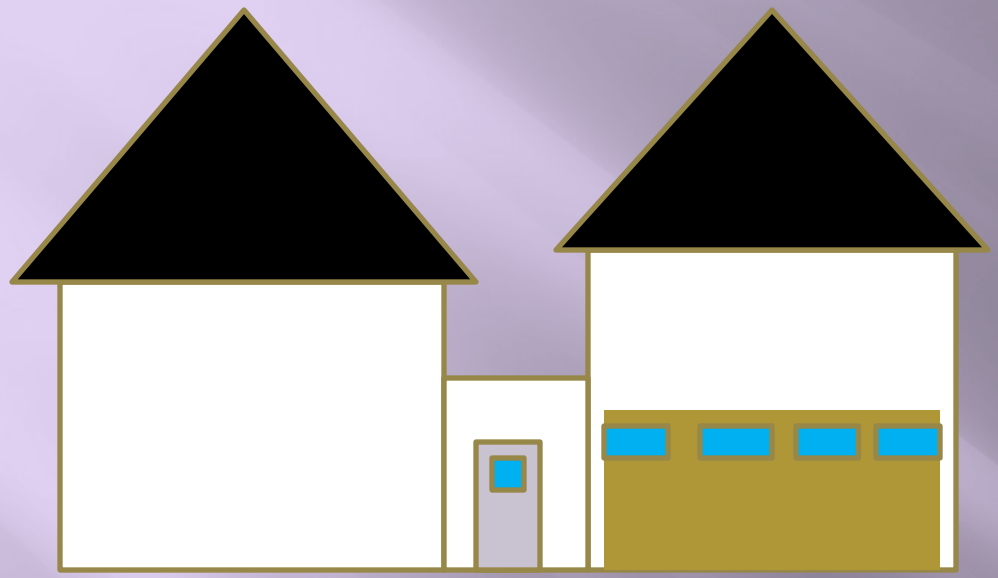
Minimum Design Flow

TABLE 4A
DESIGN FLOWS FOR SINGLE FAMILY DWELLING UNITS

Bedrooms	GPD per dwelling unit
2 or less	180
3	270
4	360
5	450
6	540
Each additional bedroom	90 per bedroom
Primitive disposal field	25
Limited disposal field	100
Bunkhouse	20 per bed

Multiple family dwelling units:

The design flow for multiple family dwelling units is calculated at 120 gallons per unit for 1-bedroom units, and 90 gallons per bedroom for multiple bedroom units.



2- BEDROOM

GARAGE

DESIGN FLOW

MULTIPLE FAMILY

1 BE UNIT

AD ED

10 + 120 GP =

300GPD

2 SEPARATE STRUCTURES = 180 GPD PER STRUCTURE

3A.1 PERMIT REQUIRED

- WORK MUST NOT BE STARTED UNTIL THE PLUMBING INSPECTOR HAS ISSUED A DISPOSAL SYSTEM PERMIT FOR THE WORK

Time to set the tank….

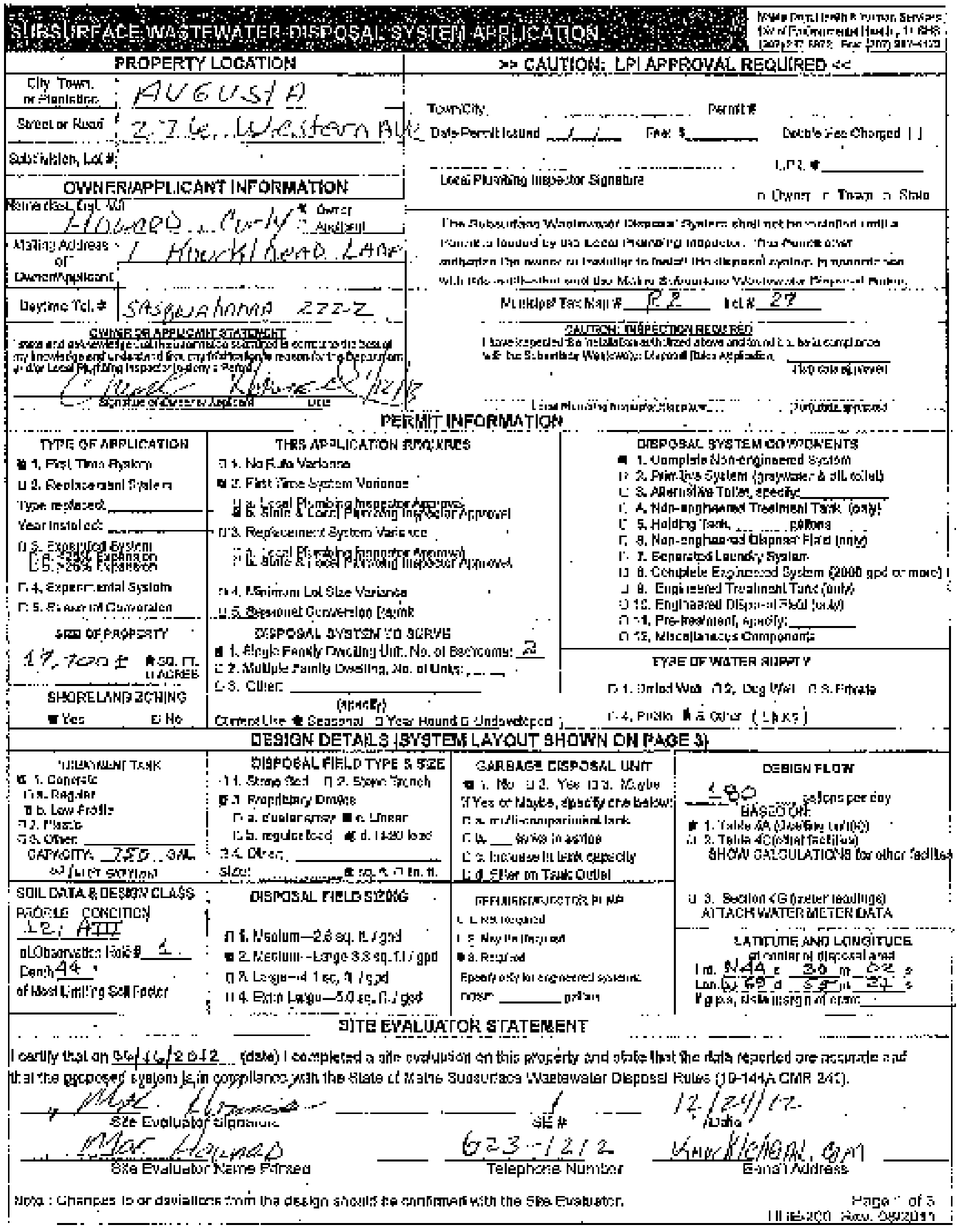
LPI SAYS

WHERES YOUR PERMIT?????

INSTALLER REPLIES

THE HOMEOWNER SAID SHE ALREADY GOT IT

HOMEOWNER SAYS…



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

PROPERTY LOCATION

City, Town, or Plantation: AUGUSTA

Street or Road: 2 7 W. Western Ave

Subdivision, Lot #:

OWNER/APPLICANT INFORMATION

Name (last, first, MI): HOWARD, Curly ■ Owner □ Applicant

Mailing Address of Owner/Applicant: 1 Knucklehead Lane

Daytime Tel. #: Sasquahanna 222-2

OWNER OR APPLICANT STATEMENT

I state and acknowledge 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.

Signature of Owner or Applicant — Date

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City — Permit #

Date Permit Issued __/__/__ Fee: $ ______ Double Fee Charged [ ]

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

□ Owner □ Town □ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # R 2 Lot # 27

CAUTION: INSPECTION REQUIRED

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

(1st) date approved

Local Plumbing Inspector Signature — (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION	THIS APPLICATION REQUIRES	DISPOSAL SYSTEM COMPONENTS
■ 1. First Time System	□ 1. No Rule Variance	■ 1. Complete Non-engineered System
□ 2. Replacement System	■ 2. First Time System Variance	□ 2. Primitive System (graywater & alt. toilet)
Type replaced:	□ a. Local Plumbing Inspector Approval	□ 3. Alternative Toilet, specify:
Year installed:	■ b. State & Local Plumbing Inspector Approval	□ 4. Non-engineered Treatment Tank (only)
□ 3. Expanded System	□ 3. Replacement System Variance	□ 5. Holding Tank, ___ gallons
□ a. <25% Expansion	□ a. Local Plumbing Inspector Approval	□ 6. Non-engineered Disposal Field (only)
□ b. >25% Expansion	□ b. State & Local Plumbing Inspector Approval	□ 7. Separated Laundry System
□ 4. Experimental System	□ 4. Minimum Lot Size Variance	□ 8. Complete Engineered System (2000 gpd or more)
□ 5. Seasonal Conversion	□ 5. Seasonal Conversion Permit	□ 9. Engineered Treatment Tank (only)
		□ 10. Engineered Disposal Field (only)
		□ 11. Pre-treatment, specify:
		□ 12. Miscellaneous Components

SIZE OF PROPERTY: 17,700 ± ■ SQ. FT. □ ACRES

SHORELAND ZONING: ■ Yes □ No

DISPOSAL SYSTEM TO SERVE

■ 1. Single Family Dwelling Unit, No. of Bedrooms: 2

□ 2. Multiple Family Dwelling, No. of Units:

□ 3. Other: ______ (specify)

Current Use ■ Seasonal □ Year Round □ Undeveloped

TYPE OF WATER SUPPLY

□ 1. Drilled Well □ 2. Dug Well □ 3. Private

□ 4. Public ■ 5. Other (Lake)

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK: ■ 1. Concrete; □ a. Regular; □ b. Low Profile; □ 2. Plastic; □ 3. Other; CAPACITY: 750 GAL.; 40 ___ system

DISPOSAL FIELD TYPE & SIZE: □ 1. Stone Bed □ 2. Stone Trench; ■ 3. Proprietary Device; □ a. cluster array ■ c. Linear; □ b. regular load ■ d. H-20 load; □ 4. Other; Size: ■ sq. ft. □ lin. ft.

GARBAGE DISPOSAL UNIT: ■ 1. No □ 2. Yes □ 3. Maybe; If Yes or Maybe, specify one below: □ a. multi-compartment tank; □ b. ___ tanks in series; □ c. increase in tank capacity; □ d. Filter on Tank Outlet

DESIGN FLOW: 180 gallons per day; BASED ON: ■ 1. Table 4A (dwelling unit(s)); □ 2. Table 4C (other facilities); SHOW CALCULATIONS for other facilities; □ 3. Section 4G (meter readings); ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS: PROFILE CONDITION 12 / AIII; at Observation Hole # 1; Depth 44"; of Most Limiting Soil Factor

DISPOSAL FIELD SIZING: □ 1. Medium—2.6 sq. ft./gpd; ■ 2. Medium—Large 3.3 sq. ft./gpd; □ 3. Large—4.1 sq. ft./gpd; □ 4. Extra Large—5.0 sq. ft./gpd

EFFLUENT/EJECTOR PUMP: □ 1. Not required; □ 2. May be required; ■ 3. Required; Specify only for engineered systems: DOSE: ______ gallons

LATITUDE AND LONGITUDE at center of disposal area: Lat. N44 d 36 m 02 s; Lon. W 69 d 58 m 21 s; If g.p.s., state margin of error:

SITE EVALUATOR STATEMENT

I certify that on 06/16/2012 (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).

Site Evaluator Signature — SE # 1 — Date 12/24/12

Site Evaluator Name Printed: Moe Howard — Telephone Number: 623-1212 — E-mail Address: Knucklehead.com

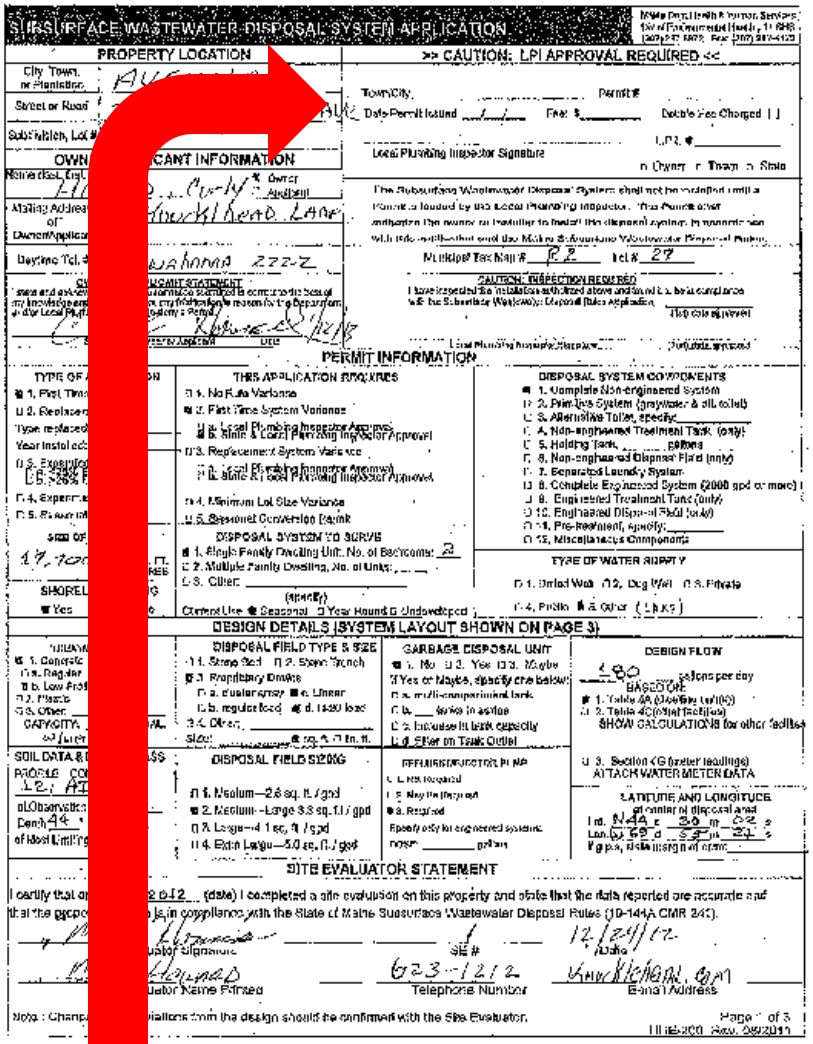
Note: Changes to or deviations from the design should be confirmed with the Site Evaluator.

Page 1 of 3

HHE-200 Rev. 08/2011

I thought this application was the permit??

INSTALLER REPLIES



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

PROPERTY LOCATION

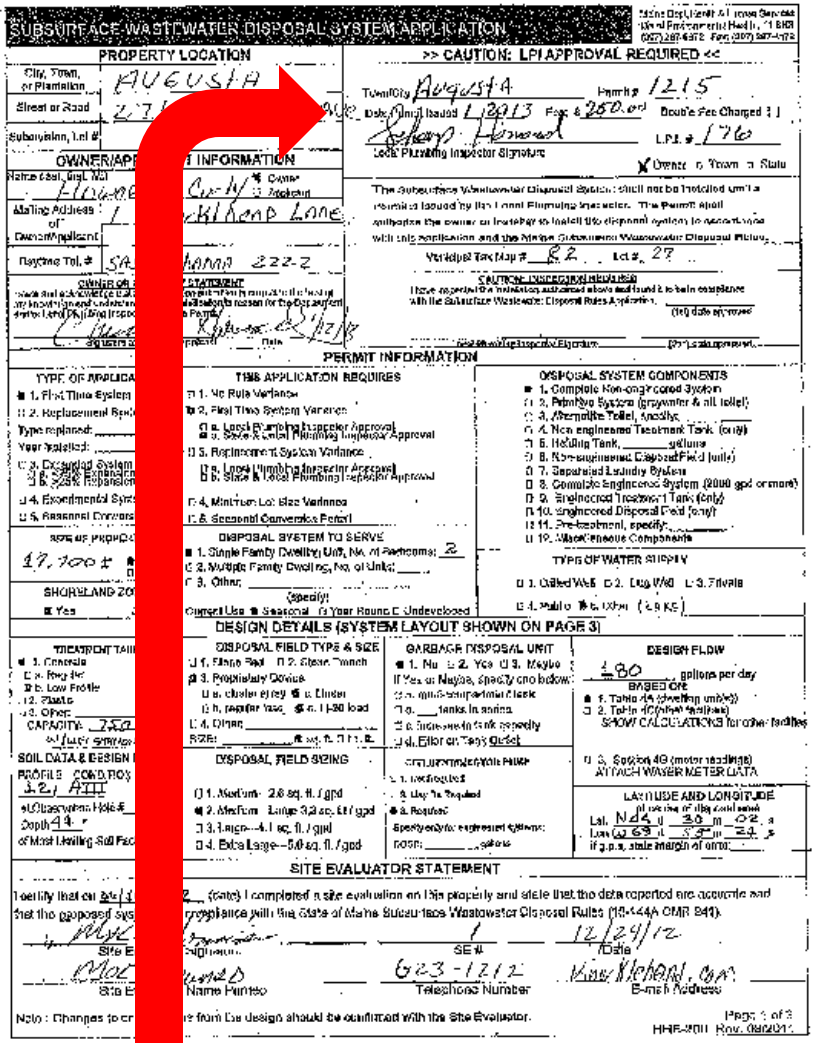
>> CAUTION: LPI APPROVAL REQUIRED <<

PERMIT INFORMATION

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

SITE EVALUATOR STATEMENT

NO PERMIT



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

PROPERTY LOCATION

>> CAUTION: LPI APPROVAL REQUIRED <<

PERMIT INFORMATION

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

SITE EVALUATOR STATEMENT

PERMIT

No permit

Permit

Section 11D.1 CONSTRUCTION

THE INSTALLER OF THE SYSTEM SHALL MAKE CERTAIN THAT THE SYSTEM AND ALL ITS COMPONENT PARTS ARE INSTALLED IN CONFORMANCE WITH THE REQUIREMENTS OF THIS CODE, THE SE PLAN AND ANY OTHER SPECIAL ENGINEERING REQUIREMENTS.

SECTION 3
DISPOSAL SYSTEM PERMITS AND FEES

Late permit fee:

A person who starts construction without first obtaining a disposal system permit must pay double the permit fee

NON ENGINEERED SYSTEM = $250.00

$500.00

$15.00 DEP Surcharge

2009 Budget Bill, PL 2009, ch213

Requires municipalities to assess a $15.00 surcharge to all non-engineered Subsurface Wastewater system permits, whether a first time, replacement or expansion but not to system components.

The $15.00 surcharge will need to be accounted for separately and should be submitted to the Department as a separate check for forwarding to the MDEP for processing.

Municipalities may assess additional permit fees, above those listed in Table 3A, if authorized to do so by local ordinance, along with any monetary penalties assessed, pursuant to 30-A M.R.S. § 4452(3). The entire additional permit and any penalty fees are retained by the municipality.

SECTION 2
ADMINISTRATION
B. DISPOSAL SYSTEM PERMIT REQUIREMENTS

1. **Payment of fees:** A disposal system permit may not be issued until the fees prescribed in Section 3 have been paid.

2. **Compliance with these Rules:** The disposal system permit is a license to proceed with work

3. **Compliance with disposal system permit:** All work must conform to the plans, as shown on the application for which a disposal system permit is issued.

Transferable: A disposal system permit is transferable to successive property owners, provided that it has not expired, and no changes to the design are proposed.

Time limit:

A permit is required for installation of a subsurface waste water disposal system or components thereof.

A permit is valid for work commenced within 24 months after the permit is issued.
(See: 30-A M.R.S.. § 4215). (page 14)

SECTION 3
DISPOSAL SYSTEM PERMITS AND FEES
D. MUNICIPAL RECORDS

Required:

The municipality must keep official records of applications for disposal system permits received, disposal system permits and certificates issued, fees collected, reports of inspections, and notices of violation and correction orders issued.

SECTION 3
DISPOSAL SYSTEM PERMITS AND FEES
D. MUNICIPAL RECORDS

Record retention:

The disposal system permit and associated records must be maintained until such time as the realty improvement served by the proposed or existing system is removed or connected to a public sewer.

Work commenced: The work has commenced when any construction directly associated with the system's or system component's installation has begun.

LPI'S DECISION

SECTION 11

Inspection required: The LPI must make 2 inspections as follows:

After site preparation

Prior to covering the system

Notification required:
The LPI must be notified at least 24 hours before the system is ready to be inspected.

THIS DOES NOT MEAN THE LPI HAS 24 HOURS TO DO THE INSPECTION

Covering of work:

No part of a system may be backfilled until it has been inspected and approved. If any part is covered before being inspected and approved, it must be uncovered at the discretion of LPI and at the expense and risk of the owner.

Preparation for inspection:

When a system is ready for inspection, the installer must make such arrangements as will enable the LPI to inspect all parts of the system. The installer must have present the proper apparatus and equipment for conducting the inspection and shall furnish such assistance as may be necessary in making a proper inspection.

The LPI may allow the installer to sign an affidavit (HHE-238B) to cover the first system inspection noted in Section 111.5.1 (chapter 11, section I, 5 – a)of the Rules if the local plumbing inspector is in agreement.

Inspection required: The LPI must make 2 inspections as follows:

FIRST INSPECTION

After site preparation:

An inspection must be made after site preparation to ascertain that the vegetation has been cut and removed in the disposal field area, the area under the disposal field and backfill extensions has been roughened, a transitional horizon has been established, and the erosion and sedimentation control measures are in place.

SECOND INSPECTION

Prior to covering the system:

An inspection must be made after installation of the system components, including stone, pipes or proprietary devices, tanks, hay, filter fabric, and fill beneath and beside of the disposal area but before backfill is placed above the disposal system components. This inspection must include any curtain drains, diversion ditches, berms or other measures outlined on the design to improve the function of the system.

Some Municipalities have additional Inspections

If the Municipality only has TWO Inspections…..

SECTION 11
QUALITY ASSURANCE AND QUALITY CONTROL

G. FINAL GRADING

General: Final grading for vegetative stabilized disposal areas must be carried out in compliance with the requirements of this Section

Cover material: At least 4 inches of soil or soil/soil amendment mix, suitable for establishment of a good vegetative cover must be placed over the entire filled area including the fill material extensions.

Final grading: Final grading must be completed in such a manner that surface water will not collect over the disposal field.

Erosion control: Immediately after completion of final grading, the fill material surface must be stabilized by mulching and seeding, or sodding, to establish a good vegetative cover to prevent erosion.

THE INSTALLER

OF THE SYSTEM SHALL MAKE CERTAIN THAT THE SYSTEM AND ALL ITS COMPONENT PARTS ARE INSTALLED IN CONFORMANCE WITH THE REQUIREMENTS OF THIS CODE, THE SE PLAN AND ANY OTHER SPECIAL ENGINEERING REQUIREMENTS

VEGITATIVE COVERS

Vegetative covers: Grass, clover, trefoil, vetch, perennial wild flowers, or other herbaceous perennials may be utilized for disposal field surfaces.

Other covers: Bark chips, woodchips, and other organic materials may be used as cover material when specified by the designer.

Woody shrubs and trees: Woody shrubs or trees are unacceptable on disposal field surfaces.

Receiving the HHE-200 Form

- IS IT PERMITTED?
- ARE YOU AT THE CORRECT LOCATION?
- ESTABLISH THE ERP (there may be a secondary reference point other than the ERP)
- SITE LOCATION

SITE EVALUATION: EVALUATION OF THE SITE

LOOK AROUND, ..ANYTHING THERE NOT ON THE PLAN ?

OWNERS WELLS

ABUTTERS WELLS

WATER BODIES

IF THERE IS....STOP!!!

NOTIFY LPI

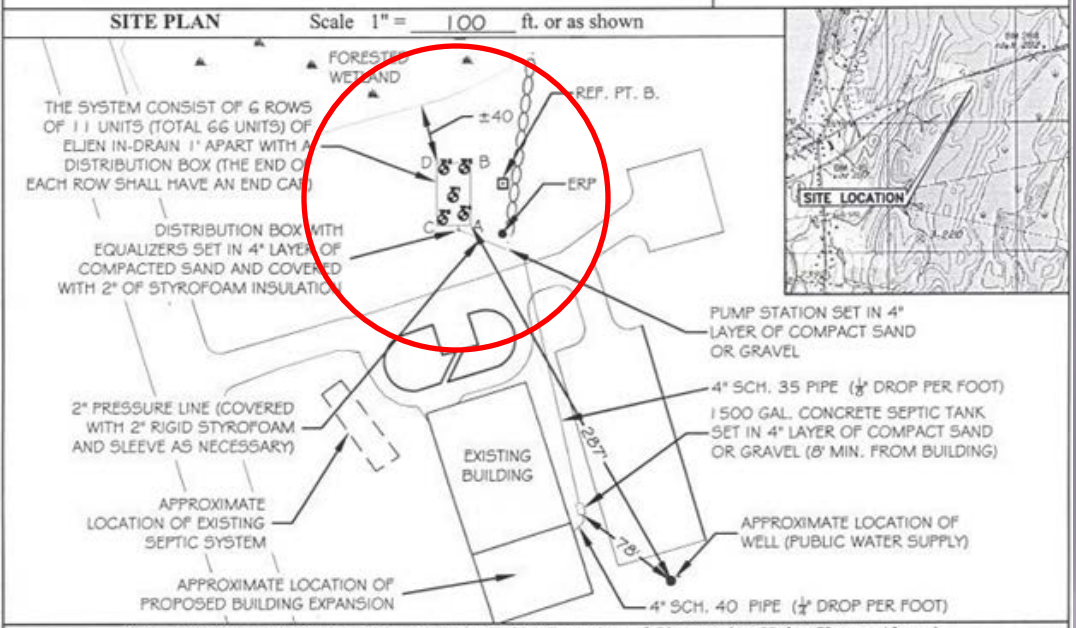
And Site Evaluator

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
***	***	***

SITE PLAN Scale 1" = 100 ft. or as shown



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

Observation Hole 1 ■ Test Pit ☐ Boring
0 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–10	Fine sandy loam	Friable	Brown	None
10–20			Yellowish brown	
20–30	Silty clay	Firm	Olive gray	Common medium distinct light olive brown
30–40	Bottom of Back Hoe Pit			
40–50				

Soil Classification	Slope	Limiting Factor	
B Profile / C Condition	11 %	16"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Observation Hole 2-5 ■ Test Pit ☐ Boring
0 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–10	Fine sandy loam	Friable	Brown	None
10–20			Yellowish brown	
20–30	Silty clay	Firm	Olive gray	Common medium distinct light olive brown
30–40	Bottom of Back Hoe Pit			
40–50				

Soil Classification	Slope	Limiting Factor	
B Profile / C Condition	11 %	16"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

***	***	**/**/07	Page 2 of 3
Site Evaluator Signature	SE #	Date	HHE-200 Rev. 8/01

Design is suppose to show anything within 100 feet.

Why 100 ft?

Setback from a disposal field to a potable water supply

ANYTHING OUTSIDE THE CIRCLE IS NOT A CONCEARN EXCEPT FOR…..

PUBLIC WATER SUPPLY

Which is 300 FT. Away from a disposal field

CMR CHAPTER 232 - Well Drillers and Pump Installers Rules

Public water supply:

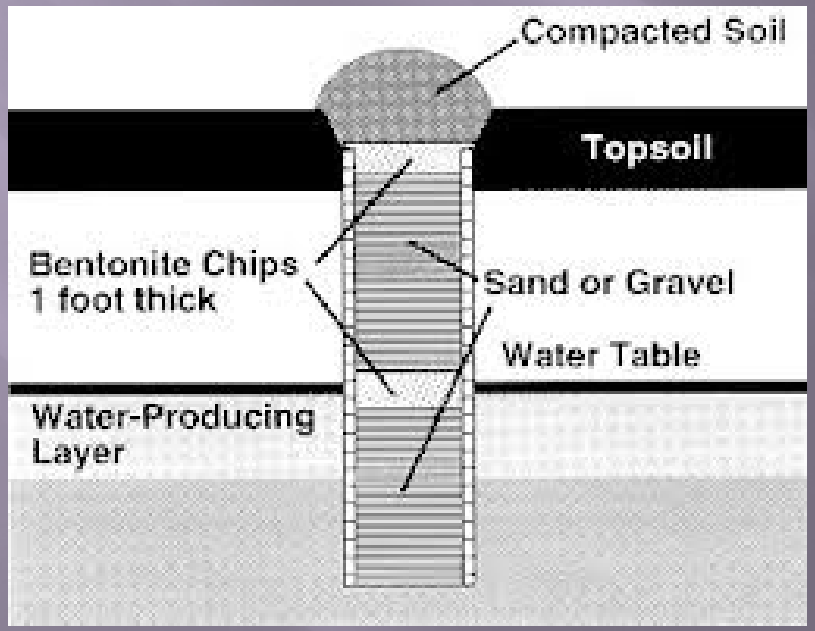
A water system which serves 25 or more people for at least 60 days per year or which has at least 15 service connections. Examples include water districts, mobile home parks, campgrounds, restaurants, apartment buildings, and hotels.

Some septic design variances require to abandon a well and drill a new well

CMR CHAPTER 232 - Well Drillers and Pump Installers Rules

Abandonment:

The complete sealing of a well or borehole with grout or other impermeable material to prevent contamination of the aquifer.



Impure clay

Bentonite usually forms from weathering of volcanic ash

SECTION 1
INTRODUCTION

G. LICENSED ESTABLISHMENTS

Department review required:

The LPI shall not issue a permit for a new, expanded, or replacement system serving a licensed establishment without prior approval from the Department.

(a) The planned installation of a new, expanded, or replacement system

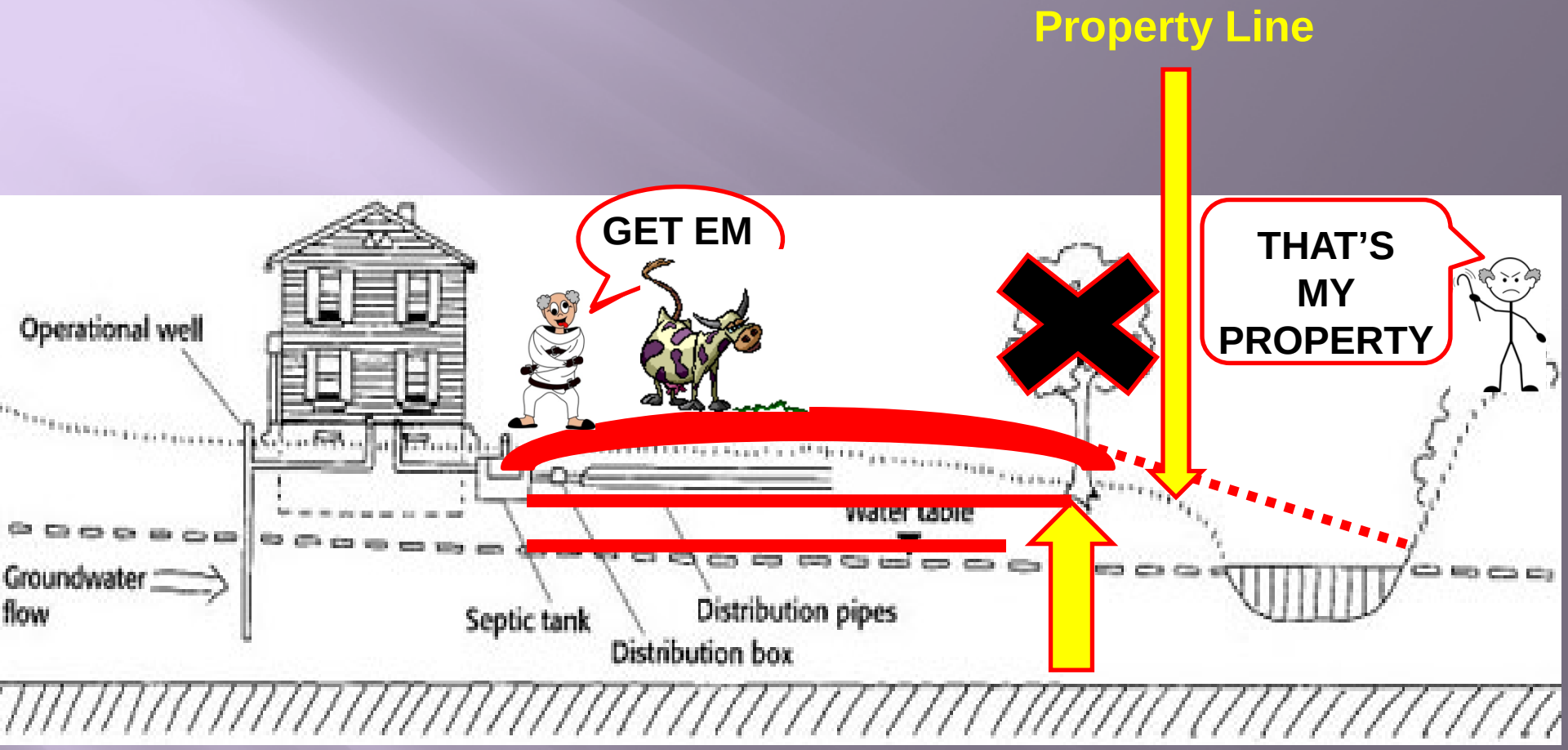
Or

(b) A planned increase in the licensed establishment's capacity.

IN THE CONSTRUCTION PROCESS..

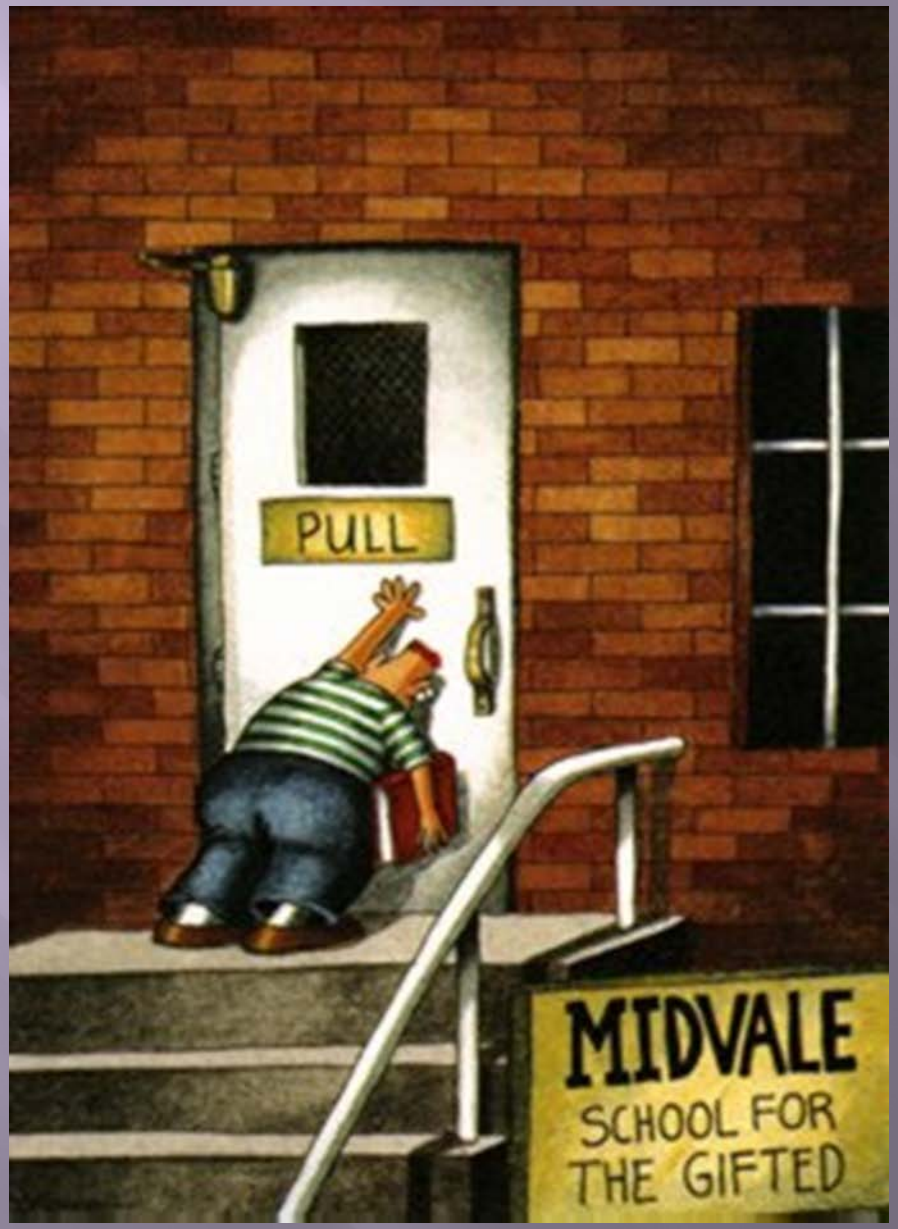
IF YOU HIT LEDGE, WATER,
SOMETHING OUT OF THE ORDINARY..

STOP!!!
NOTIFY LPI
And Site Evaluator


Property Line
GET EM
THAT'S MY PROPERTY
Operational well
Groundwater flow
Septic tank
Distribution box
Distribution pipes
Water table

Pay attention to obvious signs

IS THERE STANDING WATER ON TOP OF THE SCARIFICATION?



DO YOU NOTICE A WELL CLOSER THEN WHAT'S ON THE PLAN

Section 3B.7
DEPARTURES FROM DESIGN-
MUST BE APPROVED BY THE SITE EVALUATOR

Page 38

The LPI may authorize changes to the location's of treatment tanks, lift stations, building sewers, distribution boxes, drop boxes, and force mains provided that applicable minimum setback distances are maintained.

Such alterations must be documented by the LPI.

OUR RULES

- SUBSURFACE WASTEWATER
- GUIDANCE SUPPLEMENT SSWD
- APPOINTMENT & ADMIN OF LPI'S
- SEASONAL CONVERSION
- MIN. LOT SIZE
- ENFORCEMENT MANUAL
- SITE EVALUATORS
- CREMATORIUM / CEMETERY

WHAT IS THE SETBACK DISTANCE FROM A DISPOSAL FIELD TO BURIAL SITES ?

25 FEET

THIS DISTANCE IS MEASURED FROM ?

TOE OF FILL (FILL EXTENSIONS)
NO SOIL DISTURBANCE

FROM A SEPTIC TANK TO
BURIAL SITES OR
GRAVEYARD BOUNDERIES ?

25 FEET

THESE DISTANCES ARE MEASURED FROM
THE TOE OF FILL OR THE TANK ITSELF TO
WHAT POINT OF THE CEMETERY ?

SURVEY LINE OF THE CEMETERY

KNOW WHERE THE TANK IS

SECTION 6
APPROVED MATERIALS AND EQUIPMENT

Abandoned septic tanks:

The property owner or property owner's agent is responsible for seeing to it that the contents of all abandoned septic tanks are pumped and disposed of properly. The top or entire septic tank must be removed and the remaining portion of the septic tank or excavation must be filled immediately

SECTION 4
DESIGN CRITERIA

Q. DISPOSAL FIELDS

Disposal field required: An approved disposal field is needed for all structures requiring subsurface wastewater disposal, unless the structure is served by a holding tank complying with Section 7 or Section 8, as appropriate, or is served by an alternative toilet with no grey wastewater generated.

TABLE 4C
DESIGN FLOWS FOR OTHER FACILITIES
Bunkhouses (no plumbing)20 gpd per bed

Alternative toilet with no grey wastewater generated.

SUN-MAR

Drains

1" drains, which should be connected to an approved drain pit

ADVANCED ACS COMPOSTING SYSTEMS LLC. Phoenix Composting Toilet

Drains

Remove accumulated liquid with the pump, or by continuous drainage to an approved disposal system.

envirolet™

Drains

Filter Drain must gravity connect to either a small plastic container, approved leaching pit or other acceptable drain site.

THE VAULT PRIVY

SECTION 2
ADMINISTRATION
E. EXISTING SYSTEMS

The use of any subsurface wastewater disposal system that was in existence prior to July 1, 1974, and is currently functional, is allowed, provided all of the following conditions are met:

Wastewater flow: The current wastewater flow is equal to, or less than, the wastewater flow prior to July 1, 1974; and

System Status: The system is not currently malfunctioning

Relocation of non-malfunctioning system:

The relocation of a non-malfunctioning system outside the Shoreland Zone with a system based on the current system components must meet replacement system criteria.

The relocation of a non-malfunctioning system inside the Shoreland Zone with a system based on the current system components must meet first time system criteria.

Replacement structures:

A structure is considered to be a replacement structure if:

It is used to replace the original structure which was destroyed by fire or natural disaster; or

It is exchanged with another structure of the same wastewater flow

A replacement structure may be served by the existing subsurface wastewater disposal system, provided:

The existing system was functioning properly when the use of the system ceased; and

The wastewater flow of the replacement structure does not exceed the wastewater flow of the existing system, and

If the existing subsurface wastewater disposal system was installed prior to July 1, 1974, the existing system must be replaced, using replacement system criteria described in Section 8

Dwelling unit:

Any structure or portion of a structure, permanent or temporary in nature, used or proposed to be used as a residence seasonally or throughout the year.

Does a dwelling need Plumbing Fixtures?

UNIFORM PLUMBING CODE
2009

Section 412.0

Minimum Number of Fixtures

412.1 Fixture Count

Plumbing Fixtures Shall Be Provided For The Type Of Building Occupancy And In The Minimum Number Shown in

Table 4-1

TABLE 4-1
Minimum Plumbing Facilities[1]

Each building shall be provided with sanitary facilities, including provisions for persons with disabilities as prescribed by the Department Having Jurisdiction. Table 4-1 applies to new buildings, additions to a building, and changes of occupancy or type in an existing building resulting in increased occupant load. Exception: New cafeterias used only by employees.

The total occupant load shall be determined in accordance with the Building Code. The type of building or occupancy shall be determined based on the actual use of the various spaces within the building. Building categories not shown in Table 4-1 shall be considered separately by the Authority Having Jurisdiction. The minimum number of fixtures shall be calculated at 50 percent male and 50 percent female based on the total occupant load.

Once the occupant load and uses are determined, the requirements of Section 412.0 and Table 4-1 shall be applied to determine the minimum number of plumbing fixtures required.

Type of Building[2] or Occupancy	Water Closets[14] (Fixtures per Person)	Urinals[5, 16] (Fixtures per Person)	Lavatories (Fixtures per Person)	Bathtubs or Showers (Fixtures per Person)	Drinking[3, 13, 17] Fountains (Fixtures per Person)
Assembly places – theatres, auditoriums, convention halls, etc.– for permanent employee use	Male 1: 1-15 2: 16-35 3: 36-55 Over 55, add 1 fixture for each additional 40 persons. Female 1: 1-15 3: 16-35 4: 36-55	Male 0: 1-9 1: 10-50 Add one fixture for each additional 50 males.	Male 1 per 40 Female 1 per 40		
Assembly places – theatres, auditoriums, convention halls, etc.– for public use	Male 1: 1-100 2: 101-200 3: 201-400 Over 400, add one fixture for each additional 500 males and 1 for each additional 125 females. Female 3: 1-50 4: 51-100 8: 101-200 11: 201-400	Male 1: 1-100 2: 101-200 3: 201-400 4: 401-600 Over 600, add 1 fixture for each additional 300 males.	Male 1: 1-200 2: 201-400 3: 401-750 Over 750, add one fixture for each additional 500 persons. Female 1: 1-200 2: 201-400 3: 401-750		1: 1-150 2: 151-400 3: 401-750 Over 750, add one fixture for each additional 500 persons.
Dormitories[9]– School or labor[16]	Male 1 per 10 Add 1 fixture for each additional 25 males (over 10) and 1 for each additional 20 females (over 8). Female 1 per 8	Male 1 per 25 Over 150, add 1 fixture for each additional 50 males.	Male 1 per 12 Over 12, add one fixture for each additional 20 males and 1 for each 15 additional females. Female 1 per 12	1 per 8 For females, add 1 bathtub per 30. Over 150, add 1 bathtub per 20.	1 per 150[22]
Dormitories – for staff use[16]	Male 1: 1-15 2: 16-35 3: 36-55 Over 55, add 1 fixture for each additional 40 persons. Female 1: 1-15 3: 16-35 4: 36-55	Male 1 per 50	Male 1 per 40 Female 1 per 40	1 per 8	
Dwellings[4] Single dwelling Multiple dwelling or apartment house[16]	1 per dwelling 1 per dwelling or apartment unit		1 per dwelling 1 per dwelling or apartment unit	1 per dwelling 1 per dwelling or apartment unit	
Hospital waiting rooms	1 per room		1 per room		1 per 150[12]

Does a dwelling need hot and cold water?

UNIFORM PLUMBING CODE 2009

Chapter 6

Section 601.0
Hot And Cold Water Required

Section 601.1

CHAPTER 6

WATER SUPPLY AND DISTRIBUTION

601.0 Hot and Cold Water Required.

601.1 Except where not deemed necessary for safety or sanitation by the Authority Having Jurisdiction, each plumbing fixture shall be provided with an adequate supply of potable running water piped thereto in an approved manner, so arranged as to flush and keep it in a clean and sanitary condition without danger of backflow or cross-connection. Water closets and urinals shall be flushed by means of an approved flush tank or flushometer valve.

Exception: Listed fixtures that do not require water for their operation and are not connected to the water supply.

In occupancies where plumbing fixtures are installed for private use, hot water shall be required for bathing, washing, laundry, cooking purposes, dishwashing or maintenance. In occupancies where plumbing fixtures are installed for public use, hot water shall be required for bathing and washing purposes. This requirement shall not supersede the requirements for individual temperature control limitations for public lavatories, bathtubs, whirlpool bathtubs and shower control valves.

601.2 Identification of a Potable and Nonpotable Water System. In buildings where potable water and nonpotable water systems are installed, each system shall be clearly identified in accordance with Sections 601.2.1 through 601.2.4.

601.2.1 Potable Water. Green background with white lettering.

601.2.2 Color and Information. Each system shall be identified with a colored pipe or band and coded with paints, wraps and materials compatible with the piping.

listed in Table 14–1, discharge side shall be

601.2.4 Outlets. Each water line that is used be posted with black follows: "CAUTION: DO NOT DRINK."

601.3 Faucets and diverters water distribution system sponds to the left side of the

TABLE
Minimum Length of Color

Outside Diameter of Pipe or Covering		
inches	(mm)	of inc
1/2 to 1-1/4	(15 to 32)	8
1-1/2 to 2	(40 to 50)	8
2-1/2 to 6	(65 to 150)	12
8 to 10	(200 to 250)	24
Over 10	(Over 250)	32

602.0 Unlawful Connectio

602.1 No installation of po or part thereof shall be mac will be possible for use contaminated water, mixtu any portion of such piping equipment, or plumbing f siphonage, suction, or any normal use and operation tank, receptor, equipmen

Water filtration devices

Internal permit?

YES!!

Connected to the Disposal System?

YES!!

Any expansion to the disposal system needed?

NO

Section 9
EXPANSIONS

Expansion:
The enlargement or change in use of a structure using an existing subsurface wastewater disposal system that brings the total structure into a classification that requires larger subsurface wastewater disposal system components.

Component:
Any individual part of a subsurface wastewater disposal system.

The initial expansion of a single family home by the addition of one or more bedrooms, or the introduction of mechanically pressurized water to a structure formerly served by hand pumped or hand carried water.

The initial expansion of a non-residential structure which results in an increase in design flow of 10 percent or more.

Expansions of a structure, such as a porch, living room or sun room, which do not increase the design flow are exempt from the requirements of this Section.

Section 9
EXPANSIONS

Installation Required:
In the following instances, installation of the expanded system design is required.

Within the shoreland area of major waterbodies/courses must be installed prior to the expansion of the subject structure.

No valid permitted HHE-200 Form, proposed to be expanded, must be installed prior to the expansion of the subject structure.

Systems proposed to be expanded by two or more bedrooms or 25 percent or more of the total design flow must be installed prior to the expansion of the structure.

Internal Plumbing Application HHE-211

$ 10.00 per fixture

Min. Permit Fee is $ 40.00

For how many fixtures?

1 - 4

PLUMBING APPLICATION

PROPERTY ADDRESS

Town or Plantation

Street or Subdivision Lot #

PROPERTY OWNER(S) NAME

Last: First:

Applicant Name:

Mailing Address of Owner/Applicant (if Different)

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(s) to deny a permit.

Signature of Owner/Applicant Date

Department of Health and Human Services
Division of Environmental Health

Town/City _____ Permit # _____

Date Permit Issued ___/___/___ Fee: $_____ Double Fee Charged [ ]

_____ L.P.I. # _____

Local Plumbing Inspector Signature

The Internal Plumbing Fixtures and Piping shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the plumbing system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Caution: Inspection Required

I have inspected the installation authorized above and found it to be in compliance with the Maine Plumbing Rules Application.

LPI Signature Date Approved (Rough-in) Date Approved (Final)

PERMIT INFORMATION

This Application is for

1. ☐ NEW PLUMBING
2. ☐ RELOCATED PLUMBING

Type of Structure to be Served

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

Plumbing to be Installed by:

1. ☐ MASTER PLUMBER
2. ☐ OIL BURNERMAN
3. ☐ MFG'D HOUSING DEALER / MECHANIC
4. ☐ PUBLIC UTILITY EMPLOYEE
5. ☐ PROPERTY OWNER

LICENSE # |_|_|_|_|_|_|_|_|_|_|

Hook-Up & Piping Relocation Maximum of 1 Hook-Up	Column 2 Number	Column 2 Type of Fixture	Column 1 Number	Column 1 Type of Fixture
___ HOOK-UP: to public sewer by those cases where the connection is not regulated and inspected by the local sanitary district.	___	Hosebib / Sillcock	___	Bathtub (and Shower)
	___	Floor Drain	___	Shower (separate)
	___	Urinal	___	Sink
	___	Drinking Fountain	___	Wash Basin
	___	Indirect Waste	___	Water Closet (Toilet)
___ HOOK-UP: to an existing subsurface wastewater disposal system	___	Water Treatment Softener, Filter, Etc.	___	Clothes Washer
	___	Grease / Oil Separator	___	Dish Washer
	___	Roof Drain	___	Garbage Disposal
___ PIPING RELOCATION: of sanitary lines, drains, and piping without new fixtures.	___	Bidet	___	Laundry Tub
	___	Other: _____	___	Water Heater
	___	Fixtures (Subtotal) Column 2	___	Fixtures (Subtotal) Column 1
			___	Fixtures (Subtotal) Column 2
OR				TOTAL FIXTURES
☐ TRANSFER FEE [$10.00]			___	Fixture Fee
			___	Transfer Fee
		SEE PERMIT FEE SCHEDULE FOR CALCULATING FEE	___	Hook-Up & Relocation Fee
				PERMIT FEE (TOTAL)
		☐ Owner ☐ Town Copy ☐ State Copy		PAGE 1 OF 1
				HHE-211 Rev. 08/2011

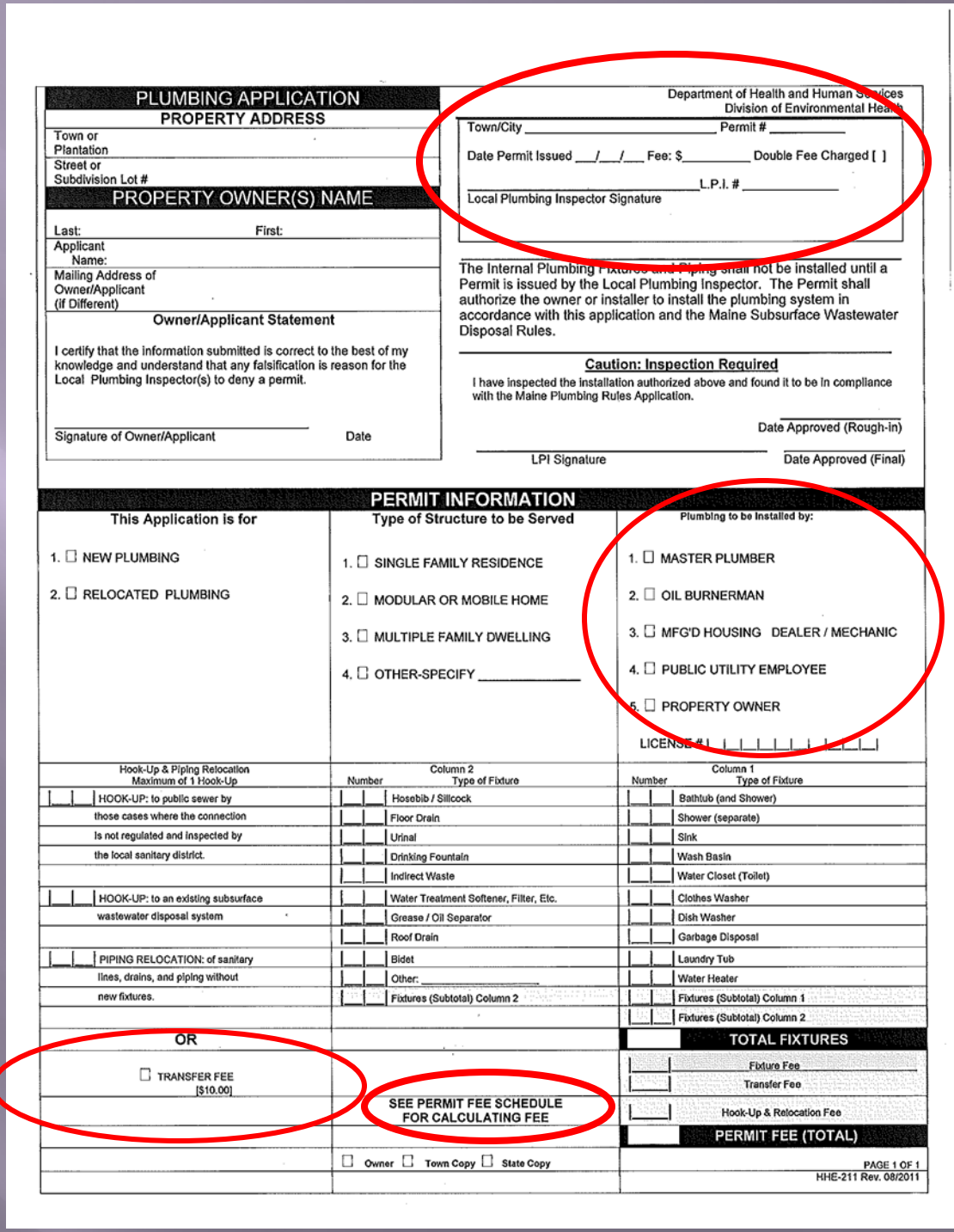
What is the only item on the HHE-211 form that you can charge just $10.00 with no minimum permit fee?

Transfer Fee

RULES FOR APPOINTMENT AND ADMINISTRATION OF LOCAL PLUMBING INSPECTORS

Table A: Permits for Internal Plumbing

Minimum fee, includes up to four fixtures	$40.00
Individual fixtures, each, above four total	$10.00
Hook up to public sewer	$10.00
Hook up to existing subsurface system	$10.00
Piping relocation with no new fixtures	$10.00
Permit transfer	$10.00



PLUMBING APPLICATION

PROPERTY ADDRESS

Town or Plantation

Street or Subdivision Lot #

PROPERTY OWNER(S) NAME

Last: First:

Applicant Name:

Mailing Address of Owner/Applicant (if Different)

Owner/Applicant Statement

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Signature of Owner/Applicant Date

Department of Health and Human Services
Division of Environmental Health

Town/City Permit #

Date Permit Issued ___/___/___ Fee: $ Double Fee Charged [ ]

L.P.I. #

Local Plumbing Inspector Signature

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Date Approved (Rough-in)

LPI Signature Date Approved (Final)

PERMIT INFORMATION

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1. ☐ NEW PLUMBING
2. ☐ RELOCATED PLUMBING

Type of Structure to be Served

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

Plumbing to be Installed by:

1. ☐ MASTER PLUMBER
2. ☐ OIL BURNERMAN
3. ☐ MFG'D HOUSING DEALER / MECHANIC
4. ☐ PUBLIC UTILITY EMPLOYEE
5. ☐ PROPERTY OWNER

LICENSE # | | | | | | | | | |

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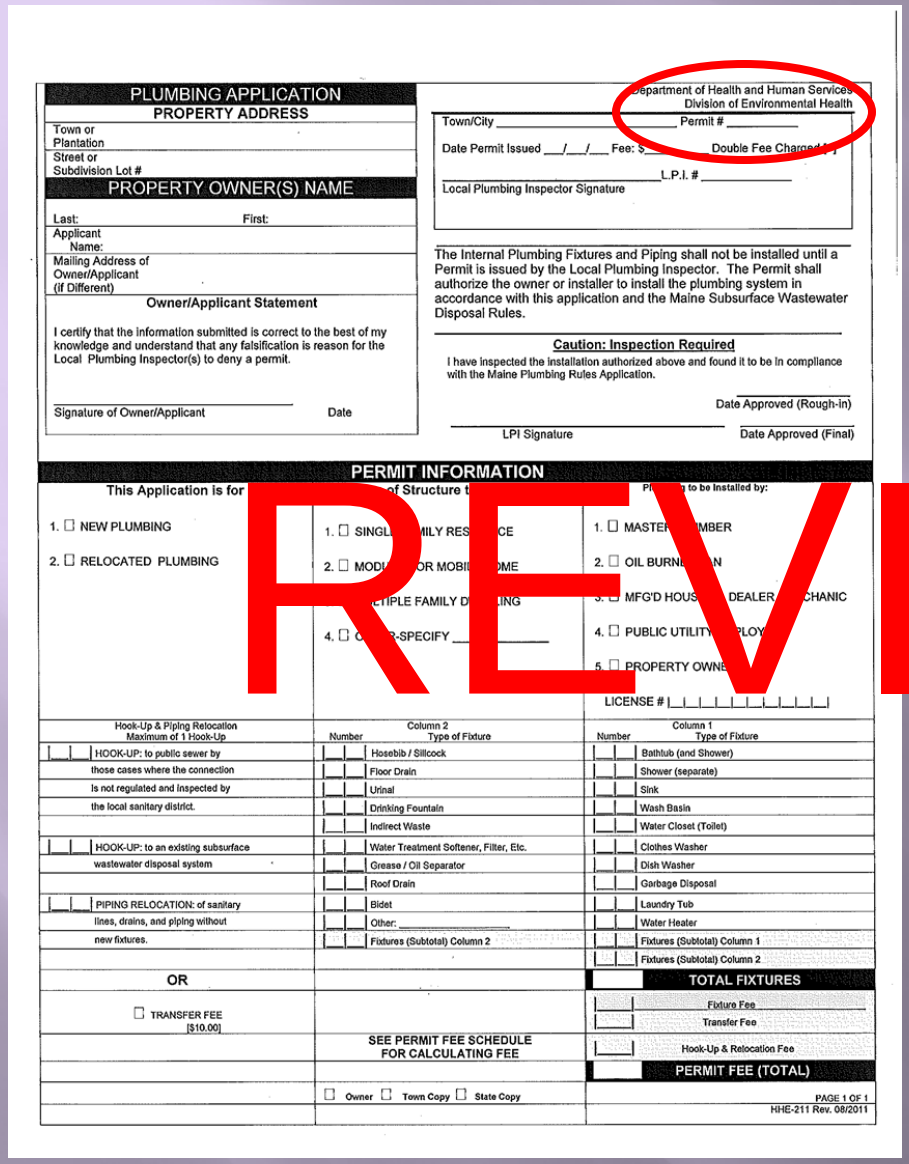
HOOK-UP: to public sewer by those cases where the connection is not regulated and inspected by the local sanitary district.		Hosebib / Silcock		Bathtub (and Shower)
		Floor Drain		Shower (separate)
		Urinal		Sink
		Drinking Fountain		Wash Basin
		Indirect Waste		Water Closet (Toilet)
HOOK-UP: to an existing subsurface wastewater disposal system		Water Treatment Softener, Filter, Etc.		Clothes Washer
		Grease / Oil Separator		Dish Washer
		Roof Drain		Garbage Disposal
PIPING RELOCATION: of sanitary lines, drains, and piping without new fixtures.		Bidet		Laundry Tub
		Other:		Water Heater
		Fixtures (Subtotal) Column 2		Fixtures (Subtotal) Column 1
				Fixtures (Subtotal) Column 2
				TOTAL FIXTURES
OR				Fixture Fee
☐ TRANSFER FEE [$10.00]		SEE PERMIT FEE SCHEDULE FOR CALCULATING FEE		Transfer Fee
				Hook-Up & Relocation Fee
				PERMIT FEE (TOTAL)

☐ Owner ☐ Town Copy ☐ State Copy

PAGE 1 OF 1

HHE-211 Rev. 08/2011

No permit # should ever be the same



PLUMBING APPLICATION

PROPERTY ADDRESS

Town or Plantation

Street or Subdivision Lot #

PROPERTY OWNER(S) NAME

Last: First:

Applicant Name:

Mailing Address of Owner/Applicant (if Different)

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(s) to deny a permit.

Signature of Owner/Applicant Date

Department of Health and Human Services
Division of Environmental Health

Town/City Permit #

Date Permit Issued ___/___/___ Fee: $ Double Fee Charged [ ]

L.P.I. #

Local Plumbing Inspector Signature

The Internal Plumbing Fixtures and Piping shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the plumbing system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Caution: Inspection Required

I have inspected the installation authorized above and found it to be in compliance with the Maine Plumbing Rules Application.

Date Approved (Rough-in)

LPI Signature Date Approved (Final)

PERMIT INFORMATION

This Application is for of Structure to be installed by:

1. ☐ NEW PLUMBING
2. ☐ RELOCATED PLUMBING

1. ☐ SINGL MILY RES CE
2. ☐ MODU OR MOBI OME
3. ☐ MULTIPLE FAMILY D LING
4. ☐ O R-SPECIFY

1. ☐ MASTER MBER
2. ☐ OIL BURNE N
3. ☐ MFG'D HOUS DEALER CHANIC
4. ☐ PUBLIC UTILITY PLOY
5. ☐ PROPERTY OWNE

LICENSE # |_|_|_|_|_|_|_|_|_|_|

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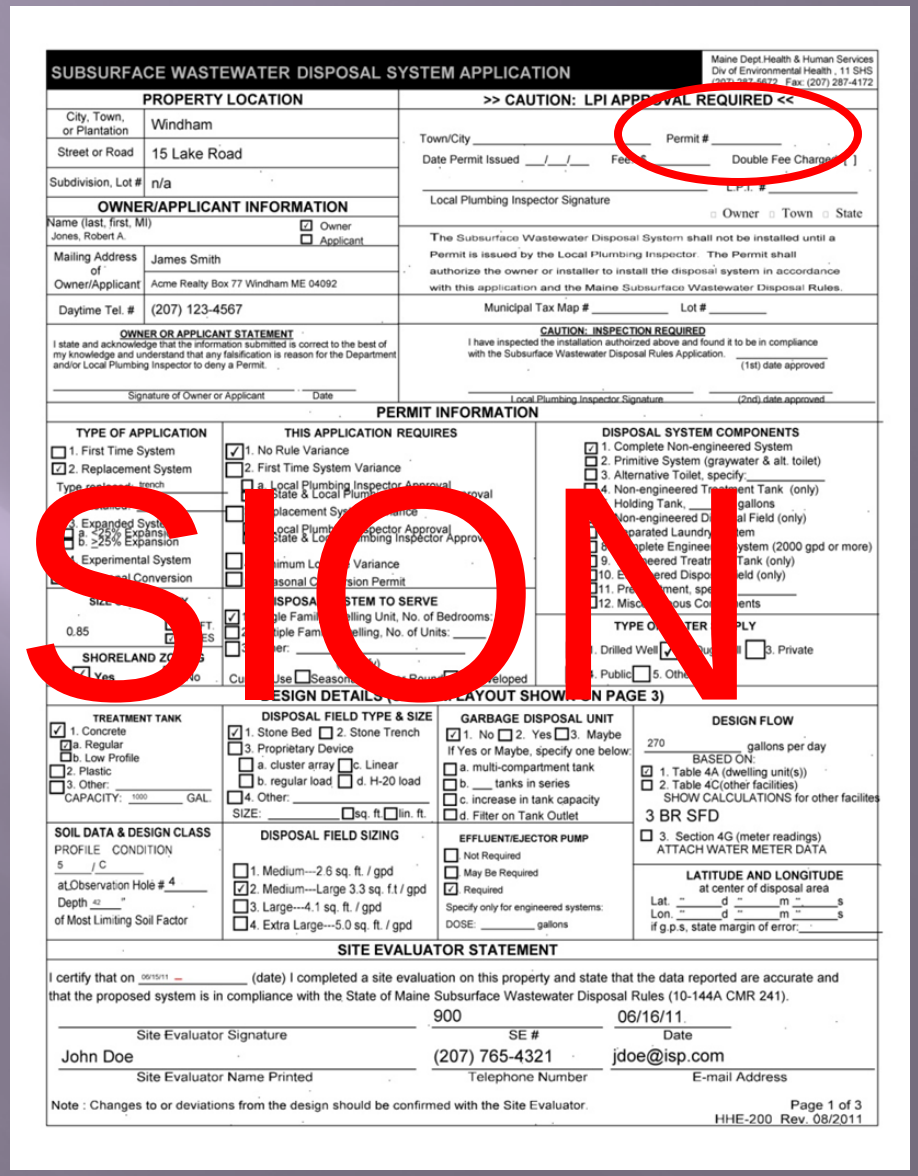
		Floor Drain		Shower (separate)
		Urinal		Sink
		Drinking Fountain		Wash Basin
		Indirect Waste		Water Closet (Toilet)
HOOK-UP: to an existing subsurface wastewater disposal system		Water Treatment Softener, Filter, Etc.		Clothes Washer
		Grease / Oil Separator		Dish Washer
		Roof Drain		Garbage Disposal
PIPING RELOCATION: of sanitary lines, drains, and piping without new fixtures.		Bidet		Laundry Tub
		Other:		Water Heater
		Fixtures (Subtotal) Column 2		Fixtures (Subtotal) Column 1
				Fixtures (Subtotal) Column 2
OR				TOTAL FIXTURES
☐ TRANSFER FEE [$10.00]				Fixture Fee
				Transfer Fee
		SEE PERMIT FEE SCHEDULE FOR CALCULATING FEE		Hook-Up & Relocation Fee
				PERMIT FEE (TOTAL)

☐ Owner ☐ Town Copy ☐ State Copy

PAGE 1 OF 1
HHE-211 Rev. 08/2011

REVISION



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	Windham
Street or Road	15 Lake Road
Subdivision, Lot #	n/a

OWNER/APPLICANT INFORMATION

Name (last, first, MI) Jones, Robert A.		☑ Owner ☐ Applicant
Mailing Address of Owner/Applicant	James Smith Acme Realty Box 77 Windham ME 04092	
Daytime Tel. #	(207) 123-4567	

OWNER OR APPLICANT STATEMENT

I state and acknowledge 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.

Signature of Owner or Applicant Date

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City Permit #

Date Permit Issued ___/___/___ Fee: $ Double Fee Charged [ ]

Local Plumbing Inspector Signature L.P.I. #

☐ Owner ☐ Town ☐ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # Lot #

CAUTION: INSPECTION REQUIRED

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

(1st) date approved

Local Plumbing Inspector Signature (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION
- ☐ 1. First Time System
- ☑ 2. Replacement System
- Type replaced: trench
- ☐ 3. Expanded System: ☐ a. <25% Expansion ☐ b. >25% Expansion
- ☐ 4. Experimental System
- ☐ 5. Conversion

THIS APPLICATION REQUIRES
- ☑ 1. No Rule Variance
- ☐ 2. First Time System Variance
- ☐ a. Local Plumbing Inspector Approval ☐ State & Local Plumbing Inspector Approval
- ☐ Replacement System ☐ Local Plumbing Inspector Approval ☐ State & Local Plumbing Inspector Approval
- ☐ Minimum Lot Size Variance
- ☐ Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS
- ☑ 1. Complete Non-engineered System
- ☐ 2. Primitive System (graywater & alt. toilet)
- ☐ 3. Alternative Toilet, specify:
- ☐ 4. Non-engineered Treatment Tank (only) Holding Tank, gallons
- ☐ Non-engineered Disposal Field (only)
- ☐ Separated Laundry System
- ☐ Complete Engineered System (2000 gpd or more)
- ☐ 9. Engineered Treatment Tank (only)
- ☐ 10. Engineered Disposal Field (only)
- ☐ 11. Pretreatment, specify:
- ☐ 12. Miscellaneous Components

SIZE: 0.85 SQ. FT. / ACRES

SHORELAND ZONING: ☑ Yes ☐ No

DISPOSAL SYSTEM TO SERVE
- ☑ 1. Single Family Dwelling Unit, No. of Bedrooms: 3
- ☐ 2. Multiple Family Dwelling, No. of Units:
- ☐ 3. Other:

Current Use ☐ Seasonal ☐ Year Round ☐ Undeveloped

TYPE OF WATER SUPPLY
- ☑ 1. Drilled Well ☐ 2. Dug Well ☐ 3. Private
- ☐ 4. Public ☐ 5. Other

DESIGN DETAILS (SEE LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK
- ☑ 1. Concrete ☑ a. Regular ☐ b. Low Profile
- ☐ 2. Plastic
- ☐ 3. Other:

CAPACITY: 1000 GAL.

DISPOSAL FIELD TYPE & SIZE
- ☑ 1. Stone Bed ☐ 2. Stone Trench
- ☐ 3. Proprietary Device ☐ a. cluster array ☐ c. Linear ☐ b. regular load ☐ d. H-20 load
- ☐ 4. Other:

SIZE: ☐ sq. ft ☐ lin. ft.

GARBAGE DISPOSAL UNIT
- ☑ 1. No ☐ 2. Yes ☐ 3. Maybe

If Yes or Maybe, specify one below:
- ☐ a. multi-compartment tank
- ☐ b. ___ tanks in series
- ☐ c. increase in tank capacity
- ☐ d. Filter on Tank Outlet

DESIGN FLOW

270 gallons per day

BASED ON:
- ☑ 1. Table 4A (dwelling unit(s))
- ☐ 2. Table 4C(other facilities)

SHOW CALCULATIONS for other facilites

3 BR SFD

- ☐ 3. Section 4G (meter readings) ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS

PROFILE 5 CONDITION C

at Observation Hole # 4

Depth 42 " of Most Limiting Soil Factor

DISPOSAL FIELD SIZING
- ☐ 1. Medium---2.6 sq. ft. / gpd
- ☑ 2. Medium---Large 3.3 sq. ft / gpd
- ☐ 3. Large---4.1 sq. ft. / gpd
- ☐ 4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP
- ☐ Not Required
- ☐ May Be Required
- ☑ Required

Specify only for engineered systems:

DOSE: gallons

LATITUDE AND LONGITUDE at center of disposal area

Lat. ° d ' m " s

Lon. ° d ' m " s

if g.p.s, state margin of error:

SITE EVALUATOR STATEMENT

I certify that on 06/15/11 (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).

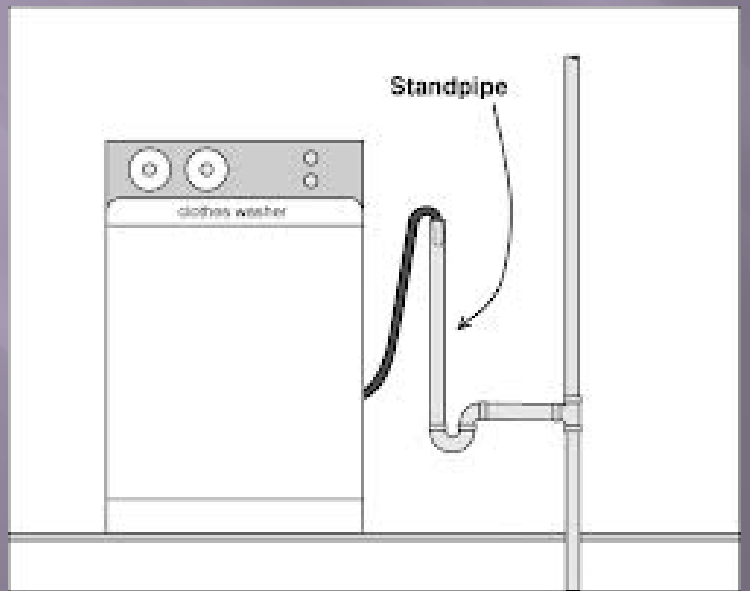
Site Evaluator Signature	SE #	Date
	900	06/16/11
John Doe	(207) 765-4321	jdoe@isp.com
Site Evaluator Name Printed	Telephone Number	E-mail Address

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

Page 1 of 3
HHE-200 Rev. 08/2011

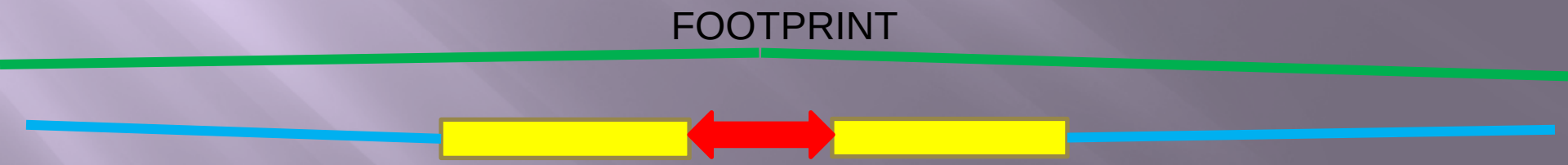
ATTACH TO THE ORIGINAL PERMIT

Discharge from a water filtration



Minimum separation distance between disposal fields:

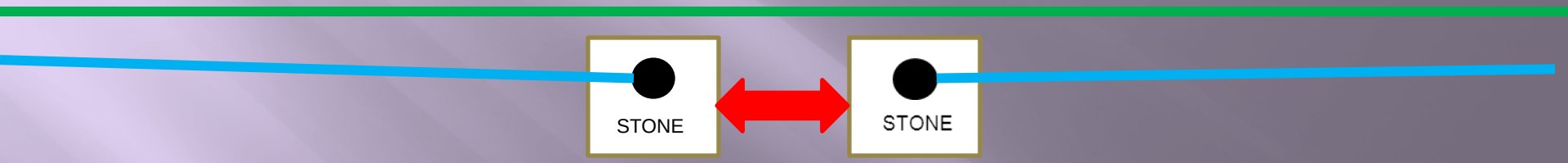
Whether part of a single system or 2 or more discrete systems, must be separated by a minimum of 5 feet, as measured along the contour, or one-half the width of the widest adjacent disposal fields, whichever is greater.



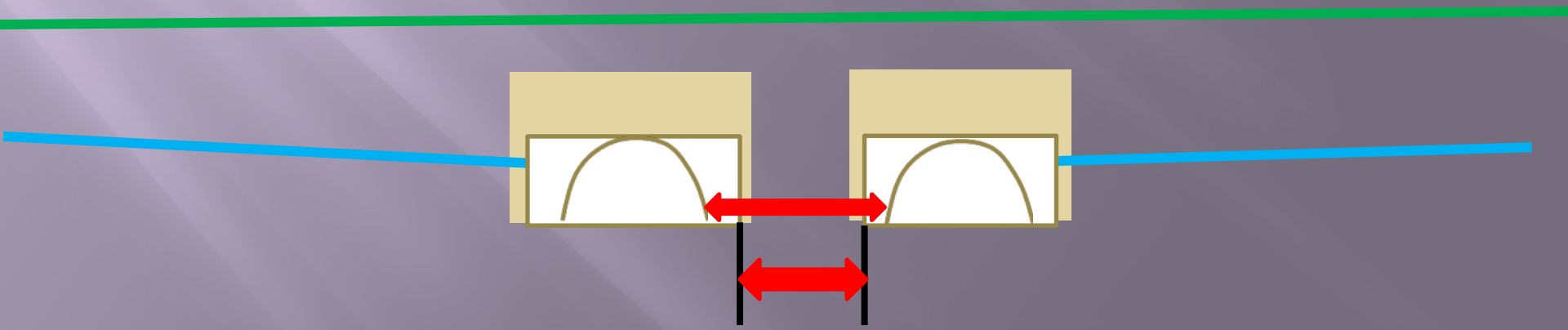
Minimum separation distance between disposal fields:

Disposal trenches consisting of disposal field stone must be separated by a minimum of 3 feet.

FOOTPRINT—STONE TRENCH WITH PIPE



FOOTPRINT—PROPRIETARY DEVICES



Section 2A(6) Subsurface Rules

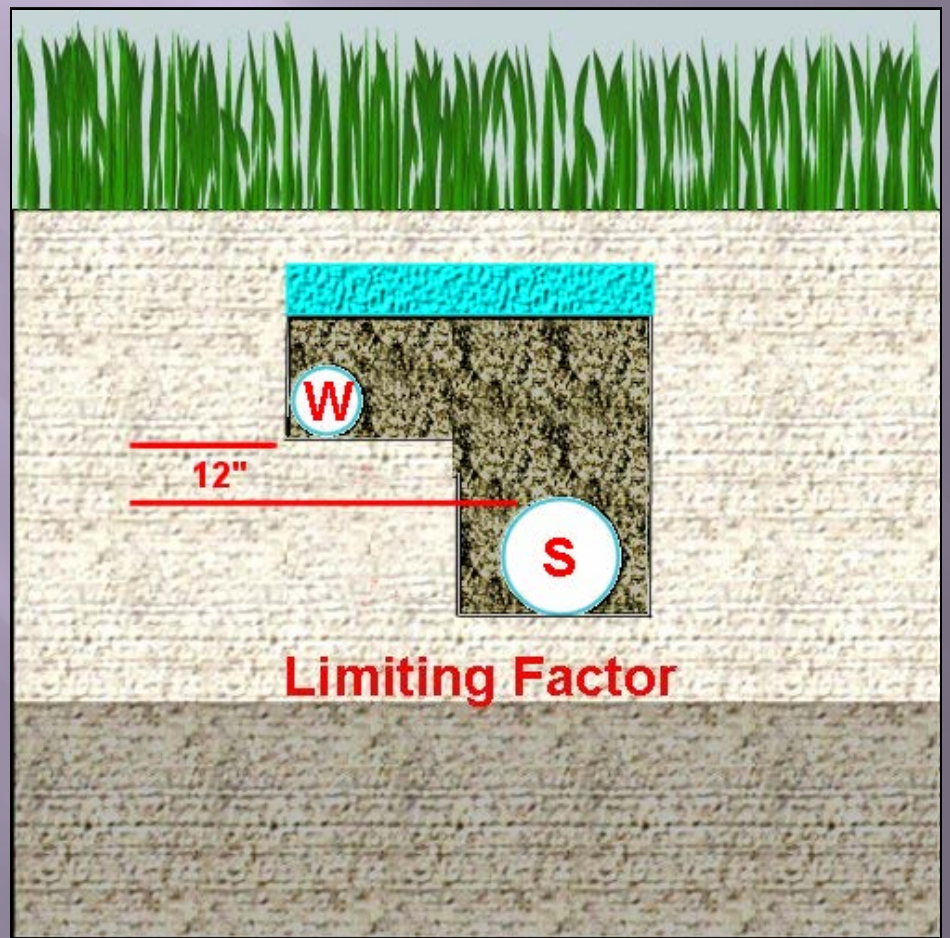
Public sewer connection: A connection to a public sewer system is required either

(a)when public sewers come within 200 feet of the premises served, and a public sewer connection is required by 38 M.R.S. §1160, or

(b) when required by municipal ordinance pursuant to 30-A M.R.S. § 3405.

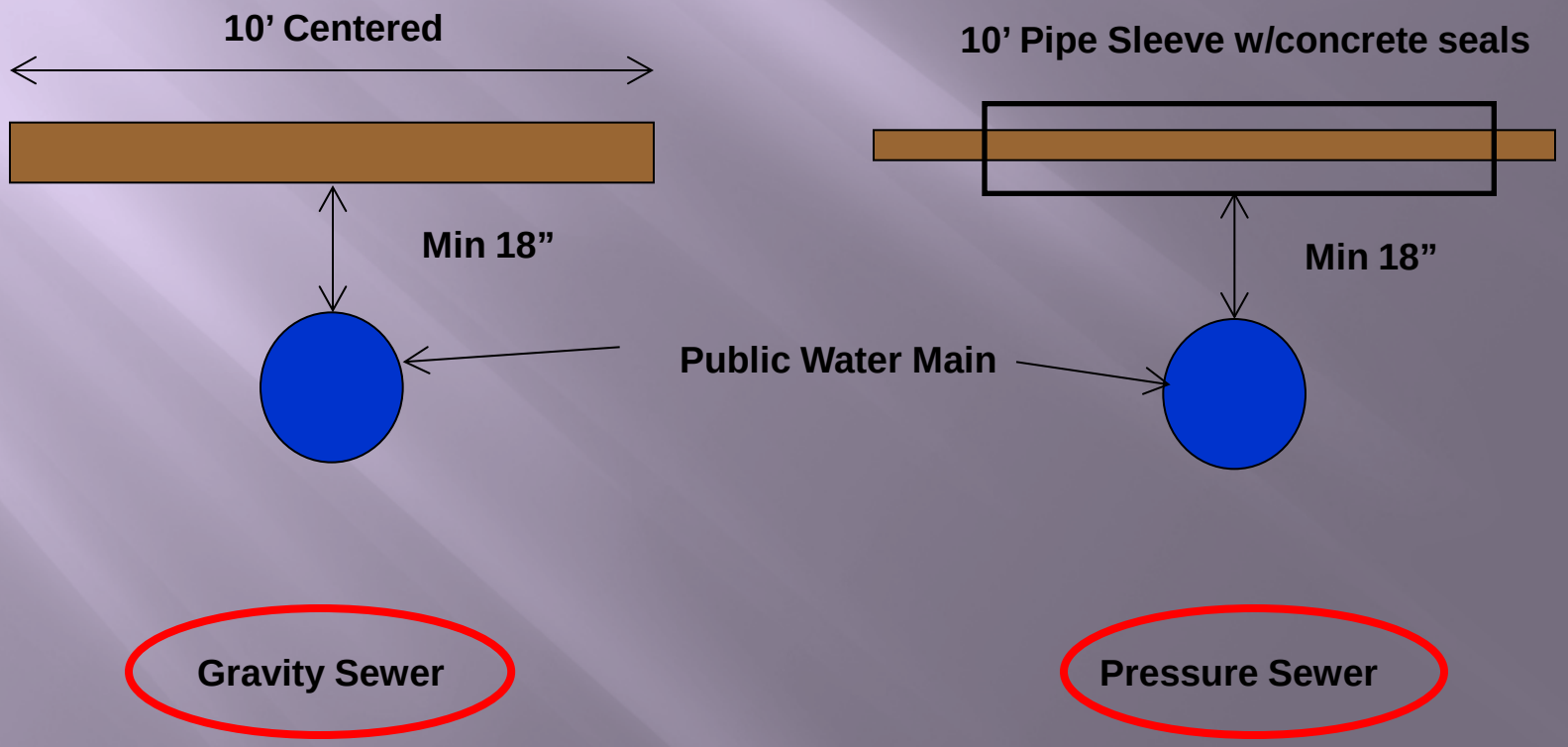
SECTION 6
APPROVED MATERIALS AND EQUIPMENT
M. PIPING
13

Water Service & Building Sewer



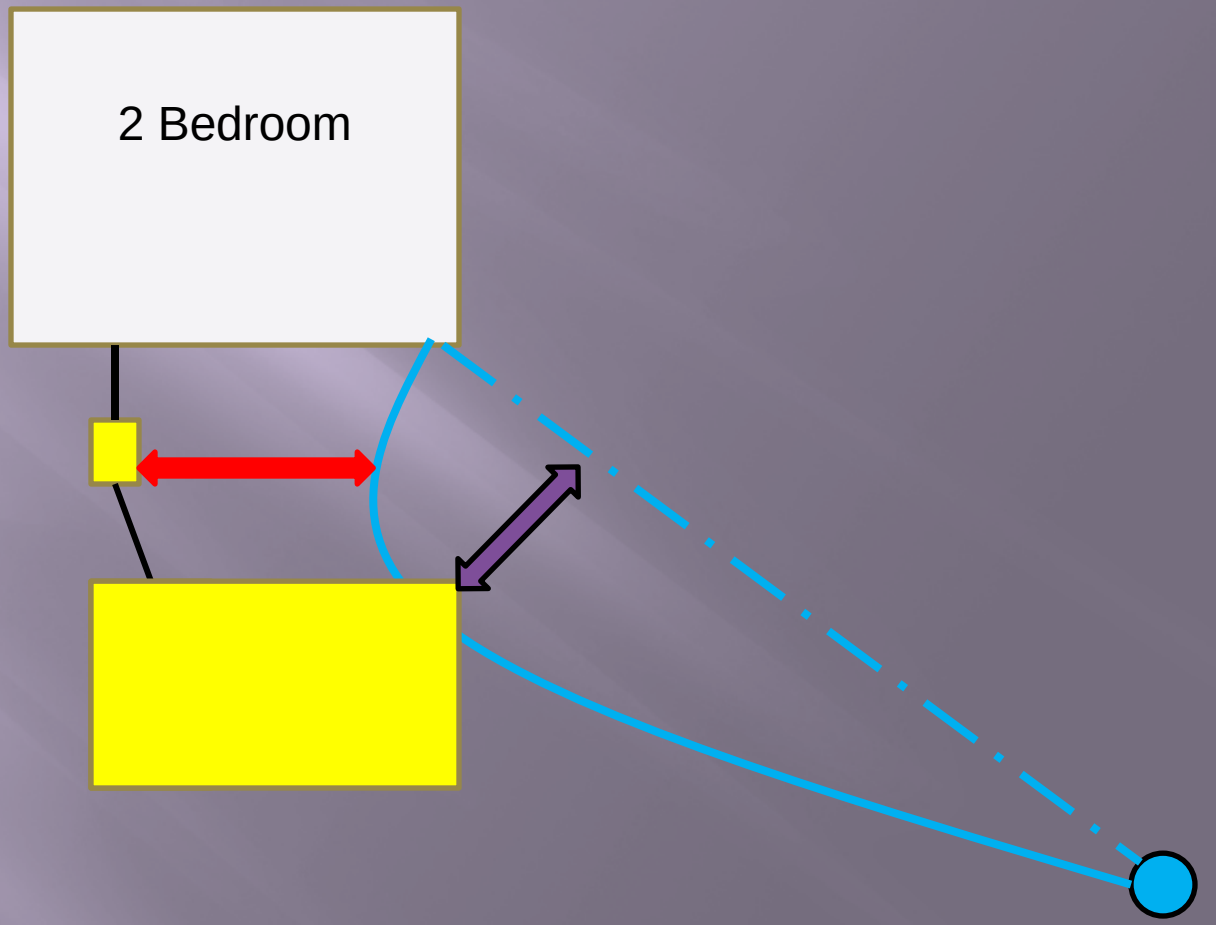
SECTION 6
APPROVED MATERIALS AND EQUIPMENT
M. PIPING
14.

A building sewer crossing above a public water main shall utilize one of the following methods:



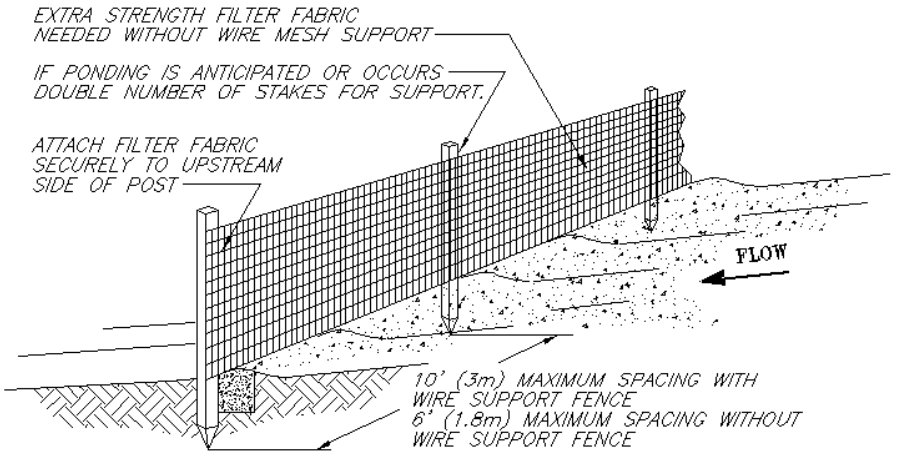
Disposal Field /Septic Tank and Water Supply Line

10 FEET

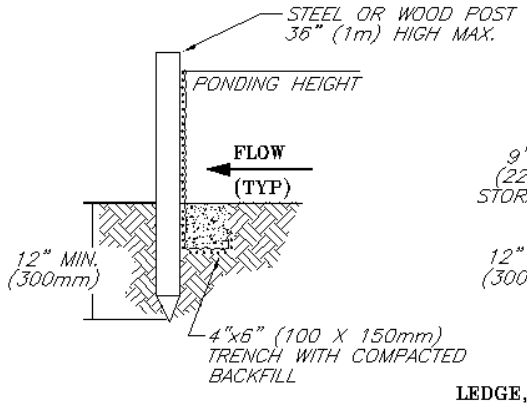


AIR SHOW DISASTER

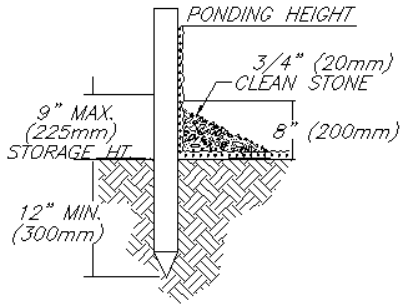
EROSION CONTROL



NOTE: PRE-FABRICATED SILT FENCE IS ACCEPTABLE IF INSTALLED PER MANUFACTURER.



TRENCH DETAIL



LEDGE, FROZEN GROUND, HEAVY ROOTS
INSTALLATION WITHOUT TRENCHING

NOTES:

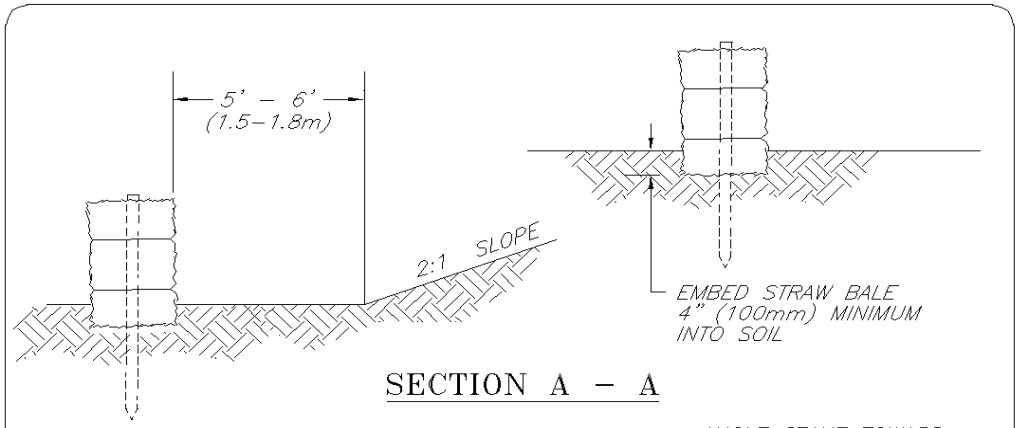
1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" (225mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
4. DO NOT PLACE SILT FENCE IN STREAMS OR CONCENTRATED FLOW CONDITIONS.

SILT FENCE

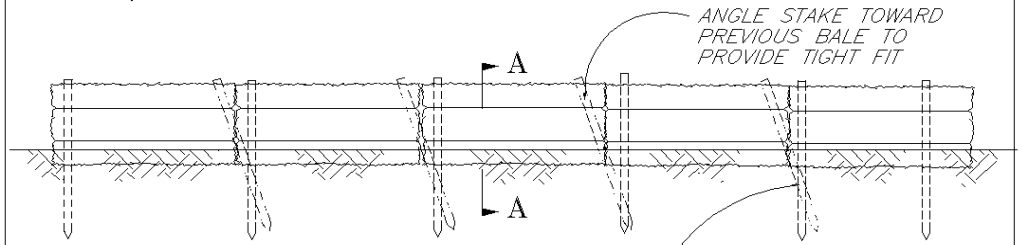
© 1994 JOHN McCULLAH ME DEP 2003

FILE: SILTFENC

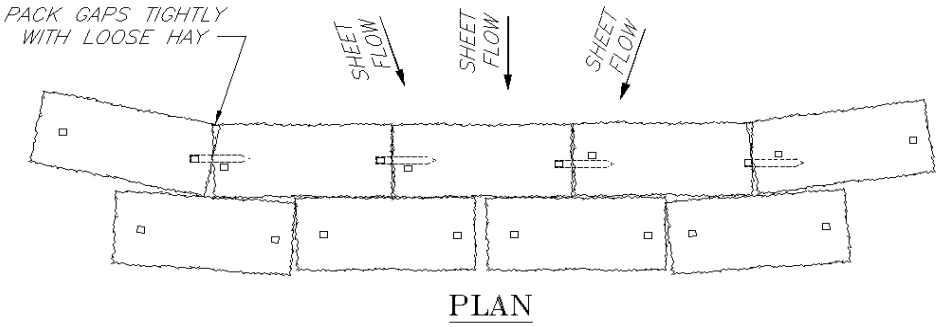

8 3:30 PM



SECTION A – A



SECTION B – B



PLAN

NOTES:

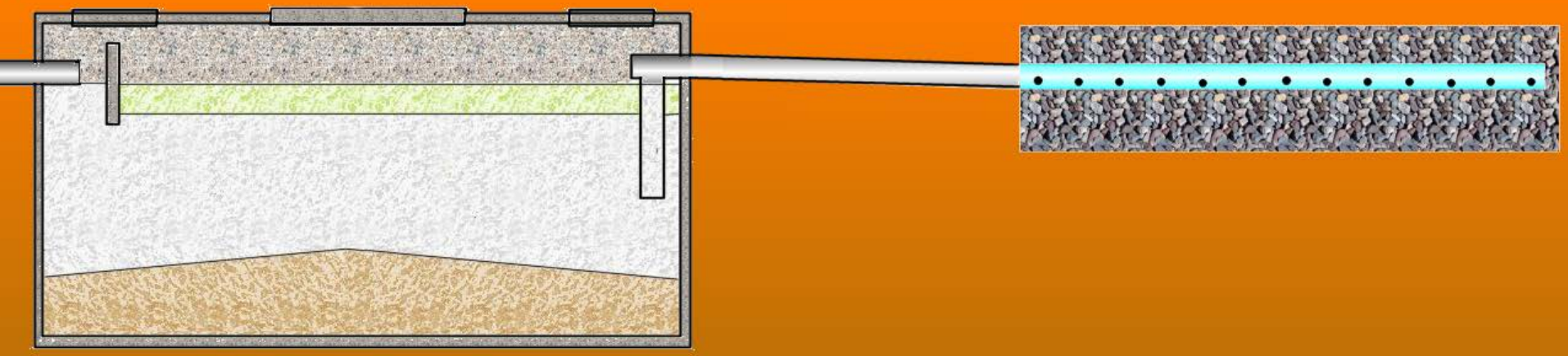
1. THE STRAW BALES SHALL BE PLACED ON SLOPE CONTOUR.
2. BALES TO BE PLACED IN A ROW WITH THE ENDS TIGHTLY ABUTTING.
3. KEY IN BALES TO PREVENT EROSION OR FLOW UNDER BALES.
4. DO NOT USE HAY BALES IN CONCENTRATED FLOW CONDITIONS OR IN STREAMS.

STRAW BALE DIKE

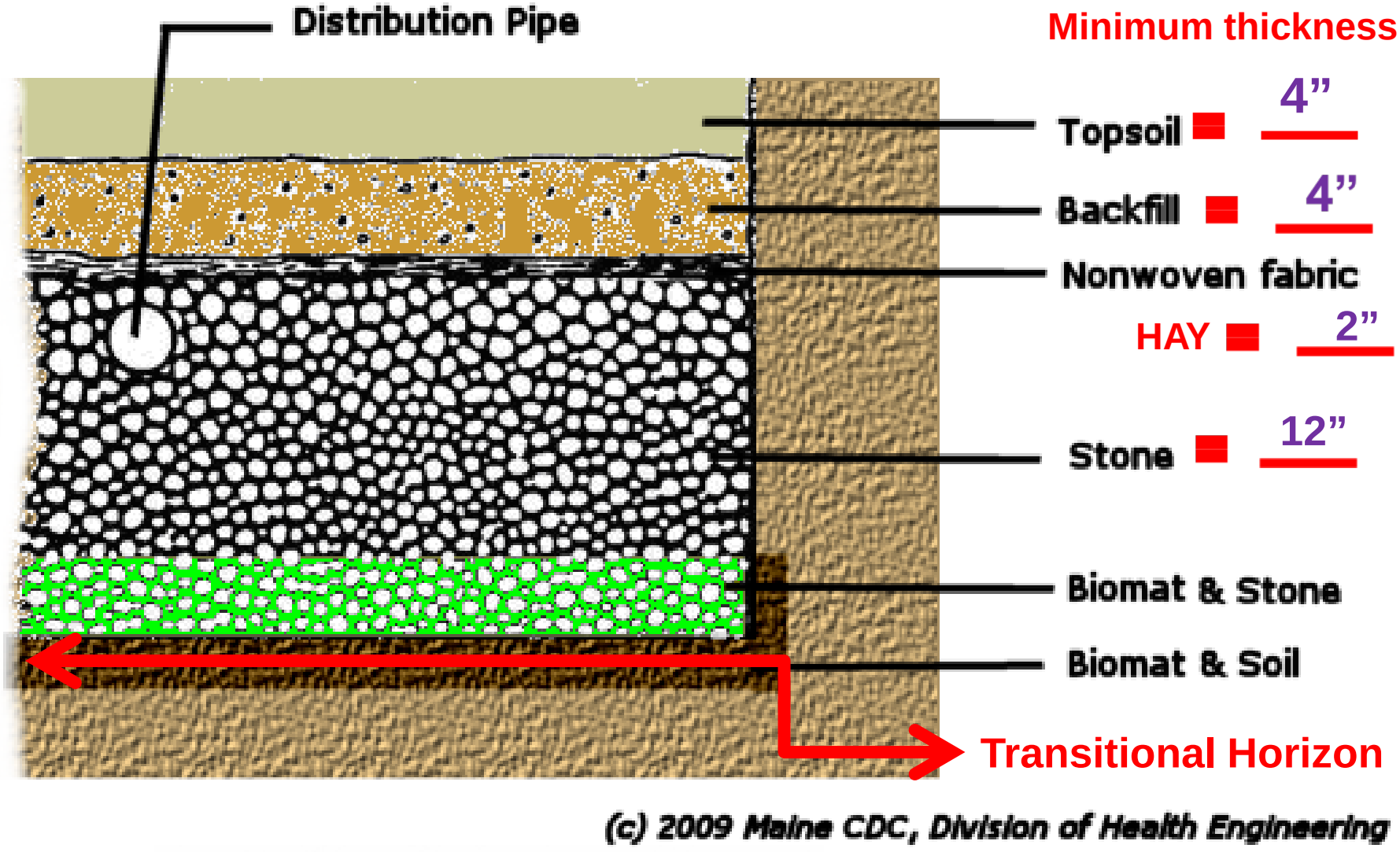
© 1994 JOHN McCULLAH ME DEP 2003

FILE: STRWDIKE


PIXIMUS.NET



(c) 2009, Maine CDC, Division of Environmental Health



(c) 2009 Maine CDC, Division of Health Engineering

Malfunctioning system:

A system that is not operating or is not functioning properly, based on the following indicators: ponding or outbreak of wastewater or septic tank effluent onto the surface of the ground; seepage of wastewater or septic tank effluent into parts of buildings below ground; back-up of wastewater into the building being served that is not caused by a physical blockage of the internal plumbing; or contamination of nearby water wells or waterbodies/courses

System, currently functional:

An existing system at the time of inspection by an authorized designer or LPI for which all components are structurally intact, from the point of discharge of wastewater from a structure to the final disposal of effluent.

Building drain:

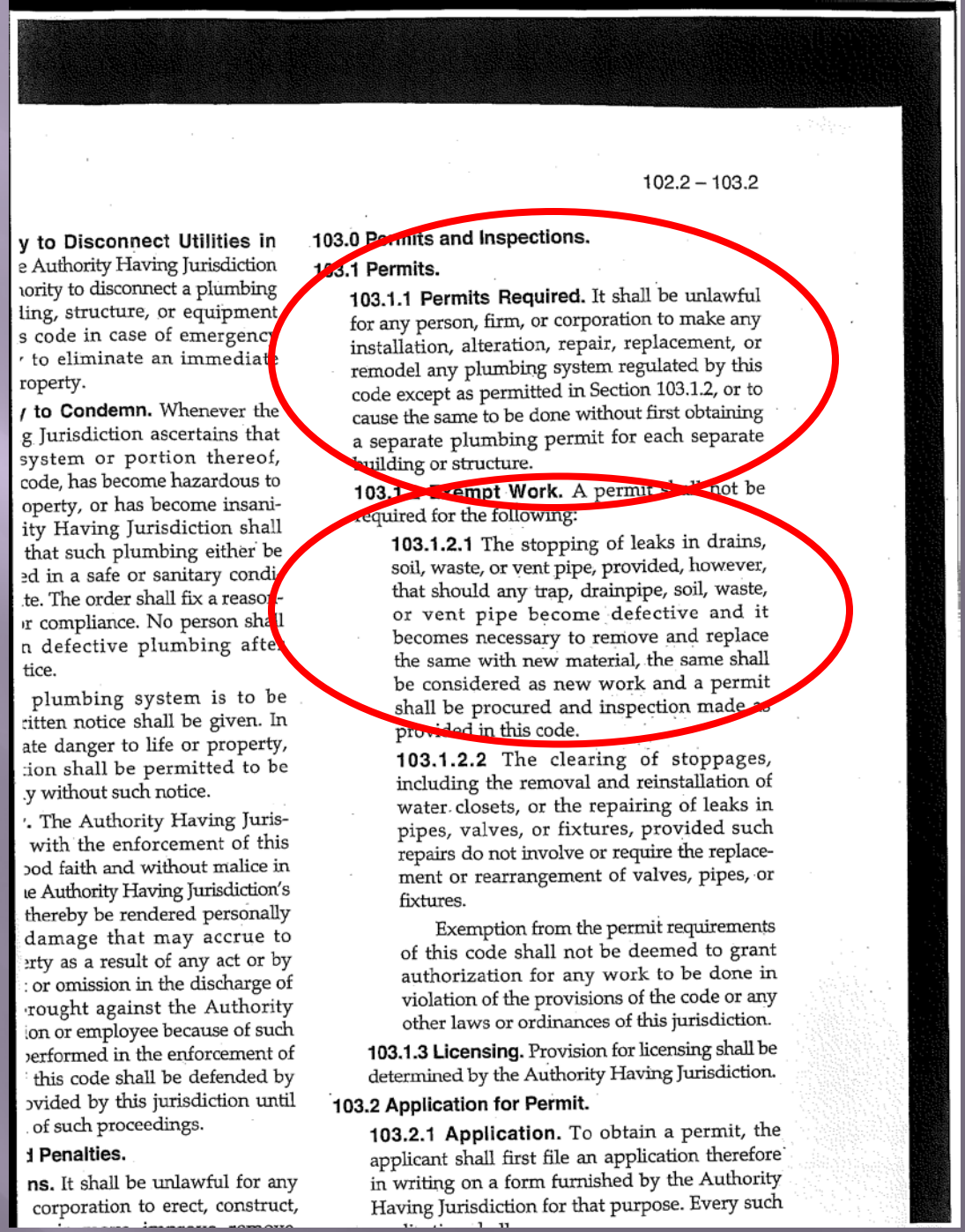
Malfunction or Repair???

Building drain: That part of the lowest horizontal piping of a drainage system that receives the discharge from soil, waste, and other drainage pipes inside the walls of a building and conveys it to the building sewer. It extends to a point 2 feet outside the building wall.

REPAIR

Internal Plumbing, Homeowner or Master Plumber, Needs Permitting

Uniform Plumbing Code



y to Disconnect Utilities in
e Authority Having Jurisdiction
ıority to disconnect a plumbing
ling, structure, or equipment
s code in case of emergency
to eliminate an immediate
roperty.

to Condemn. Whenever the
g Jurisdiction ascertains that
system or portion thereof,
code, has become hazardous to
operty, or has become insani-
ity Having Jurisdiction shall
that such plumbing either be
ed in a safe or sanitary condi
te. The order shall fix a reason-
ır compliance. No person shall
n defective plumbing after
tice.

plumbing system is to be
itten notice shall be given. In
ate danger to life or property,
ion shall be permitted to be
y without such notice.

. The Authority Having Juris-
with the enforcement of this
ood faith and without malice in
ıe Authority Having Jurisdiction's
thereby be rendered personally
damage that may accrue to
erty as a result of any act or by
or omission in the discharge of
rought against the Authority
ion or employee because of such
erformed in the enforcement of
this code shall be defended by
ovided by this jurisdiction until
of such proceedings.

Penalties.

ns. It shall be unlawful for any
corporation to erect, construct,

103.0 Permits and Inspections.

103.1 Permits.

103.1.1 Permits Required. It shall be unlawful for any person, firm, or corporation to make any installation, alteration, repair, replacement, or remodel any plumbing system regulated by this code except as permitted in Section 103.1.2, or to cause the same to be done without first obtaining a separate plumbing permit for each separate building or structure.

103.1.2 Exempt Work. A permit shall not be required for the following:

103.1.2.1 The stopping of leaks in drains, soil, waste, or vent pipe, provided, however, that should any trap, drainpipe, soil, waste, or vent pipe become defective and it becomes necessary to remove and replace the same with new material, the same shall be considered as new work and a permit shall be procured and inspection made as provided in this code.

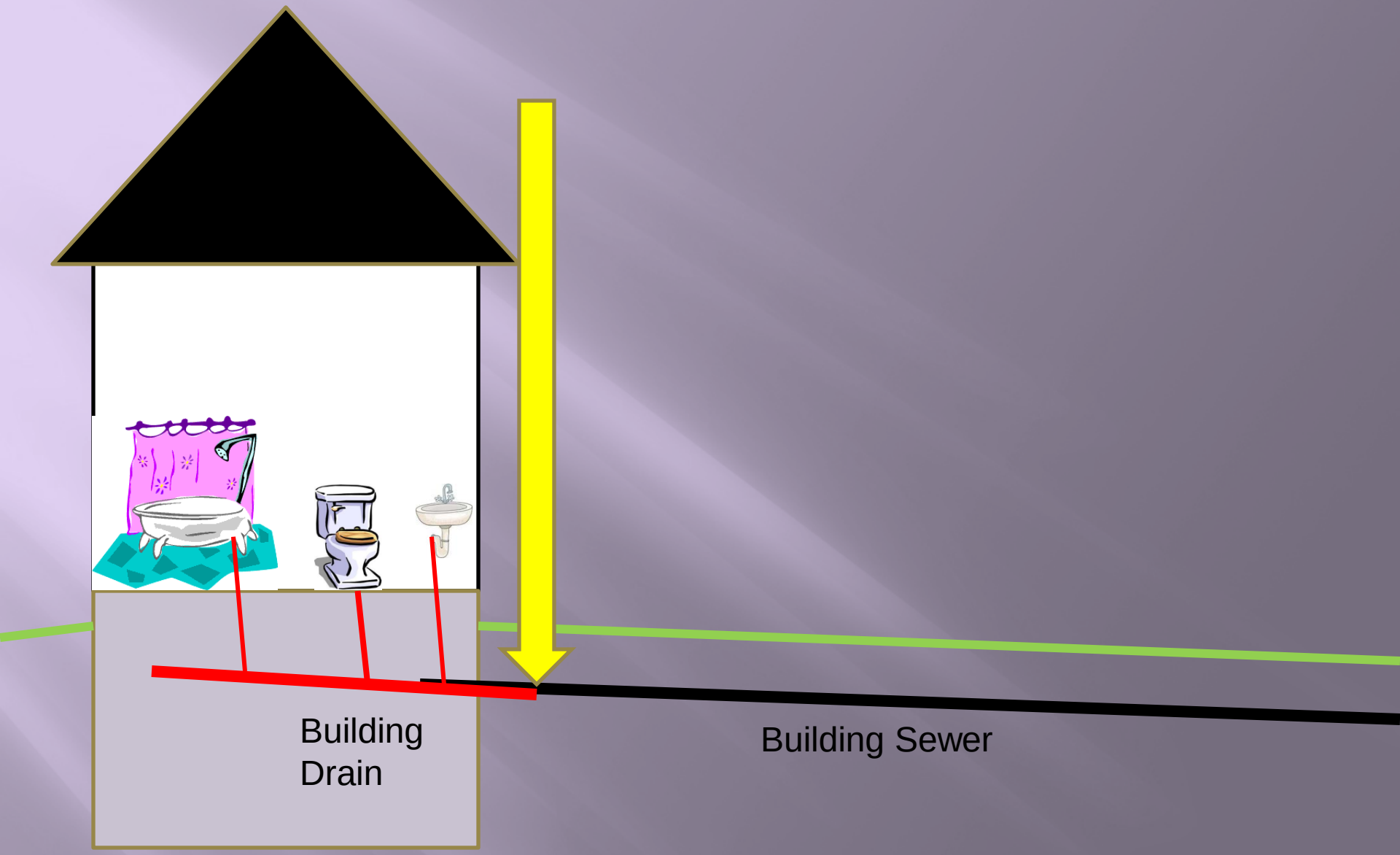
103.1.2.2 The clearing of stoppages, including the removal and reinstallation of water closets, or the repairing of leaks in pipes, valves, or fixtures, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes, or fixtures.

Exemption from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in violation of the provisions of the code or any other laws or ordinances of this jurisdiction.

103.1.3 Licensing. Provision for licensing shall be determined by the Authority Having Jurisdiction.

103.2 Application for Permit.

103.2.1 Application. To obtain a permit, the applicant shall first file an application therefore in writing on a form furnished by the Authority Having Jurisdiction for that purpose. Every such



Internal plumbing stops and Subsurface begins _____ft . Beyond the outside walls of a structure?

2

Building sewer

Building sewer: That part of the plumbing system that extends from the end of the building drain and conveys its discharge to a public sewer, septic tank and disposal field, or other point of disposal.

Malfunction or Repair???

Repair

back-up of wastewater into the building being served that is not caused by a physical blockage of the internal plumbing

Permit required???

SECTION 2
ADMINISTRATION
F. REPAIRS AND MAINTENANCE

Disposal system permit not required:

A disposal system permit is not required for minor repairs or replacements made, as needed, for the operation of pumps, siphons, aerobic treatment units, sand filters, or accessory equipment, the clearance of a stoppage in the building sewer which does not require excavation and/or exposure of system components or sealing of a leak in the septic tank, holding tank, pump tank, or building sewer.

Disposal area modification, repair or alteration:

Any excavation to modify, repair or alter a disposal area, other than the addition of fill, requires a permit. If a permit is required, such modification, repair or alteration must be as prescribed by a Maine professional engineer or a Maine licensed site evaluator and must be considered a disposal area for permitting purposes. The addition of fill without a permit must meet all requirements of these Rules.

TABLE 3A

MUNICIPAL AND LURC TERRITORIES PERMIT FEE SCHEDULE

(Fees to be paid to the municipality/LPI)

Permits for complete disposal system and variances

Engineered system	$200.00
Non-engineered system	$250.00
Primitive system (includes one alternative toilet)	$100.00
Separate grey waste disposal field	$35.00
Seasonal conversion permit	$50.00
First-Time System Variance	$20.00

Permits for separate parts of disposal system

Alternative toilet (only)	$50.00
Disposal field only (engineered system)	$150.00
Disposal field only (non-engineered)	$150.00
Treatment tank only (non-engineered)	$150.00
Treatment tank (engineered system)	$80.00
Holding tank $100.00	
Other components (complete pump station, piping, other)	$30.00

Building sewer

Malfunction or Repair???

Repair

back-up of wastewater into the building being served that is not caused by a physical blockage of the internal plumbing

Permit required???

Other components (complete pump station, piping, other) $30.00

If the stoppage can be snaked out, a permit is not required

Disposal area

Malfunction???

ponding or outbreak of wastewater or septic tank effluent onto the surface of the ground

Permit required???

Any excavation to modify, repair or alter a disposal area, other than the addition of fill, requires a permit

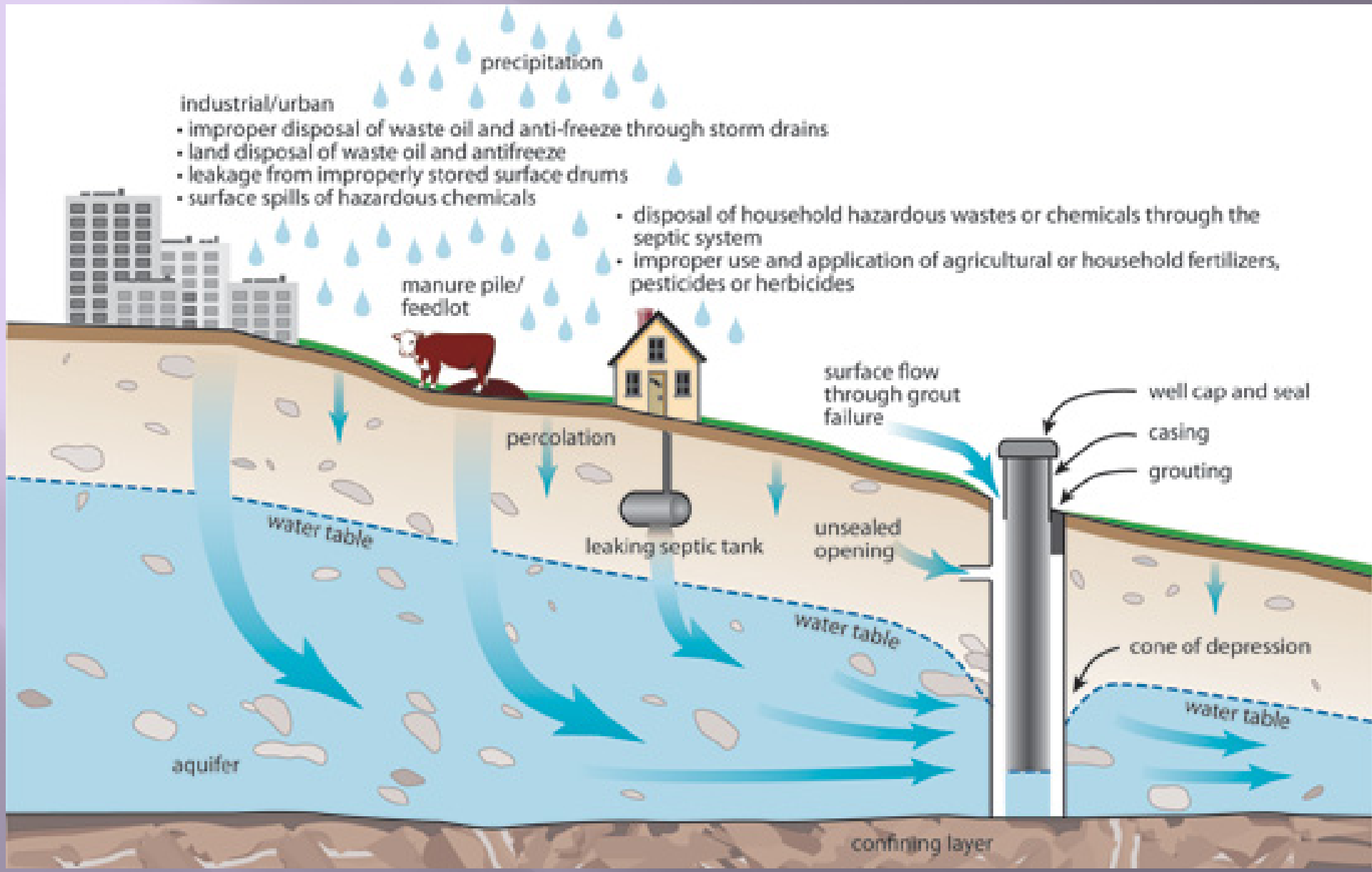
How would you test to see if this was coming from the septic?

WELL CONTAMINATION FROM A SEPTIC SYSTEM

Water test
In addition to the basic
Test for detergents

A GOOD INDICATION SOMETHING IS GOING ON……

WELL CONTAMINATION FROM A SEPTIC



WATER TESTING

drain line from the laundry room and kitchen sink

Nine individuals associated with this private residence were confirmed with Hepatitis between July 6, 2009 and September 2, 2009. One fatality was associated with this.

Disposal Area: The combination of the disposal field, shoulders and fill extensions.

Structures: No portion of a structure may be located on any part of a disposal area.

Drain line size, pressurized water supply: The building drain and building sewer must be 3 inches in diameter or greater, with a grade of not less than ¼ inch per foot. (Page 28)

Public water

wells

Water from the lake (pumped)

PRIMITIVE & LIMITED DISPOSAL SYSTEMS

Building sewer: The building sewer must have a maximum diameter of 2 inches, and a minimum pitch of ¼ inch per foot (2 percent). Page 23

Hand carried

Hand pumped

Gravity fed (cistern)

SECTION 6
APPROVED MATERIALS AND EQUIPMENT

F. ACCESS OPENINGS FOR ALL SEPTIC TANKS

2. Single-family dwelling units: Access opening for septic tanks serving single-family dwelling units must meet the following requirements:

Access openings:

The riser for **septic tanks serving single-family dwelling units may be buried within 6 inches of finish grade**

If there is a pump station within the tank, The riser opening must be at least 18 inches in diameter and must be extended to grade.

Outlet baffles that utilize an effluent filter must have a riser of at least 18 inches in diameter extended to finish grade.

SECTION 6
APPROVED MATERIALS AND EQUIPMENT

F. ACCESS OPENINGS FOR ALL SEPTIC TANKS

3. **Other facilities: Access to all septic tanks serving facilities other than single family dwellings must be located at grade as described in this Section. Grade must slope away from the openings.**

SECTION 6
APPROVED MATERIALS AND EQUIPMENT

H. TANK INSTALLATION

Fill requirements for tank installations: The fill material around septic tanks, dosing tanks, holding tanks, aerobic treatment tanks and external grease interceptors must be free of large stones, roots, or foreign objects. It must be placed in layers and must be thoroughly tamped in a manner that will avoid undue strain on the septic tank. For prefabricated plastic or fiberglass septic tanks, the fill material must not be thicker than the thickness recommended by the manufacturer.

Anti-floatation: Provisions must be made to prevent the tanks from floating, if empty.

Leakage: Provisions must be made to prevent surface and subsurface water from entering the tanks.

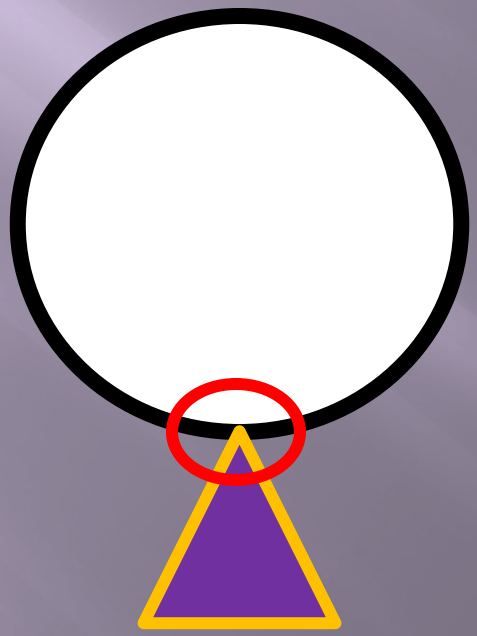
Traffic loading: When tanks are installed under a driveway, parking lot, or other areas subject to heavy loads, the tanks must be able to withstand an American Association of State Highway Transportation Officials (AASHTO) H-20 wheel load.

Bedding: All tanks must be bedded on a layer of clean sand, gravel, or stone. The bedding material must extend at least 4 inches beyond the base of the tank.

Level and accessible: All tanks must be set level and, if an elevation and location is specified on the HHE-200 Form, at that elevation. Tanks must be readily accessible for maintenance and cleaning

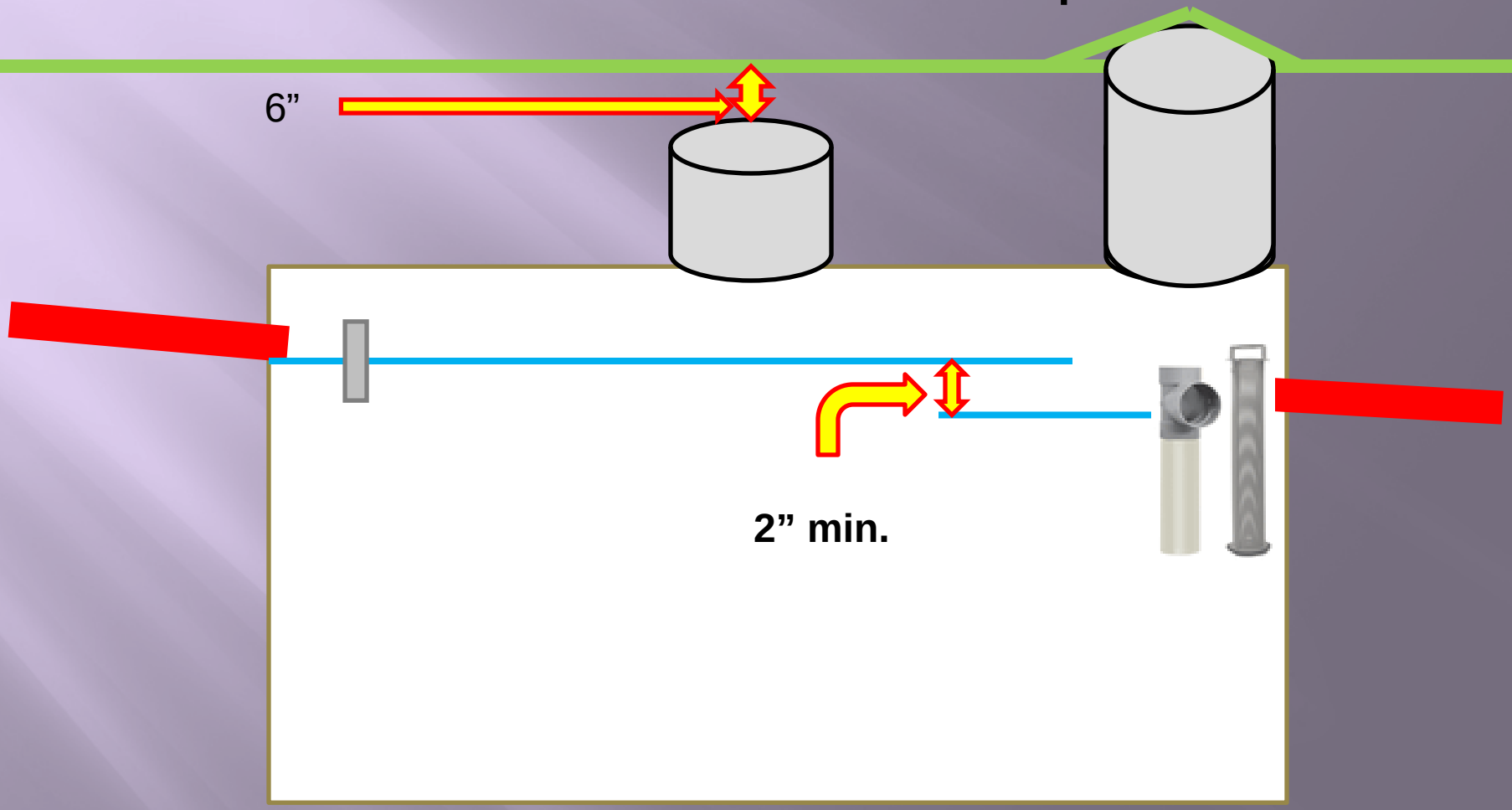

OUT

Invert:
The floor, bottom, or lowest portion of the internal cross section of a closed conduit, used with reference to pipes or fittings conveying wastewater or septic tank effluent.



Invert Location

Inlet connections:
The invert elevation of the septic tank inlet must be at least 2 inches higher than the invert elevation of the septic tank outlet or the outlet of the first compartment.



WHATS MISSING

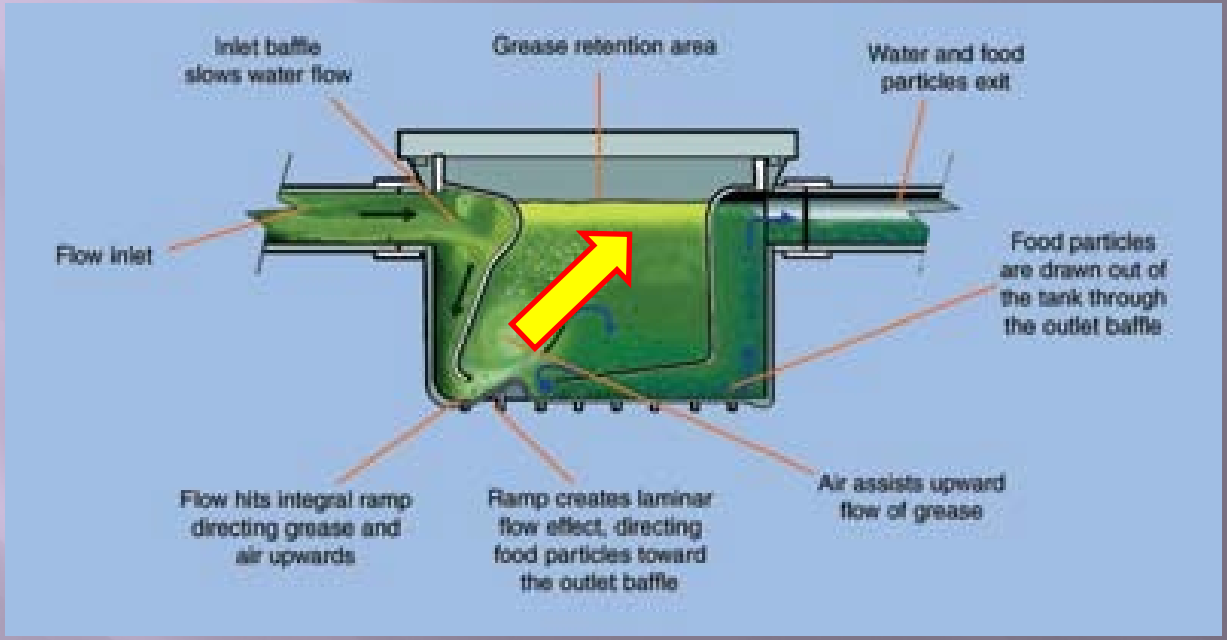
SECTION 6
APPROVED MATERIALS AND EQUIPMENT

L. EXTERNAL GREASE INTERCEPTORS

Any new commercial or institutional food preparation facility, such as a restaurant, cafeteria, institutional kitchen, or other facility subject to Footnote 2 of Table 4C, served by a subsurface wastewater disposal system, must install an external grease interceptor.

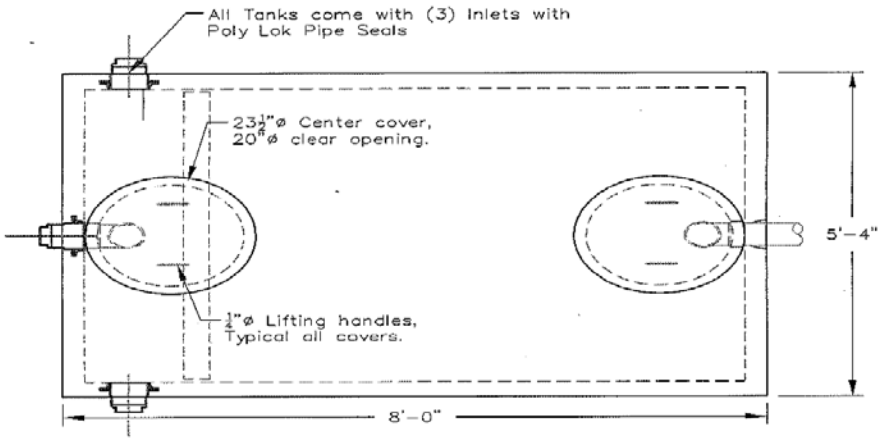
Any converted or expanded commercial or institutional food preparation facility requires an external grease interceptor, except when not practical, as determined by the LPI.

INTERNAL GREASE TRAP

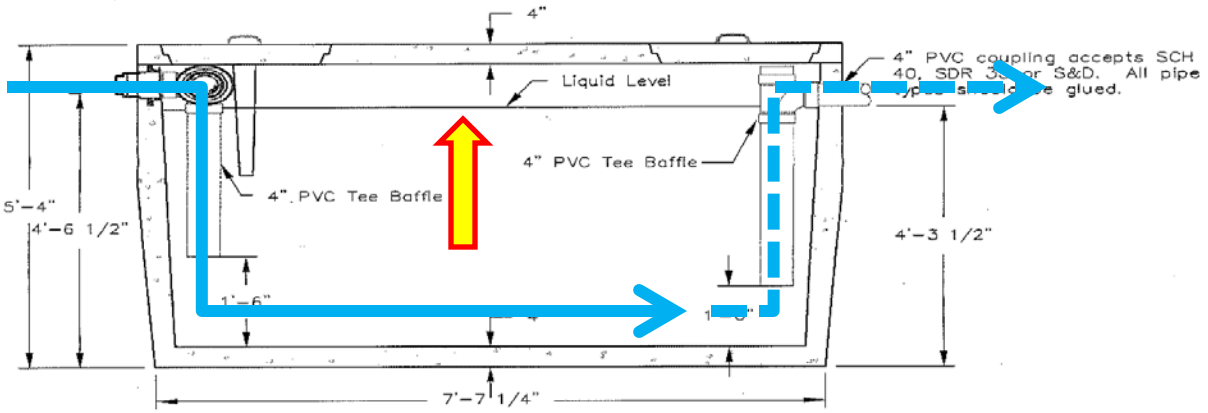


1000 Gallon Grease Trap

Weight: 8,400 lbs.
Item # 8826



Plan View



Section View

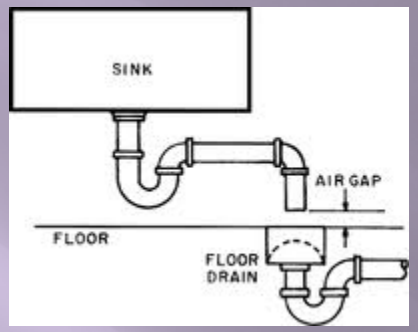
General Notes:

Concrete Specifications:
1) 4000 psi @ 28 Days
2) 4%-6% Entrained Air
3) Tank Penetrations are integrally cast
4) All joints sealed with butyl rubber joint sealant

Grease Trap Information:
1) Tanks Should be pumped as needed
2) Access covers should have risers to bring cover access to grade.
3) Tanks can be vacuum tested at an additional cost

F. FLOOR DRAINS

Condensate drains



Floor drains must be connected to a subsurface wastewater disposal system if:

the disposal area is properly sized to handle the potential flow from the drains;

there is no significant potential for discharge of industrial, hazardous, or toxic liquids or pollutants;

the floor drain is necessary for the discharge of wash water or other wastewater which has constituents similar in volume and similar in concentration to domestic wastewater (including animal or vegetable matter, soap solutions, and diluted domestic-use cleaning solutions) or at a lower wastewater strength

connection to a public sewer is not available.

UNIFORM PLUMBING CODE

1007.0 Trap Seal Protection.

Floor drain or similar traps directly connected to the drainage system and subject to infrequent use shall be protected with a trap seal primer, except where not deemed necessary for safety or sanitation by the Authority Having Jurisdiction. Trap seal primers shall be accessible for maintenance.

Garage and Basement floor drains

Section 11
Bottom of the Disposal Field

- THIS SERVES AS THE FINAL STAGE OF THE DISTRIBUTION NETWORK
- MUST BE INSTALLED AT THE ELEVATION SPECIFIED ON THE PERMIT.
- MUST MAINTAIN A LEVEL GRADE.
  (2” WITHIN 100’)

SECTION 11
AVOID UNNECESSARY COMPACTION

- RUBBER TIRED VEHICLES SHOULD NOT BE DRIVEN OVER THE EXPOSED BOTTOM OF THE DISPOSAL FIELD

- SHOULD BE CARRIED OUT BY A BACKHOE OPERATING OUTSIDE THE PERIMETER OF THE DISPOSAL AREA

Which looks like…….

And if not corrected could look like…..

Which would result in……

SECTION 11

REOPEN SMEARED OR COMPACTED BOTTOM OR SIDEWALL SURFACES

- THIS PORTION MUST BE SCARIFIED TO RE-OPEN SOIL PORES.
- ROTO-TILLING MAY BE NECESSARY TO REACH THE LIMIT OF COMPACTED SOIL DEPTH.

SECTION 11
WEATHER CONDITIONS

WORK SHOULD BE SCHEDULED SO THAT EXCAVATED AREAS ARE NOT EXPOSED TO RAINFALL OR WIND BLOWN SILT

DEBRIS MUST BE REMOVED BEFORE BACKFILLING

DISPOSAL FIELDS SHOULD NOT BE INSTALLED IN FROZEN GROUND OR WHEN THE AMBIANT AIR TEMP. IS BELOW FREEZING

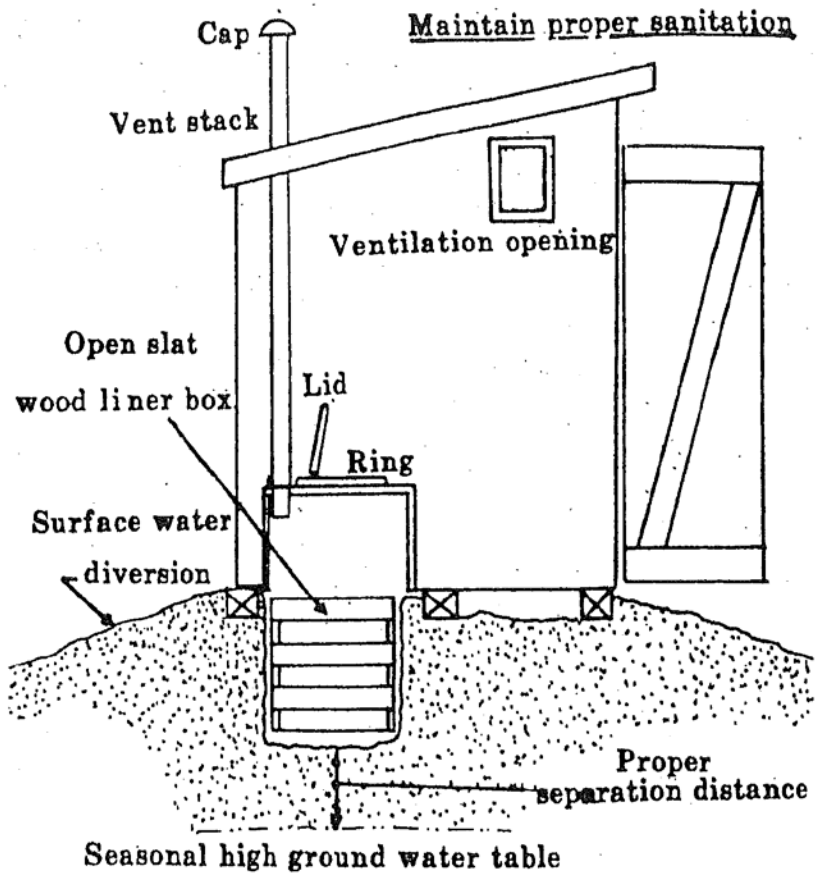


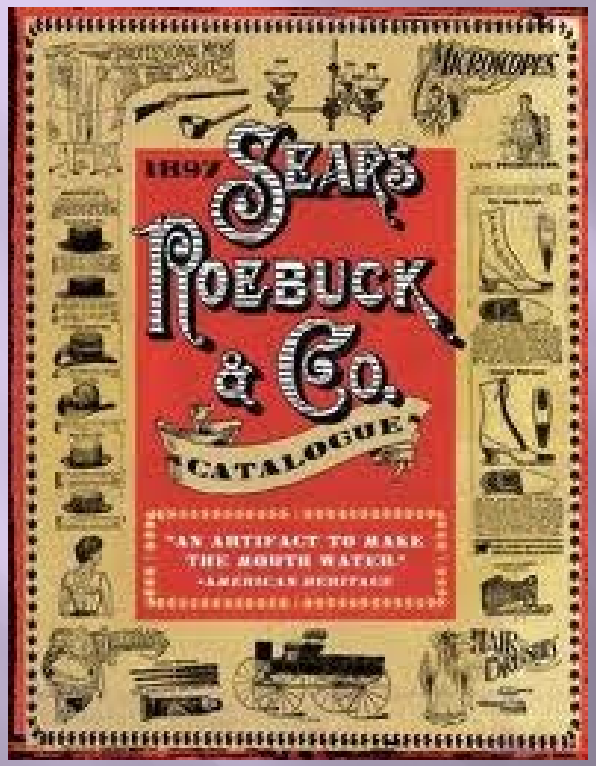
Figure 13-1 Pit Privy

Primitive system

Alternative toilet

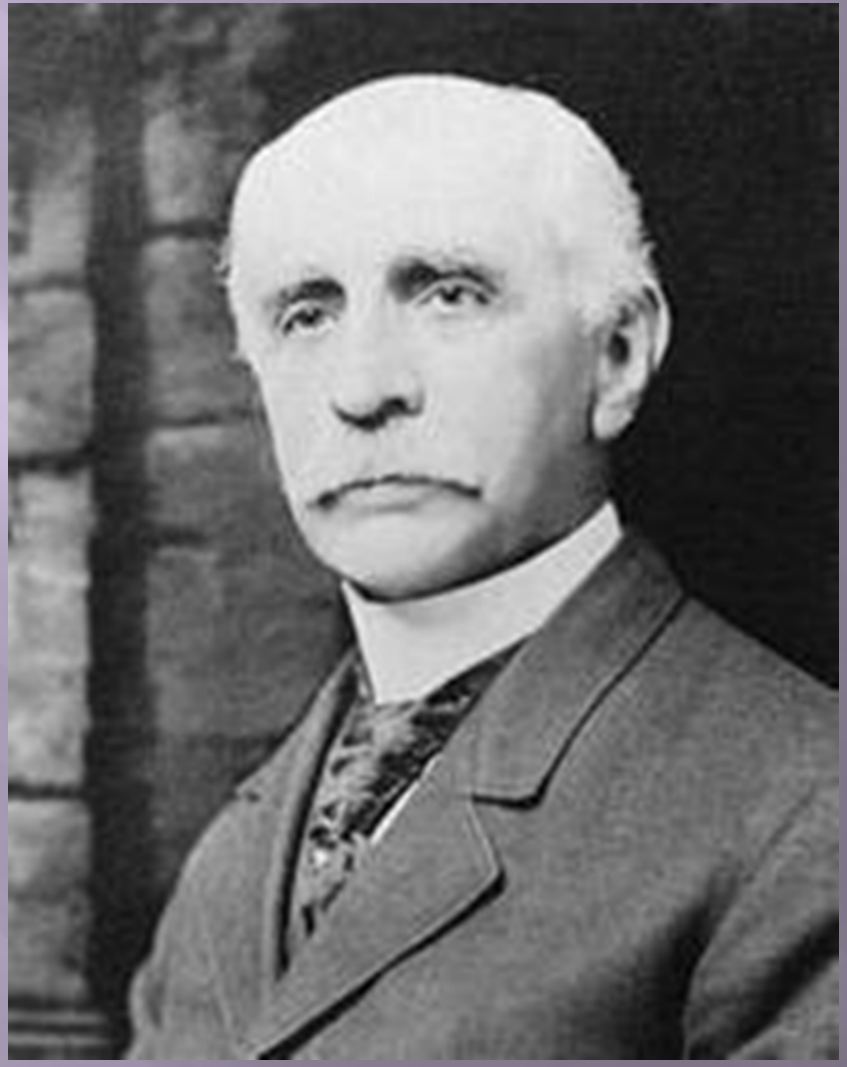
The moon –Women's privy
Starburst – Mans Privy
the men's became rundown or was not maintained.
So everybody just used the women's bathroom, and the men's star sign was forgotten.
The moon sign was kept and is also used as a vent.

THERE WAS NO SUCH THING AS TOILET PAPER



Indoor plumbing was not widely used until the 1840's in New York City

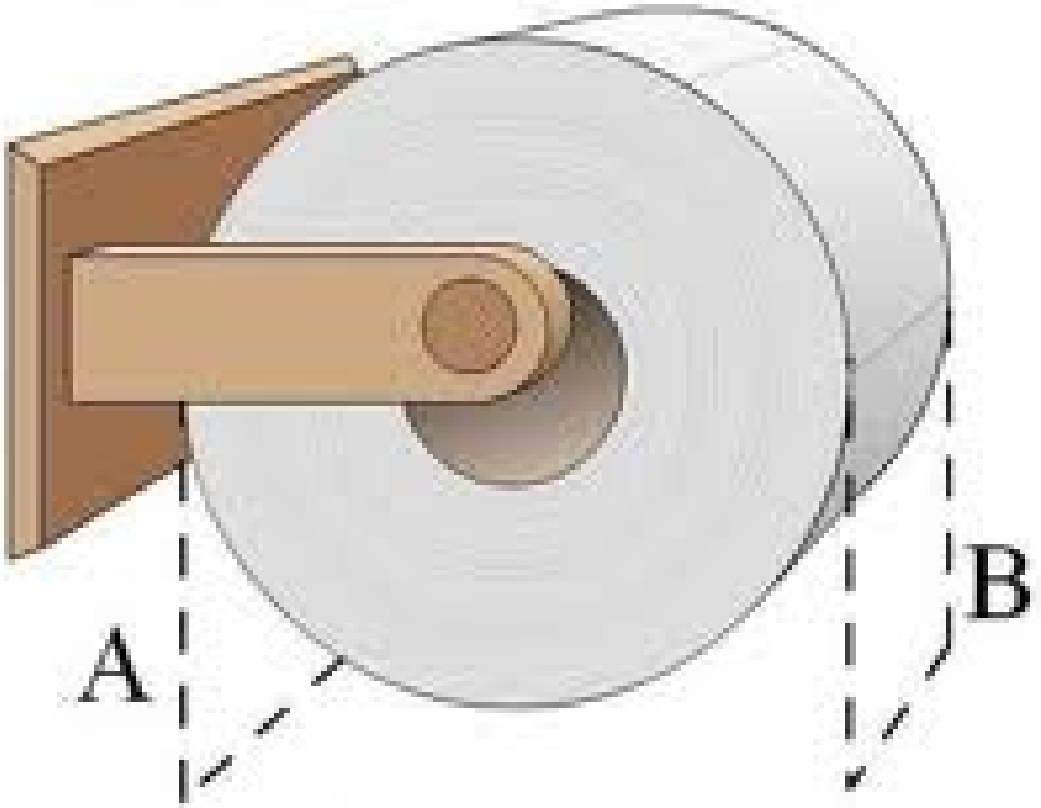
Thomas Crapper (1837–1910)



Joseph Gayetty - **Inventor of** the **Toilet** Paper.

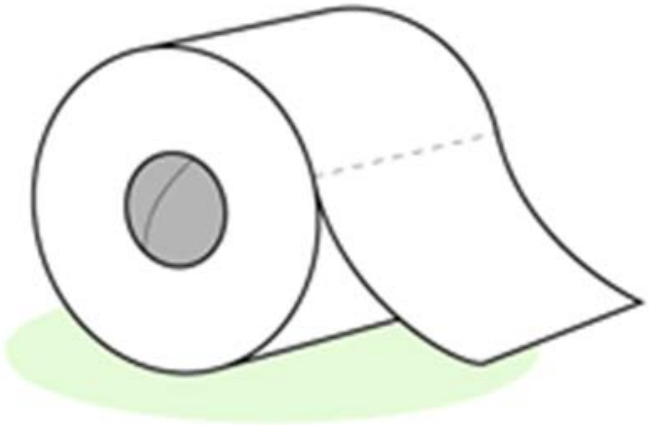
NO GOOD DEED GOES UNPUNISHED

THE GREAT



DEBATE

The Federal Government did a 1,000,000 study in 1950 and found out the correct way,,,



This is right.
(good)

This is wrong.
(bad)

Permits required: Permits are required for all alternative toilet installations, excluding portable alternative toilets.

Types of alternative toilets:

chemical toilets incineration composting

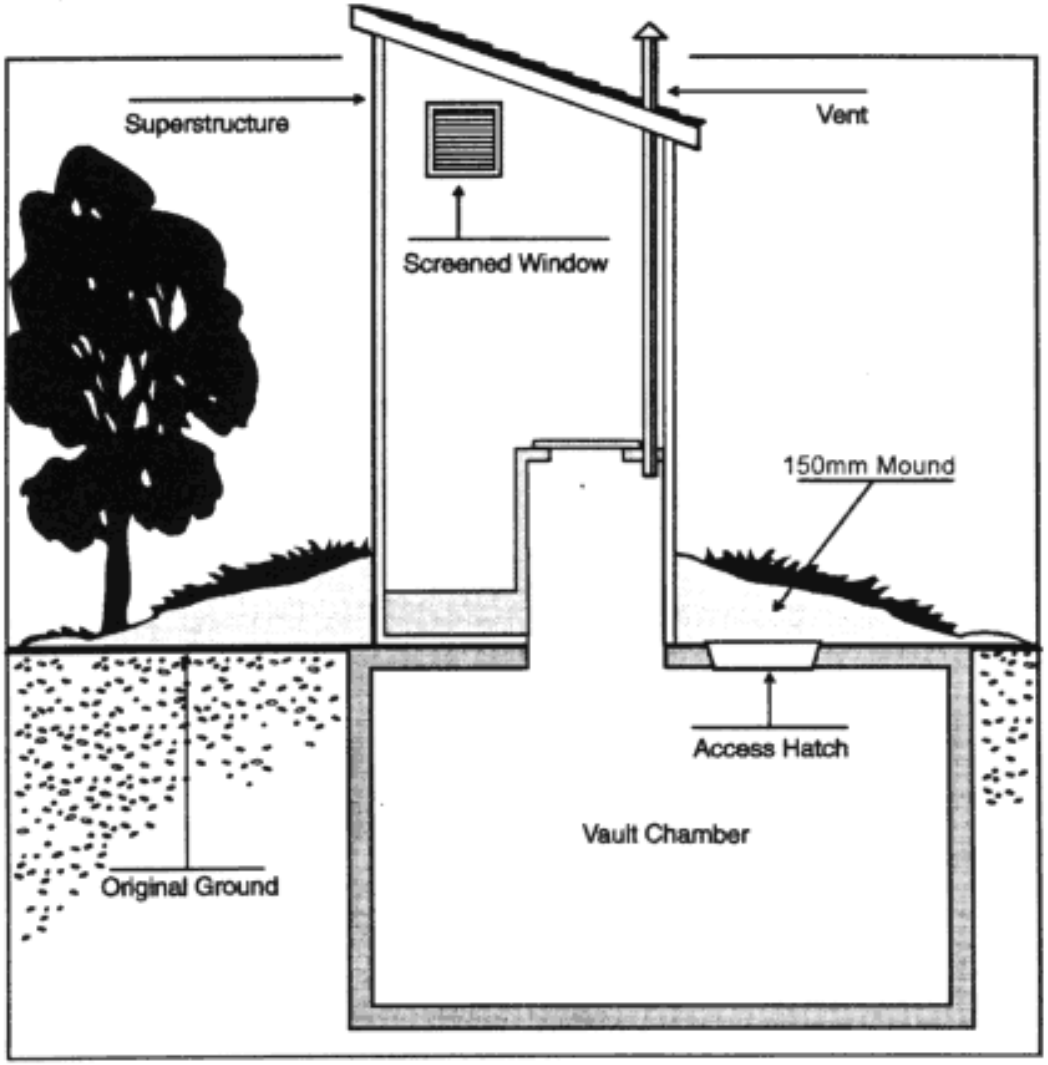
privies vault privies.

Site evaluation not required: In the case of an alternative toilet that does not discharge directly onto or into the soil, a site evaluation is not required for design of the alternative toilet.

PERMITTING IS STILL REQUIRED

DOT REST AREAS

Vault Privy


Superstructure
Vent
Screened Window
150mm Mound
Access Hatch
Vault Chamber
Original Ground

NOT A LEGAL VAULT PRIVY

Portable toilets are not considered Alternative Toilets, as they are only for temporary use (see definition of temporary portable toilet).

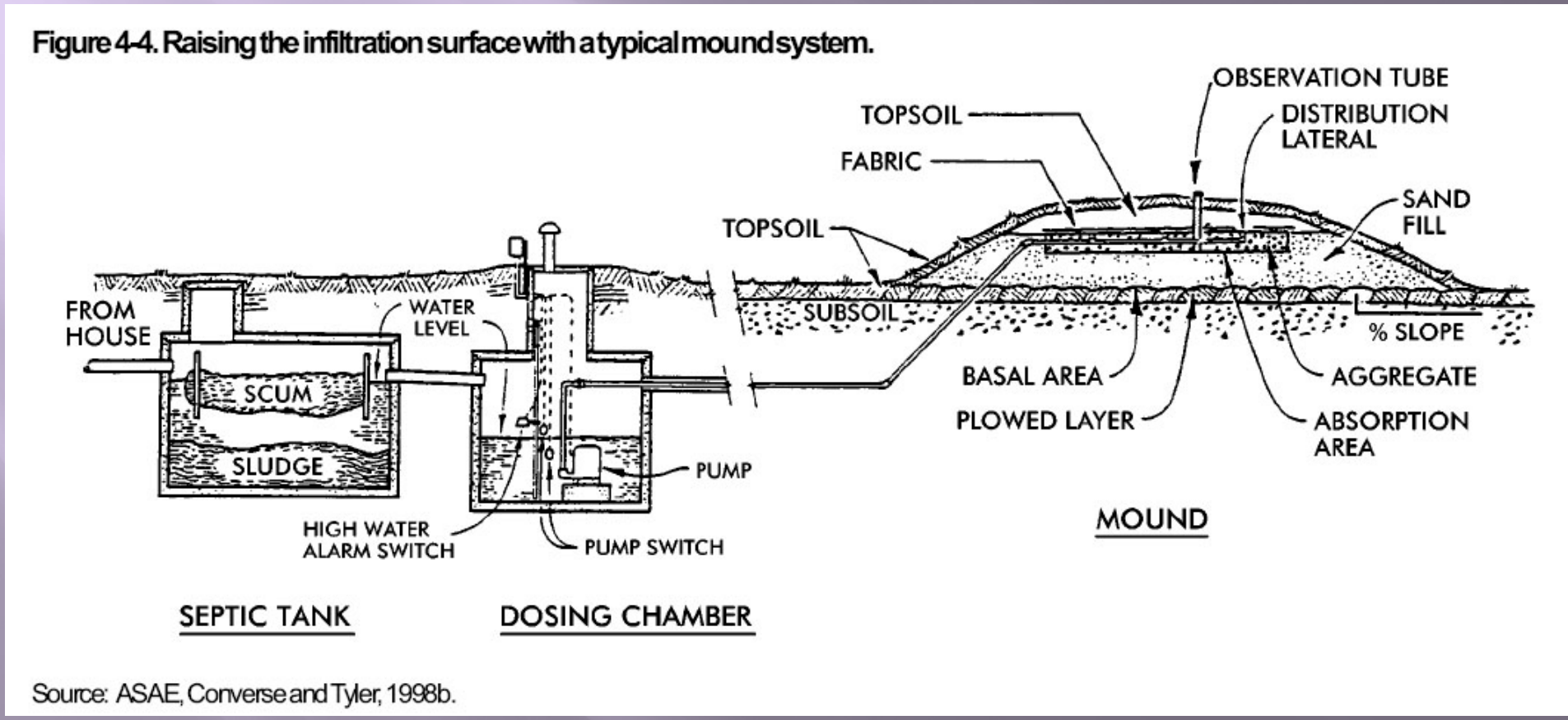
Temporary portable toilet:
A prefabricated toilet designed for temporary use, typically at social functions, work sites, outdoor gatherings, etc. No plumbing permit nor site evaluation is required.

DOES A PORTA POTTY MALFUNCTION ?

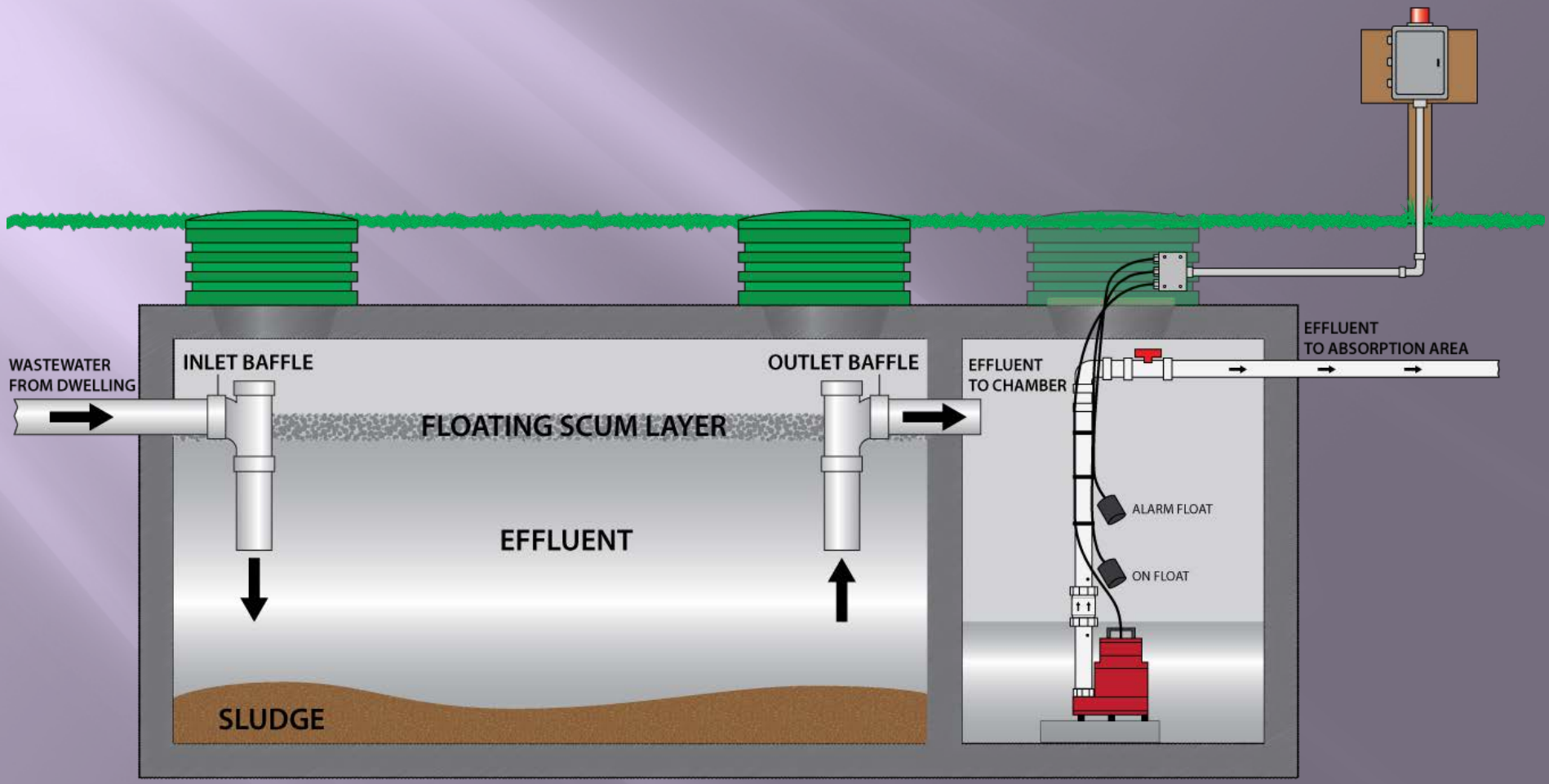
Possible Malfunction

PUMP STATIONS / LIFT STATIONS

PUMP STATION



PUMP STATION SEPTIC TANK COMBO



Pump discharge piping: The pipes must be sized to serve the pump but in no case may have a diameter less than that required by the manufacturer.

Pump switches: The operation of the pump must be controlled by means of automatic switches that are activated by the rising and falling level of septic tank effluent in the dosing tank. Such switches must meet the following requirements:

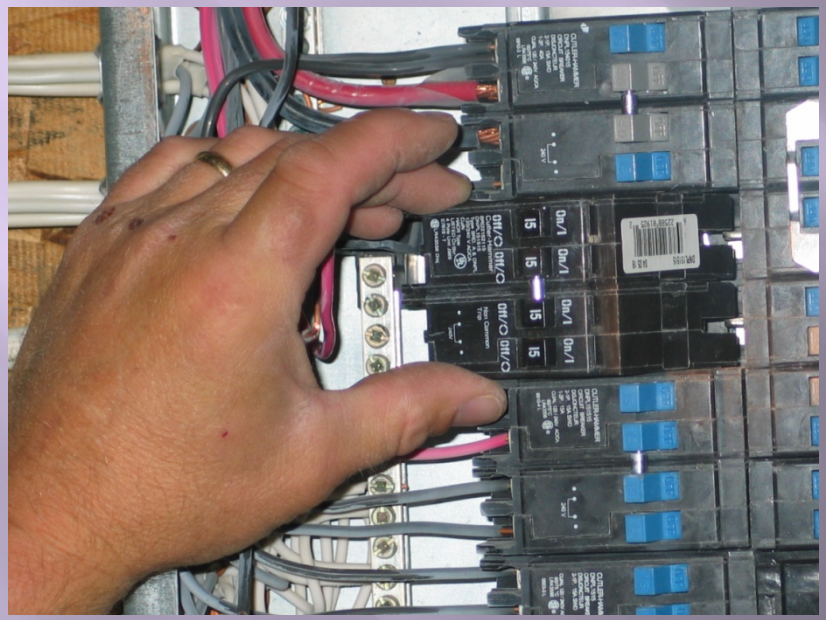
Switches: Switches must be able to withstand the humid and corrosive atmosphere in the dosing tank. Mercury or weighted float type switches are suitable for this purpose. Pressure diaphragm type switches are prohibited.

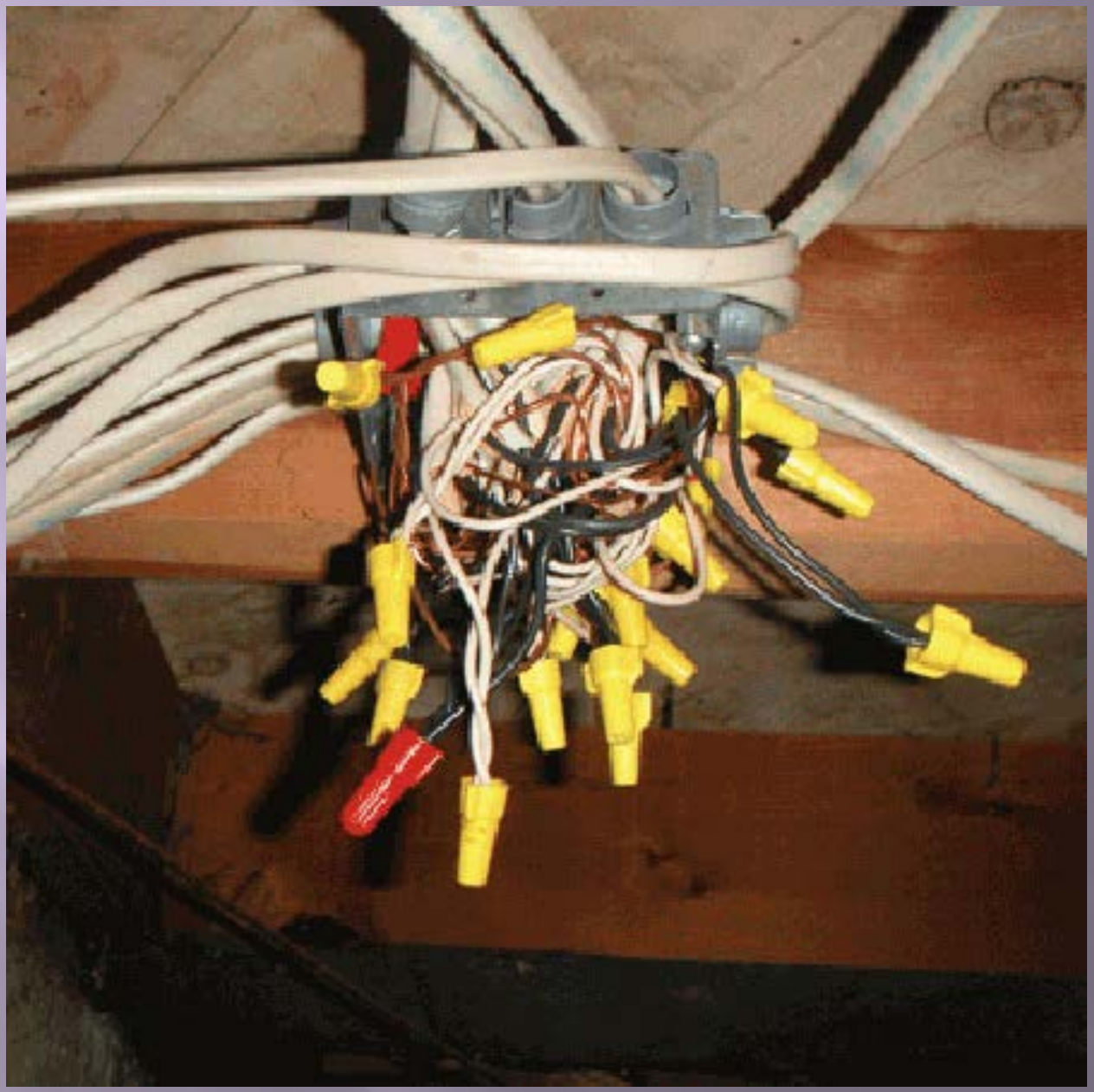
Dose volume: For single-family dwellings the dose volume for gravity-dosed disposal fields must be as per manufacturers' specifications.


Float for High Water Alarm Control Switch
Float for Pump On/Off Control Switch

High-water alarm: A high-water alarm switch must be set 4 inches above the pump-on switch and must activate visible and audible alarms that can be readily seen and heard by occupants within the structure served.

The alarm and its switch must not be on the same electrical circuit as the pump and its switch.





This is not a legal pump station

SECTION 6
APPROVED MATERIALS AND EQUIPMENT

T. VENTING

Vents are not required but may be used in disposal systems.

Location: A vent should be installed in the distribution system at a point or points farthest from the septic tank;

Size: A vent diameter should be equal to or greater than the diameter of the dosing piping

Height: A vent must extend at least 3 feet above the finished grade

Protection: All vents should be screened to prevent entry of foreign objects and installed in a matter which prevents entry of rainwater.

BAD TRANSITIONAL HORIZONS & SCARIFICATION


CAT
CAT

IMPROPER FILL EXTENSIONS

IMPROPER STABILIZATION

ILLEGAL DUMPING OF A SEPTIC PUMPING TRUCK

Pittston man charged with climbing in toilet

June 26, 2005

he climbed into the pit to retrieve his wedding ring -Albany, N.H

March 10, 2010

climbing into a pit toilet in the White Mountain National Forest.

said he had dropped his shirt into the pit and climbed down to retrieve it.

PROHIBITIONS

Roof drains and foundation drains must not be connected to systems.

prohibited chemicals

pesticides

oil-based paints or stains

paint remover/thinner

acids, gasoline, solvents

glues and adhesives

pool chemicals

darkroom chemicals, and medications

SITE EVALUATION PROCESS

It is important to understand the essential aspects of the site evaluation process in order to interpret installation paperwork, e.g., designs.

SECTION 1
INTRODUCTION

C. DESIGN REQUIREMENTS

All systems:

In designing any system, the site evaluator and/or professional engineer shall consider lot size and configuration, slope, surface drainage, soil characteristics, the presence and depth of limiting horizons within the soil, soil permeability, type and organic loading rates of wastes, (BOD and TSS), and the projected design flow.

Types of wastes:
Systems must be designed to receive all wastewater from the structure served, except in the following cases:

Black or grey wastewaters only:

Separate systems may be designed to receive only grey wastewater, or only black wastewater, as allowed in Section 4.

Laundry wastes:

Hot tubs must not discharge into any disposal system utilized for any other wastewater, but may be discharged into a grey water disposal system

Hot tubs:

Laundry wastes from a single-family dwelling may be discharged into a separate laundry disposal field. See Section 4(P) .

SECTION 4
DESIGN CRITERIA

SITE EVALUATION PROCESS

Site Evaluation Process

The physical characteristics of a parcel of land must be fully evaluated in order to design a safe and effective disposal system. Each site has its own unique characteristics and limitations which must be observed and considered in the design.

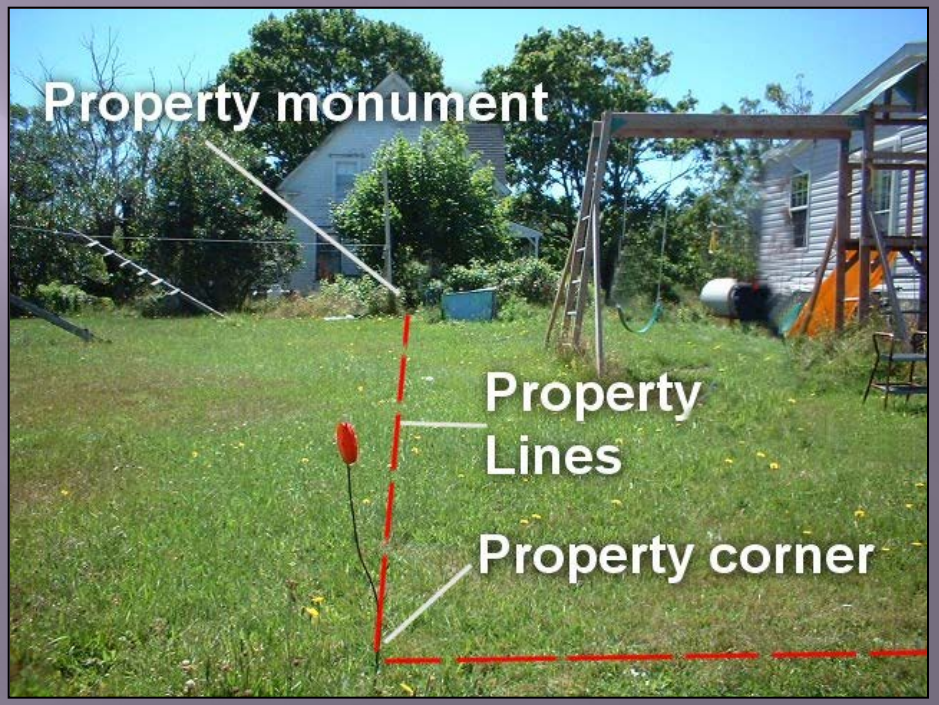
Observations of the surrounding land and development are just as important as viewing the particular parcel of land under consideration.

SITE EVALUATION PROCESS

Site Evaluation Process

Sometimes the applicant has a preference to where the system is to be placed if the soil conditions are accommodating. First considerations should be given to the desired locations if at all possible.

This site's potential locations for a replacement disposal area are limited by adjacent development and a small lot size.



SITE EVALUATION PROCESS

Site Evaluation Process

Existing ground slope beneath the disposal field shall not exceed 20 percent (20 feet in 100 feet). The disposal field is defined as the area under the stone bed or proprietary devices only.

Setbacks for Septic Tanks FIRST TIME SYSTEMS

- Full Basement – 8 feet
- Slab – 8 feet
- Both can be reduced to 5 feet for Replacement Systems
- Potable water supplies– 50 feet
- Public Wells – 150 feet
- Can be reduced to 25 feet for Private Wells, no reduction for Public Wells

FIRST TIME SYSTEMS DISPOSAL FIELD

Setback Requirements

Disposal Fields

Table 7B – Less than 1000 gpd

Waterbody setbacks

Major water body – 100 ft.

Minor water body - 50 ft.

Drainage ditch – 25 ft.

Toe of fill to wetlands - 25 ft.

FIRST TIME SYSTEMS DISPOSAL FIELD

Setback Requirements

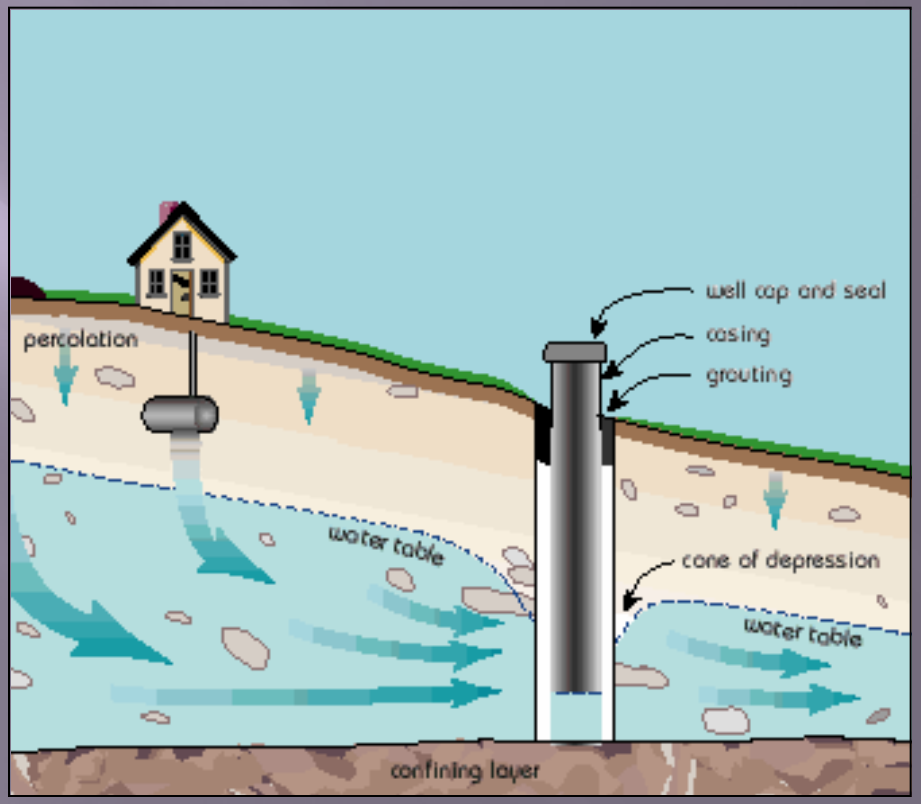
Table 7B – Less than 1000 gpd

Well setbacks (without variances)

Potable water supply– 100 ft.

Public supply well – 300 ft.

Water supply line – 10 ft.



FIRST TIME SYSTEM DISPOSAL FIELD

Setback Requirements

Table 7B – Less than 1000 gpd

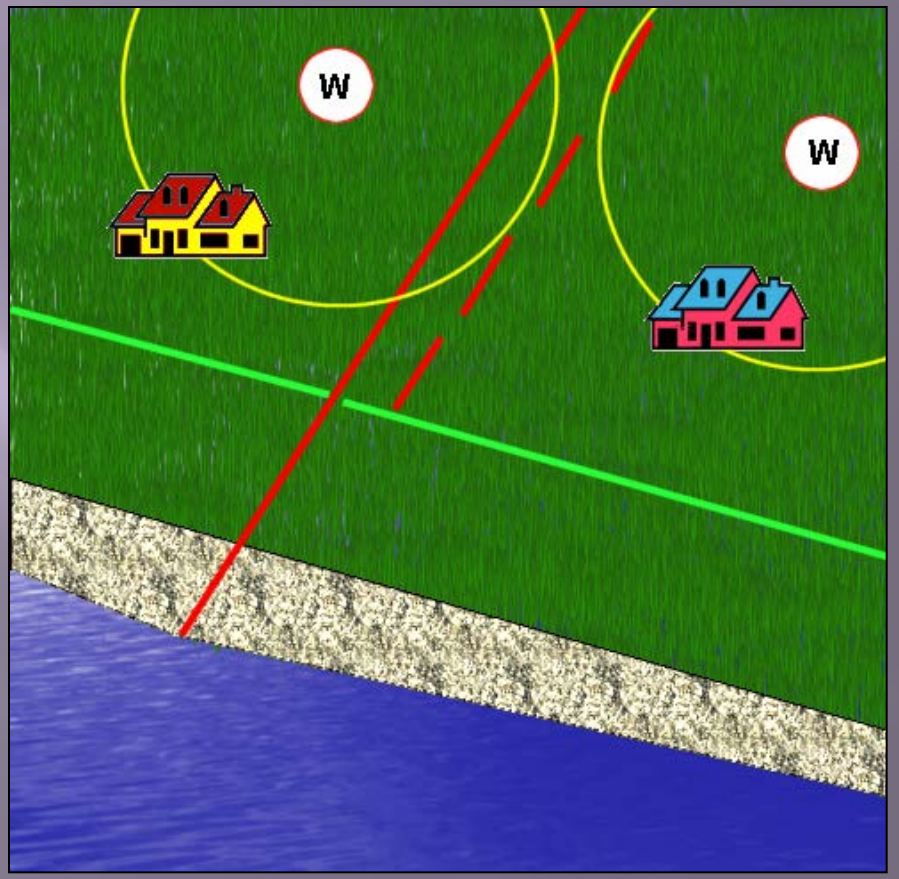
Structures and property lines:

Property lines – 10 ft.

Slab, etc. foundation – 15 ft.

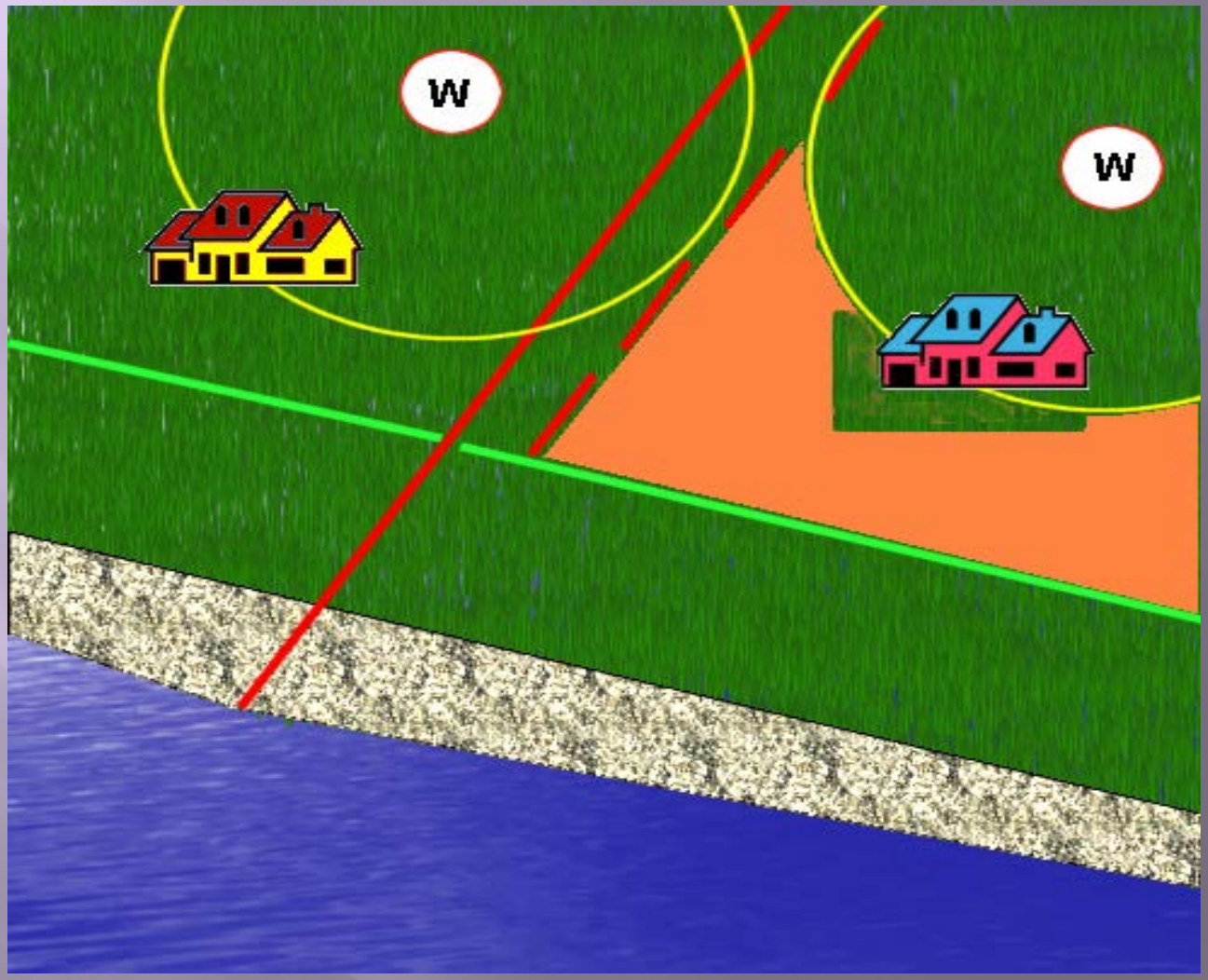
Full foundations/frost walls – 20 ft.

Burial grounds – 25 ft. from toe of fill



AFTER ALL SETBACKS ARE MEASURED

THIS IS WHAT THE SE HAS TO WORK WITH



SITE EVALUATION PROCESS

Site Evaluation Process

Disposal of liquids into the soil from a disposal area is through soil pores, between soil aggregates and through root channels. Soil texture, soil structure, moisture content, and root penetration also affect the liquid movement through the soil.

SITE EVALUATION PROCESS

Site Evaluation Process

Site evaluation combines on-site soil evaluation with consideration of site conditions.

Licensed Site Evaluators are required to have the skill and ability to properly identify and accurately report soil textures and limiting factors so they can adequately classify soils, recognize site limitations and properly size disposal systems.

Limiting Factors

Redoximorphic Features (Drainage Mottles)

Restrictive Horizon

Bedrock

Subsurface Wastewater Disposal Application (HHE-200 Form)

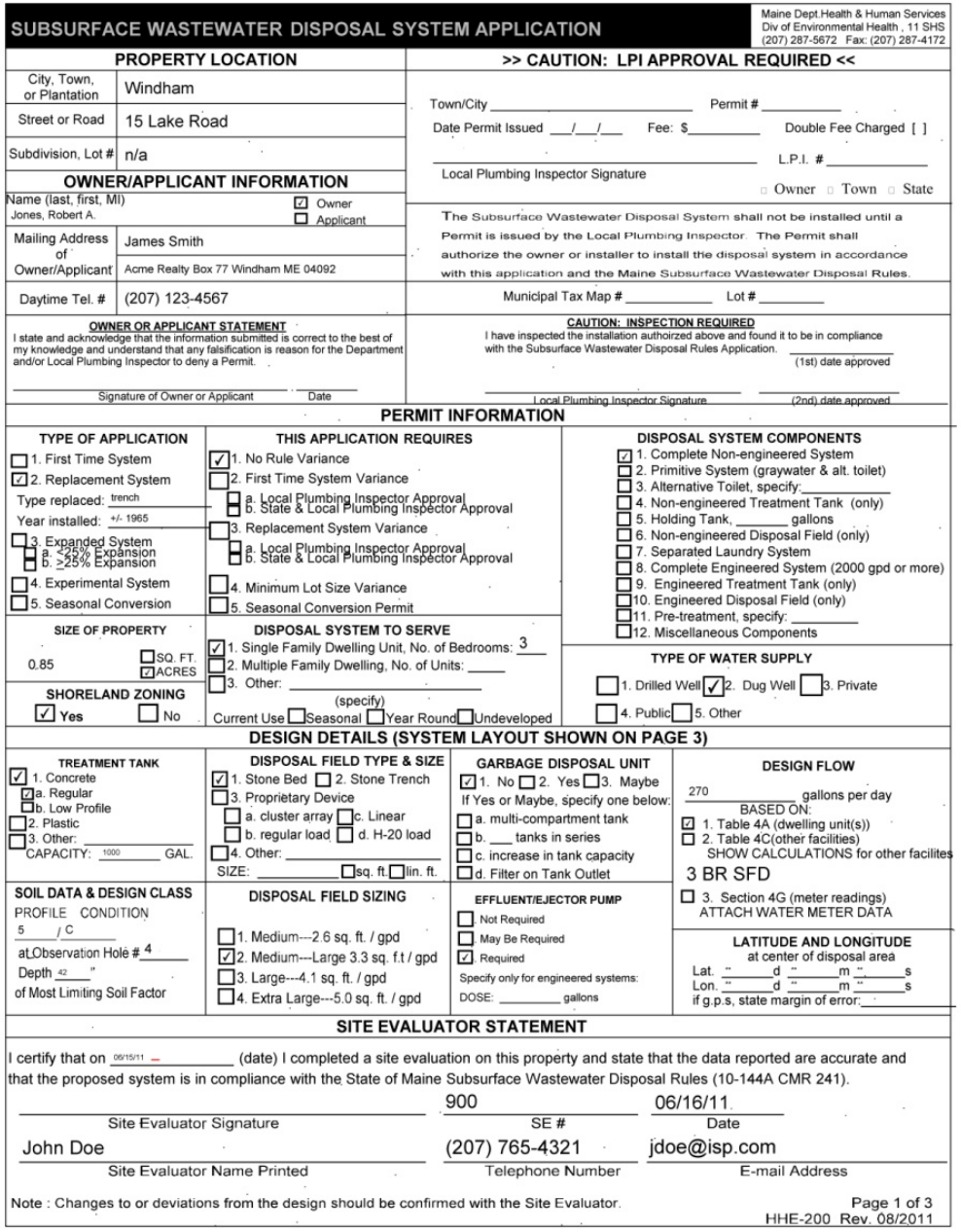
Maine Department of Health and Human Services
Division of Environmental Health
Subsurface Wastewater Unit

HHE-200 Form

Page One

This example of Page One is clear, concise, and legible.

All of the appropriate boxes have been completed.



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept.Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	Windham
Street or Road	15 Lake Road
Subdivision, Lot #	n/a

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City _____ Permit # _____
Date Permit Issued ___/___/___ Fee: $_____ Double Fee Charged [ ]
_____ L.P.I. # _____
Local Plumbing Inspector Signature
Owner Town State

OWNER/APPLICANT INFORMATION

Name (last, first, MI) Jones, Robert A. ☑ Owner ☐ Applicant

Mailing Address of Owner/Applicant	James Smith Acme Realty Box 77 Windham ME 04092
Daytime Tel. #	(207) 123-4567

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # _____ Lot # _____

OWNER OR APPLICANT STATEMENT
I state and acknowledge 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.
Signature of Owner or Applicant Date

CAUTION: INSPECTION REQUIRED
I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.
(1st) date approved
Local Plumbing Inspector Signature (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION
☐ 1. First Time System
☑ 2. Replacement System
Type replaced: trench
Year installed: +/- 1965
☐ 3. Expanded System
☐ a. <25% Expansion
☐ b. >25% Expansion
☐ 4. Experimental System
☐ 5. Seasonal Conversion

THIS APPLICATION REQUIRES
☑ 1. No Rule Variance
☐ 2. First Time System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 3. Replacement System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 4. Minimum Lot Size Variance
☐ 5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS
☑ 1. Complete Non-engineered System
☐ 2. Primitive System (graywater & alt. toilet)
☐ 3. Alternative Toilet, specify:_____
☐ 4. Non-engineered Treatment Tank (only)
☐ 5. Holding Tank, _____ gallons
☐ 6. Non-engineered Disposal Field (only)
☐ 7. Separated Laundry System
☐ 8. Complete Engineered System (2000 gpd or more)
☐ 9. Engineered Treatment Tank (only)
☐ 10. Engineered Disposal Field (only)
☐ 11. Pre-treatment, specify: _____
☐ 12. Miscellaneous Components

SIZE OF PROPERTY
0.85 ☐ SQ. FT. ☑ ACRES

SHORELAND ZONING
☑ Yes ☐ No

DISPOSAL SYSTEM TO SERVE
☑ 1. Single Family Dwelling Unit, No. of Bedrooms: 3
☐ 2. Multiple Family Dwelling, No. of Units: _____
☐ 3. Other: _____ (specify)
Current Use ☐ Seasonal ☐ Year Round ☐ Undeveloped

TYPE OF WATER SUPPLY
☐ 1. Drilled Well ☑ 2. Dug Well ☐ 3. Private
☐ 4. Public ☐ 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK
☑ 1. Concrete
☑ a. Regular
☐ b. Low Profile
☐ 2. Plastic
☐ 3. Other: _____
CAPACITY: 1000 GAL.

DISPOSAL FIELD TYPE & SIZE
☑ 1. Stone Bed ☐ 2. Stone Trench
☐ 3. Proprietary Device
☐ a. cluster array ☐ c. Linear
☐ b. regular load ☐ d. H-20 load
☐ 4. Other: _____
SIZE: _____ ☐ sq. ft. ☐ lin. ft.

GARBAGE DISPOSAL UNIT
☑ 1. No ☐ 2. Yes ☐ 3. Maybe
If Yes or Maybe, specify one below:
☐ a. multi-compartment tank
☐ b. ___ tanks in series
☐ c. increase in tank capacity
☐ d. Filter on Tank Outlet

DESIGN FLOW
270 gallons per day
BASED ON:
☑ 1. Table 4A (dwelling unit(s))
☐ 2. Table 4C(other facilities)
SHOW CALCULATIONS for other facilites
3 BR SFD
☐ 3. Section 4G (meter readings)
ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS
PROFILE CONDITION
5 / C
at Observation Hole # 4
Depth 42 "
of Most Limiting Soil Factor

DISPOSAL FIELD SIZING
☐ 1. Medium---2.6 sq. ft. / gpd
☑ 2. Medium---Large 3.3 sq. f.t / gpd
☐ 3. Large---4.1 sq. ft. / gpd
☐ 4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP
☐ Not Required
☐ May Be Required
☑ Required
Specify only for engineered systems:
DOSE: _____ gallons

LATITUDE AND LONGITUDE
at center of disposal area
Lat. ° ' " d ° ' " m ° ' " s
Lon. ° ' " d ° ' " m ° ' " s
if g.p.s, state margin of error: _____

SITE EVALUATOR STATEMENT

I certify that on 06/15/11 (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).

Site Evaluator Signature	SE #	Date
	900	06/16/11

Site Evaluator Name Printed	Telephone Number	E-mail Address
John Doe	(207) 765-4321	jdoe@isp.com

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

Page 1 of 3
HHE-200 Rev. 08/2011

SECTION 5
APPLICATION FOR DISPOSAL SYSTEM PERMIT

Page one of the HHE-200 form:

Property Location, Owner/Applicant Information Permit Information

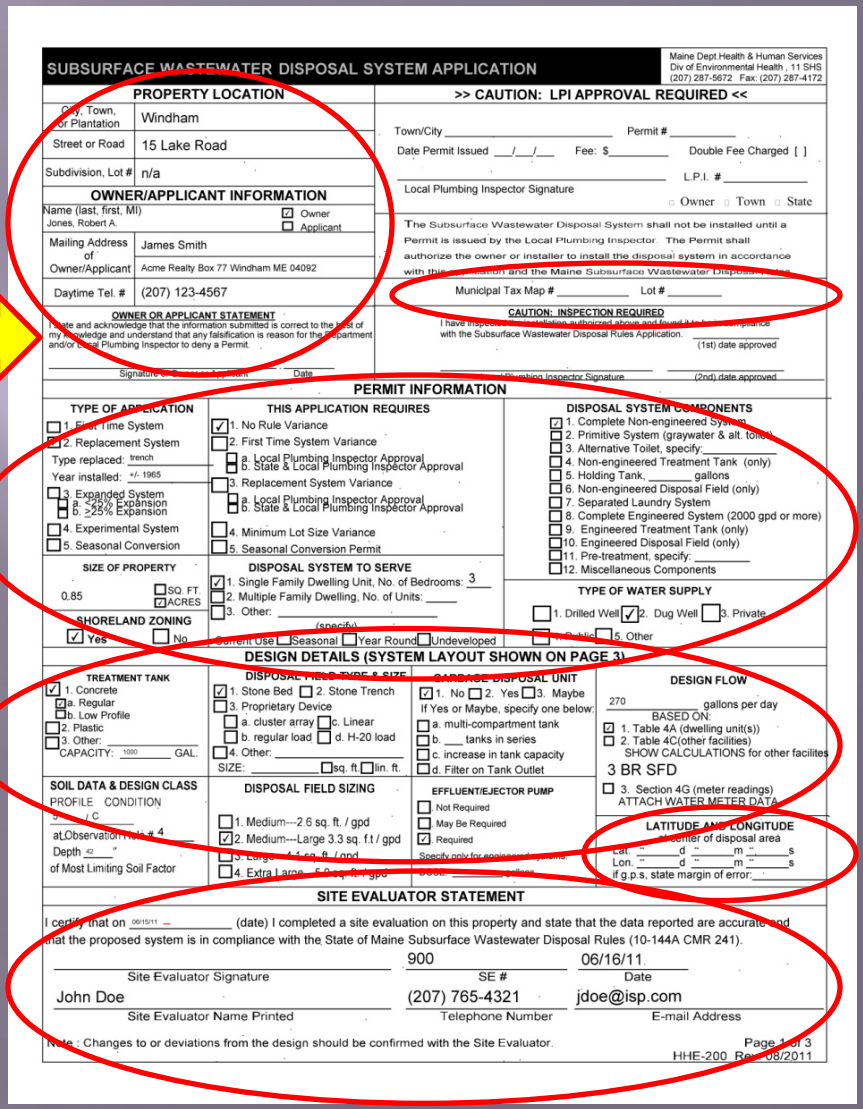
Permit Information

projected design flow of wastewater method of calculation

latitude and longitude

The Site Evaluator Statement.

SIGNATURES



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation: Windham
Street or Road: 15 Lake Road
Subdivision, Lot #: n/a

OWNER/APPLICANT INFORMATION

Name (last, first, MI): Jones, Robert A. ☑ Owner ☐ Applicant
Mailing Address of Owner/Applicant: James Smith, Acme Realty Box 77 Windham ME 04092
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Signature of Owner/Applicant ____ Date

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City ____ Permit # ____
Date Permit Issued ___/___/___ Fee: $____ Double Fee Charged [ ]
Local Plumbing Inspector Signature L.P.I. # ____
☐ Owner ☐ Town ☐ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # ____ Lot # ____

CAUTION: INSPECTION REQUIRED

I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. ____ (1st) date approved

Local Plumbing Inspector Signature ____ (2nd) date approved

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☑ 2. Replacement System
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☐ b. State & Local Plumbing Inspector Approval
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☐ 5. Holding Tank, ____ gallons
☐ 6. Non-engineered Disposal Field (only)
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☐ 10. Engineered Disposal Field (only)
☐ 11. Pre-treatment, specify: ____
☐ 12. Miscellaneous Components

SIZE OF PROPERTY

0.85 ☐ SQ. FT. ☑ ACRES

SHORELAND ZONING

☑ Yes ☐ No

DISPOSAL SYSTEM TO SERVE

☑ 1. Single Family Dwelling Unit, No. of Bedrooms: 3
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CAPACITY: 1000 GAL.

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☐ b. ___ tanks in series
☐ c. increase in tank capacity
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DESIGN FLOW

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BASED ON:
☑ 1. Table 4A (dwelling unit(s))
☐ 2. Table 4C(other facilities)
SHOW CALCULATIONS for other facilites
3 BR SFD
☐ 3. Section 4G (meter readings)
ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS

PROFILE CONDITION
___ / C
at Observation Hole # 4
Depth 42 "
of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

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☑ 2. Medium---Large 3.3 sq. f.t / gpd
☐ 3. Large---4.1 sq. ft. / gpd
☐ 4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

☐ Not Required
☐ May Be Required
☑ Required
Specify only for engineered systems

LATITUDE AND LONGITUDE

at center of disposal area
Lat. ___ d ___ m ___ s
Lon. ___ d ___ m ___ s
if g.p.s, state margin of error: ____

SITE EVALUATOR STATEMENT

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Site Evaluator Signature: ____ SE #: 900 Date: 06/16/11
Site Evaluator Name Printed: John Doe Telephone Number: (207) 765-4321 E-mail Address: jdoe@isp.com

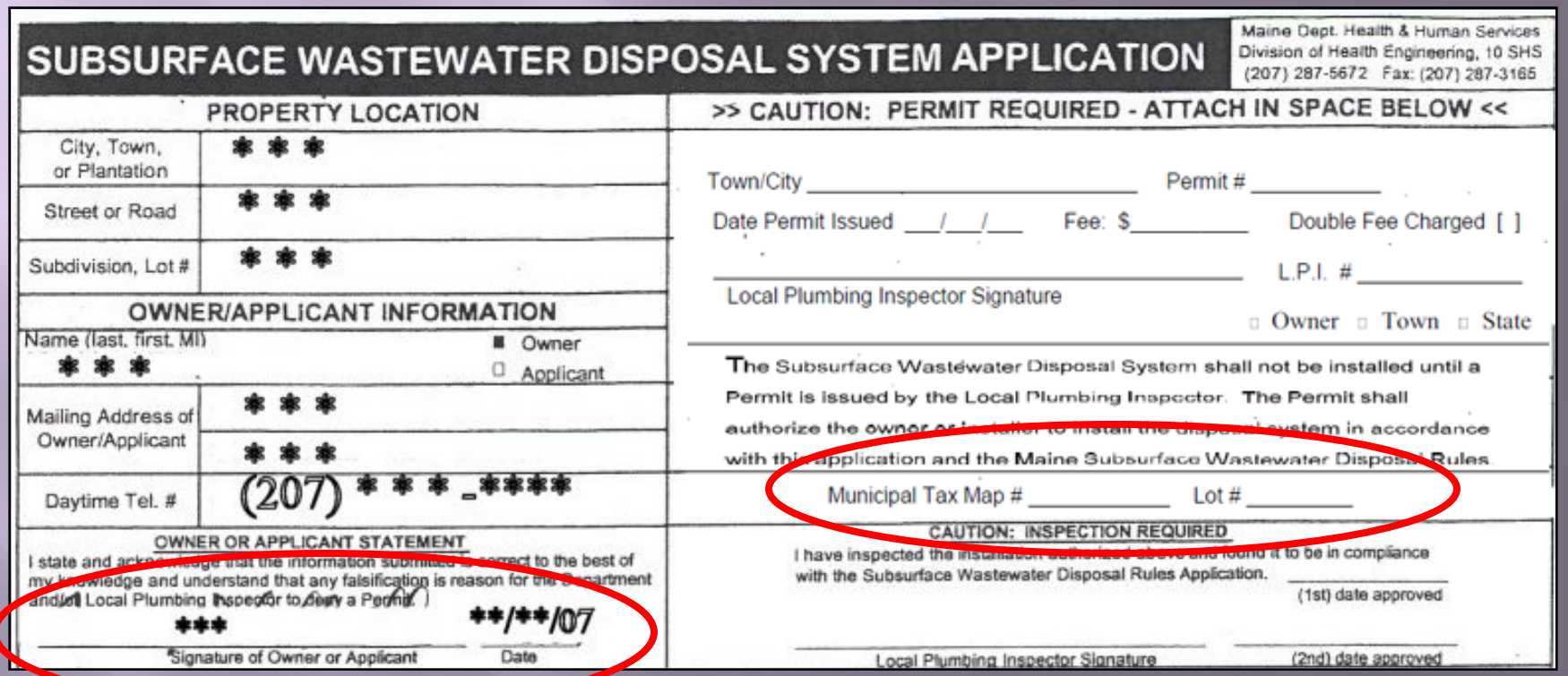
Note: Changes to or deviations from the design should be confirmed with the Site Evaluator.

Page 1 of 3
HHE-200 Rev. 08/2011

HHE-200 Form

Page One

OWNER - APPLICANT



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Division of Health Engineering, 10 SHS
(207) 287-5672 Fax: (207) 287-3165

PROPERTY LOCATION

City, Town, or Plantation	* * *
Street or Road	* * *
Subdivision, Lot #	* * *

OWNER/APPLICANT INFORMATION

Name (last, first, MI) * * * ■ Owner □ Applicant

Mailing Address of Owner/Applicant	* * *
	* * *
Daytime Tel. #	(207) * * * _****

OWNER OR APPLICANT STATEMENT

I state and acknowledge 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.

*** **/**/07

Signature of Owner or Applicant — Date

>> CAUTION: PERMIT REQUIRED - ATTACH IN SPACE BELOW <<

Town/City _____ Permit # _____

Date Permit Issued ___/___/___ Fee: $_____ Double Fee Charged [ ]

_____ L.P.I. # _____

Local Plumbing Inspector Signature

□ Owner □ Town □ State

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Municipal Tax Map # _____ Lot # _____

CAUTION: INSPECTION REQUIRED

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_____ (1st) date approved

_____ Local Plumbing Inspector Signature

_____ (2nd) date approved

HHE-200 Form

Page One

PERMIT INFORMATION

TYPE OF APPLICATION

- ■ 1. First Time System
- □ 2. Replacement System
  - Type replaced: _____
  - Year installed: _____
- □ 3. Expanded System
  - □ a. Minor Expansion
  - □ b. Major Expansion
- □ 4. Experimental System
- □ 5. Seasonal Conversion

SIZE OF PROPERTY

± 4.5 □ SQ. FT. ■ ACRES

SHORELAND ZONING

□ Yes ■ No

THIS APPLICATION REQUIRES

- □ 1. No Rule Variance
- ■ 2. First Time System Variance
  - □ a. Local Plumbing Inspector Approval
  - ■ b. State & Local Plumbing Inspector Approval
- □ 3. Replacement System Variance
  - □ a. Local Plumbing Inspector Approval
  - □ b. State & Local Plumbing Inspector Approval
- □ 4. Minimum Lot Size Variance
- □ 5. Seasonal Conversion Permit

DISPOSAL SYSTEM TO SERVE

- □ 1. Single Family Dwelling Unit, No. of Bedrooms: ____
- □ 2. Multiple Family Dwelling, No. of Units: ____
- ■ 3. Other: commercial business (specify)

Current Use □ Seasonal ■ Year Round □ Undeveloped

DISPOSAL SYSTEM COMPONENTS

- ■ 1. Complete Non-engineered System
- □ 2. Primitive System (graywater & alt. toilet)
- □ 3. Alternative Toilet, specify: _____
- □ 4. Non-engineered Treatment Tank (only)
- □ 5. Holding Tank, _____ gallons
- □ 6. Non-engineered Disposal Field (only)
- □ 7. Separated Laundry System
- □ 8. Complete Engineered System (2000 gpd or more)
- □ 9. Engineered Treatment Tank (only)
- □ 10. Engineered Disposal Field (only)
- □ 11. Pre-treatment, specify: _____
- □ 12. Miscellaneous Components

TYPE OF WATER SUPPLY

■ 1. Drilled Well □ 2. Dug Well □ 3. Private

□ 4. Public □ 5. Other

HHE-200 Form

Page One

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK
- ■ 1. Concrete
  - ■ a. Regular
  - □ b. Low Profile
- □ 2. Plastic
- □ 3. Other: _____
- CAPACITY: 1,500 GAL.

SOIL DATA & DESIGN CLASS

PROFILE / CONDITION / DESIGN
8 / C / 1
at Observation Hole # 1
Depth 16"
of Most Limiting Soil Factor

DISPOSAL FIELD TYPE & SIZE
- □ 1. Stone Bed □ 2. Stone Trench
- ■ 3. Proprietary Device
  - ■ a. cluster array □ c. Linear
  - ■ b. regular load □ d. H-20 load
  - type: Eljen In-drain
- □ 4. Other: _____
- SIZE: 66 units □ sq. ft. □ lin. ft.

DISPOSAL FIELD SIZING
- □ 1. Small---2.0 sq. ft. / gpd
- □ 2. Medium---2.6 sq. ft. / gpd
- □ 3. Medium---Large 3.3 sq. f.t / gpd
- ■ 4. Large---4.1 sq. ft. / gpd
- □ 5. Extra Large---5.0 sq. ft. / gpd

GARBAGE DISPOSAL UNIT
- ■ 1. No □ 2. Yes □ 3. Maybe

If Yes or Maybe, specify one below:
- □ a. multi-compartment tank
- □ b. ___ tanks in series
- □ c. increase in tank capacity
- □ d. Filter on Tank Outlet

EFFLUENT/EJECTOR PUMP
- □ 1. Not Required
- □ 2. May Be Required
- ■ 3. Required

Specify only for engineered systems:
DOSE: _____ gallons

DESIGN FLOW

750 gallons per day

BASED ON:
- ■ 1. Table 501.1 (dwelling unit(s))
- □ 2. Table 501.2 (other facilities)

SHOW CALCULATIONS for other facilities

50 employees @ 15 gpd each

- □ 3. Section 503.0 (meter readings)

ATTACH WATER METER DATA

LATITUDE AND LONGITUDE

at center of disposal area

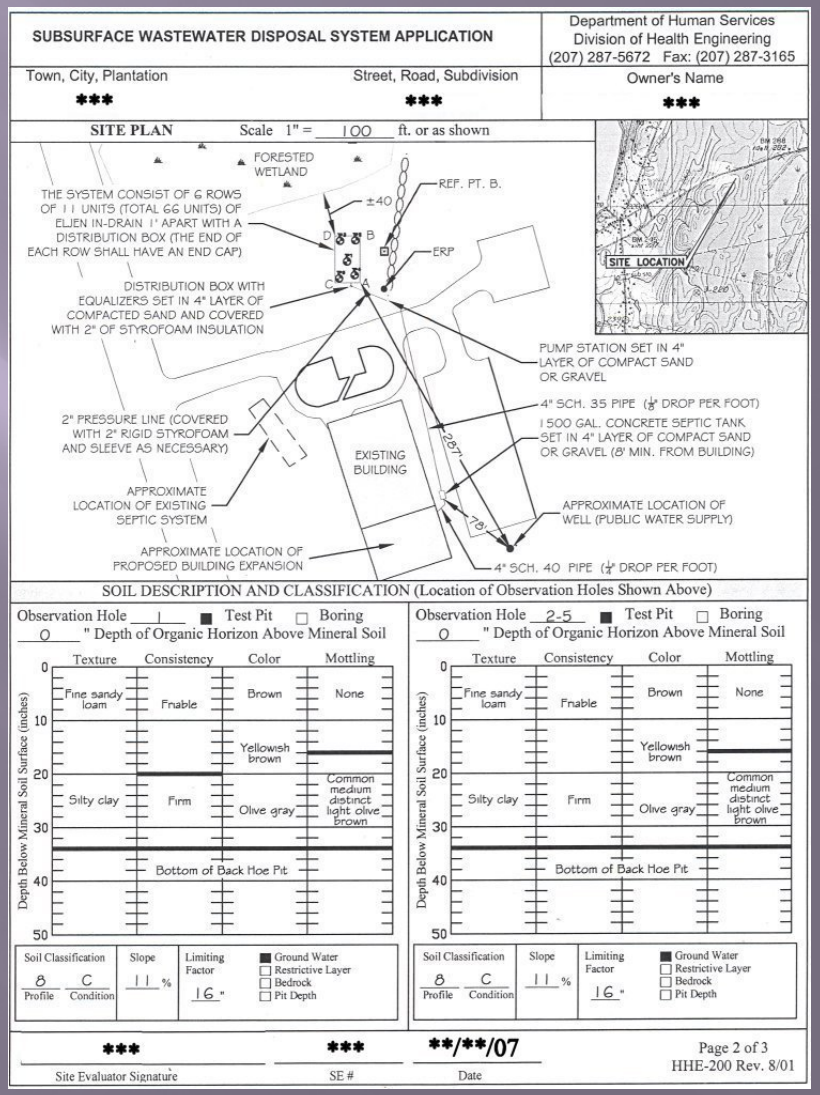
Lat. 044 d 24 m 01.8 s
Lon. 069 d 33 m 25.2 s
if g.p.s, state margin of error: _____

HHE-200 Form

Page Two

This site plan shows all the prominent features in the vicinity of the proposed system.

Test pit logs are clear, complete, and accurate.



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation: ***
Street, Road, Subdivision: ***
Owner's Name: ***

SITE PLAN Scale 1" = 100 ft. or as shown

FORESTED WETLAND
THE SYSTEM CONSIST OF 6 ROWS OF 11 UNITS (TOTAL 66 UNITS) OF ELJEN IN-DRAIN 1' APART WITH A DISTRIBUTION BOX (THE END OF EACH ROW SHALL HAVE AN END CAP)
DISTRIBUTION BOX WITH EQUALIZERS SET IN 4" LAYER OF COMPACTED SAND AND COVERED WITH 2" OF STYROFOAM INSULATION
2" PRESSURE LINE (COVERED WITH 2" RIGID STYROFOAM AND SLEEVE AS NECESSARY)
APPROXIMATE LOCATION OF EXISTING SEPTIC SYSTEM
APPROXIMATE LOCATION OF PROPOSED BUILDING EXPANSION
EXISTING BUILDING
REF. PT. B.
±40
ERP
PUMP STATION SET IN 4" LAYER OF COMPACT SAND OR GRAVEL
4" SCH. 35 PIPE (1/8" DROP PER FOOT)
1500 GAL. CONCRETE SEPTIC TANK SET IN 4" LAYER OF COMPACT SAND OR GRAVEL (8' MIN. FROM BUILDING)
287'
75'
APPROXIMATE LOCATION OF WELL (PUBLIC WATER SUPPLY)
4" SCH. 40 PIPE (1/4" DROP PER FOOT)
SITE LOCATION

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

Observation Hole 1 ■ Test Pit □ Boring
0 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–10	Fine sandy loam	Friable	Brown	None
10–20			Yellowish brown	
20–30	Silty clay	Firm	Olive gray	Common medium distinct light olive brown
30–40	Bottom of Back Hoe Pit			
40–50				

Soil Classification: Profile B, Condition C
Slope: 11 %
Limiting Factor: 16"
■ Ground Water □ Restrictive Layer □ Bedrock □ Pit Depth

Observation Hole 2-5 ■ Test Pit □ Boring
0 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–10	Fine sandy loam	Friable	Brown	None
10–20			Yellowish brown	
20–30	Silty clay	Firm	Olive gray	Common medium distinct light olive brown
30–40	Bottom of Back Hoe Pit			
40–50				

Soil Classification: Profile B, Condition C
Slope: 11 %
Limiting Factor: 16"
■ Ground Water □ Restrictive Layer □ Bedrock □ Pit Depth

*** Site Evaluator Signature
*** SE #
//07 Date

Page 2 of 3
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Page two of the HHE-200 form:

Property boundaries:

Existing manmade features:
structures, roadways, wells, disposal fields, same lot and on abutting lots

Water bodies:

Wetlands:

Locations of all observation holes

The location of the proposed system and existing disposal system

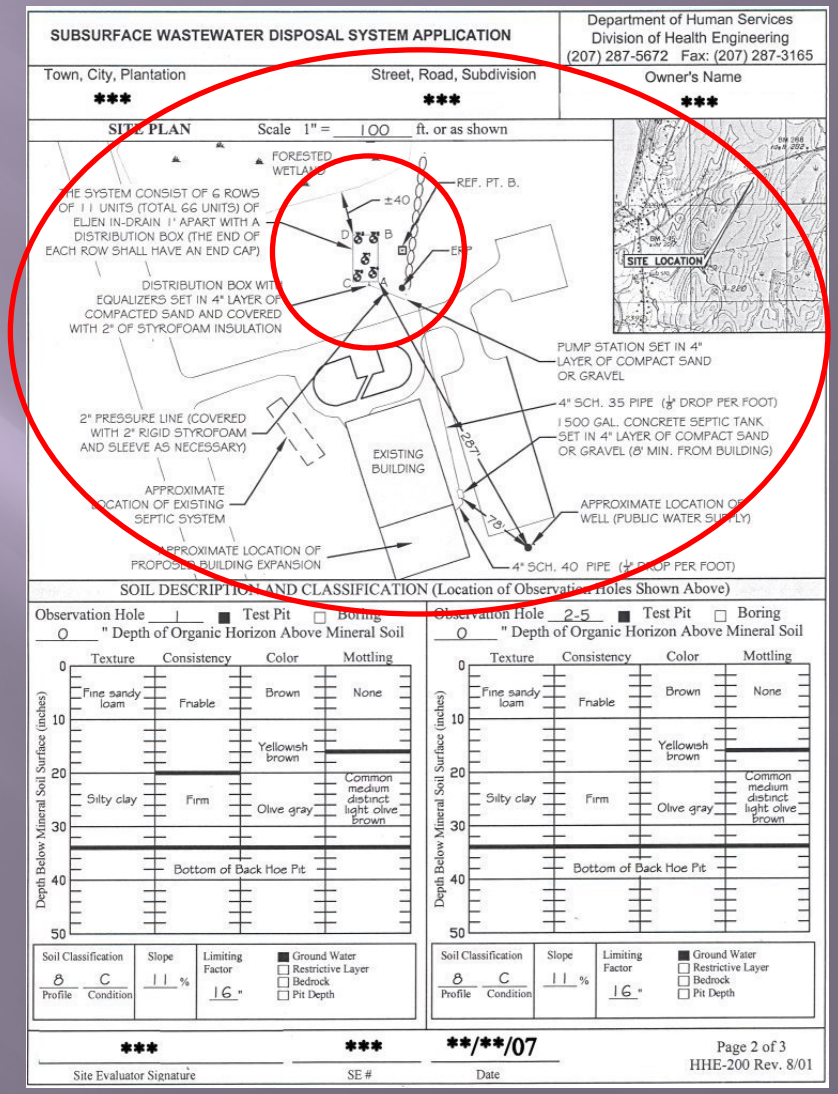
septic tank, pump/dosing tanks and grease interceptors and connecting piping;

Surface water diversions:

Site location map

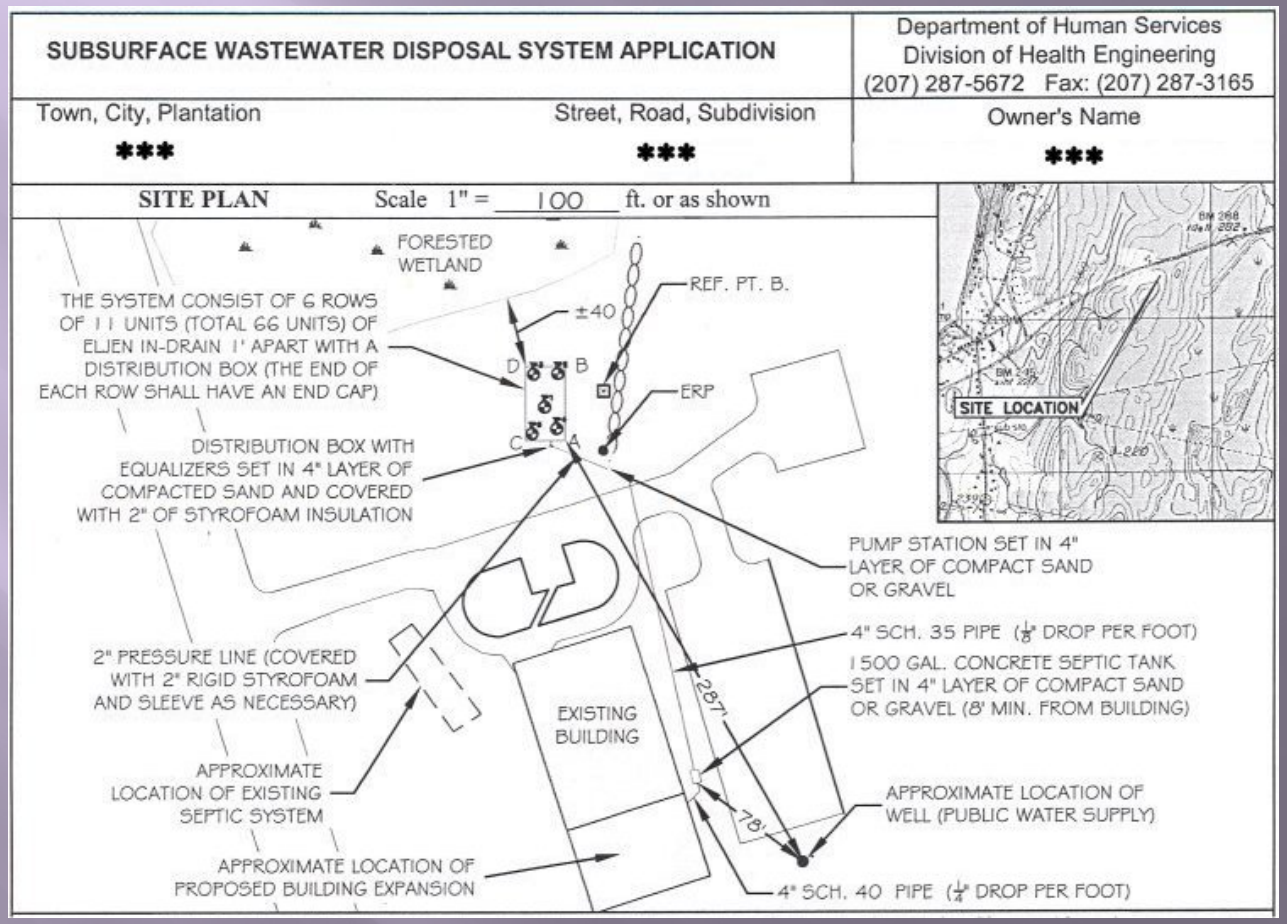
North arrow

at least a 100-foot radius around systems with design flows less than 1,000 gallons per day



HHE-200 Form

Page Two

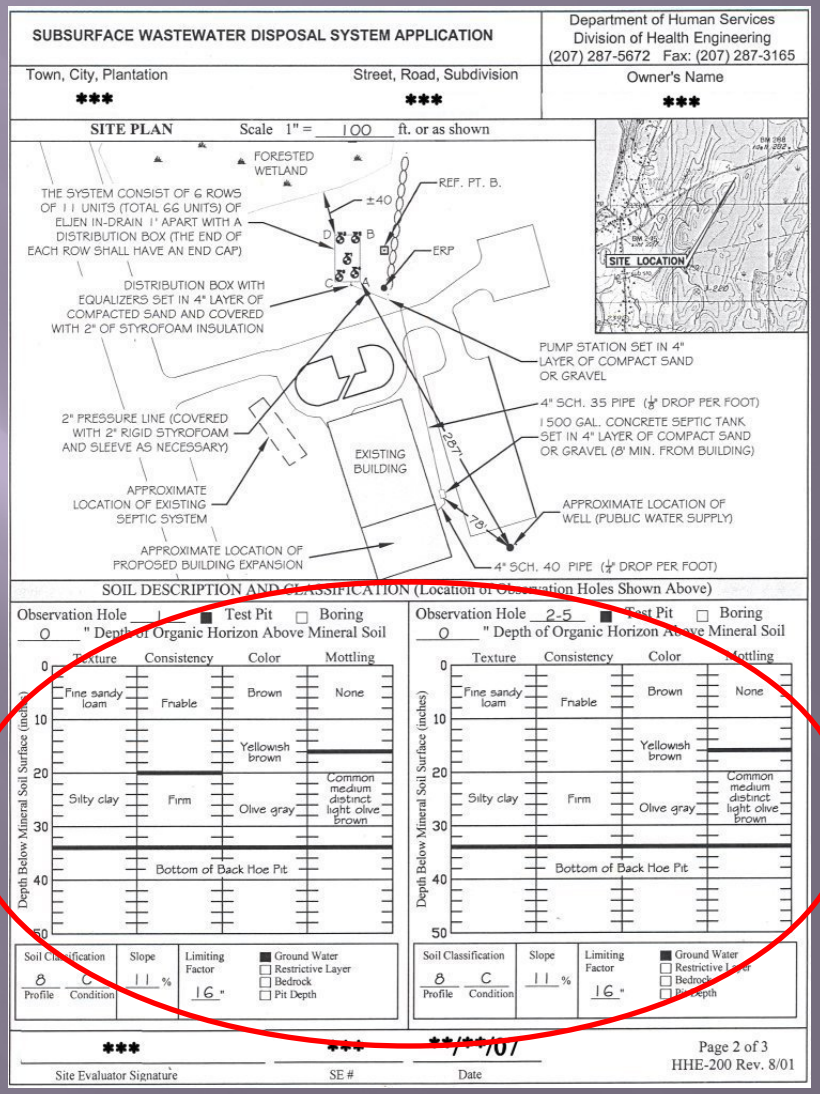


Page two of the HHE-200 form:

Soil Profile Description and Soil Condition Logs,

Soil profile and condition, limiting factor and depth to limiting factor

Ground Slope



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation: ***
Street, Road, Subdivision: ***
Owner's Name: ***

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FORESTED WETLAND
THE SYSTEM CONSIST OF 6 ROWS OF 11 UNITS (TOTAL 66 UNITS) OF ELJEN IN-DRAIN 1' APART WITH A DISTRIBUTION BOX (THE END OF EACH ROW SHALL HAVE AN END CAP)
±40
REF. PT. B.
ERP
DISTRIBUTION BOX WITH EQUALIZERS SET IN 4" LAYER OF COMPACTED SAND AND COVERED WITH 2" OF STYROFOAM INSULATION
SITE LOCATION
PUMP STATION SET IN 4" LAYER OF COMPACT SAND OR GRAVEL
4" SCH. 35 PIPE (1/8" DROP PER FOOT)
1500 GAL. CONCRETE SEPTIC TANK SET IN 4" LAYER OF COMPACT SAND OR GRAVEL (8' MIN. FROM BUILDING)
2" PRESSURE LINE (COVERED WITH 2" RIGID STYROFOAM AND SLEEVE AS NECESSARY)
EXISTING BUILDING
287'
78'
APPROXIMATE LOCATION OF EXISTING SEPTIC SYSTEM
APPROXIMATE LOCATION OF WELL (PUBLIC WATER SUPPLY)
APPROXIMATE LOCATION OF PROPOSED BUILDING EXPANSION
4" SCH. 40 PIPE (1/8" DROP PER FOOT)

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

Observation Hole 1 ■ Test Pit □ Boring
0 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–10	Fine sandy loam	Friable	Brown	None
10–20			Yellowish brown	
20–30	Silty clay	Firm	Olive gray	Common medium distinct light olive brown
30–40	Bottom of Back Hoe Pit			

Soil Classification	Slope	Limiting Factor	
8 Profile / C Condition	11 %	16"	■ Ground Water, □ Restrictive Layer, □ Bedrock, □ Pit Depth

Observation Hole 2-5 ■ Test Pit □ Boring
0 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–10	Fine sandy loam	Friable	Brown	None
10–20			Yellowish brown	
20–30	Silty clay	Firm	Olive gray	Common medium distinct light olive brown
30–40	Bottom of Back Hoe Pit			

Soil Classification	Slope	Limiting Factor	
8 Profile / C Condition	11 %	16"	■ Ground Water, □ Restrictive Layer, □ Bedrock, □ Pit Depth

*** Site Evaluator Signature | *** SE # | **/**/07 Date

Page 2 of 3
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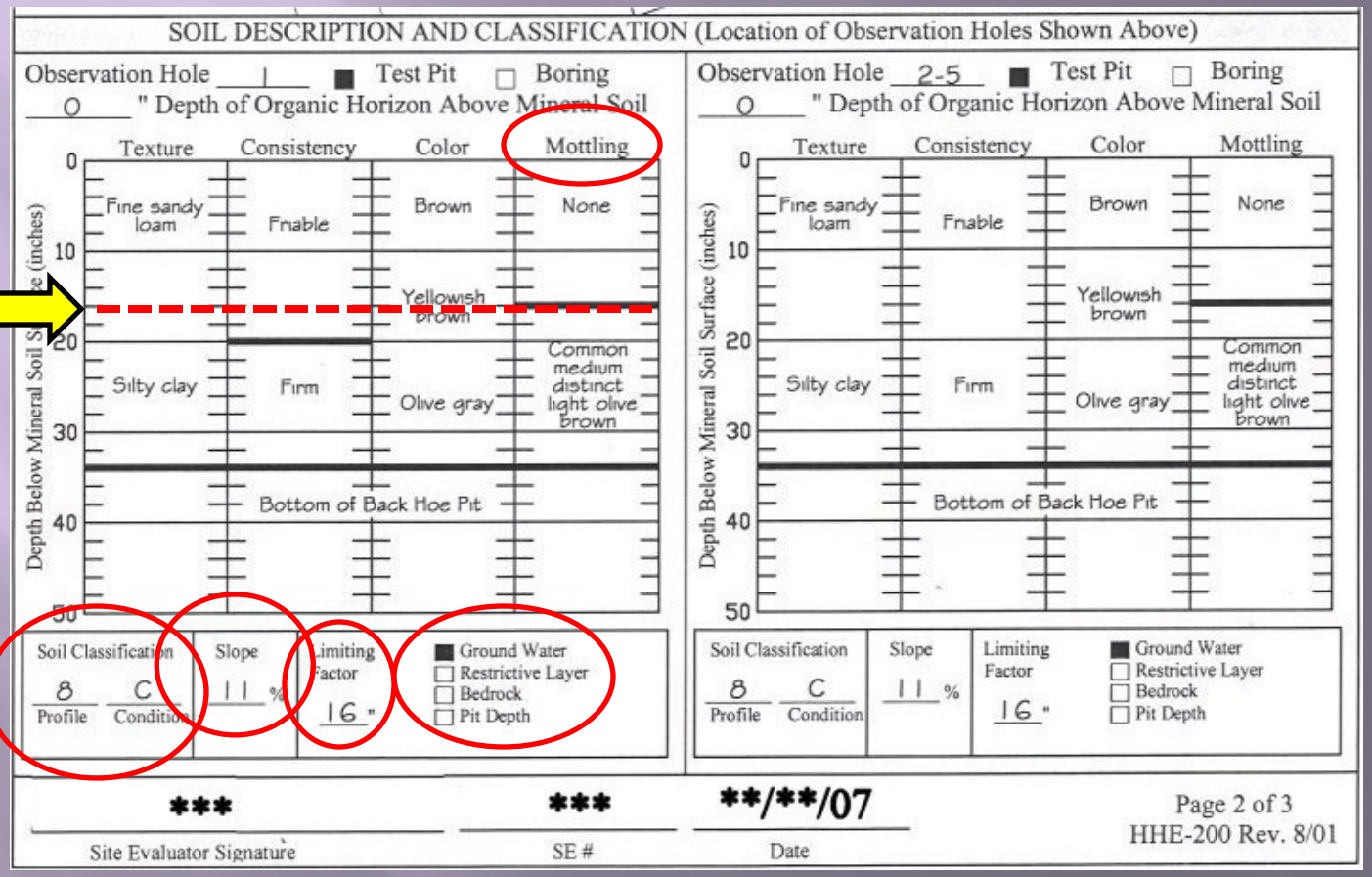
HHE-200 Form

Page Two



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

Observation Hole 1 ■ Test Pit ☐ Boring

0 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–10	Fine sandy loam	Friable	Brown	None
10–20			Yellowish brown	
20–30	Silty clay	Firm	Olive gray	Common medium distinct light olive brown
30–40	Bottom of Back Hoe Pit			
40–50				

Soil Classification	Slope	Limiting Factor	
8 Profile C Condition	11 %	16 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Observation Hole 2-5 ■ Test Pit ☐ Boring

0 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–10	Fine sandy loam	Friable	Brown	None
10–20			Yellowish brown	
20–30	Silty clay	Firm	Olive gray	Common medium distinct light olive brown
30–40	Bottom of Back Hoe Pit			
40–50				

Soil Classification	Slope	Limiting Factor	
8 Profile C Condition	11 %	16 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

*** Site Evaluator Signature

*** SE #

//07 Date

Page 2 of 3

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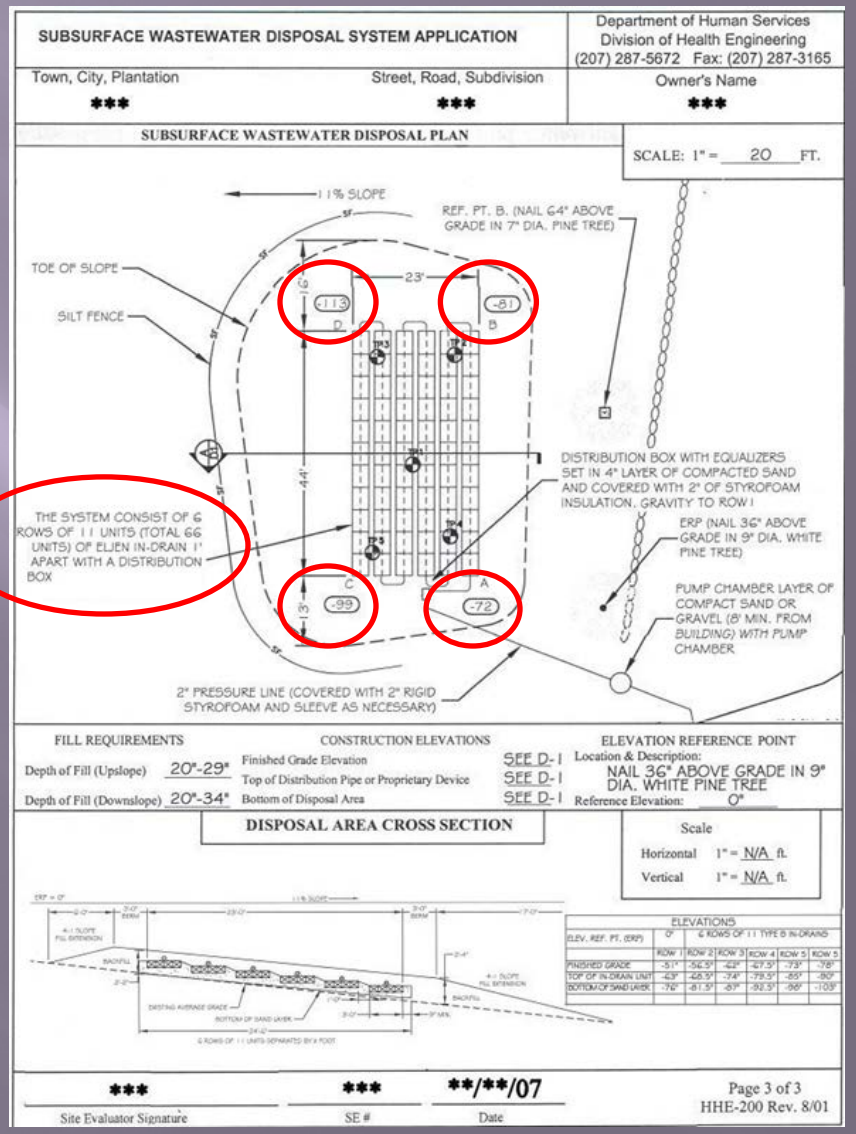
?

Page three of the HHE-200 form:

The location and type of the proposed system

disposal fields, pump/dosing tanks, distribution pipes, connecting piping, fill material extensions with their shoulders and limits, septic tanks, grease interceptors and curtain drains

Elevations
original ground elevation of the four corners of each disposal field



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation: ***
Street, Road, Subdivision: ***
Owner's Name: ***

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = 20 FT.

11% SLOPE
REF. PT. B. (NAIL 64" ABOVE GRADE IN 7" DIA. PINE TREE)
TOE OF SLOPE
SILT FENCE
23'
44'
-113 D
-81 B
-99 C
-72 A
DISTRIBUTION BOX WITH EQUALIZERS SET IN 4" LAYER OF COMPACTED SAND AND COVERED WITH 2" OF STYROFOAM INSULATION. GRAVITY TO ROW 1
THE SYSTEM CONSIST OF 6 ROWS OF 11 UNITS (TOTAL 66 UNITS) OF ELJEN IN-DRAIN 1' APART WITH A DISTRIBUTION BOX
ERP (NAIL 36" ABOVE GRADE IN 9" DIA. WHITE PINE TREE)
PUMP CHAMBER LAYER OF COMPACT SAND OR GRAVEL (8' MIN. FROM BUILDING) WITH PUMP CHAMBER
2" PRESSURE LINE (COVERED WITH 2" RIGID STYROFOAM AND SLEEVE AS NECESSARY)

FILL REQUIREMENTS
Depth of Fill (Upslope) 20"-29"
Depth of Fill (Downslope) 20"-34"

CONSTRUCTION ELEVATIONS
Finished Grade Elevation SEE D-1
Top of Distribution Pipe or Proprietary Device SEE D-1
Bottom of Disposal Area SEE D-1

ELEVATION REFERENCE POINT
Location & Description: NAIL 36" ABOVE GRADE IN 9" DIA. WHITE PINE TREE
Reference Elevation: 0"

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = N/A ft.
Vertical 1" = N/A ft.

ELEVATIONS

ELEV. REF. PT. (ERP)	0"	6 ROWS OF 11 TYPE 6 IN-DRAINS				
		ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
FINISHED GRADE	-51"	-56.5"	-62"	-67.5"	-73"	-78"
TOP OF IN-DRAIN UNIT	-43"	-48.5"	-54"	-59.5"	-65"	-70"
BOTTOM OF SAND LAYER	-74"	-81.5"	-87"	-92.5"	-98"	-103"

*** Site Evaluator Signature
*** SE #
//07 Date

Page 3 of 3
HHE-200 Rev. 8/01

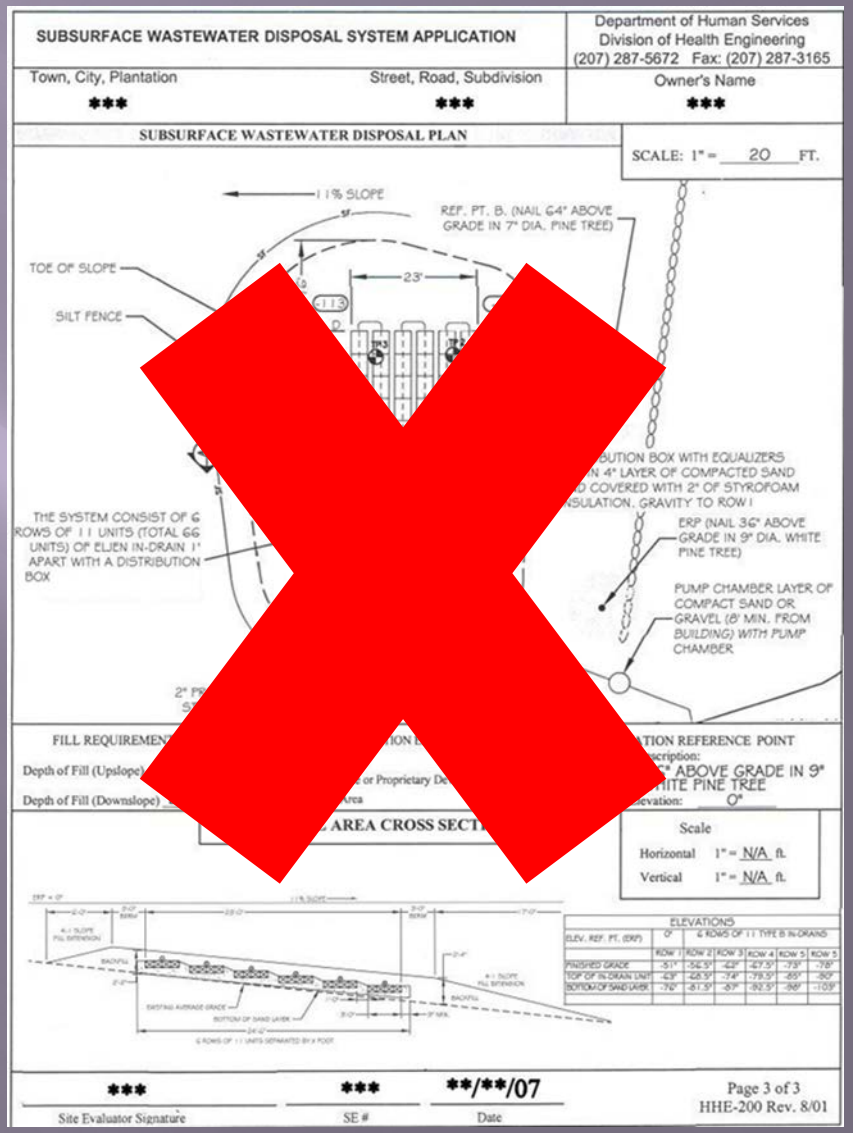
Page three of the HHE-200 form:

System ties

three measurements from two or more known horizontal reference points
OR
two measurements from one horizontal reference point with compass bearings for each horizontal measurement
to a minimum of two proposed disposal field corners

System ties must be located outside the fill extension areas and preferably within 100 feet of the disposal field(s).

Alternatively, system tie details may be shown on page 2


SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation: ***
Street, Road, Subdivision: ***
Owner's Name: ***

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = 20 FT.

11% SLOPE
REF. PT. B. (NAIL 64" ABOVE GRADE IN 7" DIA. PINE TREE)
TOE OF SLOPE
SILT FENCE
23'
THE SYSTEM CONSIST OF 6 ROWS OF 11 UNITS (TOTAL 66 UNITS) OF ELJEN IN-DRAIN 1' APART WITH A DISTRIBUTION BOX
BUTION BOX WITH EQUALIZERS
N 4" LAYER OF COMPACTED SAND
D COVERED WITH 2" OF STYROFOAM
SULATION. GRAVITY TO ROW 1
ERP (NAIL 36" ABOVE GRADE IN 9" DIA. WHITE PINE TREE)
PUMP CHAMBER LAYER OF COMPACT SAND OR GRAVEL (8' MIN. FROM BUILDING) WITH PUMP CHAMBER
FILL REQUIREMEN
Depth of Fill (Upslope)
Depth of Fill (Downslope)
or Proprietary De
rea
AREA CROSS SECT
TION REFERENCE POINT
scription:
" ABOVE GRADE IN 9"
HITE PINE TREE
evation: 0"
Scale
Horizontal 1" = N/A ft.
Vertical 1" = N/A ft.
ELEVATIONS
ELEV. REF. PT. (ERP) 0" & ROWS OF 11 TYPE B IN-DRAINS
ROW 1 ROW 2 ROW 3 ROW 4 ROW 5 ROW 6
FINISHED GRADE -51" -54.5" -58" -67.5" -73" -78"
TOP OF IN-DRAIN UNIT -63" -68.5" -74" -79.5" -85" -90"
BOTTOM OF SAND LAYER -76" -81.5" -87" -92.5" -98" -103"

*** Site Evaluator Signature
*** SE #
//07 Date
Page 3 of 3
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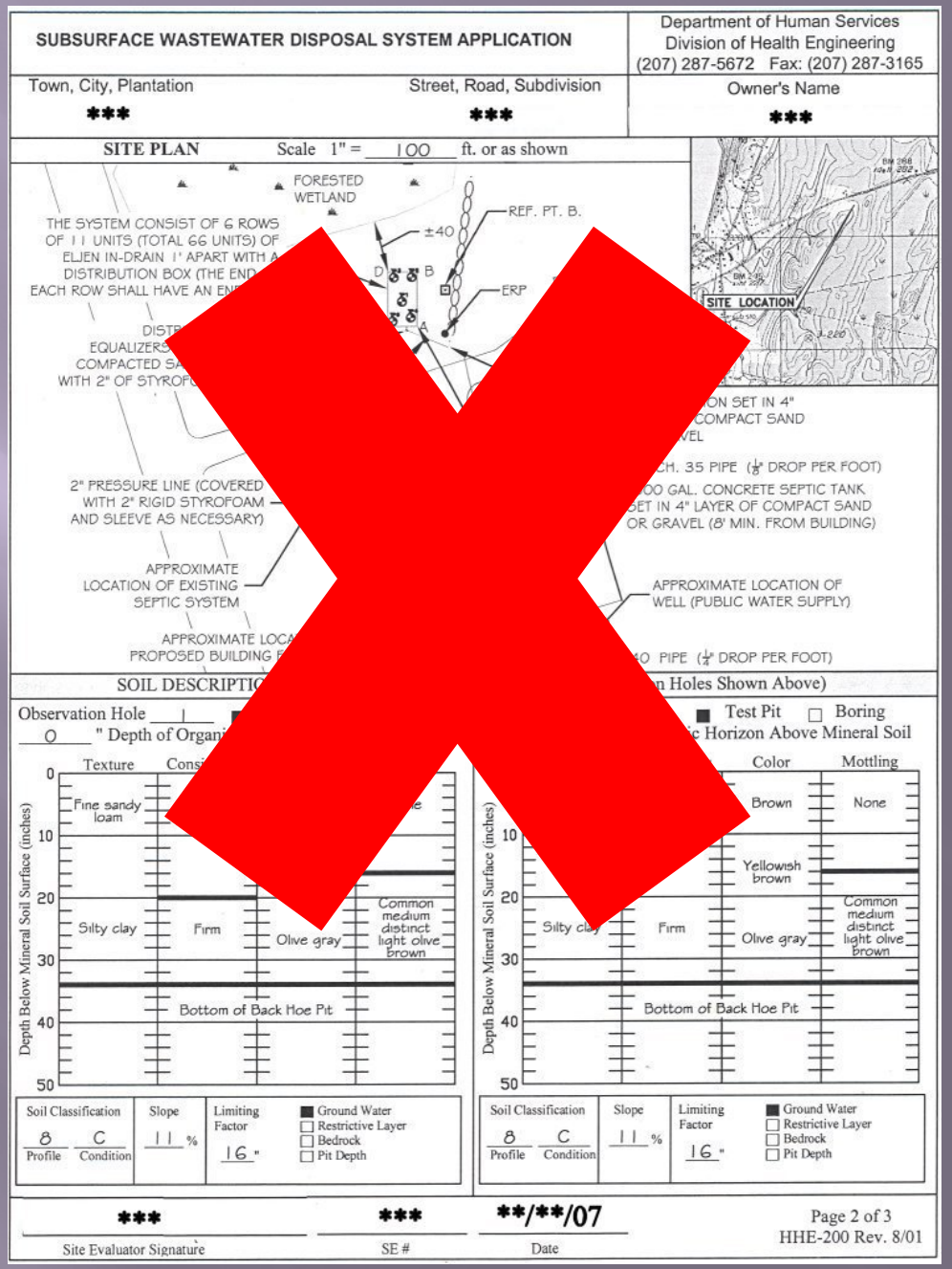
Page two of the HHE-200 form

System ties

Alternatively, system tie details may be shown on page 2



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

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Division of Health Engineering
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FORESTED WETLAND

THE SYSTEM CONSIST OF 6 ROWS OF 11 UNITS (TOTAL 66 UNITS) OF ELJEN IN-DRAIN 1' APART WITH A DISTRIBUTION BOX (THE END EACH ROW SHALL HAVE AN EN

DIST EQUALIZERS COMPACTED SA WITH 2" OF STYROF

2" PRESSURE LINE (COVERED WITH 2" RIGID STYROFOAM AND SLEEVE AS NECESSARY)

APPROXIMATE LOCATION OF EXISTING SEPTIC SYSTEM

APPROXIMATE LOCA PROPOSED BUILDING F

REF. PT. B.

±40

ERP

SITE LOCATION

ON SET IN 4" COMPACT SAND VEL

CH. 35 PIPE (1/8" DROP PER FOOT)

00 GAL. CONCRETE SEPTIC TANK SET IN 4" LAYER OF COMPACT SAND OR GRAVEL (8' MIN. FROM BUILDING)

APPROXIMATE LOCATION OF WELL (PUBLIC WATER SUPPLY)

40 PIPE (1/4" DROP PER FOOT)

SOIL DESCRIPTIO n Holes Shown Above)

Observation Hole 1 ■ Test Pit □ Boring

0 " Depth of Organi ic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Cons	Color	Mottling
0–10	Fine sandy loam		Brown	None
10–20	Silty clay	Firm	Olive gray	Common medium distinct light olive brown
20–30			Yellowish brown	
30–40	Bottom of Back Hoe Pit			
40–50				

Soil Classification	Slope	Limiting Factor	
8 Profile / C Condition	11 %	16"	■ Ground Water □ Restrictive Layer □ Bedrock □ Pit Depth

Soil Classification	Slope	Limiting Factor	
8 Profile / C Condition	11 %	16"	■ Ground Water □ Restrictive Layer □ Bedrock □ Pit Depth

*** Site Evaluator Signature

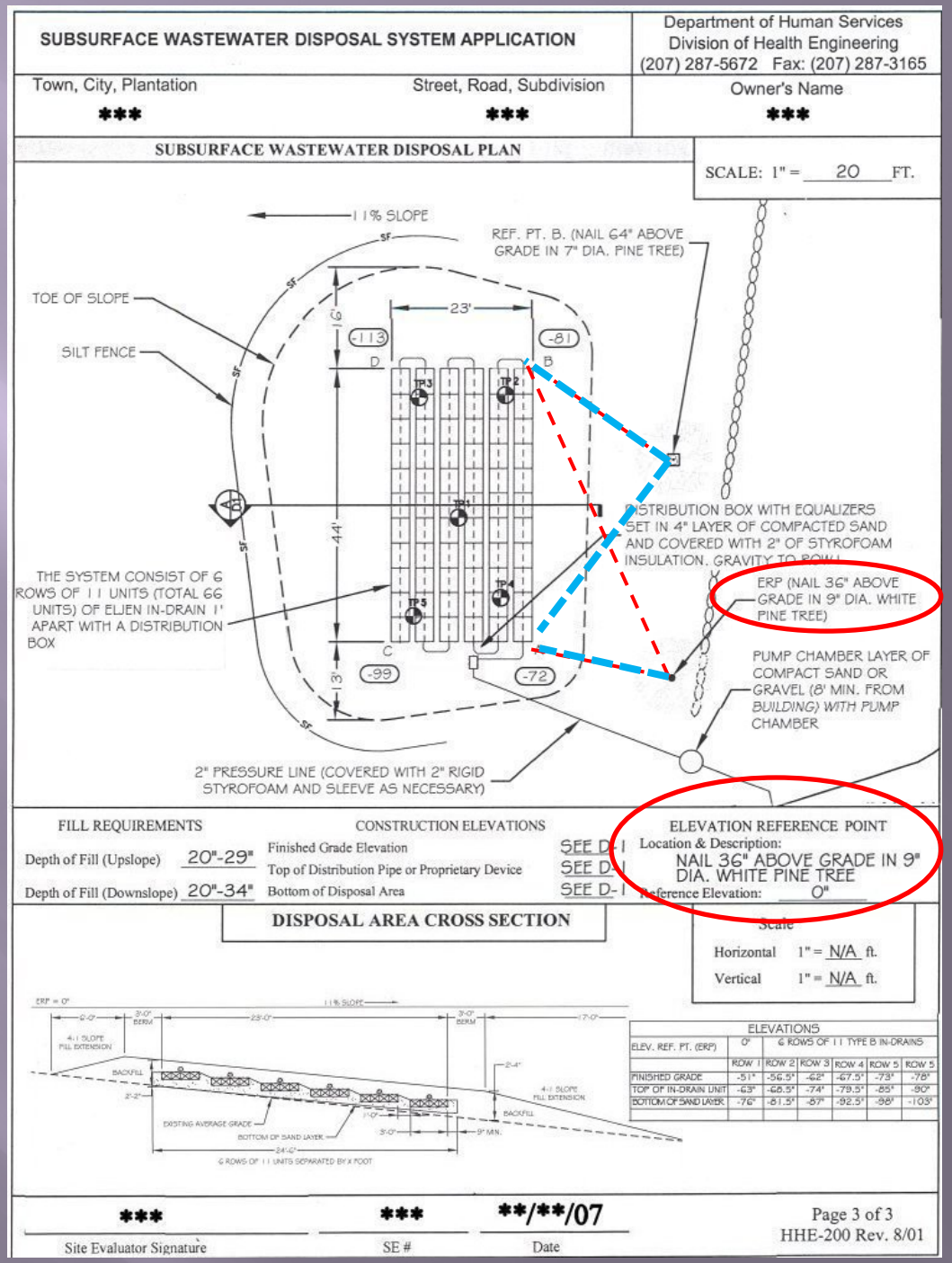
*** SE #

//07 Date

Page 2 of 3
HHE-200 Rev. 8/01

ERP LOCATION

If there were measurements



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation: ***

Street, Road, Subdivision: ***

Owner's Name: ***

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = 20 FT.

FILL REQUIREMENTS

Depth of Fill (Upslope) 20"-29"

Depth of Fill (Downslope) 20"-34"

CONSTRUCTION ELEVATIONS

Finished Grade Elevation SEE D-1

Top of Distribution Pipe or Proprietary Device SEE D-1

Bottom of Disposal Area SEE D-1

ELEVATION REFERENCE POINT

Location & Description: NAIL 36" ABOVE GRADE IN 9" DIA. WHITE PINE TREE

Reference Elevation: 0"

DISPOSAL AREA CROSS SECTION

Scale

Horizontal 1" = N/A ft.

Vertical 1" = N/A ft.

ELEVATIONS

ELEV. REF. PT. (ERP)	0"	6 ROWS OF 11 TYPE B IN-DRAINS				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
FINISHED GRADE	-51"	-56.5"	-62"	-67.5"	-73"	-78"
TOP OF IN-DRAIN UNIT	-63"	-68.5"	-74"	-79.5"	-85"	-90"
BOTTOM OF SAND LAYER	-76"	-81.5"	-87"	-92.5"	-98"	-103"

*** Site Evaluator Signature

*** SE #

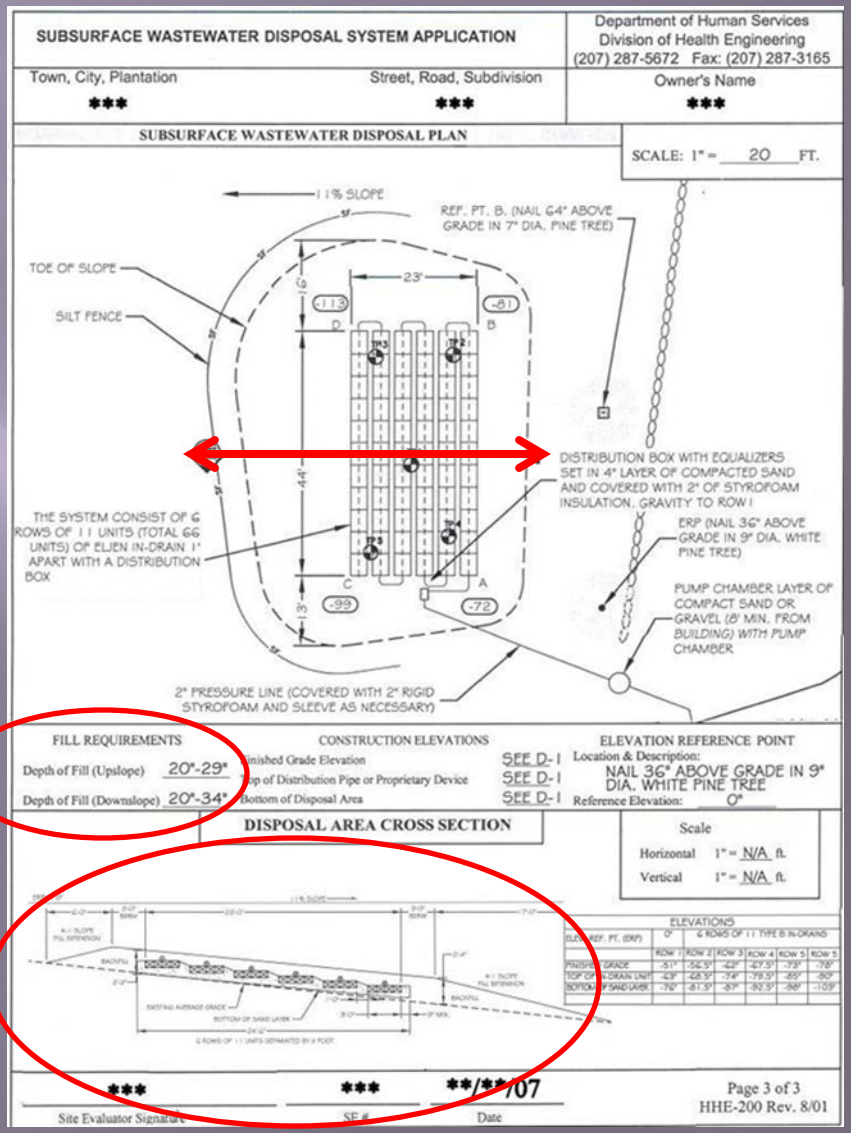
//07 Date

Page 3 of 3
HHE-200 Rev. 8/01

Page three of the HHE-200 form:

Cross-section line
a line running across the proposed disposal field (perpendicular to the long axis of the field) which identifies the location of the cross-section diagram for the disposal field

Backfill Requirements:
Depths of fill material required at each corner of each disposal field.



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Street, Road, Subdivision: ***
Owner's Name: ***

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = 20 FT.

FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT
Depth of Fill (Upslope)	20"-29"	Finished Grade Elevation	SEE D-1	Location & Description: NAIL 36" ABOVE GRADE IN 9" DIA. WHITE PINE TREE
Depth of Fill (Downslope)	20"-34"	Top of Distribution Pipe or Proprietary Device	SEE D-1	Reference Elevation: 0"
		Bottom of Disposal Area	SEE D-1	

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = N/A ft.
Vertical 1" = N/A ft.

ELEVATIONS

ELEV. REF. PT. (ERP)	0"	6 ROWS OF 11 TYPE B IN-DRAINS				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
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TOP OF A-DRAIN UNIT	-63"	-66.5"	-74"	-79.5"	-85"	-90"
BOTTOM OF SAND LAYER	-76"	-81.5"	-87"	-92.5"	-98"	-103"

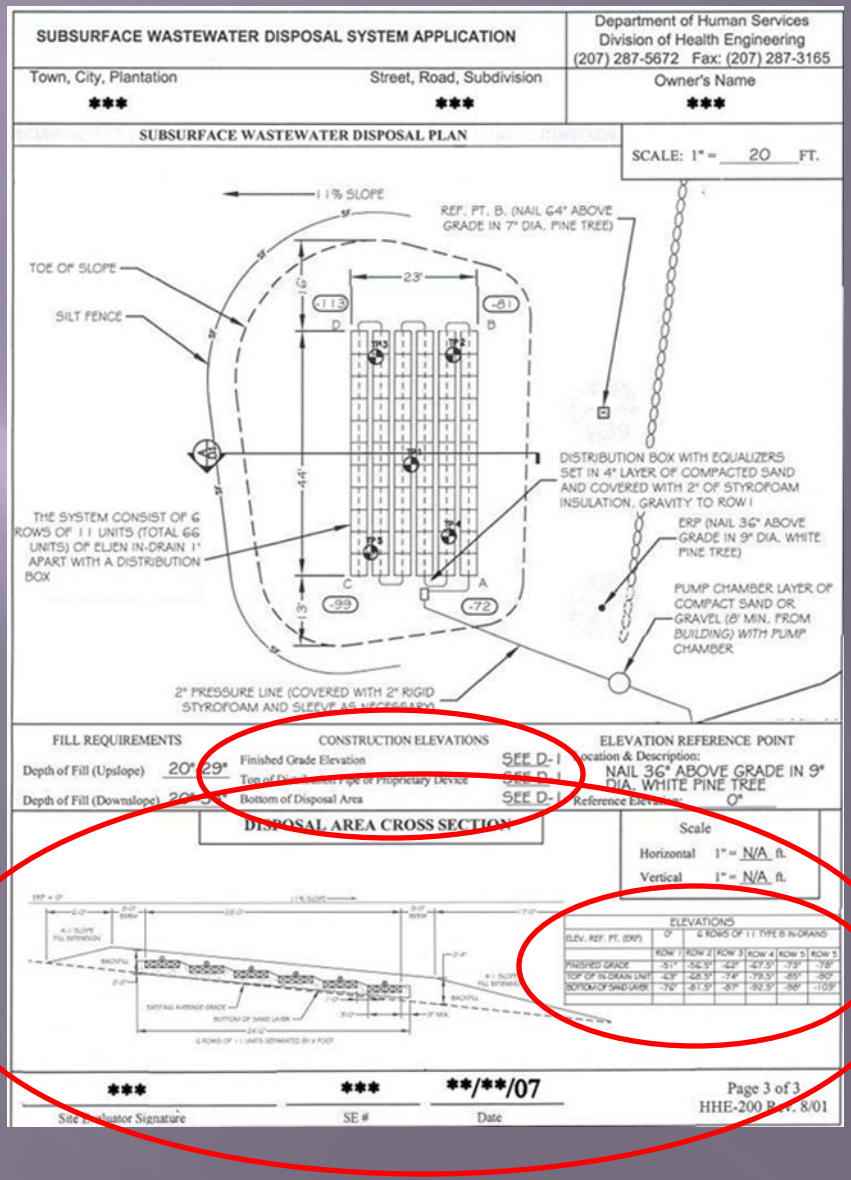
*** Site Evaluator Signature
*** SE #
//07 Date

Page 3 of 3
HHE-200 Rev. 8/01

Page three of the HHE-200 form:

Construction Elevations:
The elevation of the bottom of each disposal field, the top of the distribution pipes or proprietary disposal devices within each disposal field and finish grade elevation.

Disposal Field Cross-Section:
Cross-section diagrams must be drawn for each proposed disposal field at a scale that clearly depicts the following features



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation: ***
Street, Road, Subdivision: ***
Owner's Name: ***

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = 20 FT.

FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT
Depth of Fill (Upslope)	20"/29"	Finished Grade Elevation	SEE D-1	Location & Description: NAIL 36" ABOVE GRADE IN 9" DIA. WHITE PINE TREE
Depth of Fill (Downslope)	20"/29"	Top of Distribution Pipe or Proprietary Device	SEE D-1	
		Bottom of Disposal Area	SEE D-1	Reference Elevation: 0"

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = N/A ft.
Vertical 1" = N/A ft.

ELEVATIONS

ELEV. REF. PT. (ERP)	0"	6 ROWS OF 11 TYPE B IN-DRAINS				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
FINISHED GRADE	-51"	-54.5"	-43"	-47.5"	-73"	-78"
TOP OF IN-DRAIN UNIT	-63"	-66.5"	-74"	-79.5"	-85"	-90"
BOTTOM OF SAND LAYER	-76"	-81.5"	-87"	-92.5"	-98"	-103"

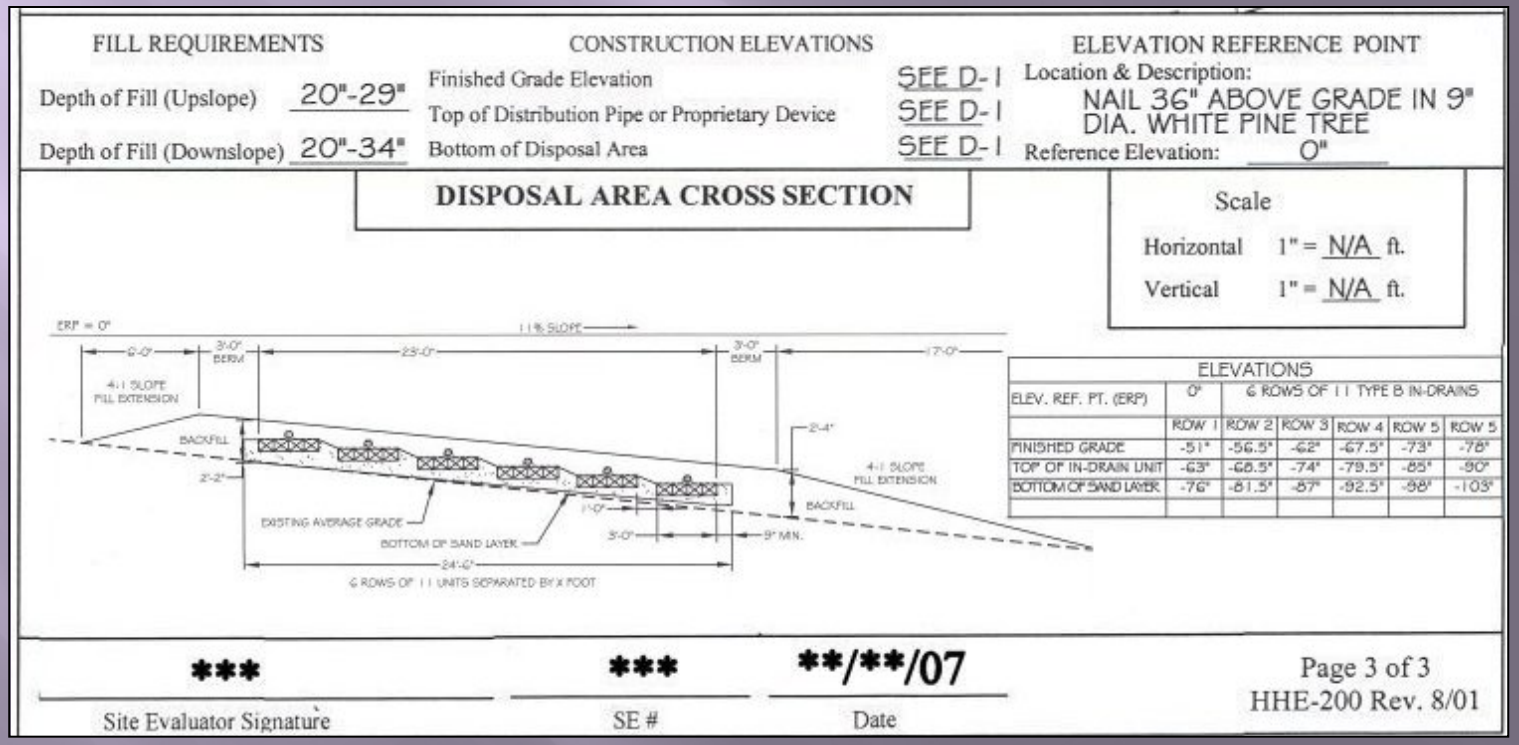
*** Site Evaluator Signature | *** SE # | **/**/07 Date

Page 3 of 3
HHE-200 Rev. 8/01

Page three of the HHE-200 form:

Original ground surface with notes for site preparation including scarification and transitional horizon;

Height and width of disposal field stone or proprietary devices with dimensions;
Pipes and on-center spacing with dimensions;
Depths of fill material required;
Fill crown slope and shoulders with dimensions;
Limits of all fill extensions with dimensions:



FILL REQUIREMENTS

Depth of Fill (Upslope) 20"-29"

Depth of Fill (Downslope) 20"-34"

CONSTRUCTION ELEVATIONS

Finished Grade Elevation SEE D-1

Top of Distribution Pipe or Proprietary Device SEE D-1

Bottom of Disposal Area SEE D-1

ELEVATION REFERENCE POINT

Location & Description: NAIL 36" ABOVE GRADE IN 9" DIA. WHITE PINE TREE

Reference Elevation: 0"

DISPOSAL AREA CROSS SECTION

Scale

Horizontal 1" = N/A ft.

Vertical 1" = N/A ft.

ELEVATIONS

ELEV. REF. PT. (ERP)	0"	6 ROWS OF 11 TYPE B IN-DRAINS				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
FINISHED GRADE	-51"	-56.5"	-62"	-67.5"	-73"	-78"
TOP OF IN-DRAIN UNIT	-63"	-68.5"	-74"	-79.5"	-85"	-90"
BOTTOM OF SAND LAYER	-76"	-81.5"	-87"	-92.5"	-98"	-103"

*** Site Evaluator Signature

*** SE #

//07 Date

Page 3 of 3
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Elevation Reference Point

SET AT ELEVATION ZERO

located outside the fill extension areas (preferably within 100 feet of the field).

easily located, reasonably-expected-to-be-permanent feature (for example, a fire hydrant, a surveying monument, a structure, etc.)

If that feature is not available, the Site Evaluator shall set a temporary ERP, (for example, using a grade stake), and clearly indicate same in the design.

The distance in inches of the ERP above ground level at the ERP location must also be indicated.

Elevations must be given in inches above or below the ERP (Elevation Reference Point) except for large systems, those greater than 1,000 GPD, which may use a reference point set to the datum for the entire project and may use elevations in feet and decimal.

Page three of the HHE-200 form

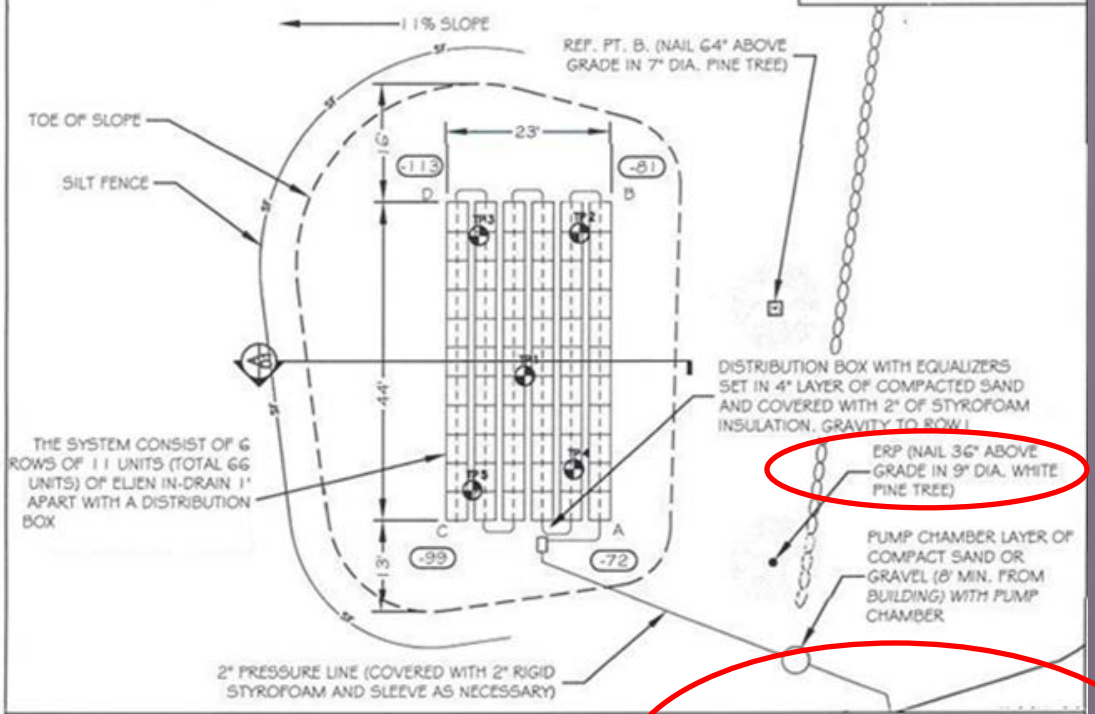
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
***	***	***

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = 20 FT.

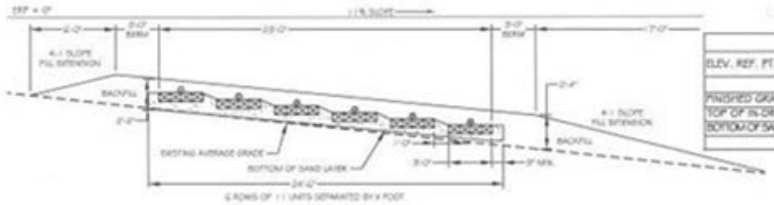


FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS	
Depth of Fill (Upslope)	20"-29"	Finished Grade Elevation	SEE D-1
Depth of Fill (Downslope)	20"-34"	Top of Distribution Pipe or Proprietary Device	SEE D-1
		Bottom of Disposal Area	SEE D-1

ELEVATION REFERENCE POINT
Location & Description: NAIL 36" ABOVE GRADE IN 9" DIA. WHITE PINE TREE
Reference Elevation: 0"

DISPOSAL AREA CROSS SECTION

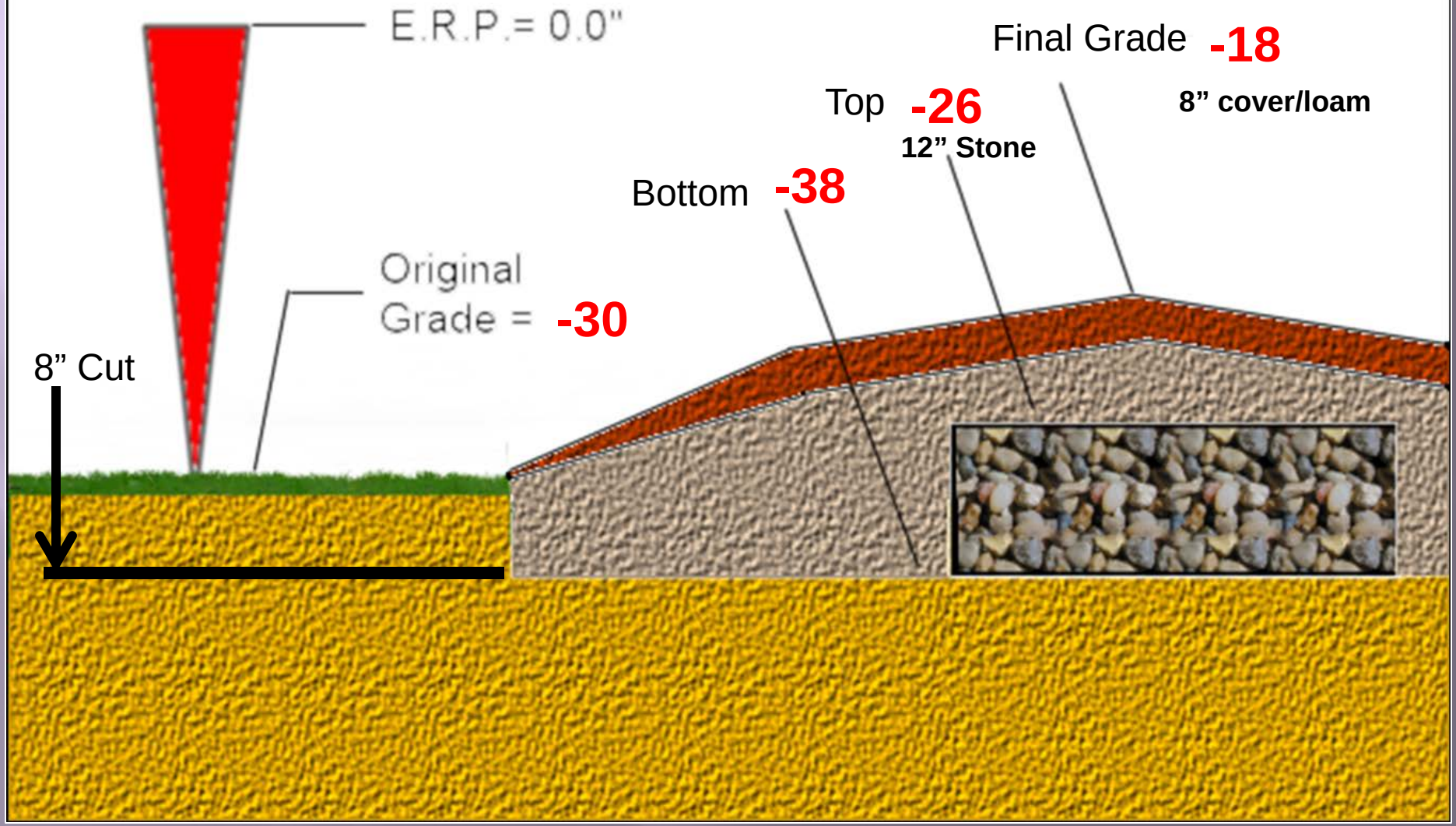
Scale
Horizontal 1" = N/A ft.
Vertical 1" = N/A ft.



ELEVATIONS						
ELEV. REF. PT. (ERP)	0"	6 ROWS OF 11 TYPE B IN-DRAINS				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
FINISHED GRADE	-51"	-56.5"	-62"	-67.5"	-73"	-78"
TOP OF IN-DRAIN UNIT	-63"	-68.5"	-74"	-79.5"	-85"	-90"
BOTTOM OF SAND LAYER	-70"	-81.5"	-87"	-92.5"	-98"	-103"

***	***	**/**/07

ERP = 30” above grade
What's the original grade?



PAGE ONE
DUG WELL

WHY DOESN'T IT SHOW ON PAGE 2 OR 3?

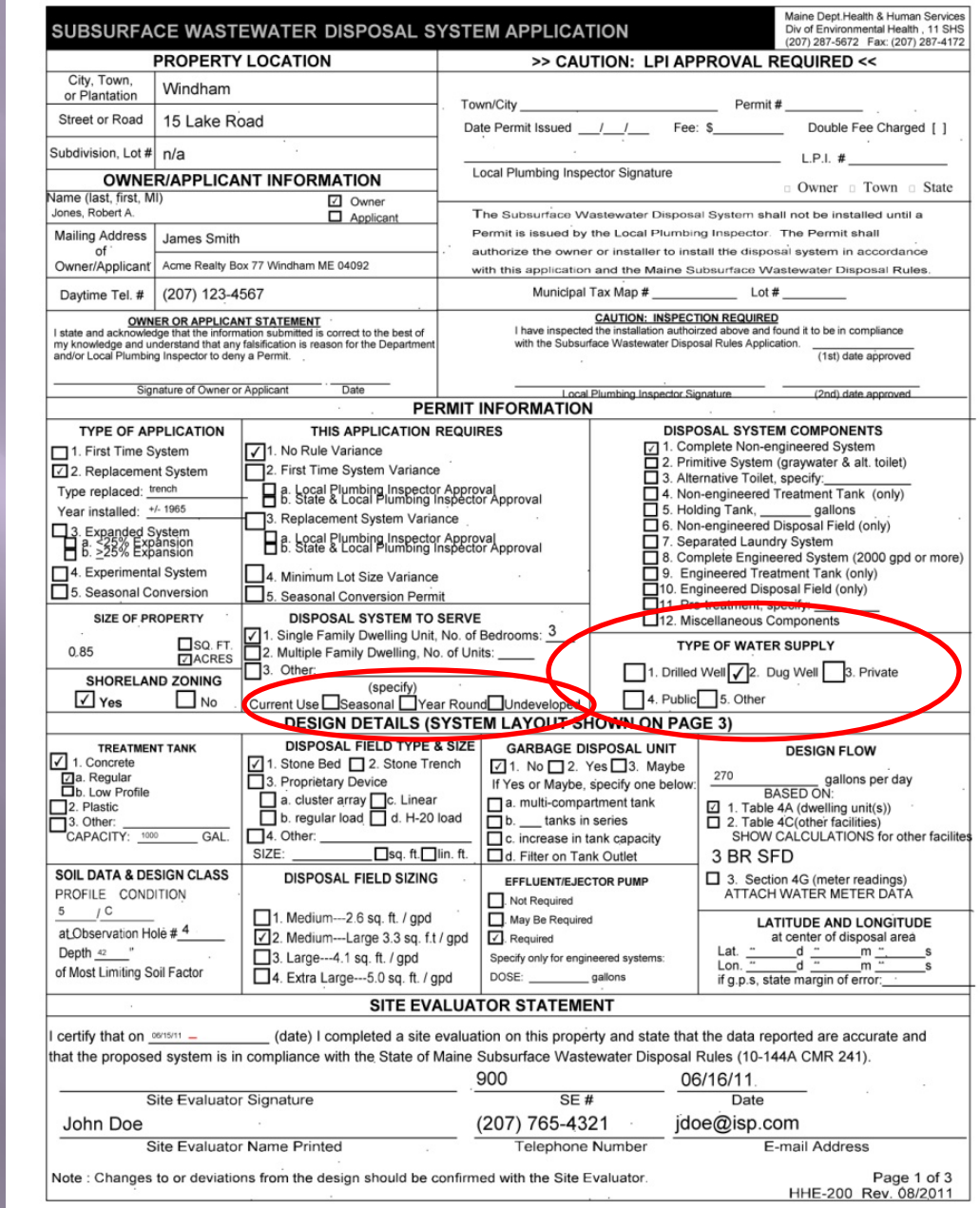
COULD BE BEYOND 100 FEET

BURIED WELL HEAD

WELL POINT

COULD BE SEASONAL WATER FROM THE LAKE

?



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	Windham
Street or Road	15 Lake Road
Subdivision, Lot #	n/a

OWNER/APPLICANT INFORMATION

Name (last, first, MI): Jones, Robert A. — ☑ Owner ☐ Applicant

Mailing Address of Owner/Applicant	James Smith
	Acme Realty Box 77 Windham ME 04092
Daytime Tel. #	(207) 123-4567

OWNER OR APPLICANT STATEMENT
I state and acknowledge 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.

Signature of Owner or Applicant ____ Date ____

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City ____ Permit # ____
Date Permit Issued ___/___/___ Fee: $____ Double Fee Charged [ ]
Local Plumbing Inspector Signature ____ L.P.I. # ____
☐ Owner ☐ Town ☐ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # ____ Lot # ____

CAUTION: INSPECTION REQUIRED
I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. ____ (1st) date approved
Local Plumbing Inspector Signature ____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION
☐ 1. First Time System
☑ 2. Replacement System
Type replaced: trench
Year installed: +/- 1965
☐ 3. Expanded System
☐ a. <25% Expansion
☐ b. >25% Expansion
☐ 4. Experimental System
☐ 5. Seasonal Conversion

THIS APPLICATION REQUIRES
☑ 1. No Rule Variance
☐ 2. First Time System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 3. Replacement System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 4. Minimum Lot Size Variance
☐ 5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS
☑ 1. Complete Non-engineered System
☐ 2. Primitive System (graywater & alt. toilet)
☐ 3. Alternative Toilet, specify: ____
☐ 4. Non-engineered Treatment Tank (only)
☐ 5. Holding Tank, _____ gallons
☐ 6. Non-engineered Disposal Field (only)
☐ 7. Separated Laundry System
☐ 8. Complete Engineered System (2000 gpd or more)
☐ 9. Engineered Treatment Tank (only)
☐ 10. Engineered Disposal Field (only)
☐ 11. Pre-treatment, specify: ____
☐ 12. Miscellaneous Components

SIZE OF PROPERTY
0.85 ☐ SQ. FT. ☑ ACRES

SHORELAND ZONING
☑ Yes ☐ No

DISPOSAL SYSTEM TO SERVE
☑ 1. Single Family Dwelling Unit, No. of Bedrooms: 3
☐ 2. Multiple Family Dwelling, No. of Units: ____
☐ 3. Other: ____
(specify)
Current Use ☐ Seasonal ☐ Year Round ☐ Undeveloped

TYPE OF WATER SUPPLY
☐ 1. Drilled Well ☑ 2. Dug Well ☐ 3. Private
☐ 4. Public ☐ 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK
☑ 1. Concrete
☑ a. Regular
☐ b. Low Profile
☐ 2. Plastic
☐ 3. Other: ____
CAPACITY: 1000 GAL.

DISPOSAL FIELD TYPE & SIZE
☑ 1. Stone Bed ☐ 2. Stone Trench
☐ 3. Proprietary Device
☐ a. cluster array ☐ c. Linear
☐ b. regular load ☐ d. H-20 load
☐ 4. Other: ____
SIZE: ____ ☐ sq. ft. ☐ lin. ft.

GARBAGE DISPOSAL UNIT
☑ 1. No ☐ 2. Yes ☐ 3. Maybe
If Yes or Maybe, specify one below:
☐ a. multi-compartment tank
☐ b. ___ tanks in series
☐ c. increase in tank capacity
☐ d. Filter on Tank Outlet

DESIGN FLOW
270 gallons per day
BASED ON:
☑ 1. Table 4A (dwelling unit(s))
☐ 2. Table 4C(other facilities)
SHOW CALCULATIONS for other facilites
3 BR SFD
☐ 3. Section 4G (meter readings)
ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS
PROFILE CONDITION
5 / C
at Observation Hole # 4
Depth 42 "
of Most Limiting Soil Factor

DISPOSAL FIELD SIZING
☐ 1. Medium---2.6 sq. ft. / gpd
☑ 2. Medium---Large 3.3 sq. f.t / gpd
☐ 3. Large---4.1 sq. ft. / gpd
☐ 4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP
☐ Not Required
☐ May Be Required
☑ Required
Specify only for engineered systems:
DOSE: ____ gallons

LATITUDE AND LONGITUDE
at center of disposal area
Lat. ° ' " d ° ' " m ° ' " s
Lon. ° ' " d ° ' " m ° ' " s
if g.p.s, state margin of error: ____

SITE EVALUATOR STATEMENT

I certify that on 06/15/11 (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).

Site Evaluator Signature	SE #	Date
	900	06/16/11
John Doe	(207) 765-4321	jdoe@isp.com
Site Evaluator Name Printed	Telephone Number	E-mail Address

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

Page 1 of 3
HHE-200 Rev. 08/2011

Title 30-A
§4201. Definitions
4. Seasonal dwelling.

"Seasonal dwelling" means a dwelling which existed on December 31, 1981, and which was not used as a principal or year-round residence during the period from 1977 to 1981. Evidence of use as a principal or year-round residence includes, but is not limited to:

A. The listing of that dwelling as an occupant's legal residence for the purpose of:

(1) Voting;
(2) Filing a state tax return; or
(3) Automobile registration

B. The occupancy of that dwelling for a period exceeding 7 months in any calendar year.

SITE EVALUATION: EVALUATION OF THE SITE

LOOK AROUND, ..ANYTHING THERE NOT ON THE PLAN ?

OWNERS WELLS

ABUTTERS WELLS

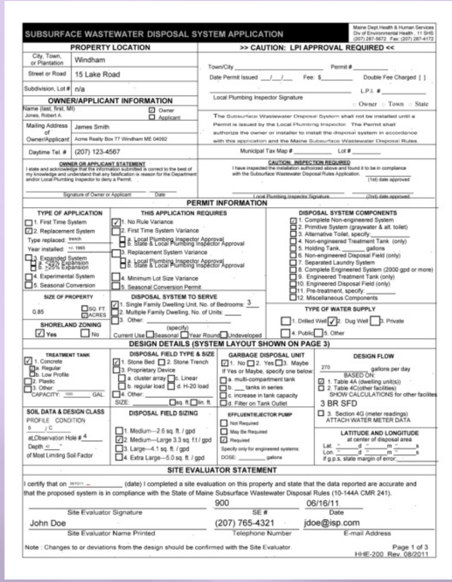
WATER BODIES

IF THERE IS....STOP!!!

NOTIFY LPI

And Site Evaluator

No location ties, year round-seasonal water source location, no applicant signature


SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

PROPERTY LOCATION

>> CAUTION: LPI APPROVAL REQUIRED <<

City, Town, or Plantation: Windham

Street or Road: 15 Lake Road

Subdivision, Lot #: n/a

OWNER/APPLICANT INFORMATION

Mailing Address of Owner/Applicant: James Smith

Daytime Tel. #: (207) 123-4567

PERMIT INFORMATION

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

3 BR SFD

SITE EVALUATOR STATEMENT

I certify that on ______ (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).

John Doe — 900 — 06/16/11

(207) 765-4321 — jdoe@isp.com

Page 1 of 3

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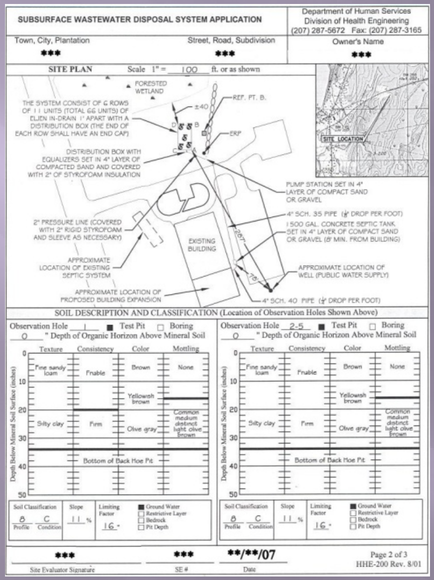

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation: ***
Street, Road, Subdivision: ***
Owner's Name: ***

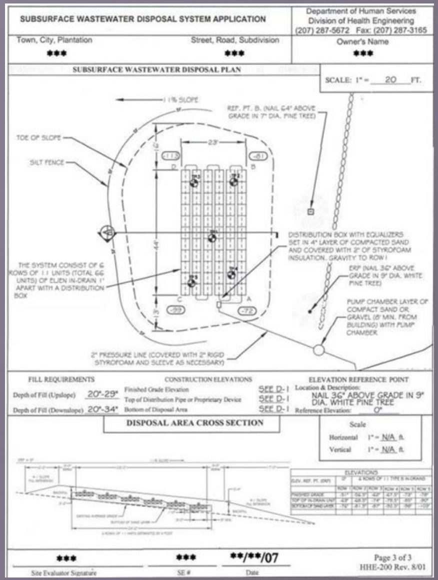
SITE PLAN Scale 1" = 100 ft. or as shown

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

Site Evaluator Signature: *** SE #: *** Date: **/**/07

Page 2 of 3

HHE-200 Rev. 8/01


SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation: ***
Street, Road, Subdivision: ***
Owner's Name: ***

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = 20 FT.

FILL REQUIREMENTS

CONSTRUCTION ELEVATIONS

ELEVATION REFERENCE POINT

DISPOSAL AREA CROSS SECTION

Site Evaluator Signature: *** SE #: *** Date: **/**/07

Page 3 of 3

HHE-200 Rev. 8/01

SHOULD IT BE PERMITTED?

NO

If it was permitted, should it be installed?

How could it without a system location?

How could the LPI inspect it?

3 ITEMS FOR SEPERATION OF THE DISPOSAL FIELD THAT DESIGNATE HOW HIGH THE SYSTEM IS

Seasonal High Water Table
(Mottling)

RESTRICTIVE LAYER

BEDROCK

MOTTLING
(SEASONAL HIGH WATER TABLE)

A color pattern observed in soil consisting of blotches or spots of contrasting color. The term “mottle” refers to an individual blotch or spot.

Mottled soil indicates saturated conditions. Systems need to be installed far enough above such layers to provide proper separation from groundwater.

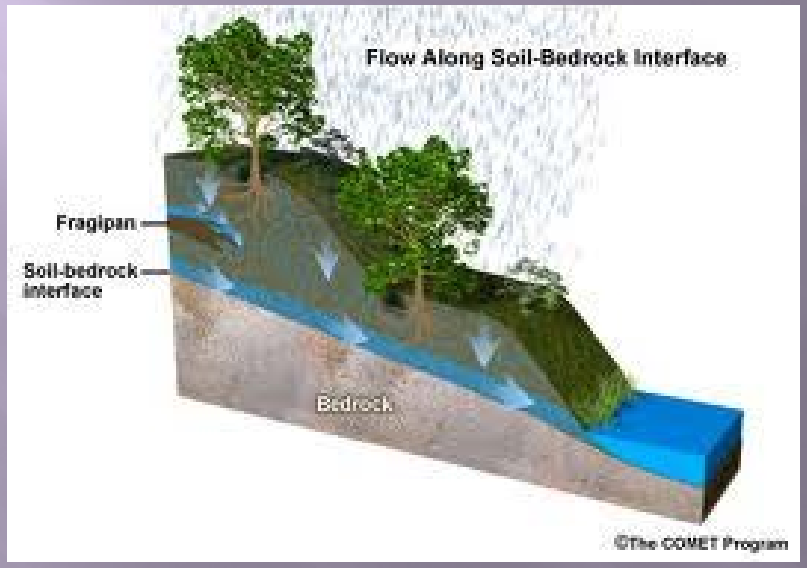
12”-18”, sometimes not allowed

Depending on soil type

A *restrictive layer* is a nearly continuous layer that significantly impedes the movement of water and air through the soil

Systems need to be installed far enough above such layers to provide proper separation from the restrictive layer.
12”-18”, sometimes not allowed
Depending on soil type

Bedrock



Systems need to be installed far enough above such layers to provide proper separation from the bedrock layer.

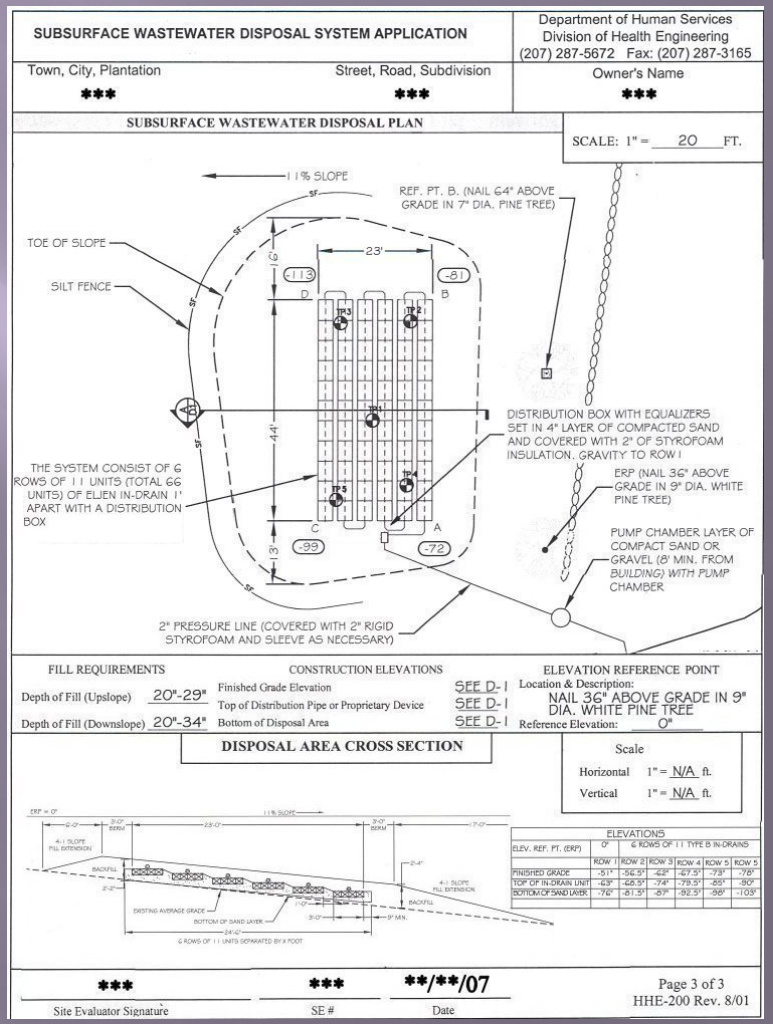
24”, sometimes not allowed

Depending on soil type

HHE-200 Form

Page Three

Page three of this example contains all the necessary construction data for installation of the disposal area.



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation: ***
Street, Road, Subdivision: ***
Owner's Name: ***

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = 20 FT.

FILL REQUIREMENTS

Depth of Fill (Upslope): 20"-29"
Depth of Fill (Downslope): 20"-34"

CONSTRUCTION ELEVATIONS

Finished Grade Elevation: SEE D-1
Top of Distribution Pipe or Proprietary Device: SEE D-1
Bottom of Disposal Area: SEE D-1

ELEVATION REFERENCE POINT

Location & Description: NAIL 36" ABOVE GRADE IN 9" DIA. WHITE PINE TREE
Reference Elevation: 0"

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = N/A ft.
Vertical 1" = N/A ft.

ELEVATIONS

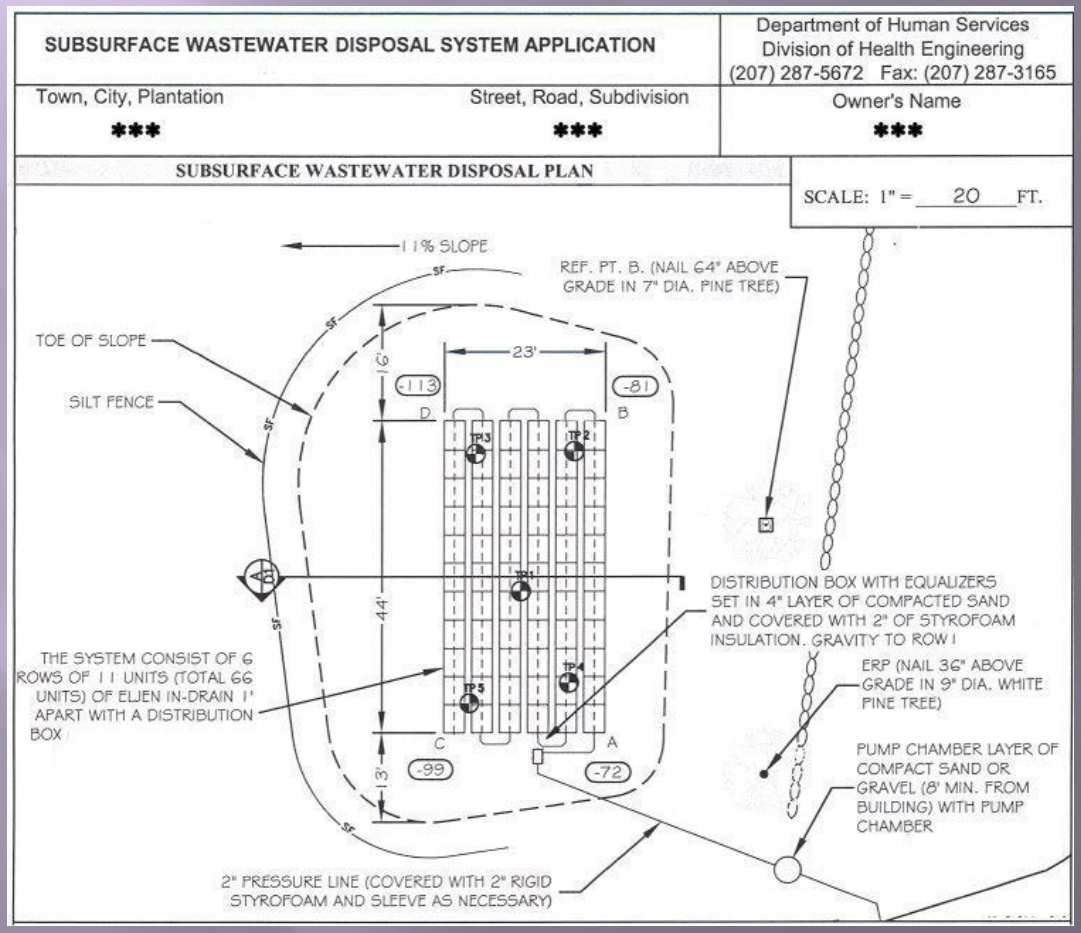
ELEV. REF. PT. (ERP)	0"	6 ROWS OF 11 TYPE B IN-DRAINS				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 5
FINISHED GRADE	-51"	-56.5"	-62"	-67.5"	-73"	-78"
TOP OF IN-DRAIN UNIT	-63"	-68.5"	-74"	-79.5"	-85"	-90"
BOTTOM OF SAND LAYER	-76"	-81.5"	-87"	-92.5"	-98"	-103"

*** Site Evaluator Signature
*** SE #
//07 Date

Page 3 of 3
HHE-200 Rev. 8/01

HHE-200 Form

Page Three



HHE-200 Form

Page Three

FILL REQUIREMENTS

Depth of Fill (Upslope) 20"-29"

Depth of Fill (Downslope) 20"-34"

CONSTRUCTION ELEVATIONS

Finished Grade Elevation SEE D-1

Top of Distribution Pipe or Proprietary Device SEE D-1

Bottom of Disposal Area SEE D-1

ELEVATION REFERENCE POINT

Location & Description: NAIL 36" ABOVE GRADE IN 9" DIA. WHITE PINE TREE

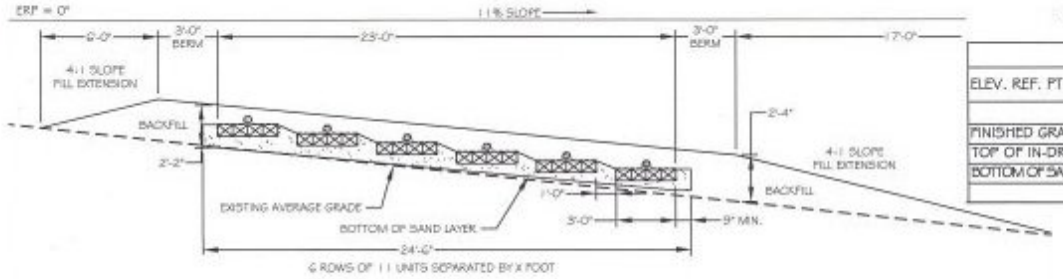
Reference Elevation: 0"

DISPOSAL AREA CROSS SECTION

Scale

Horizontal 1" = N/A ft.

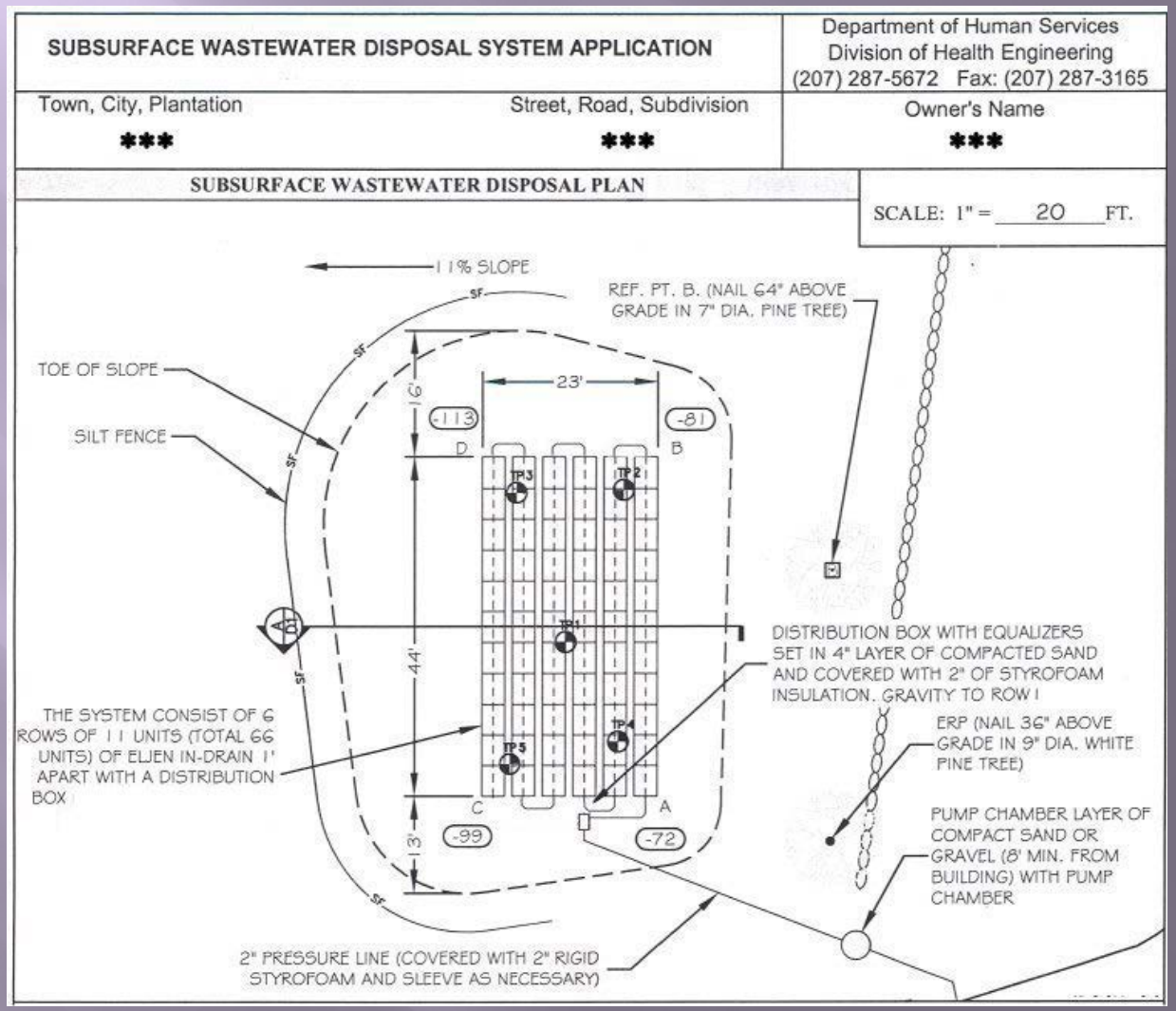
Vertical 1" = N/A ft.



ELEVATIONS						
ELEV. REF. PT. (ERP)	0"	6 ROWS OF 11 TYPE B IN-DRAINS				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 5
FINISHED GRADE	-51"	-56.5"	-62"	-67.5"	-73"	-78"
TOP OF IN-DRAIN UNIT	-63"	-68.5"	-74"	-79.5"	-85"	-90"
BOTTOM OF SAND LAYER	-76"	-81.5"	-87"	-92.5"	-98"	-103"

***	***	**/**/07	Page 3 of 3
Site Evaluator Signature	SE #	Date	HHE-200 Rev. 8/01

HOW DID THE SITE EVALUATOR GET THIS LAYOUT



Page One

PERMIT INFORMATION

TYPE OF APPLICATION

- ■ 1. First Time System
- □ 2. Replacement System
  - Type replaced: _____
  - Year installed: _____
- □ 3. Expanded System
  - □ a. Minor Expansion
  - □ b. Major Expansion
- □ 4. Experimental System
- □ 5. Seasonal Conversion

THIS APPLICATION REQUIRES

- □ 1. No Rule Variance
- ■ 2. First Time System Variance
  - □ a. Local Plumbing Inspector Approval
  - ■ b. State & Local Plumbing Inspector Approval
- □ 3. Replacement System Variance
  - □ a. Local Plumbing Inspector Approval
  - □ b. State & Local Plumbing Inspector Approval
- □ 4. Minimum Lot Size Variance
- □ 5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

- ■ 1. Complete Non-engineered System
- □ 2. Primitive System (graywater & alt. toilet)
- □ 3. Alternative Toilet, specify: _____
- □ 4. Non-engineered Treatment Tank (only)
- □ 5. Holding Tank, _____ gallons
- □ 6. Non-engineered Disposal Field (only)
- □ 7. Separated Laundry System
- □ 8. Complete Engineered System (2000 gpd or more)
- □ 9. Engineered Treatment Tank (only)
- □ 10. Engineered Disposal Field (only)
- □ 11. Pre-treatment, specify: _____
- □ 12. Miscellaneous Components

SIZE OF PROPERTY

± 4.5 □ SQ. FT. ■ ACRES

SHORELAND ZONING

□ Yes ■ No

DISPOSAL SYSTEM TO SERVE

- □ 1. Single Family Dwelling Unit, No. of Bedrooms: ____
- □ 2. Multiple Family Dwelling, No. of Units: ____
- ■ 3. Other: commercial business (specify)

Current Use □ Seasonal ■ Year Round □ Undeveloped

TYPE OF WATER SUPPLY

■ 1. Drilled Well □ 2. Dug Well □ 3. Private

□ 4. Public □ 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK

- ■ 1. Concrete
  - ■ a. Regular
  - □ b. Low Profile
- □ 2. Plastic
- □ 3. Other: _____

CAPACITY: 1,500 GAL.

SOIL DATA & DESIGN CLASS

PROFILE	CONDITION	DESIGN
8	C	

at Observation Hole # 1

Depth 16"

of Most Limiting Soil Factor

DISPOSAL FIELD TYPE & SIZE

- □ 1. Stone Bed □ 2. Stone Trench
- ■ 3. Proprietary Device
  - ■ a. cluster array □ c. Linear
  - ■ b. regular load □ d. H-20 load

type: Eljen In-drain

- □ 4. Other: _____

SIZE: 66 units □ sq. ft. □ lin. ft.

DISPOSAL FIELD SIZING

- □ 1. Small---2.0 sq. ft. / gpd
- □ 2. Medium---2.6 sq. ft. / gpd
- □ 3. Medium---Large 3.3 sq. f.t / gpd
- ■ 4. Large---4.1 sq. ft. / gpd
- □ 5. Extra Large---5.0 sq. ft. / gpd

GARBAGE DISPOSAL UNIT

■ 1. No □ 2. Yes □ 3. Maybe

If Yes or Maybe, specify one below:

- □ a. multi-compartment tank
- □ b. ___ tanks in series
- □ c. increase in tank capacity
- □ d. Filter on Tank Outlet

EFFLUENT/EJECTOR PUMP

- □ 1. Not Required
- □ 2. May Be Required
- ■ 3. Required

Specify only for engineered systems:

DOSE: _____ gallons

DESIGN FLOW

750 gallons per day

BASED ON:

- ■ 1. Table 501.1 (dwelling unit(s))
- □ 2. Table 501.2 (other facilities)

SHOW CALCULATIONS for other facilities

50 employees @ 15 gpd each

□ 3. Section 503.0 (meter readings)

ATTACH WATER METER DATA

LATITUDE AND LONGITUDE

at center of disposal area

Lat. 044 d 24 m 01.8 s

Lon. 069 d 33 m 25.2 s

if g.p.s, state margin of error: _____

PROFILE 8….CONDITION C

PAGE 33

PROFILE 8

CONDITION C

Parent Material	Profile	Description	
Lodgment (Basal) Glacial Till	1	Silt loam textured soils throughout the entire profile. The lower horizons usually have prismatic or platy structures. This profile tends to become firm dense and impervious with depth thus this profile may have a hydraulically restrictive horizon. Angular rock fragments are usually present. Occasionally cobbles and stones may be present.	4.1 S.F. Large
Ablation Glacial Till	2	Loam to sandy loam textured soils throughout the entire profile. This profile does not have a hydraulically restrictive horizon. Angular rock fragments are present. Occasionally cobbles and stones may be present.	3.3 S.F. Med. Large
Lodgment (Basal) Glacial Till	3	Loam to loamy sand textured soils throughout the entire profile. The lower soil horizons usually have well defined prismatic or platy structures that are very compact and are difficult to excavate. These lower horizons are considered hydraulically restrictive. Angular rock fragments are present. Occasionally cobbles and stones are present.	3.3 S.F. Med. Large
Ablation Glacial Till	4	Sandy loam to loamy sand textured upper horizon(s) overlying loamy sand textured lower horizon. This profile tends to be loose and easy to excavate. Lower horizons tend not to be firm and are not considered hydraulically restrictive. Angular rock fragments are present along with partially water-worn cobbles and stones	2.6 S.F. Medium
Stratified Glacial Drift	5	Loam to loamy sand textured upper horizons overlying fine and medium sand parent materials. Stratified horizons of water-sorted materials may be present. Lower horizons tend to be granular or massive. Entire profile tends to be loose except that saturated horizons may be cemented and therefore firm and are considered hydraulically restrictive. Horizons with rounded rock fragments are common.	2.6 S.F. Medium
Stratified Glacial Drift	6	Loamy sand to sand textured upper horizons overlying stratified coarse sands or gravel parent materials. Stratified horizons of water-sorted materials may be present. Entire profile tends to be loose except that saturated horizons may be cemented and therefore firm and are considered hydraulically restrictive. Horizons with rounded rock fragments are common.	2.6 S.F. Medium
Mixed geological origins	7	Fifteen (15) or more inches of sandy loam to loamy sand glacial till or loamy sand to sand stratified drift parent material overlying marine or lacustrine deposited silt to silty clay or fifteen (15) or more inches of loamy sand to sand stratified drift parent material overlying firm basal till. The upper horizons tend to be granular in structure. The lower horizons tend to be firm and massive in structure and are considered to be hydraulically restrictive. Rock fragments may be present in upper horizons but are usually absent in lower horizons, except for basal till.	3.3 S.F. M. Large
Lacus-trine deposits	8	Loam to fine sandy loam upper horizon(s) overlying firm silt loam to silt textured lower horizons. The upper horizons tend to be granular in structure. The lower horizons tend to be firm and massive in structure and are considered to be hydraulically restrictive. Stratified lenses of fine sand and sandy loam may be present in the lower horizons. Coarse rocks are usually absent throughout entire profile.	4.1 S.F. Large
Marine deposits	9	Silt loam textured upper horizons overlying firm silt loam to silty clay textured lower horizons. The lower horizons tend to be very firm and are considered to be hydraulically restrictive. Coarse rock are usually absent throughout entire profile. Thin lenses of very fine sand to silt may be present in the lower horizons	5.0 S.F. EX. Large
Organic deposits	10	Partially decomposed organic material at least 16” in thickness.	Not Permitted
Alluvial dune beach deposits	11	These soils have no typical profile. Variable in texture and exhibit very little weathering. They are deposited in flood plains sand dunes or beach environments.	Best Fit
Filled Site	12	These soils have no typical profile. Variable in texture. May contain man-made materials.	Best Fit

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TABLE 4E
SOIL CONDITION

PROFILE 8---LARGE

CONDITION C

Limiting Factor Depth, in inches	Bedrock Limiting Factor Condition	Soil Drainage Limiting Factor or Restrictive Layer Condition
> 48		B
15 to 48	AIII	C
9 to <15	AII	D
<9	AI	E

PROFILE 8---LARGE

CONDITION C—

First Time & Expanded Systems Outside of the Shoreland Area: Separation in Inches								
Soil Profile Ú	Soil Condition Ø	AI	AII	AIII	B	C	D	E
1, 2, 3, 4, 7, 8, 9		Variance Required: Expansions Not Allowed for 1st Time[d]	24	24	12	12	18	Variance Required: Expansions; Not Allowed for 1st Time [d]
5,6		Variance Required: Expansions ; Not Allowed for 1st Time [d]	24	24	24	24	24	Variance Required: Expansions; Not Allowed for 1st Time [d]
10		Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed
11, 12		Use Tables 4D and 4E to determine the soil profile and description which best describes the observed conditions.						
First Time & Expanded Systems Within the Shoreland Area: Separation in Inches								
Soil Profile Ú	Soil Condition Ø	AI	AII	AIII	B	C	D	E
1, 2, 3, 4, 7, 8, 9		Not Allowed	Not Allowed	24	12	12	Variance Required [c]	Not Allowed
5,6		Not Allowed	Not Allowed	24	24	24	Variance Required [c]	Not Allowed
10		Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed
11, 12		Use Tables 4D and 4E to determine the soil profile and description which best describes the observed conditions.						
Replacement Systems: Separation Distances in Inches								
Soil Profile Ú	Soil Condition Ø	AI	AII	AIII	B	C	D	E
1, 2, 3, 4, 7, 8, 9		24 [a]	24 [b]	24	12	12	18 [b]	24 [a]
5,6		24 [a]	24 [b]	24	24	24	18 [b]	24 [a]
10		24 [a]	24 [a]	24 [a]	24 [a]	24 [a]	24 [a]	24 [a]
11, 12		Use Tables 4D and 4E to determine the soil profile and description which best describes the observed conditions.						

PROFILE 8---LARGE

CONDITION C—

Lacus-trine deposits	**8**	**Loam to fine sandy loam upper horizon(s) overlying firm silt loam to silt textured lower horizons. The upper horizons tend to be granular in structure. The lower horizons tend to be firm and massive in structure and are considered to be hydraulically restrictive. Stratified lenses of fine sand and sandy loam may be present in the lower horizons. Coarse rocks are usually absent throughout entire profile.**	**4.1 S.F. Large**

2 BEDROOM DWELLING @ 90 GALLONS PER DAY PER BEDROOM
2 X 90 = 180 GPD

TIMES 4.1
SQUARE FEET =

738 SQUARE FEET
THE SITE EVALUATOR HAS TO MAKE
THE DISPOSAL FIELD

738 SQUARE FEET – STONE FIELD

20 X 40 = 800 SQUARE FEET

10 X 80 = 800 SQUARE FEET

25 X 30 =750 SQUARE FEET

12.5 X 60 – 750 SQUARE FEET

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W. PLASTIC DISPOSAL DEVICES

738 SQUARE FEET

Device	Model	Height	Configuration		
			Cluster	Trench	
Bio-Diffuser	Standard	11 inches	36 square feet/unit	44 square feet/unit [a]	

CLUSTER = 738 DIVIDED BY 36 SQ. FT. = 20.5 UNITS

TRENCH = 738 DIVIDED BY 44 SQ. FT = 16.7 UNITS

Infiltrator	EQ 24	11 inches	33.3 square feet/unit [b]	33.3 square feet/unit[c,d]

CLUSTER = 738 DIVIDED BY 33.3 SQ. FT. = 22.1 UNITS

TRENCH = 738 DIVIDED BY 33.3 SQ. FT = 22.1 UNITS

738 SQUARE FEET

Infiltrator Quick 4 Plus	Without End Cap, Trench	Without End Cap, Cluster
Quick4 Plus High Capacity	8.0 square feet/linear foot	5.8 square feet/linear foot

TRENCH

738 DIVIDED BY 8.0 SQ. FT. / LINEAR FOOT = 92.25 LIN. FT.
48 INCHES LONG = 4 FEET
92.25 DIVIDED BY 4 = 23.06

CLUSTER

738 DIVIDED BY 5.8 SQ. FT / LIN. FT. = 127,241
48 INCHES LONG = 4 FEET
127,241 DIVIDED BY 4 = 31.8

Device	Model	Configuration	
		Cluster [b]	Trench [a]
GSF	Type A	24 square feet/ unit	24 square feet/unit
GSF	Type B	48 square feet/unit	48 square feet/unit

TRENCH TYPE A

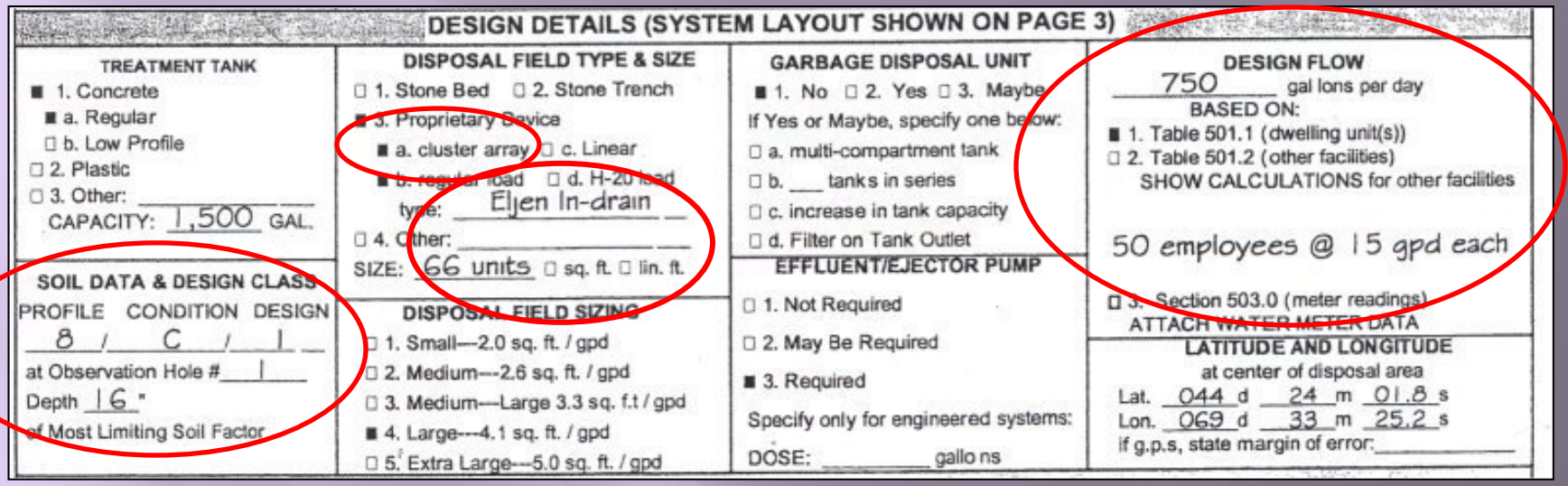
738 DIVIDED BY 24 SQ. FT / UNIT= 30.75 UNITS

TRENCH TYPE B

738 DIVIDED 48 SQ. FT / UNIT= 15.3 UNITS

SAME CALCULATIONS FOR CLUSTER

Existing calculations of HHE-200



DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK
- ■ 1. Concrete
  - ■ a. Regular
  - □ b. Low Profile
- □ 2. Plastic
- □ 3. Other: _____
- CAPACITY: 1,500 GAL.

SOIL DATA & DESIGN CLASS
PROFILE CONDITION DESIGN
8 / C / 1
at Observation Hole # 1
Depth 16 "
of Most Limiting Soil Factor

DISPOSAL FIELD TYPE & SIZE
- □ 1. Stone Bed □ 2. Stone Trench
- ■ 3. Proprietary Device
  - ■ a. cluster array □ c. Linear
  - ■ b. regular load □ d. H-20 load
- type: Eljen In-drain
- □ 4. Other: _____
- SIZE: 66 units □ sq. ft. □ lin. ft.

DISPOSAL FIELD SIZING
- □ 1. Small---2.0 sq. ft. / gpd
- □ 2. Medium---2.6 sq. ft. / gpd
- □ 3. Medium---Large 3.3 sq. ft / gpd
- ■ 4. Large---4.1 sq. ft. / gpd
- □ 5. Extra Large---5.0 sq. ft. / gpd

GARBAGE DISPOSAL UNIT
- ■ 1. No □ 2. Yes □ 3. Maybe

If Yes or Maybe, specify one below:
- □ a. multi-compartment tank
- □ b. ___ tanks in series
- □ c. increase in tank capacity
- □ d. Filter on Tank Outlet

EFFLUENT/EJECTOR PUMP
- □ 1. Not Required
- □ 2. May Be Required
- ■ 3. Required

Specify only for engineered systems:
DOSE: _____ gallons

DESIGN FLOW
750 gallons per day
BASED ON:
- ■ 1. Table 501.1 (dwelling unit(s))
- □ 2. Table 501.2 (other facilities)

SHOW CALCULATIONS for other facilities

50 employees @ 15 gpd each

- □ 3. Section 503.0 (meter readings)

ATTACH WATER METER DATA

LATITUDE AND LONGITUDE
at center of disposal area
Lat. 044 d 24 m 01.8 s
Lon. 069 d 33 m 25.2 s
if g.p.s, state margin of error: _____

PROFILE 8 = 4.1 SQ. FT (LARGE)

TIMES 750 GALLONS PER DAY = 3,075 SQ. FT

Device	Model	Configuration	
		Cluster [b]	Trench [a]
GSF	Type A	24 square feet/ unit	24 square feet/unit
GSF	Type B	48 square feet/unit	48 square feet/unit

TYPE A-----3,075 DIVIDED BY 24 = 128.125----------ROUND UP 129 UNITS
TYPE B-----3,075 DIVIDED BY 48 = 64.062----------ROUND UP 65

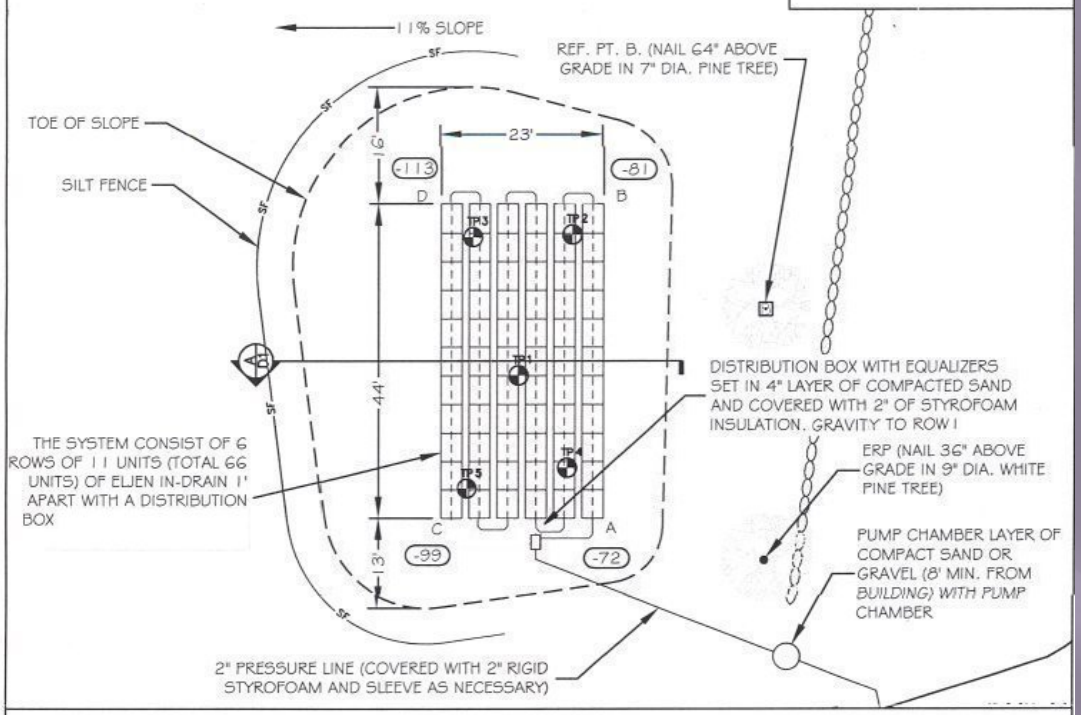
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
***	***	***

SUBSURFACE WASTEWATER DISPOSAL PLAN

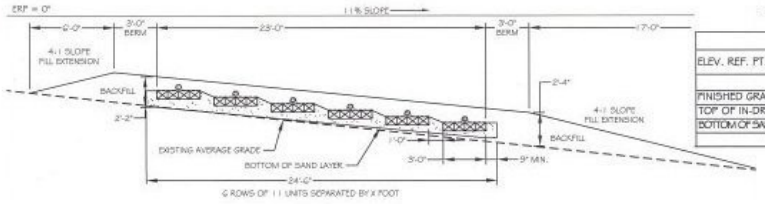
SCALE: 1" = 20 FT.



FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT
Depth of Fill (Upslope)	20"-29"	Finished Grade Elevation	SEE D-1	Location & Description: NAIL 36" ABOVE GRADE IN 9" DIA. WHITE PINE TREE
Depth of Fill (Downslope)	20"-34"	Top of Distribution Pipe or Proprietary Device	SEE D-1	Reference Elevation: 0"
		Bottom of Disposal Area	SEE D-1	

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = N/A ft.
Vertical 1" = N/A ft.



ELEVATIONS

ELEV. REF. PT. (ERP)	0"	6 ROWS OF 11 TYPE B IN-DRAINS				
	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 5
FINISHED GRADE	-51"	-56.5"	-62"	-67.5"	-73"	-78"
TOP OF IN-DRAIN UNIT	-63"	-68.5"	-74"	-79.5"	-85"	-90"
BOTTOM OF SAND LAYER	-76"	-81.5"	-87"	-92.5"	-98"	-103"

***	***	**/**/07	Page 3 of 3
Site Evaluator Signature	SE #	Date	HHE-200 Rev. 8/01

65 UNITS NEEDED

6 ROWS OF 11 -

ROUNDED UP FROM 65

TO MAKE ALL ROWS EVEN.

Variances to Setbacks

TABLE 8A

Setback Distances for Replacement System, Limits of LPI Authority

Site features vs. disposal system components of various sizes	Disposal Fields (total design flow)			Septic Tanks and Holding Tanks (total design flow)		
	Less than 1,000 gpd	1,000 to 2,000 gpd	Over 2,000 gpd	Less than 1,000 gpd	1,000 to 2,000 gpd	Over 2,000 gpd
Wells with water usage of 2,000 or more gpd or public water supply wells	300 feet	300 feet	300 feet	150 feet	150 feet	150 feet
Potable supply well	100 down to 60 feet	200 down to 100 feet	300 down to 150 feet	100 down to 25 feet	100 down to 50 feet	100 down to 50 feet
Water supply line	10 feet	20 feet	25 feet	10 feet	10 feet	10 feet
Water course, major	100 down to 50 feet	200 down to 120 feet	300 down to 180 feet	100 down to 25 feet [a]	100 down to 50 feet	100 down to 50 feet
Water course, minor	50 down to 20 feet	100 down to 50 feet	150 down to 75 feet	50 down to 25 feet	50 down to 25 feet	50 down to 25 feet
Drainage ditches	25 down to 12 feet	50 down to 25 feet	75 down to 35 feet	25 down to 12 feet	25 down to 12 feet	25 down to 12 feet
Edge of fill extension-- Coastal wetlands, special freshwater wetlands, great ponds, rivers, streams	20 feet	25 feet	25 feet	25 feet	25 feet	25 feet
Slopes greater than 3:1	10 feet	18 feet	25 feet	N/A	N/A	N/A
No full basement [e.g. slab]	15 down to 7 feet	30 down to 15 feet	40 down to 20 feet	8 down to 5 feet	14 down to 7 feet	20 down to 10 feet
Full basement [below grade foundation, frost wall, columns]	20 down to 10 feet	30 down to 15 feet	40 down to 20 feet	8 down to 5 feet	14 down to 7 feet	20 down to 10 feet
Property lines	10 down to 5 feet [b]	18 down to 9 feet [b]	20 ft down to 10 ft [b]	10 down to 4 feet [b]	15 down to 7 feet [b]	20 down to 10 feet [b]
Burial sites or graveyards boundaries, measured from the toe of the fill extension	25 feet	25 feet	25 feet	25 feet	25 feet	25 feet
Stormwater infiltration systems	100 down to 60 feet	200 down to 120 feet	300 down to 180 feet	100 down to 50 feet	100 down to 50 feet	100 down to 50 feet
Wetponds, retention ponds, and detention basins (excavated below grade); Soil filters, underdrained swales, underdrained outlets, and similar structures	50 down to 25 feet	100 down to 50 feet	150 down to 75 feet	50 down to 25 feet	50 down to 25 feet	50 down to 25 feet
Stormwater detention basins (basin bottom at, or above, predevelopment grade)	25 down to 12 feet	50 down to 25 feet	75 down to 35 feet	25 down to 12 feet	25 down to 12 feet	25 down to 12 feet

Notes:

[a] This distance may be reduced to 25 feet, if the septic or holding tank is tested in the LPI's presence and shown to be watertight or of monolithic construction.

[b] Additional setbacks may be needed to prevent fill material extensions from encroaching onto abutting property.

[c] All ground disturbance or clearing of woody vegetation necessary for the installation of a subsurface wastewater disposal system that occurs within 100 feet of the normal high water mark of a major water body / course must comply with these Rules pertaining to work adjacent to or within wetlands and water bodies (see Section 11(M)).

Replacement System Variances to Setbacks

TABLE 8A
Setback Distances for Replacement System, Limits of LPI Authority

Site features vs. disposal system components of various sizes	Disposal Fields (total design flow)			Septic Tanks and Holding Tanks (total design flow)		
	Less than 1,000 gpd	1,000 to 2,000 gpd	Over 2,000 gpd	Less than 1,000 gpd	1,000 to 2,000 gpd	Over 2,000 gpd
Wells with water usage of 2,000 or more gpd or public water supply wells	300 feet	300 feet	300 feet	150 feet	150 feet	150 feet
Potable supply well	100 down to 60 feet	200 down to 100 feet	300 down to 150 feet	100 down to 25 feet	100 down to 50 feet	100 down to 50 feet
Water supply line	10 feet	20 feet	25 feet	10 feet	10 feet	10 feet
Water course, major	100 down to 50 feet	200 down to 120 feet	300 down to 180 feet	100 down to 25 feet [a]	100 down to 50 feet	100 down to 50 feet
Water course, minor	50 down to 20 feet	100 down to 50 feet	150 down to 75 feet	50 down to 25 feet	50 down to 25 feet	50 down to 25 feet
Drainage ditches	25 down to 12 feet	50 down to 25 feet	75 down to 35 feet	25 down to 12 feet	25 down to 12 feet	25 down to 12 feet
Edge of fill extension-- Coastal wetlands, special freshwater wetlands, great ponds, rivers, streams	20 feet	25 feet	25 feet	25 feet	25 feet	25 feet
Slopes greater than 3:1	10 feet	18 feet	25 feet	N/A	N/A	N/A
No full basement [e.g. slab]	15 down to 7 feet	30 down to 15 feet	40 down to 20 feet	8 down to 5 feet	14 down to 7 feet	20 down to 10 feet
Full basement [below grade foundation, frost wall, columns]	20 down to 10 feet	30 down to 15 feet	40 down to 20 feet	8 down to 5 feet	14 down to 7 feet	20 down to 10 feet
Property lines	10 down to 5 feet [b]	18 down to 9 feet [b]	20 ft down to 10 ft [b]	10 down to 4 feet [b]	15 down to 7 feet [b]	20 down to 10 feet [b]
Burial sites or graveyards boundaries, measured from the toe of the fill extension	25 feet	25 feet	25 feet	25 feet	25 feet	25 feet
Stormwater infiltration systems	100 down to 60 feet	200 down to 120 feet	300 down to 180 feet	100 down to 50 feet	100 down to 50 feet	100 down to 50 feet
Wetponds, retention ponds, and detention basins (excavated below grade); Soil filters, underdrained swales, underdrained outlets, and similar structures	50 down to 25 feet	100 down to 50 feet	150 down to 75 feet	50 down to 25 feet	50 down to 25 feet	50 down to 25 feet
Stormwater detention basins (basin bottom at, or above, predevelopment grade)	25 down to 12 feet	50 down to 25 feet	75 down to 35 feet	25 down to 12 feet	25 down to 12 feet	25 down to 12 feet

Notes:
[a] This distance may be reduced to 25 feet, if the septic or holding tank is tested in the LPI's presence and shown to be watertight or of monolithic construction.

Notes:
[a] This distance may be reduced to 25 feet, if the septic or holding tank is tested in the LPI's presence and shown to be watertight or of monolithic construction.
[b] Additional setbacks may be needed to prevent fill material extensions from encroaching onto abutting property.
[c] All ground disturbance or clearing of woody vegetation necessary for the installation of a subsurface wastewater disposal system that occurs within 100 feet of the normal high water mark of a major water body / course must comply with these Rules pertaining to work adjacent to or within wetlands and water bodies (see Section 11(M)).

SECTION 4
DESIGN CRITERIA
Suitable soil conditions

(a) All systems located outside the shoreland area of major water bodies/courses must be located on soils with a minimum depth to the limiting factor of 9 inches .

(b) All systems located within the shoreland area of major water bodies/courses must be located on soils with a minimum depth to the limiting factor of 15 inches.

What happens when this isn't available..

VARIANCE to the Soils....

TABLE 4F MINIMUM PERMITTING CONDITIONS AND MINIMUM DESIGN REQUIREMENTS

Replacement Systems

First Time & Expanded Systems Outside of the Shoreland Area: Separation in Inches

Soil Profile Ú	Soil ConditionØ	AI	AII	AIII	B	C	D	E
1, 2, 3, 4, 7, 8, 9		Variance Required: Expansions Not Allowed for 1st Time[d]	24	24	12	12	18	Variance Required: Expansions; Not Allowed for 1st Time [d]
5,6		Variance Required: Expansions; Not Allowed for 1st Time [d]	24	24	24	24	24	Variance Required: Expansions; Not Allowed for 1st Time [d]
10		Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed
11, 12		Use Tables 4D and 4E to determine the soil profile and description which best describes the observed conditions.						

First Time & Expanded Systems Within the Shoreland Area: Separation in Inches

Soil Profile Ú	Soil ConditionØ	AI	AII	AIII	B	C	D	E
1, 2, 3, 4, 7, 8, 9		Not Allowed	Not Allowed	24	12	12	Variance Required [c]	Not Allowed
5,6		Not Allowed	Not Allowed	24	24	24	Variance Required [c]	Not Allowed
10		Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed
11, 12		Use Tables 4D and 4E to determine the soil profile and description which best describes the observed conditions.						

Replacement Systems: Separation Distances in Inches

Soil Profile Ú	Soil ConditionØ	AI	AII	AIII	B	C	D	E
1, 2, 3, 4, 7, 8, 9		24 [a]	24 [b]	24	12	12	18 [b]	24 [a]
5,6		24 [a]	24 [b]	24	24	24	18 [b]	24 [a]
10		24 [a]	24 [a]	24 [a]	24 [a]	24 [a]	24 [a]	24 [a]
11, 12		Use Tables 4D and 4E to determine the soil profile and description which best describes the observed conditions.						

Table 4F Foot Notes:

[a] State and local variance required

[b] Local only variance required

[c] First Time System Variance required.

[d] State variance required for Expansions Only

Replacement system

Local approval needed

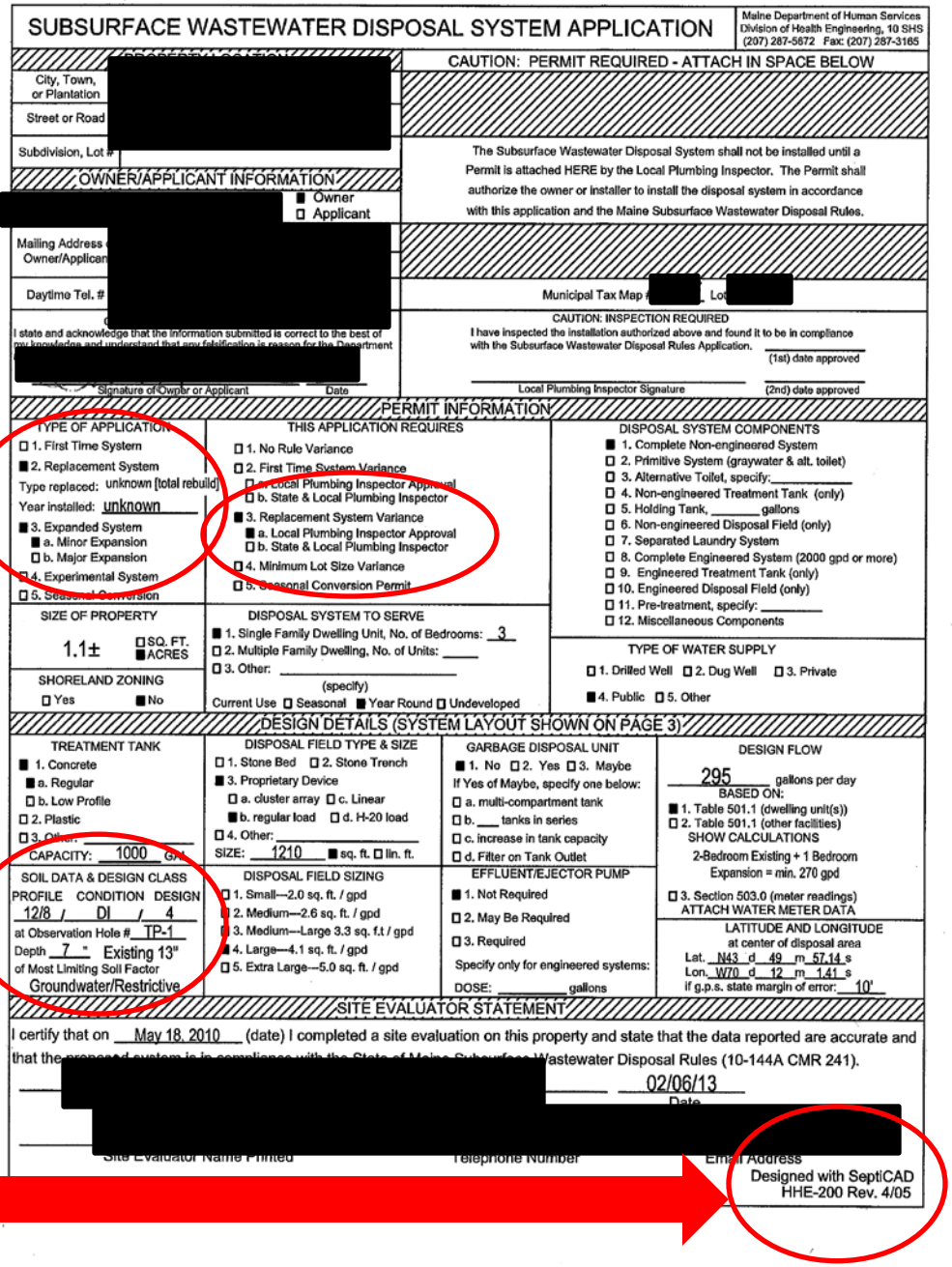
Profile 12/8

Condition D

Depth 7”

SEC. 1
INTRODUCTION
I. FORMS
All applications and forms including, but not limited to, HHE-200 Forms must be the current revision as specified by the Department, at the time of completion.

Lets say this is the most up to date form



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Department of Human Services
Division of Health Engineering, 10 SHS
(207) 287-5672 Fax: (207) 287-3165

CAUTION: PERMIT REQUIRED - ATTACH IN SPACE BELOW

City, Town, or Plantation [redacted]
Street or Road
Subdivision, Lot #

OWNER/APPLICANT INFORMATION

■ Owner
□ Applicant

Mailing Address
Owner/Applicant
Daytime Tel. #

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department

Signature of Owner or Applicant Date

The Subsurface Wastewater Disposal System shall not be installed until a Permit is attached HERE by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # Lot

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

Local Plumbing Inspector Signature (1st) date approved (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION
□ 1. First Time System
■ 2. Replacement System
Type replaced: unknown [total rebuild]
Year installed: unknown
■ 3. Expanded System
■ a. Minor Expansion
□ b. Major Expansion
□ 4. Experimental System
□ 5. Seasonal Conversion

THIS APPLICATION REQUIRES
□ 1. No Rule Variance
□ 2. First Time System Variance
□ a. Local Plumbing Inspector Approval
□ b. State & Local Plumbing Inspector
■ 3. Replacement System Variance
■ a. Local Plumbing Inspector Approval
□ b. State & Local Plumbing Inspector
□ 4. Minimum Lot Size Variance
□ 5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS
■ 1. Complete Non-engineered System
□ 2. Primitive System (graywater & alt. toilet)
□ 3. Alternative Toilet, specify:
□ 4. Non-engineered Treatment Tank (only)
□ 5. Holding Tank, gallons
□ 6. Non-engineered Disposal Field (only)
□ 7. Separated Laundry System
□ 8. Complete Engineered System (2000 gpd or more)
□ 9. Engineered Treatment Tank (only)
□ 10. Engineered Disposal Field (only)
□ 11. Pre-treatment, specify:
□ 12. Miscellaneous Components

SIZE OF PROPERTY
1.1± □ SQ. FT. ■ ACRES

SHORELAND ZONING
□ Yes ■ No

DISPOSAL SYSTEM TO SERVE
■ 1. Single Family Dwelling Unit, No. of Bedrooms: 3
□ 2. Multiple Family Dwelling, No. of Units:
□ 3. Other: (specify)
Current Use □ Seasonal ■ Year Round □ Undeveloped

TYPE OF WATER SUPPLY
□ 1. Drilled Well □ 2. Dug Well □ 3. Private
■ 4. Public □ 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK
■ 1. Concrete
■ a. Regular
□ b. Low Profile
□ 2. Plastic
□ 3. Other:
CAPACITY: 1000 GPD

DISPOSAL FIELD TYPE & SIZE
□ 1. Stone Bed □ 2. Stone Trench
■ 3. Proprietary Device
□ a. cluster array □ c. Linear
■ b. regular load □ d. H-20 load
□ 4. Other:
SIZE: 1210 ■ sq. ft. □ lin. ft.

GARBAGE DISPOSAL UNIT
■ 1. No □ 2. Yes □ 3. Maybe
If Yes of Maybe, specify one below:
□ a. multi-compartment tank
□ b. ___ tanks in series
□ c. increase in tank capacity
□ d. Filter on Tank Outlet

DESIGN FLOW
295 gallons per day
BASED ON:
■ 1. Table 501.1 (dwelling unit(s))
□ 2. Table 501.1 (other facilities)
SHOW CALCULATIONS
2-Bedroom Existing + 1 Bedroom Expansion = min. 270 gpd
□ 3. Section 503.0 (meter readings)
ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS
PROFILE CONDITION DESIGN
12/8 / DI / 4
at Observation Hole # TP-1
Depth 7 " Existing 13"
of Most Limiting Soil Factor
Groundwater/Restrictive

DISPOSAL FIELD SIZING
□ 1. Small—2.0 sq. ft. / gpd
□ 2. Medium—2.6 sq. ft. / gpd
□ 3. Medium—Large 3.3 sq. ft / gpd
■ 4. Large—4.1 sq. ft. / gpd
□ 5. Extra Large—5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP
■ 1. Not Required
□ 2. May Be Required
□ 3. Required
Specify only for engineered systems:
DOSE: gallons

LATITUDE AND LONGITUDE
at center of disposal area
Lat. N43 d 49 m 57.14 s
Lon. W70 d 12 m 1.41 s
if g.p.s. state margin of error: 10'

SITE EVALUATOR STATEMENT

I certify that on May 18, 2010 (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).

02/06/13
Date

Site Evaluator Name Printed Telephone Number Email Address

Designed with SeptiCAD
HHE-200 Rev. 4/05

TABLE 4F MINIMUM PERMITTING CONDITIONS AND MINIMUM DESIGN REQUIREMENTS

Replacement Systems: Separation Distances in Inches								
Soil Profile Ú	Soil Condition Ø	AI	AII	AIII	B	C	D	E
1, 2, 3, 4, 7, 8, 9		24 [a]	24 [b]	24	12	12	18 [b]	24 [a]
5,6		24 [a]	24 [b]	24	24	24	18 [b]	24 [a]
10		24 [a]	24 [a]	24 [a]	24 [a]	24 [a]	2 [ ]	24 [a]
11, 12		Use Tables 4D and 4E to determine the soil profile and description which be[illegible]es the observed conditions.						

Table 4F Foot Notes:

[a] State and local variance required

[b] Local only variance required

[c] First Time System Variance required

[d] State variance required for Expansions Only

Profile 12/8

Condition D

Depth 7”

18” of separation from the bottom of the bed to the most limiting factor
Local Plumbing Inspector Approval Only

LPI SENDS IT BACK TO THE SITE EVALUATOR BEFORE PERMITTING

Profile 12/8

Condition D

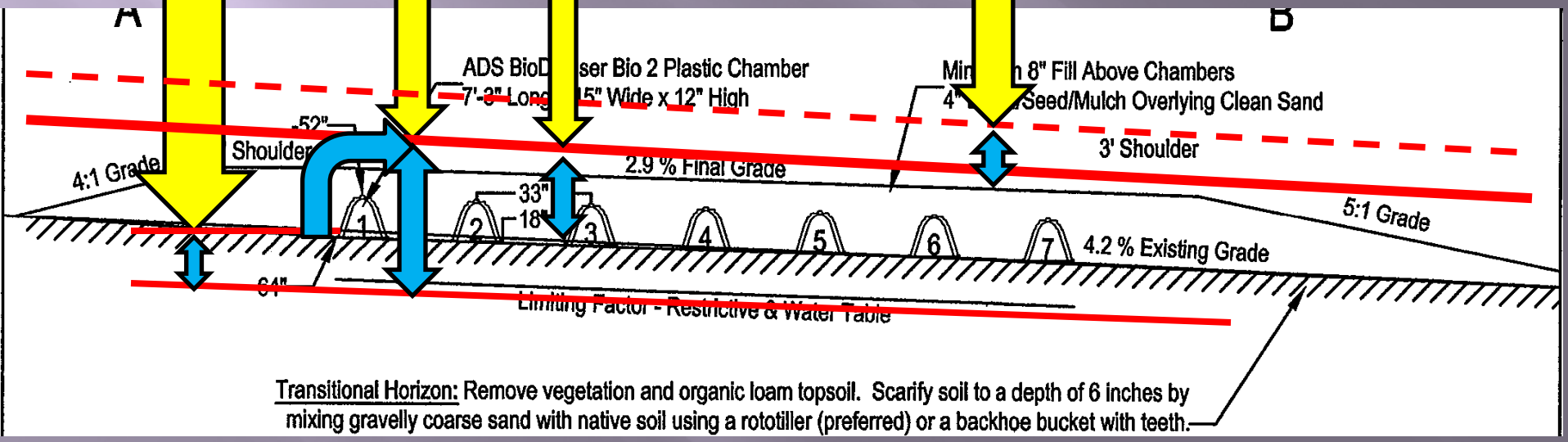
Depth 7”

7” limiting factor

18” separation needed

Bottom of field raised 11”

Final grade raised



PRIMITIVE & LIMITED DISPOSAL SYSTEMS

Use of alternative toilets: An alternative toilet must be used if a primitive or limited disposal field is used. An alternative toilet may also be used with a conventional disposal system.

Building sewer: The building sewer must have a maximum diameter of 2 inches, and a minimum pitch of ¼ inch per foot (2 percent).

Backup system reserve area required: The site evaluator must delineate on the application (HHE-200 Form) a reserve area where a full-size subsurface wastewater disposal area can be installed in compliance with first-time system criteria. The owner may not take or allow any action which would prevent the use of the reserve area for a disposal area installation.

PRIMITIVE DISPOSAL SYSTEM REQUIREMENTS

Serve a structure for which the water supplied to not more than grey wastewater fixtures is hand carried or hand pumped with an alternative toilet.

Allowable fixtures are limited to lavatory, shower/tub or sink.

No other plumbing fixtures may be connected to the primitive disposal field

A septic tank is not required.

PRIMITIVE SYSTEM

waste disposal
field

water per day.
water

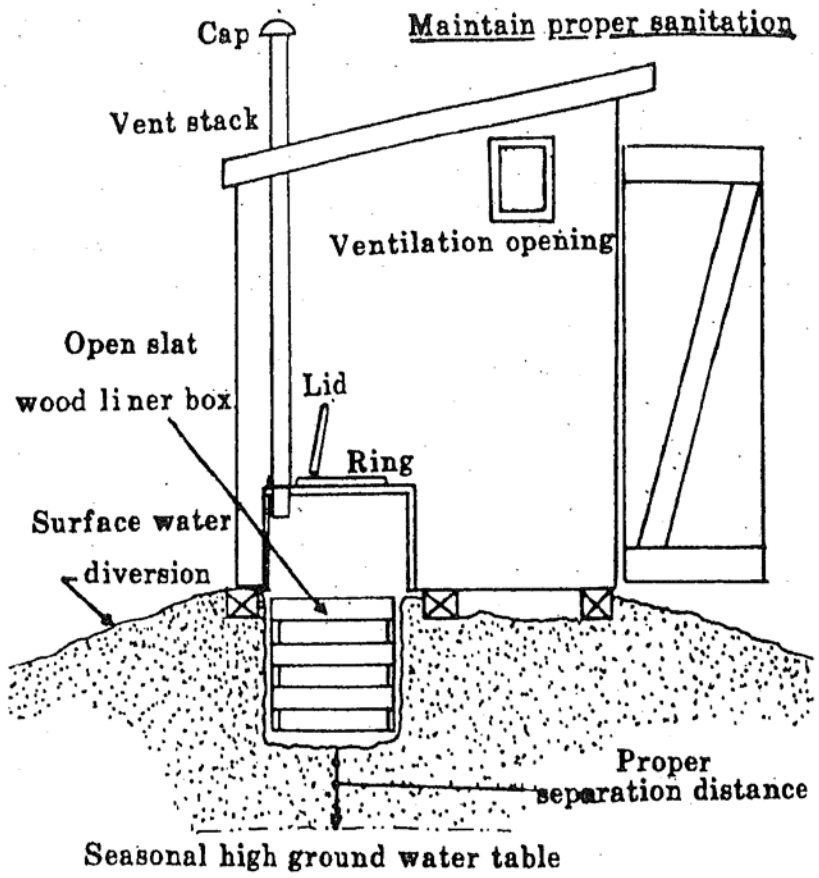


Figure 13-1 Pit Privy

Primitive system

Alternative toilet

Not part of a Primitive System

LIMITED SYSTEM REQUIREMENTS

Consists of a grey wastewater disposal for a dwelling unit with pressurized water supply.

Water is typically supplied to such dwelling units from elevated storage tanks or cisterns, of no more than 1,000 gallons capacity, and portable pumps, among other non-conventional pressurized water supplies.

Use of alternative toilets: An alternative toilet **must** be used if a limited disposal field is used.

The rules do not state that
A septic tank is not required.
Therefore it is required.

LIMITED SYSTEM

sposal field

y wastewater
y
pumps etc..

ALTERNATIVE TOILETS

Permits are required for all alternative toilet installations, excluding portable alternative toilets.

Alternative toilets include chemical toilets and privies, composting toilets which discharge leachate, incineration toilets, pit privies, and vault privies.

Site evaluation not required: In the case of an alternative toilet that does not discharge human excreta directly onto or into the soil, a site evaluation is not required for design of the alternative toilet.

COMPOSTING TOILETS

A composting toilet is designed to receive, store, and compost human wastes. Wastes must be removed for disposal when the toilet's storage capacity is reached.

Overflow: Any liquid overflow must be discharged to a primitive or conventional disposal field.

PIT PRIVIES

Pit privies are intended to receive and store human wastes in an excavation below the toilet(s).

The elevation of the bottom of pit must maintain the vertical separation distances for disposal fields prescribed in Table 4F.

A pit privy must meet "disposal field" setback requirements for first time systems and replacements systems, as appropriate.

GREY WASTEWATER DISPOSAL SYSTEMS

Requires an application for subsurface wastewater disposal system completed by a licensed site evaluator and a permit to install the system.

A grey wastewater system must share no components with the main system, if designed as a supplement to the main system, i.e., a laundry waste system, etc.

Wastewater from all plumbing fixtures except water closets may be discharged to the grey wastewater disposal field

Garbage disposal:

Garbage disposals should not be used with disposal fields. However, if such units are proposed to be used, other measures must be taken, such as:

increasing septic tank capacity by a minimum of 30 percent

the installation of a second septic tank installed in series; or a multiple compartment septic tank (specified in Section 4(G)(6)

the use of septic tank outlet filters

must be included in the system design to prevent suspended solids from entering the disposal field.

BACKFILL STANDARDS

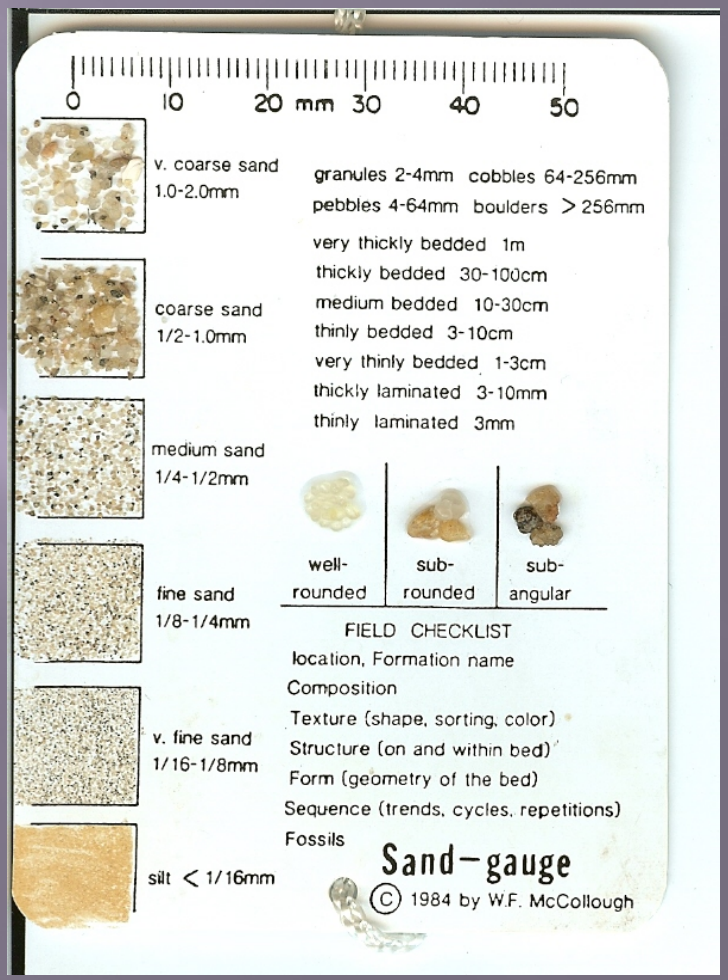
11E.2 Backfill standards: The backfill material must be gravelly coarse sand which meets the following requirements:

Table 11A – Backfill Textural Gradation

Sieve Size	Percent Passing by Weight
3”	100
1.5”	95-100
0.75”	90-100
#4	75-100
#10	55-85
#20	30-65
#40	15-45
#60	10-25
#100	5-15
#200	2-8
Clay Fraction	0-2

Construction Related Rules

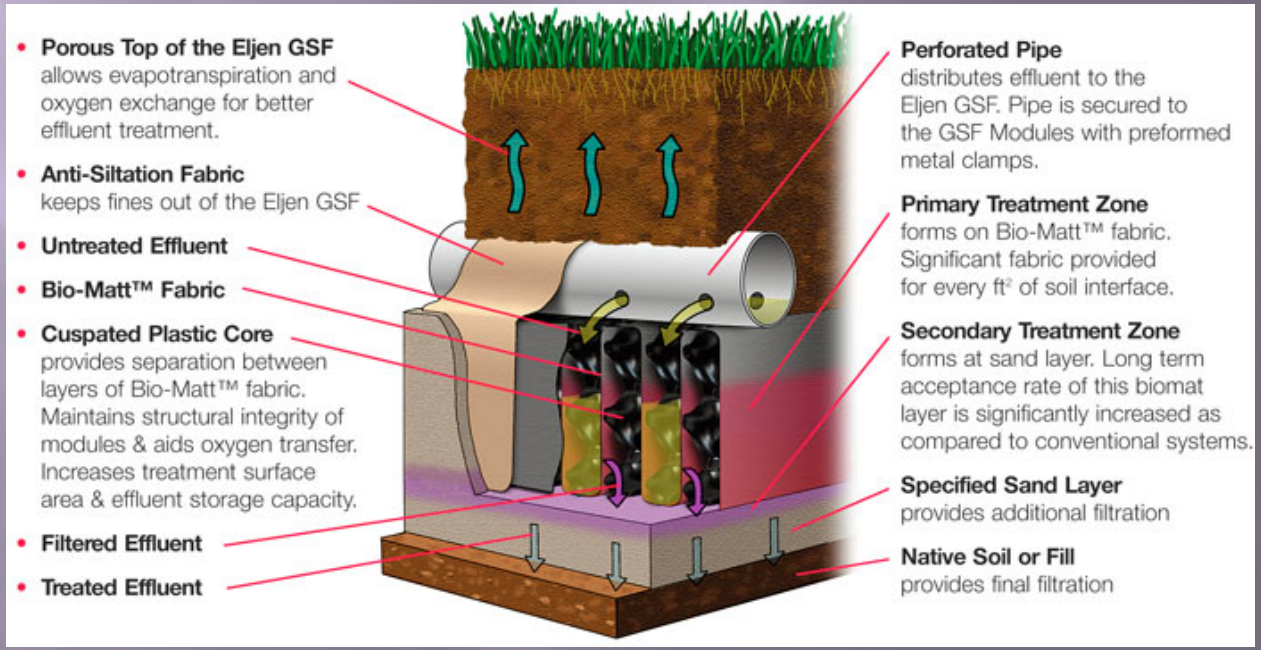
How to Check Sand Spec:



WE DO NOT PROMOTE ONE PROPRIETARY DEVICE OVER ANOTHER

THE FOLLOWING IS PART OF A DEVICE MANUAL FOR EXPLANATION ONLY

ELJEN / GSF UNITS

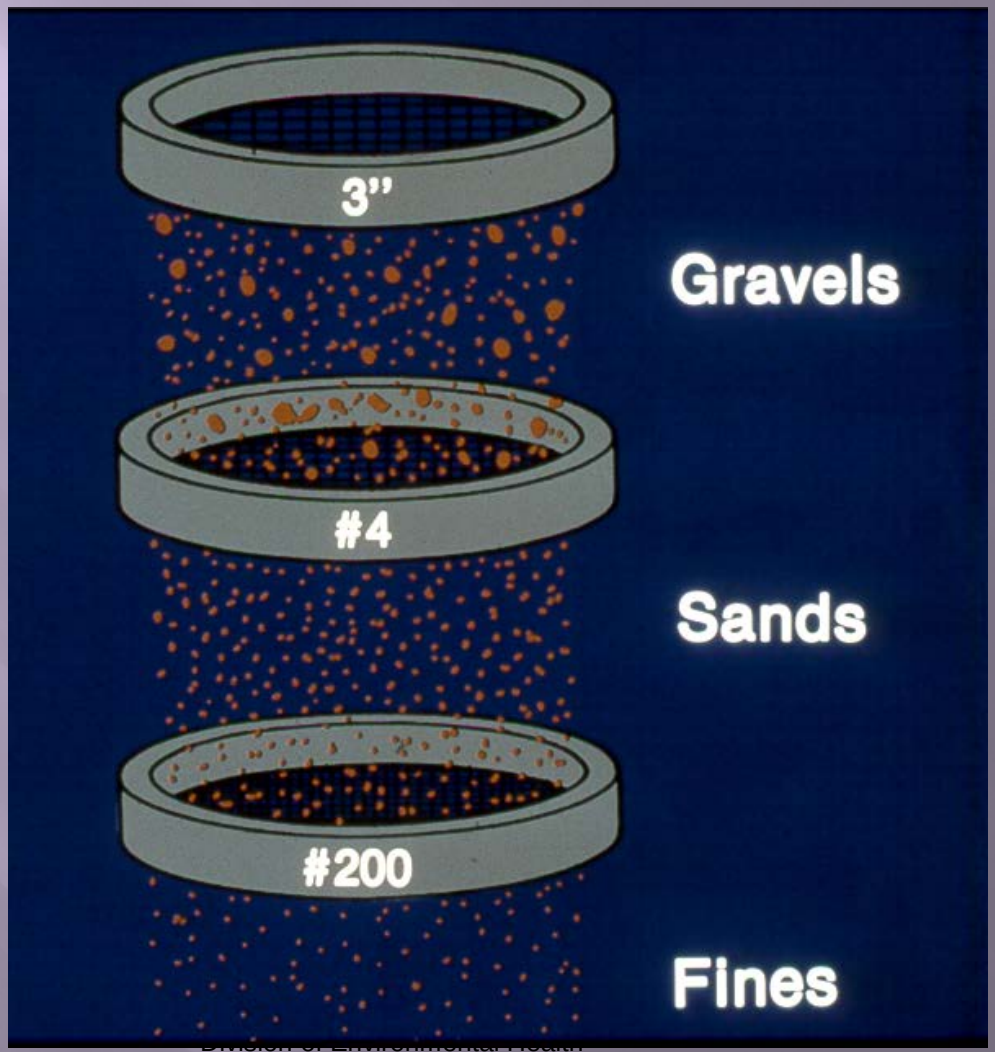


Specified Sand Requirements
Eljen GSF OverviewEljen GSF Details

To ensure proper system operation, Eljen Corporation requires its Geotextile Sand Filter (GSF) products to be installed using an ASTM C33 sand with less than 10% passing a #100 sieve, and less than 5% passing a #200 sieve. The amount of specified sand required for installation varies by state. Reference the state-specific Eljen Design and Installation Manual for the proper amount of specified sand required for installation in your state.

Sieve Analyses

Sieve Analyses

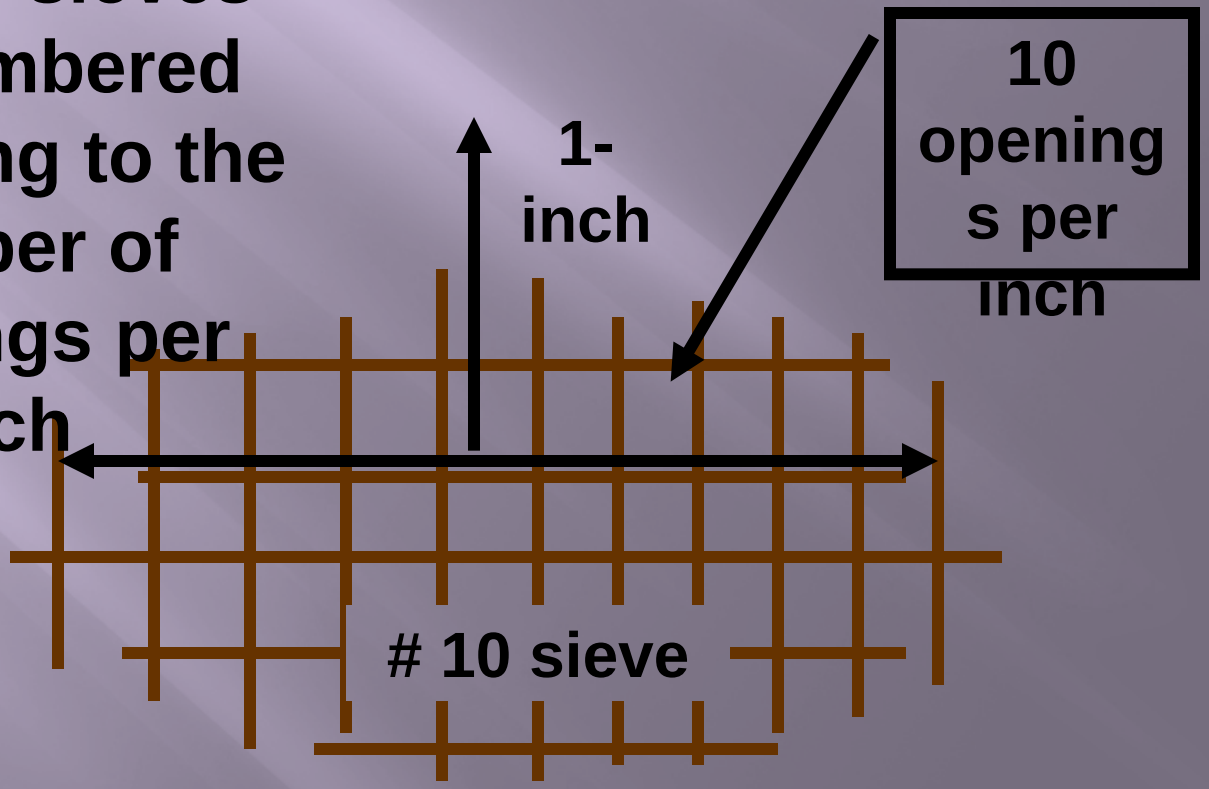


Sieve Designation - Large

Sieves larger than the #4 are designated by the size of the openings in the sieve

Sieve Designation - Smaller

Smaller sieves are numbered according to the number of openings per inch



SECTION 11
QUALITY ASSURANCE
AND QUALITY CONTROL

Site preparation requirements:

Prior to the placement of any backfill material, the ground surface must be prepared as follows:

Soil erosion and sediment control

Clearing:

Vegetation must be cut and removed from the area where backfill material is to be placed.

Grubbing:

The area under the disposal area must have the organic soil horizon removed including but not limited to all stumps and roots.

Scarify the site:

The area under the **DISPOSAL AREA** must be thoroughly roughened. The soil should be broken up to a depth of 6 to 8 inches. Alternatively, a rototiller or the teeth of a backhoe or frost tooth may be used.

Disposal Area:

The combination of the disposal field, shoulders and fill extensions.

IS IT TOO WET TO START INSTALLATION??

Transitional horizon:

On sites where the backfill material is coarser than the original soil, a minimum of 4 inches of backfill material must be mixed into the original soil to form a transitional horizon beneath the disposal area.

Disposal Area:

The combination of the disposal field, shoulders and fill extensions.

Fill large holes:

If large holes are left as a result of stump and/or stone and/or any removal of the “A” or “Ap” (plow layer) soil horizon these holes must be filled with suitable backfill material that meets the requirements of Section 11(E).


CAT
CAT

Bottom of disposal field:

The bottom of each disposal field must be installed at the elevation specified on the permit. It must be maintained to a level grade no greater than 2 inches within 100 feet. Note: The bottom of a disposal field serves as the final stage of the distribution network.

BACKFILL PLACEMENT FOR DISPOSAL AREAS INCLUDING FILL EXTENSIONS

Field determination of backfill:

soil texture is loose single grains, the individual sand grains can be readily seen (similar to salt or sugar grains) and felt

If squeezed in the hand when dry, it will fall apart when the pressure is released but has enough fines to stain the lines in the palm of the hand

if squeezed when moist, it will form a cast that will crumble when touched and bears very careful handling; and it does not form a ribbon between the thumb and forefinger but has enough fines to stain the lines in the palm of the hand.

Backfill standards: The backfill material must be gravelly coarse sand which meets the requirements of Table 11A or 11(E)(2)(a) below, as approved by the Department or LPI:

TABLE 11A
Backfill Textural Gradation

Sieve Size	Percent Passing by Weight
3 inches	100
#4	75-100
#10	50-100
#60	10-50
#100	2-20
#200	2-8
Clay Fraction	0-2

Fill material placement above disposal system:

Immediately above the filter fabric, hay or proprietary devices, fill is required as specified on the plans. It must be a minimum of 8 inches in thickness (including cover material).

Cover material:

Immediately above the backfill or fill material, at least 4 inches of soil or soil and soil amendment mix, suitable for establishment of a good vegetative cover, must be placed over the entire disturbed soil area, including fill extensions.

Disposal fields installed completely in the original ground:

The backfill material must completely cover the disposal field

crowned on level disposal fields (3 percent minimum grade) to allow for settling so that surface water will be allowed to drain from the site without ponding.

Disposal fields installed partially in the original ground:

Shoulder width and slope:

The minimum required shoulder width is 3 feet. The finished grade of the shoulder must be sloped at 3 percent away from the disposal field or conform to the slope of the finish grade of the disposal field.

Backfill material extension:

At the outside edge of the shoulder, the backfill material must be terminated by sloping the top of the backfill layer downward to the original ground

Disposal field stone

Where used, the stone must cover the distribution pipes and extend the full width and length of the disposal field.

7 inches beneath the bottom of the distribution pipes and must extend at least 1 inch above the top of the distribution pipes

trenches, disposal field stone depth must extend at least 12 inches beneath the bottom of the distribution pipes and must extend at least 1 inch above the top of the distribution pipes

Stone specifications: A site evaluator may define a more stringent standard for stone size for any particular system.

The disposal field stone must be clean, uniform in size and free of fines, dust, ashes, or clay. It must conform to one of the nominal stone sizes listed in Table 11B.

Sieve Size	Nominal Stone Size	
	1 ½ inches	¾ inches
2 inches	100	100
1 ½ inches	95 - 100	100
¾ inches	0 - 40	90 - 100
½ inches	0 - 20	0 - 55
3/8 inches	0 - 8	0 - 25
#4	0 - 5	0 - 10
#200	0 - 2	0 - 2

Covering the disposal field stone:

The disposal field stone must be covered with a layer of filter fabric or 2 inches of hay, as the laying of the distribution pipes progresses.

overlapped by a minimum of 6 inches; and
the fabric must be 4.0 ounces/square yard (per ASTM D-3776).

hay must be evenly placed in 2-inch layers over the entire surface above the stone.

FINAL GRADING

Cover material: At least 4 inches of soil or soil/soil amendment mix, suitable for establishment of a good vegetative cover must be placed over the entire filled area including the fill material extensions.

Final grading: Final grading must be completed in such a manner that surface water will not collect over the disposal field.

Erosion control: Immediately after completion of final grading, the fill material surface must be stabilized by mulching and seeding, or sodding, to establish a good vegetative cover to prevent erosion.

Vegetative covers: Grass, clover, trefoil, vetch, perennial wild flowers, or other herbaceous perennials may be utilized for disposal field surfaces.

Other covers: Bark chips, woodchips, and other organic materials may be used as cover material when specified by the designer.

Woody shrubs and trees: Woody shrubs or trees are unacceptable on disposal field surfaces. Woody shrubs may be used in conjunction with a hardy perennial ground cover on backfill material extensions only.

CURTAIN DRAINS

must be up-slope of the disposal field

A minimum setback distance of 10 feet must be maintained between a curtain drain and the up-slope edge of a disposal field.

A minimum setback distance of 15 feet must be maintained between a curtain drain and the ends of a disposal field and constructed, so that the curtain drain is located to prevent any under drain of the disposal field.

Free-flowing outlets must be provided down-slope of the curtain drain extensions.

Discharge point: Outlets may empty into a drainage swale discharging to a surface water body, a groundwater recharge basin, or a gravel bed;

Outlet design: Outlets must be designed, installed, located, and maintained in a manner that does not cause soil erosion, surface flooding, or damage to adjacent properties, does not create a public nuisance, and does not violate any applicable Federal, State, or local laws or regulations

Frost protection:

In cases where the dosing tanks will be installed above the maximum expected depth of frost penetration, dosing tanks must be protected with at least 2 inches of high density expanded rigid polystyrene.

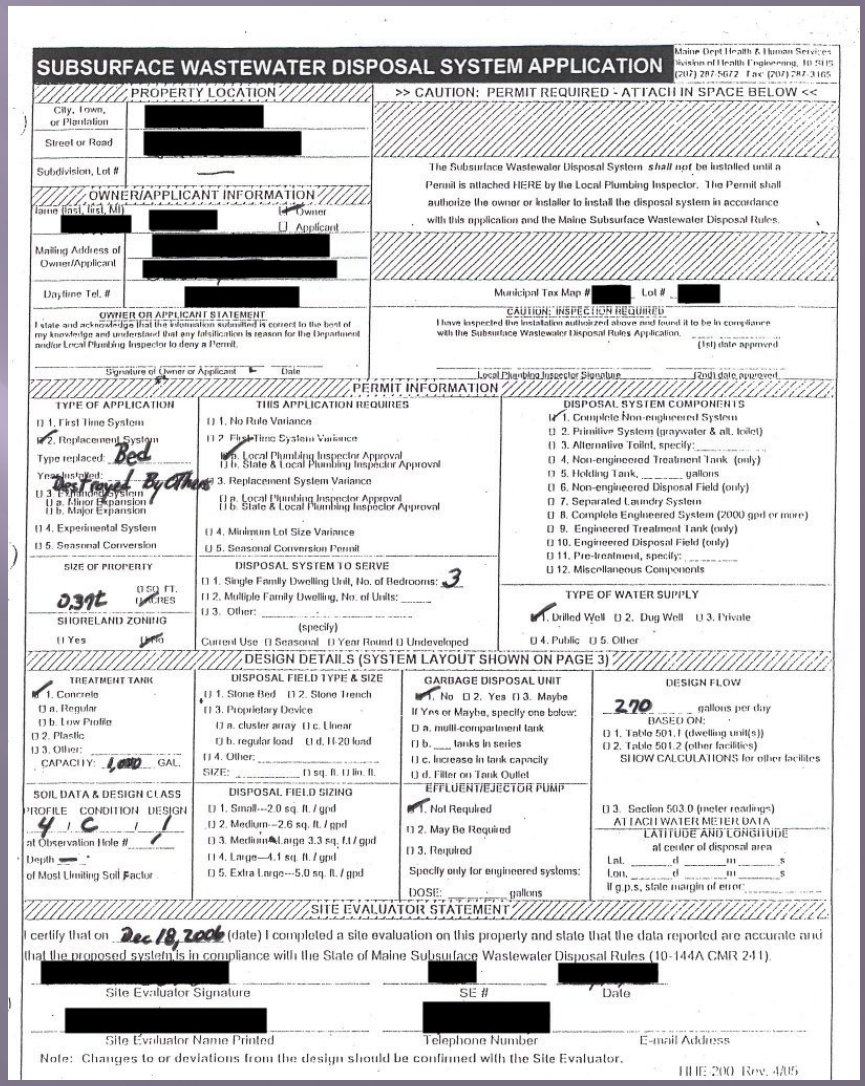
Frost protection: In cases where the delivery pipe from the dosing tank will be installed higher than the maximum expected depth of frost penetration, the design shown in the application for a disposal system permit must specify either that the delivery pipe will drain at the end of each dosing cycle or be provided with a minimum of 2 inches of high-density expanded rigid polystyrene insulation, or otherwise be protected from frost.

POOR
SITE EVALUATION

HHE-200 Form

Page one of the HHE-200 Form must be signed by both the owner/applicant and the Site Evaluator before a permit can be issued.

It is important to check that each block on the form is properly completed. If any information is lacking, the LPI should not issue the permit.



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept Health & Human Services
Division of Health Engineering, 10 SHS
(207) 287-5672 Fax: (207) 287-3165

PROPERTY LOCATION

City, Town, or Plantation: [redacted]
Street or Road: [redacted]
Subdivision, Lot #: —

>> CAUTION: PERMIT REQUIRED - ATTACH IN SPACE BELOW <<

The Subsurface Wastewater Disposal System *shall not* be installed until a Permit is attached HERE by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

OWNER/APPLICANT INFORMATION

Name (last, first, MI): [redacted] ☑ Owner ☐ Applicant
Mailing Address of Owner/Applicant: [redacted]
Daytime Tel. #: [redacted]

Municipal Tax Map # [redacted] Lot # [redacted]

OWNER OR APPLICANT STATEMENT

I state and acknowledge 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.

Signature of Owner or 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 Application.

Local Plumbing Inspector Signature — (1st) date approved — (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION
☐ 1. First Time System
☑ 2. Replacement System
Type replaced: Bed
Year installed: Destroyed By Other
☐ 3. Modification of System
☐ a. Minor Expansion
☐ b. Major Expansion
☐ 4. Experimental System
☐ 5. Seasonal Conversion

THIS APPLICATION REQUIRES
☐ 1. No Rule Variance
☐ 2. First-Time System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 3. Replacement System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 4. Minimum Lot Size Variance
☐ 5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS
☑ 1. Complete Non-engineered System
☐ 2. Primitive System (graywater & alt. toilet)
☐ 3. Alternative Toilet, specify: ____
☐ 4. Non-engineered Treatment Tank (only)
☐ 5. Holding Tank, _____ gallons
☐ 6. Non-engineered Disposal Field (only)
☐ 7. Separated Laundry System
☐ 8. Complete Engineered System (2000 gpd or more)
☐ 9. Engineered Treatment Tank (only)
☐ 10. Engineered Disposal Field (only)
☐ 11. Pre-treatment, specify: ____
☐ 12. Miscellaneous Components

SIZE OF PROPERTY
0.39t ☐ SQ. FT. ☐ ACRES

SHORELAND ZONING
☐ Yes ☑ No

DISPOSAL SYSTEM TO SERVE
☐ 1. Single Family Dwelling Unit, No. of Bedrooms: 3
☐ 2. Multiple Family Dwelling, No. of Units: ____
☐ 3. Other: ____ (specify)
Current Use ☐ Seasonal ☐ Year Round ☐ Undeveloped

TYPE OF WATER SUPPLY
☑ 1. Drilled Well ☐ 2. Dug Well ☐ 3. Private
☐ 4. Public ☐ 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK
☑ 1. Concrete
☐ a. Regular
☐ b. Low Profile
☐ 2. Plastic
☐ 3. Other: ____
CAPACITY: 1,000 GAL.

DISPOSAL FIELD TYPE & SIZE
☐ 1. Stone Bed ☐ 2. Stone Trench
☐ 3. Proprietary Device
☐ a. cluster array ☐ c. Linear
☐ b. regular load ☐ d. H-20 load
☐ 4. Other: ____
SIZE: ____ ☐ sq. ft. ☐ lin. ft.

GARBAGE DISPOSAL UNIT
☑ 1. No ☐ 2. Yes ☐ 3. Maybe
If Yes or Maybe, specify one below:
☐ a. multi-compartment tank
☐ b. ___ tanks in series
☐ c. Increase in tank capacity
☐ d. Filter on Tank Outlet

DESIGN FLOW
270 gallons per day
BASED ON:
☐ 1. Table 501.1 (dwelling unit(s))
☐ 2. Table 501.2 (other facilities)
SHOW CALCULATIONS for other facilities
☐ 3. Section 503.0 (meter readings)
ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS
PROFILE CONDITION DESIGN
4 / C / 1
at Observation Hole # ____
Depth — "
of Most Limiting Soil Factor

DISPOSAL FIELD SIZING
☐ 1. Small—2.0 sq. ft. / gpd
☐ 2. Medium—2.6 sq. ft. / gpd
☐ 3. Medium-Large 3.3 sq. ft. / gpd
☐ 4. Large—4.1 sq. ft. / gpd
☐ 5. Extra Large—5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP
☑ 1. Not Required
☐ 2. May Be Required
☐ 3. Required
Specify only for engineered systems:
DOSE: ____ gallons

LATITUDE AND LONGITUDE
at center of disposal area
Lat. ____ d ____ m ____ s
Lon. ____ d ____ m ____ s
If g.p.s., state margin of error: ____

SITE EVALUATOR STATEMENT

I certify that on Dec 18, 2006 (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).

[redacted] — [redacted] — [redacted]
Site Evaluator Signature — SE # — Date

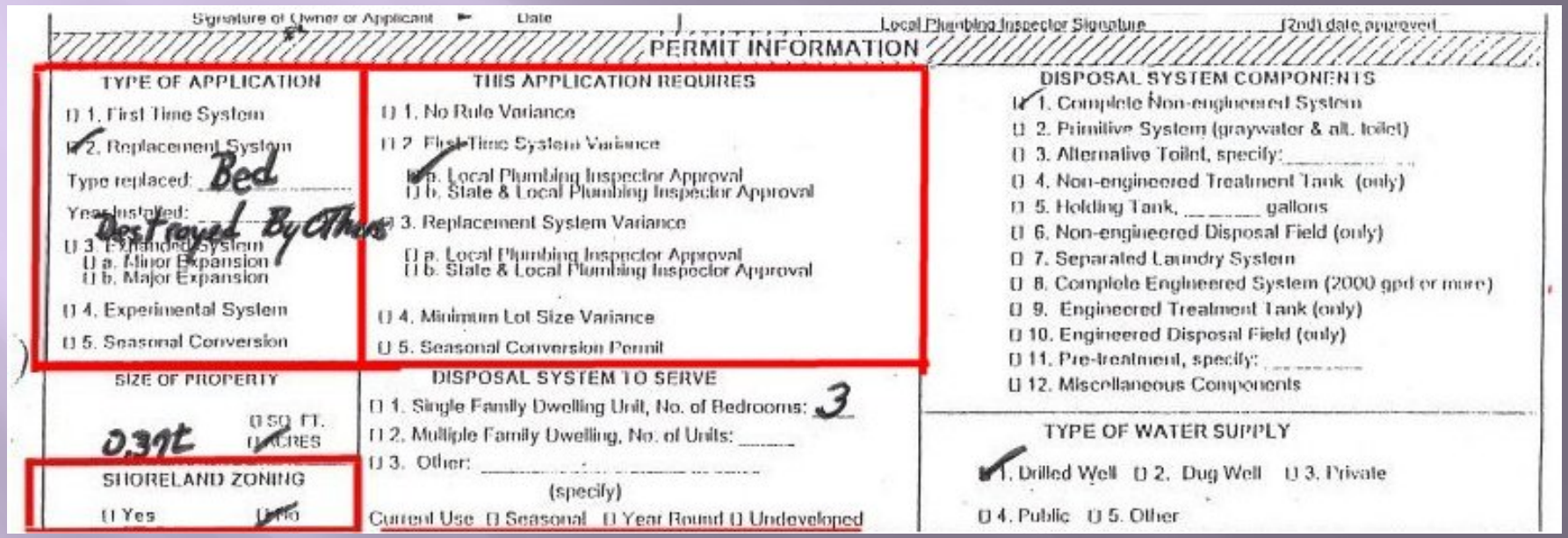
[redacted] — [redacted] — ____
Site Evaluator Name Printed — Telephone Number — E-mail Address

Note: Changes to or deviations from the design should be confirmed with the Site Evaluator.

HHE-200 Rev. 4/06

HHE-200 Form

Page One



Signature of Owner or Applicant ← Date

Local Plumbing Inspector Signature (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

- ☐ 1. First Time System
- ☑ 2. Replacement System
  - Type replaced: Bed
  - Year installed: Destroyed By Others
- ☐ 3. Expanded System
  - ☐ a. Minor Expansion
  - ☐ b. Major Expansion
- ☐ 4. Experimental System
- ☐ 5. Seasonal Conversion

THIS APPLICATION REQUIRES

- ☐ 1. No Rule Variance
- ☐ 2. First Time System Variance
  - ☑ a. Local Plumbing Inspector Approval
  - ☐ b. State & Local Plumbing Inspector Approval
- ☐ 3. Replacement System Variance
  - ☐ a. Local Plumbing Inspector Approval
  - ☐ b. State & Local Plumbing Inspector Approval
- ☐ 4. Minimum Lot Size Variance
- ☐ 5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

- ☑ 1. Complete Non-engineered System
- ☐ 2. Primitive System (graywater & alt. toilet)
- ☐ 3. Alternative Toilet, specify: _____
- ☐ 4. Non-engineered Treatment Tank (only)
- ☐ 5. Holding Tank, _____ gallons
- ☐ 6. Non-engineered Disposal Field (only)
- ☐ 7. Separated Laundry System
- ☐ 8. Complete Engineered System (2000 gpd or more)
- ☐ 9. Engineered Treatment Tank (only)
- ☐ 10. Engineered Disposal Field (only)
- ☐ 11. Pre-treatment, specify: _____
- ☐ 12. Miscellaneous Components

SIZE OF PROPERTY

0.39 ☐ SQ. FT. ☑ ACRES

SHORELAND ZONING

☐ Yes ☑ No

DISPOSAL SYSTEM TO SERVE

- ☐ 1. Single Family Dwelling Unit, No. of Bedrooms: 3
- ☐ 2. Multiple Family Dwelling, No. of Units: _____
- ☐ 3. Other: _____ (specify)

Current Use ☐ Seasonal ☐ Year Round ☐ Undeveloped

TYPE OF WATER SUPPLY

☑ 1. Drilled Well ☐ 2. Dug Well ☐ 3. Private

☐ 4. Public ☐ 5. Other

HHE-200 Form

Page One

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK
- ☑ 1. Concrete
  - ☐ a. Regular
  - ☐ b. Low Profile
- ☐ 2. Plastic
- ☐ 3. Other: _____

CAPACITY: 1,000 GAL.

DISPOSAL FIELD TYPE & SIZE
- ☐ 1. Stone Bed ☐ 2. Stone Trench
- ☐ 3. Proprietary Device
  - ☐ a. cluster array ☐ c. Linear
  - ☐ b. regular load ☐ d. H-20 load
- ☐ 4. Other: _____

SIZE: _____ ☐ sq. ft. ☐ lin. ft.

GARBAGE DISPOSAL UNIT
- ☑ 1. No ☐ 2. Yes ☐ 3. Maybe

If Yes or Maybe, specify one below:
- ☐ a. multi-compartment tank
- ☐ b. ___ tanks in series
- ☐ c. Increase in tank capacity
- ☐ d. Filter on Tank Outlet

DESIGN FLOW

270 gallons per day

BASED ON:
- ☐ 1. Table 501.1 (dwelling unit(s))
- ☐ 2. Table 501.2 (other facilities)

SHOW CALCULATIONS for other facilities

SOIL DATA & DESIGN CLASS

PROFILE	CONDITION	DESIGN
4	C	1

at Observation Hole # 1

Depth —"

of Most Limiting Soil Factor

DISPOSAL FIELD SIZING
- ☐ 1. Small---2.0 sq. ft. / gpd
- ☐ 2. Medium---2.6 sq. ft. / gpd
- ☐ 3. Medium-Large 3.3 sq. ft / gpd
- ☐ 4. Large---4.1 sq. ft. / gpd
- ☐ 5. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP
- ☑ 1. Not Required
- ☐ 2. May Be Required
- ☐ 3. Required

Specify only for engineered systems:

DOSE: _____ gallons

☐ 3. Section 503.0 (meter readings)

ATTACH WATER METER DATA

LATITUDE AND LONGITUDE

at center of disposal area

Lat. _____ d _____ m _____ s

Lon. _____ d _____ m _____ s

If g.p.s, state margin of error: _____

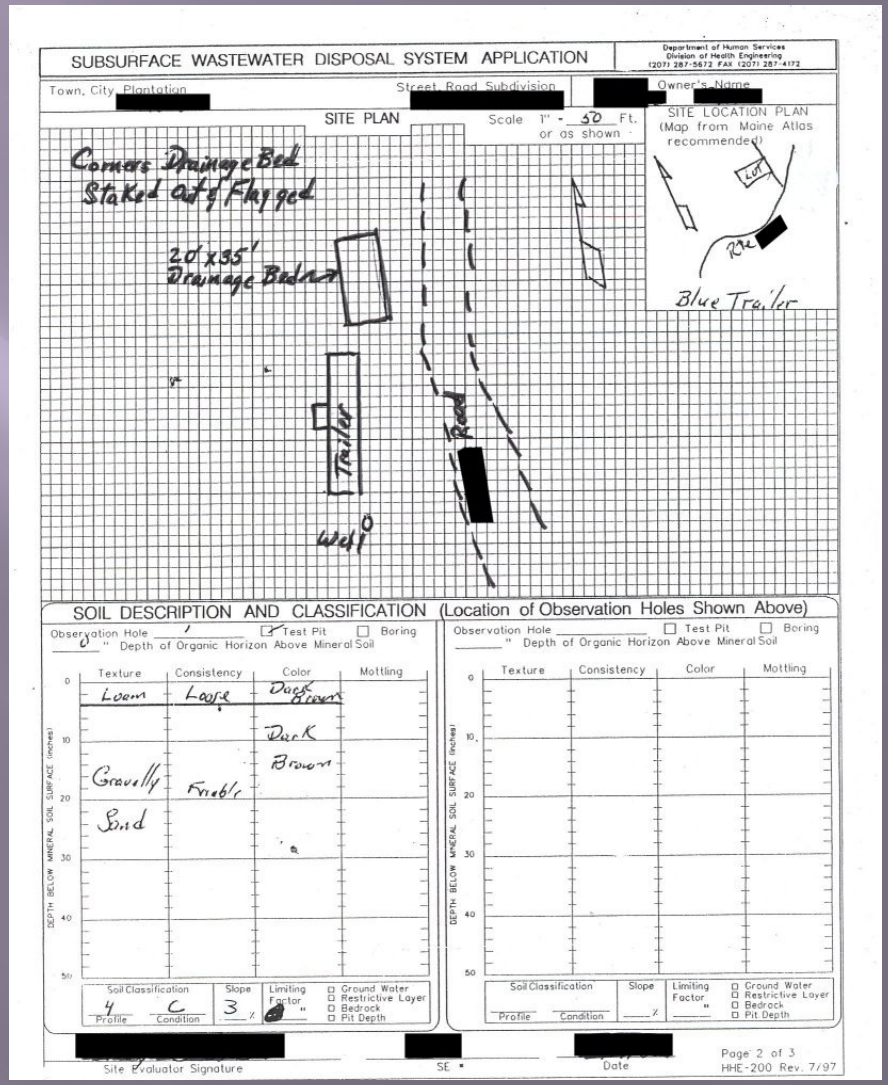
SITE EVALUATOR STATEMENT

HHE-200 Form

Page Two

The site plan should show all prominent features in the vicinity of the proposed system.

Test pit logs should be complete and accurate.



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

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

Town, City, Plantation [redacted] Street, Road, Subdivision [redacted] Owner's Name [redacted]

SITE PLAN Scale 1" = 50 Ft. or as shown

Corners Drainage Bed Staked and Flagged

20'x35' Drainage Bed

Trailer

Well

SITE LOCATION PLAN (Map from Maine Atlas recommended)

Blue Trailer

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

Observation Hole 1 ☑ Test Pit ☐ Boring

0 " Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0	Loam	Loose	Dark Brown	
10			Dark	
20	Gravelly	Friable	Brown	
30	Sand			
40				
50+				

Soil Classification: Profile 4, Condition C; Slope 3 %; Limiting Factor [redacted]" ☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Observation Hole ____ ☐ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50+				

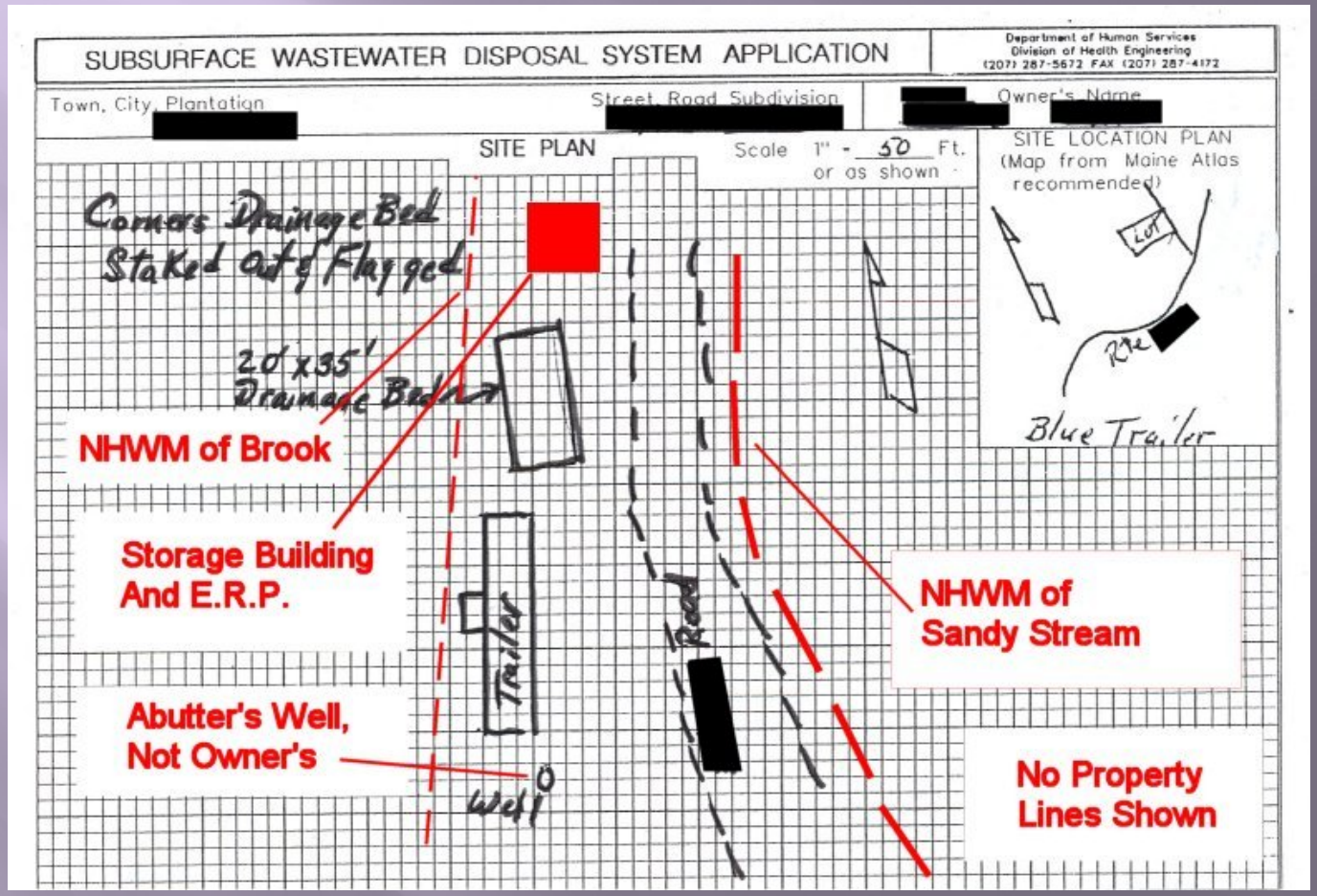
Soil Classification: Profile ____, Condition ____; Slope ____ %; Limiting Factor ____" ☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

[redacted] Site Evaluator Signature [redacted] SE # [redacted] Date

Page 2 of 3
HHE-200 Rev. 7/97

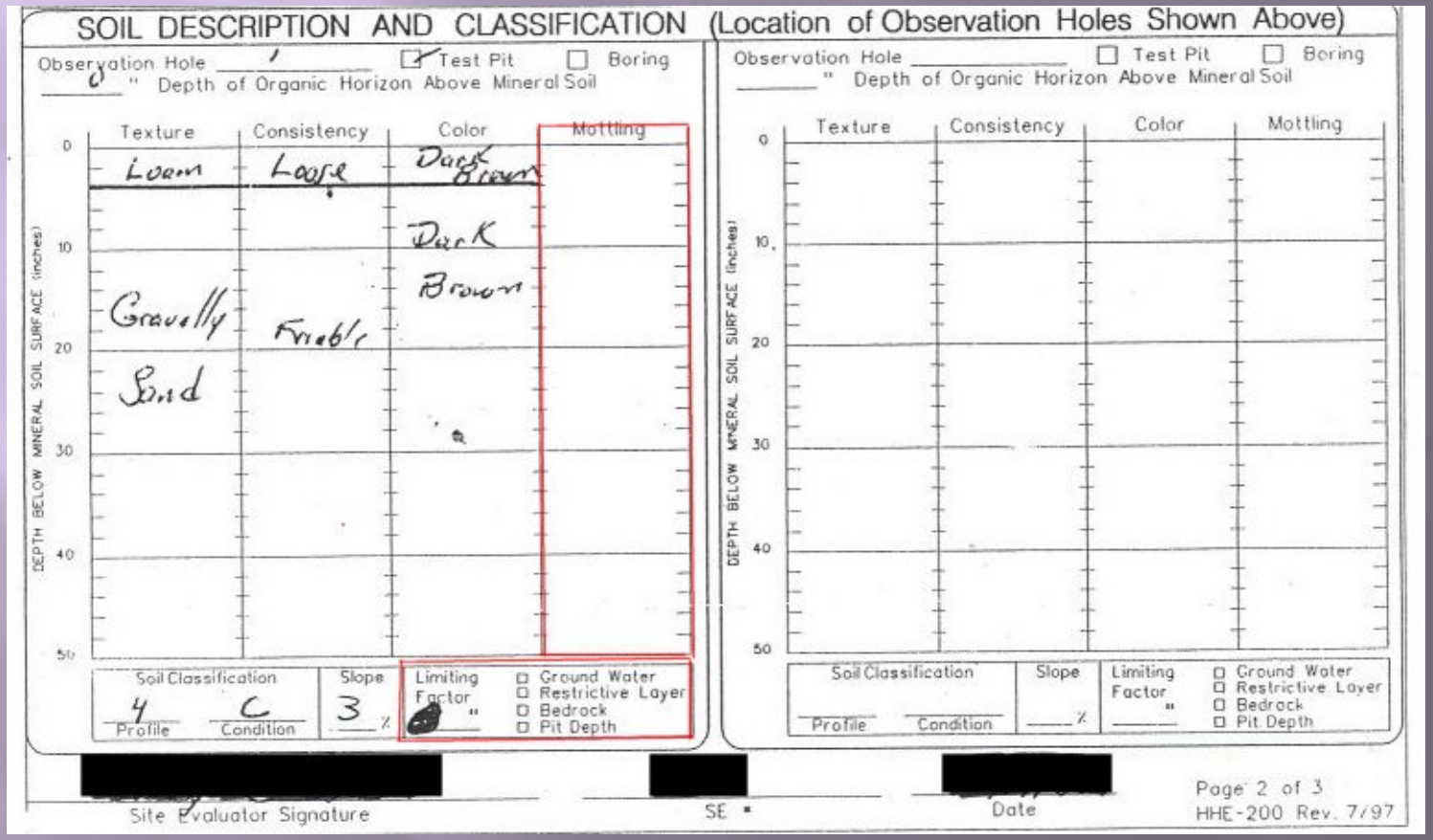
HHE-200 Form

Page Two



HHE-200 Form

Page Two



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

Observation Hole 1 ☑ Test Pit ☐ Boring

0 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)	Texture	Consistency	Color	Mottling
0	Loam	Loose	Dark Brown	
10			Dark Brown	
20	Gravelly Sand	Friable		
30				
40				
50				

Soil Classification: Profile 4, Condition C

Slope: 3 %

Limiting Factor: " ☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Observation Hole _____ ☐ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification: Profile _____, Condition _____

Slope: ____ %

Limiting Factor: " ☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

[redacted] Site Evaluator Signature

[redacted] SE #

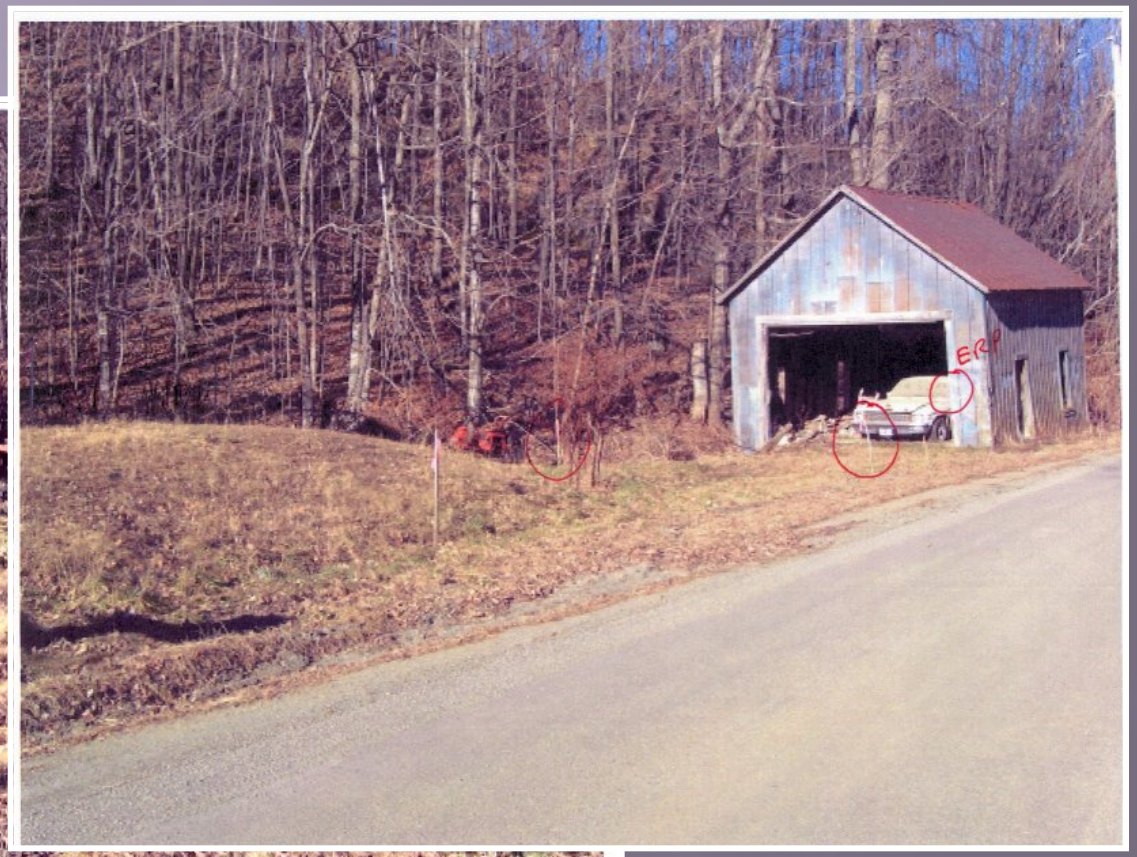
[redacted] Date

Page 2 of 3

HHE-200 Rev. 7/97

HHE-200 Form

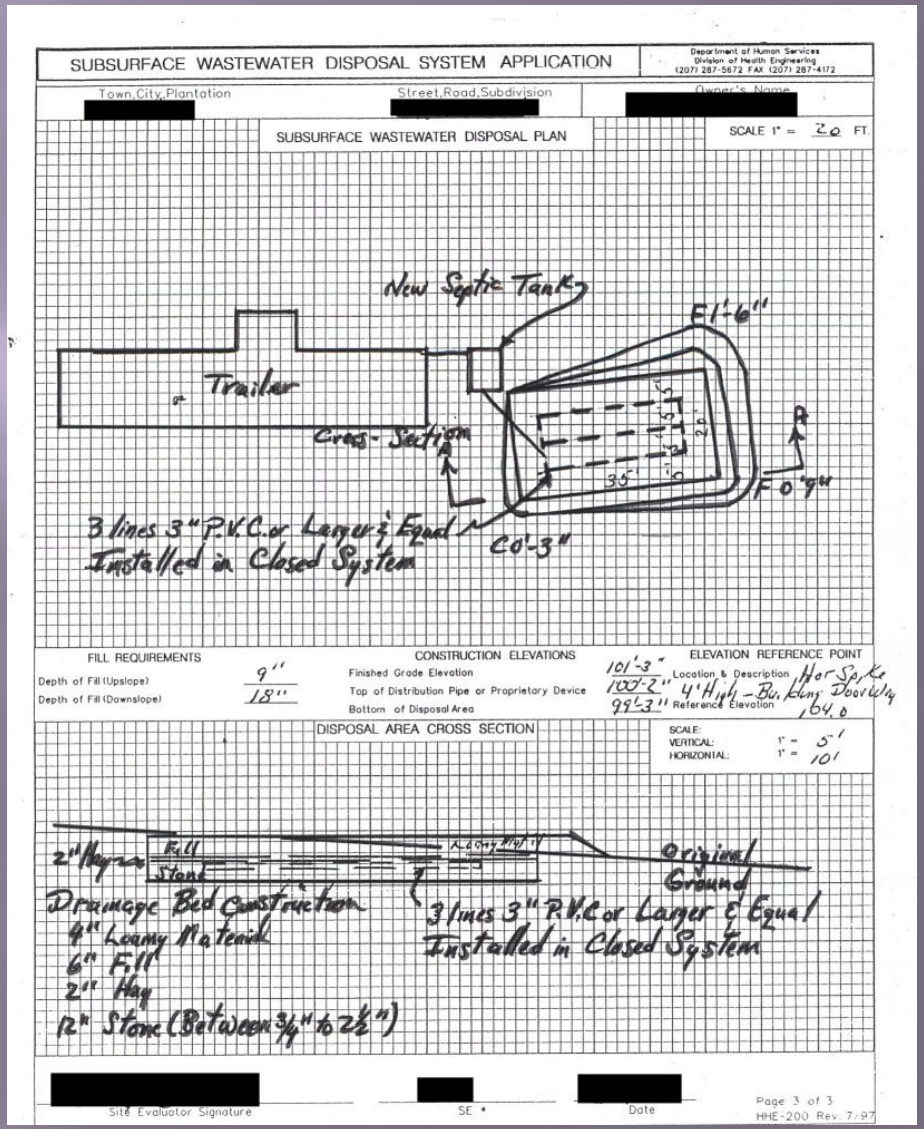
Page Two



HHE-200 Form

Page Three

Page three should contain all necessary construction data for installation of the disposal area.



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

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

Town, City, Plantation [redacted] Street, Road, Subdivision [redacted] Owner's Name [redacted]

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE 1" = 20 FT.

New Septic Tank
Trailer
Cross-Section
3 lines 3" P.V.C. or Larger & Equal Installed in Closed System
C0'-3"
F1'-6"
F0'-9"
35'
24'

FILL REQUIREMENTS

Depth of Fill (Upslope) 9"
Depth of Fill (Downslope) 18"

CONSTRUCTION ELEVATIONS

Finished Grade Elevation 101'-3"
Top of Distribution Pipe or Proprietary Device 100'-2"
Bottom of Disposal Area 99'-3"

ELEVATION REFERENCE POINT

Location & Description 4' High - Bu. King Door Sill
Reference Elevation 104.0

DISPOSAL AREA CROSS SECTION

SCALE:
VERTICAL: 1" = 5'
HORIZONTAL: 1" = 10'

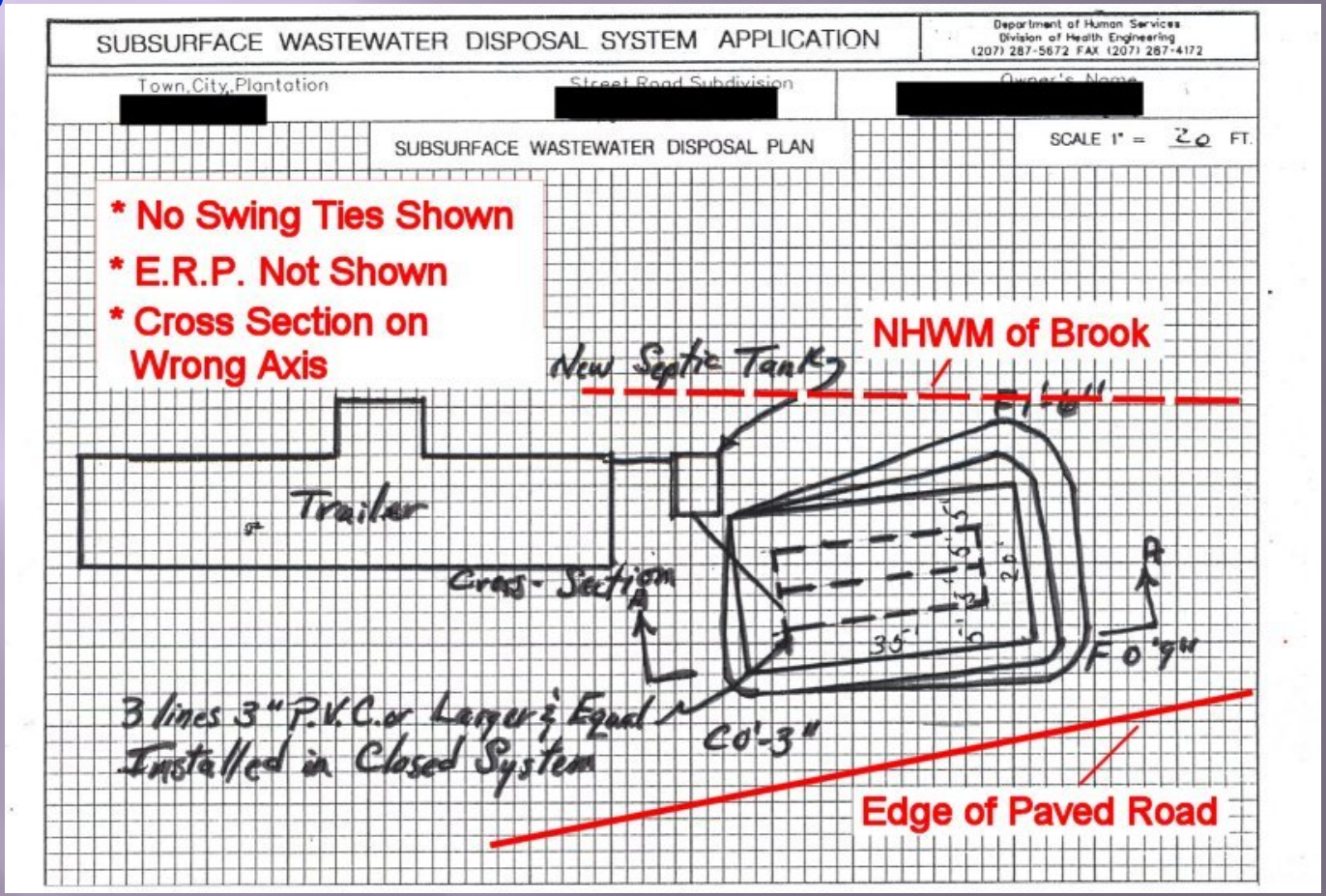
2" Hay
Fill
Stone
Original Ground
Drainage Bed Construction
4" Loamy Material
6" Fill
2" Hay
12" Stone (Between 3/4" to 2 1/2")
3 lines 3" P.V.C. or Larger & Equal Installed in Closed System

[redacted] Site Evaluator Signature [redacted] SE # [redacted] Date

Page 3 of 3
HHE-200 Rev. 7/97

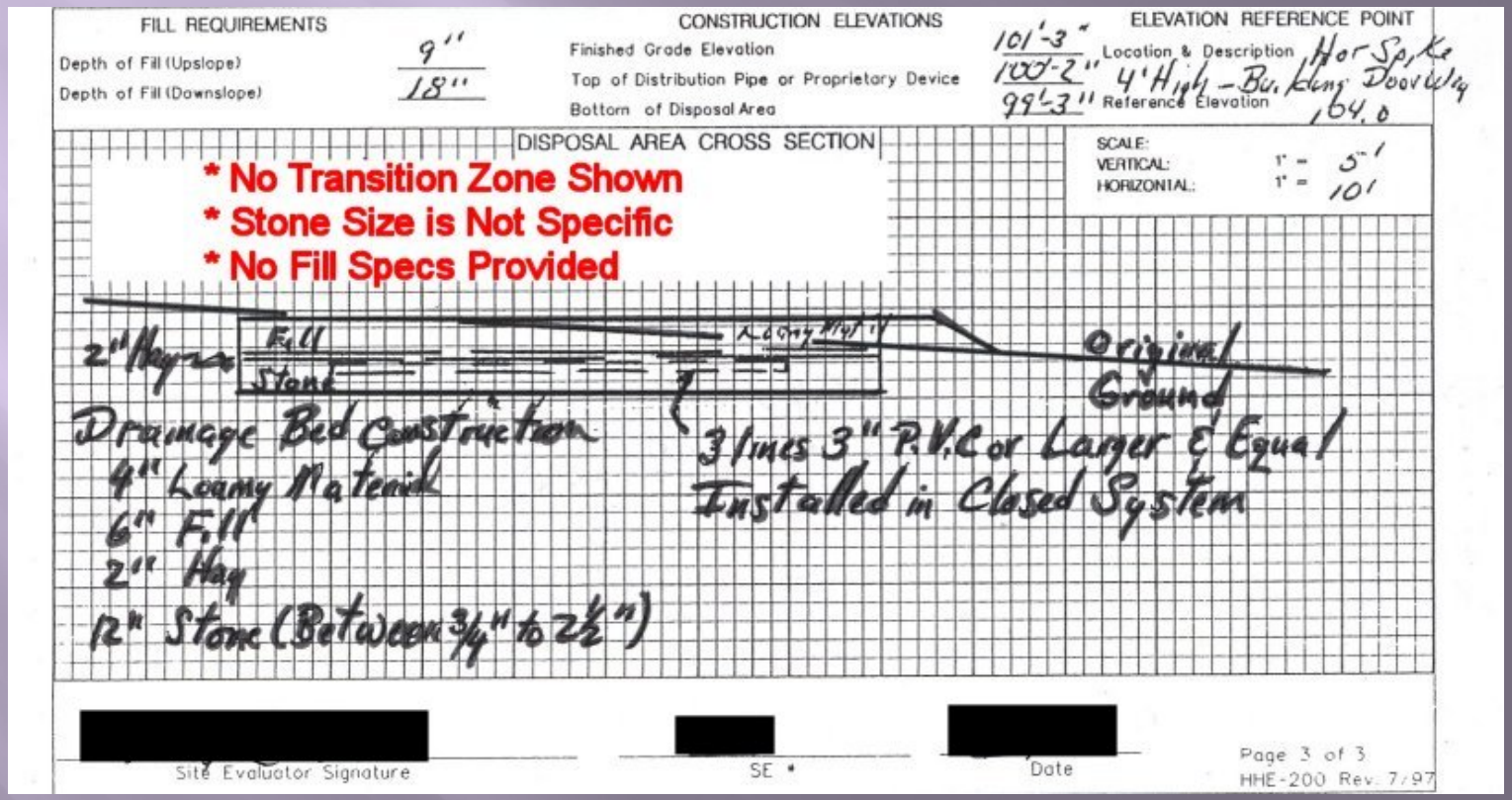
HHE-200 Form

Page Three



HHE-200 Form

Page Three



FILL REQUIREMENTS

Depth of Fill (Upslope) 9"

Depth of Fill (Downslope) 18"

CONSTRUCTION ELEVATIONS

Finished Grade Elevation 101'-3"

Top of Distribution Pipe or Proprietary Device 100'-2"

Bottom of Disposal Area 99'-3"

ELEVATION REFERENCE POINT

Location & Description Hot Spike 4' High - Bu. King Doorway

Reference Elevation 164.0

DISPOSAL AREA CROSS SECTION

SCALE:
VERTICAL: 1" = 5'
HORIZONTAL: 1" = 10'

* No Transition Zone Shown
* Stone Size is Not Specific
* No Fill Specs Provided

2" Hay
Fill
Stone
Original Ground
3 lines 3" P.V.C or Larger & Equal Installed in Closed System

Drainage Bed Construction
4" Loamy Material
6" Fill
2" Hay
12" Stone (Between 3/4" to 2 1/2")

[redacted] Site Evaluator Signature

[redacted] SE #

[redacted] Date

Page 3 of 3
HHE-200 Rev. 7/97

Holding Tanks

SECTION 7 FIRST-TIME SYSTEMS

A. Setbacks & Siting for First-Time Disposal Systems
B First-Time System Variance Requests
C. Municipal Review by LPI
D. Criteria Used for Approval
E. Holding Tanks
F. Work Adjacent to or within Wetlands & Water Bodies

SECTION 8 REPLACEMENT SYSTEMS

A. General
B. Setbacks And Siting for Replacement Disposal Systems
C. Replacement System Variance Request
D. LPI's Authority
E. Disposition of a Variance by the Department
F. Time Limit
G. Owner/Applicant's Understanding
H. Holding Tanks
I. Application Procedure
J. LPI Approval
K. Work Adjacent to or Within Wetlands & Water Bodies

SECTION 1
INTRODUCTION
E. PROHIBITIONS

6. If a municipality has not adopted a holding tank ordinance under Section 7 and Appendix A, holding tanks for residential first-time use are not allowed within that municipality.

APPENDIX A: MODEL HOLDING TANK ORDINANCE

SECTION 7
FIRST-TIME SYSTEMS
D. HOLDING TANKS

Holding tanks are allowed for first-time systems under limited conditions, pursuant to Sections 7(D)(4), 7(D)(5), and 7(D)(6), and are subject to the following provisions:

(a) Annual pumping required: Every holding tank must be pumped at least once a year, if the system has been used at all during that year.

(b) Seasonal conversion not permitted

7(D)(4), WITH LOCAL ORDINANCE

i. Local ordinance

ii. Application meets all criteria:
The application meets all requirements of the ordinance and Section 7(E).

7E. WORK ADJACENT TO OR WITHIN WETLANDS AND WATER BODIES

SECTION 7
FIRST-TIME SYSTEMS
D. HOLDING TANKS
7(D)(5) WITHOUT LOCAL ORDINANCE

7(D)(5) (a) Approval criteria: If the municipality has not adopted a holding tank ordinance under Section 7(D)(4) and Appendix A, holding tanks for residential first-time use are not allowed.

7(D)(5) (b) The LPI may approve the permanent use of a holding tank for **nonresidential structures**

must not require a license as an eating establishment

The flow must not exceed 100 gallons per day or 500 gallons per week

The application meets all requirements of Section 7(D)(3). **(meet i & iii)**

7(D)(3).

i. Required by other regulation,
ii. First-Time System: The Municipality has adopted the model holding tank ordinance in these Rules for first-time systems
iii. No practical alternative---- iv. Public sewers not available---v. Water conservation– vi. Deed Covenant

and 7(D)(6),
6. TEMPORARY HOLDING TANKS

(a) Temporary use:

during alteration or repair of an existing system, the LPI may approve the use of a wastewater holding tank or a septic tank temporarily modified to serve as a holding tank for up to 2,000 gpd. This use may not exceed 90 days. Temporary holding tanks do not require a holding tank application.

(b) Future public sewer connection:

LPI may permit use of a holding tank by a facility for up to 365 days when physical connection to a public sewer is anticipated, as stated in writing by the sanitary district. A holding tank application is not required for this instance. This permit may be extended once for an additional 365 days, if necessary.

SECTION 8-H
REPLACEMENT SYSTEMS
HOLDING TANKS

If a Site Evaluator determines that it is impractical to install a replacement disposal system in accordance with setbacks and other relevant siting criteria, and the LPI agrees, a holding tank may be designed, subject to the following criteria:

Annual pumping required

Seasonal conversion not permitted

Water use monitoring: The LPI may require the installation of a water meter to monitor the flow to the holding tank.

The owner shall retain for a period of three years the copies of the pumping records

Holding tank specifications

Setbacks

Alarm provisions

Installation: Holding tanks must be installed in accordance with Section 6(H).

Water conservation: The plumbing in the structure optimizes water conservation

Number and size of holding tanks:

The installation must have a minimum capacity of at least ____ 7 times the daily flow, but not less than 1,000 gallons. Multiple tanks must be installed in series.

Minimum design flow for a single family dwelling is____2 bedrooms.

Gallons per day per bedroom is _____90 GPD.

2 x 90 = 180 gallons per day x 7 = 1260 GPD

Discontinuance of Holding Tank:

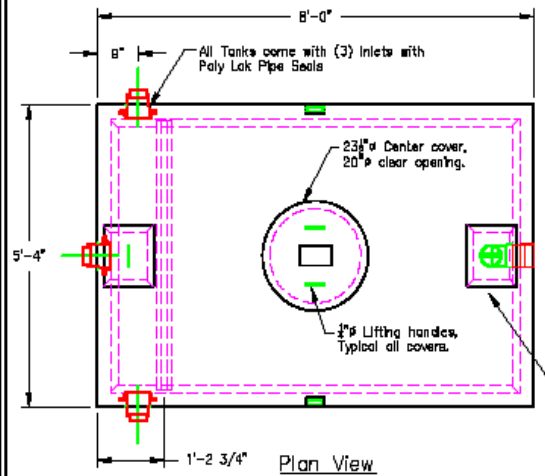
Any structure which utilizes a permanent holding tank permitted after July 1, 1974, as a first-time system, is required to meet first-time criteria for alternate means of subsurface wastewater disposal.

Anti-floatation:

Provisions must be made to prevent the tanks from floating, if empty

1000 Gallon Septic Tank

Weight: 9000 lbs.
Item # 2039 Standard
Item # 2133 Heavy Duty

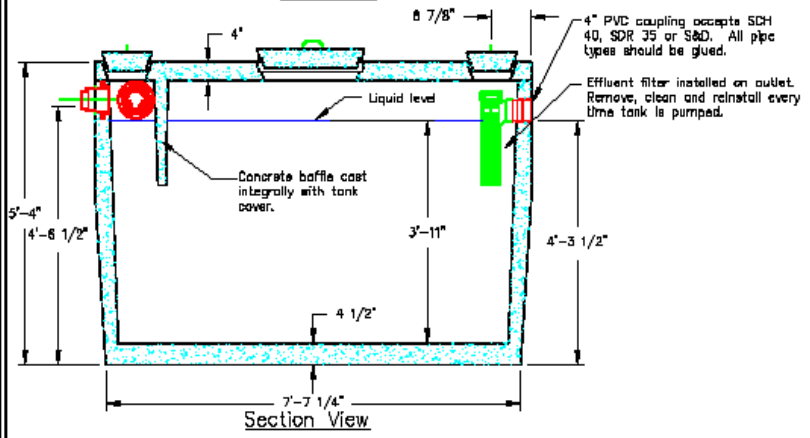


Plan View

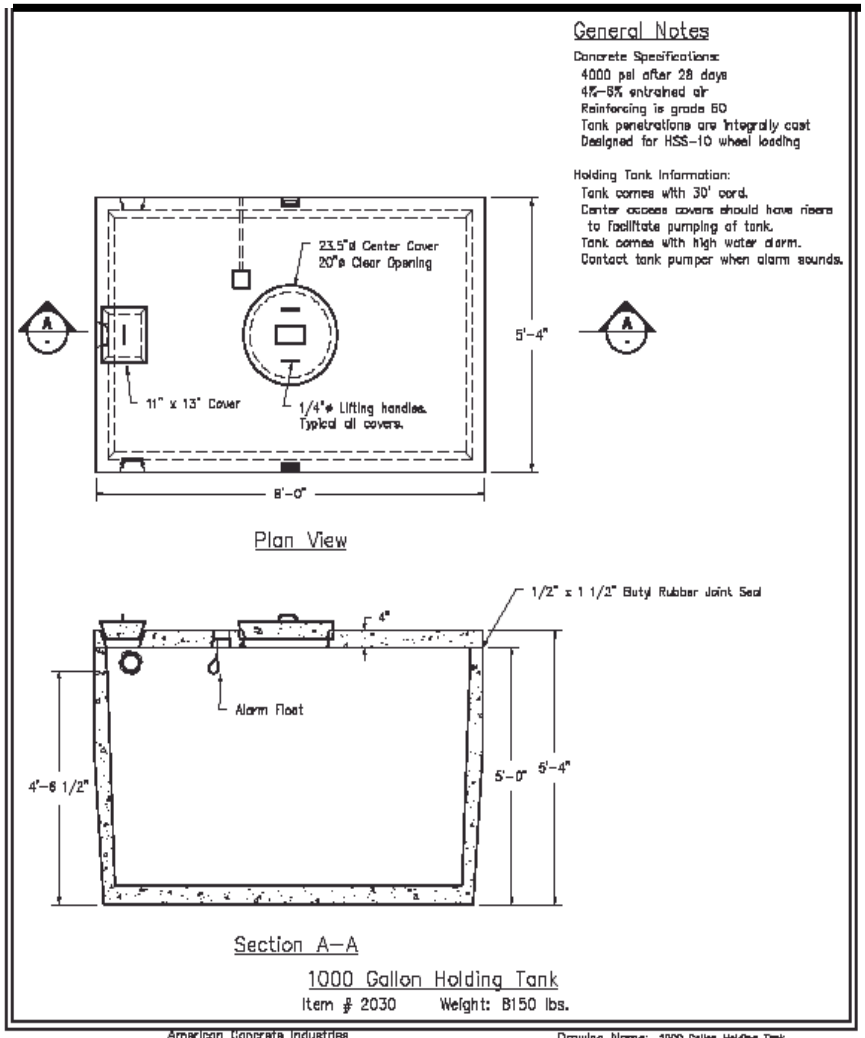
General Notes:

Concrete Specifications:
1) 4000 psi @ 28 Days
2) 4%-6% Entrained Air
3) Tank Penetrations are Integrally cast
4) All joints sealed with butyl rubber joint sealant

Septic Tank Information:
1) Tanks Should be pumped every 3-5 years
2) Center access covers should have risers to bring cover access to grade.
3) Tanks can be vacuum tested at an additional cost

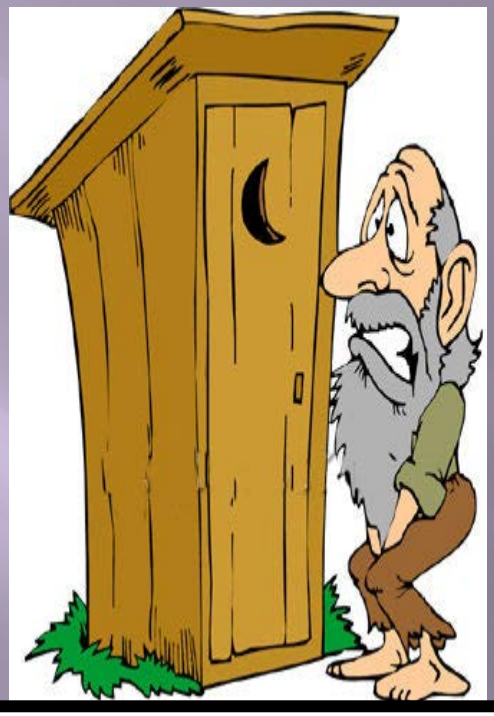


Section View



American Concrete Industries
1022 Minot Ave. Auburn, ME / RR #5, Box 100 Bangor, ME
Tel: 207-784-1388 / Tel: 207-947-8334

Drawing Name: 1000 Gallon Holding Tank
Latest Revision: 0.0 Date :04/04/2001
Drawing Date: 04/04/2001



HOLDING TANK

SEPTIC TANK

A primitive and limited system consists of a grey water disposal field and an alternative toilet.

PIT PRIVIES ARE “BLACK WASTE”. GREY WATER DESIGN NOT MEANT FOR BLACK WASTE

2” MAX. PIPE SIZE?

Allowable fixtures are limited to lavatory, shower/tub or sink.

GREY WATER SYSTEM ONLY
SEPTIC TANK

GREY WATER STONE DISPOSAL FIELD

1000 gallon septic tank

2 bed stone field

Structures: No portion of a structure may be located on any part of a disposal area.

Disposal Area: The combination of the disposal field, shoulders and fill extensions.

Minimum access opening:

All septic tanks must be constructed to provide an access to each tank compartment. Each access must be: at least 18 inches along the side, if square; at least 18 inches in diameter, if round; and as nearly as possible centered over the compartment.

Septic tank to holding tank conversion?

Field malfunctions, no possible way to replace it, holding tank is best option

1000 gallon septic tank

Outlet and seam watertight

Add 750 gallon or higher

(7 times the GPD)

OR

1500 GALLON

SECTION 6
APPROVED MATERIALS AND EQUIPMENT

M. PIPING

Connecting Pipes and Delivery Pipes:

Gravity flow piping
The pipes must be sized to serve the connected fixtures, but in no case may be less than 3 inches in diameter (1.5 inches for primitive systems)

Pump discharge piping:
The pipes must be sized to serve the pump but in no case may have a diameter less than that required by the manufacturer.

Piping materials

Schedule 40

Plastic pipe: PVC (ASTM D2665),

SDR-21, 26, or 35

ABS (ASTM 2661)
or Polyethylene, straight wall (ASTM D-1248)

Ductile cast-iron
Other material permitted by the Department.

Joints: All pipe joints must be made watertight.

Pipes must be laid on a firm foundation. Pipes must be protected from freezing if there is any possibility of liquid remaining in the pipes.

Cleanouts: At least one cleanout must be provided for every 100 feet of connecting pipe in a gravity system.

Minimum pitch:

Building sewer:
The minimum pitch of the building sewer is 1/4 inch per foot (2 percent). For pipes 4 inches in diameter or larger, 1/8 inch per foot (1 percent) may be authorized by the LPI.

Effluent line (gravity):
The minimum pitch of the gravity effluent line is 1/8 inch per foot (1 percent).

THERE IS NO MAXIMUM PITCH

Pipe alignment:
Connecting pipes must be laid in a continuous grade and as nearly as possible in a straight line.

Horizontal bends, where required, must not be sharper than 45 degrees.

Drop manholes may be installed if found necessary.

N. DISTRIBUTION PIPES

Minimum diameter:
Distribution pipes must be a minimum of 3 inches in diameter (2 inches for primitive systems, and not to exceed 2 inches).

Distribution pipes must consist of lengths of rigid, perforated pipes connected with tight joints.

Individual runs of distribution pipe must be capped at the end

Perforations:

There must be two rows of evenly spaced perforations running the length of the distribution pipe. The rows must be on each side of the pipe, midway between the invert and the center line that separates the upper and lower halves of the pipe; i.e., at the 4 o'clock and 8 o'clock positions. Perforations must be no smaller than 3/8 inch and no larger than ¾ inch in diameter.

Pitch:

Each individual distribution pipe must be set level, not to exceed a slope of $\frac{2}{}$ inches in 100 feet.

Spacing:

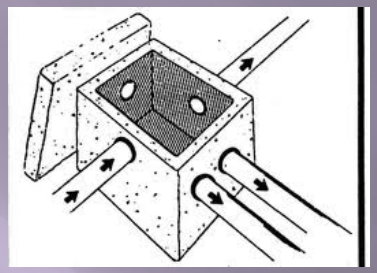
The distance between pipes must be no greater than 5 feet and no less than 1 foot. Pipes must be no more than 5 feet and no less than 1 foot from the sidewalls.

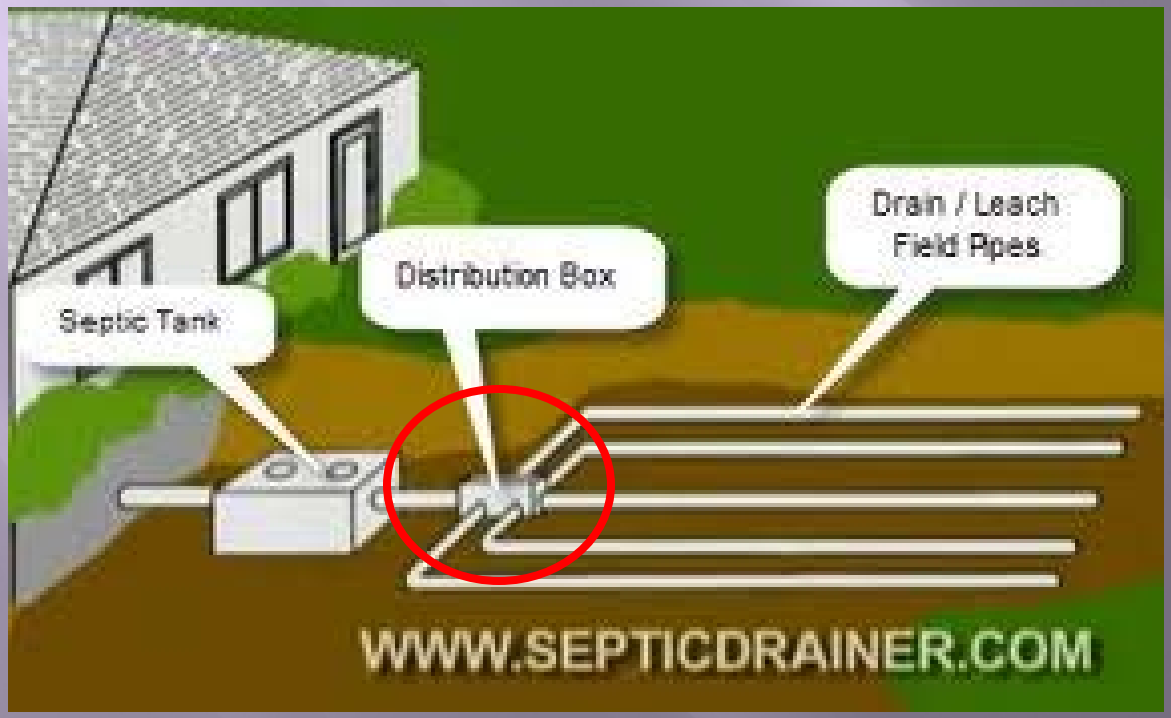
Pipe material:

The following materials are acceptable for distribution pipes: Plastic pipe meeting the following: Acrylonitrile-Butadiene-Styrene (ASTM D-2751); Polyvinyl Chloride (ASTM D-2729, D-3034); Styrene-Rubber (ASTM D-2852, D3298); or Polyethylene, straight wall (ASTM D-1248).

Distribution box:

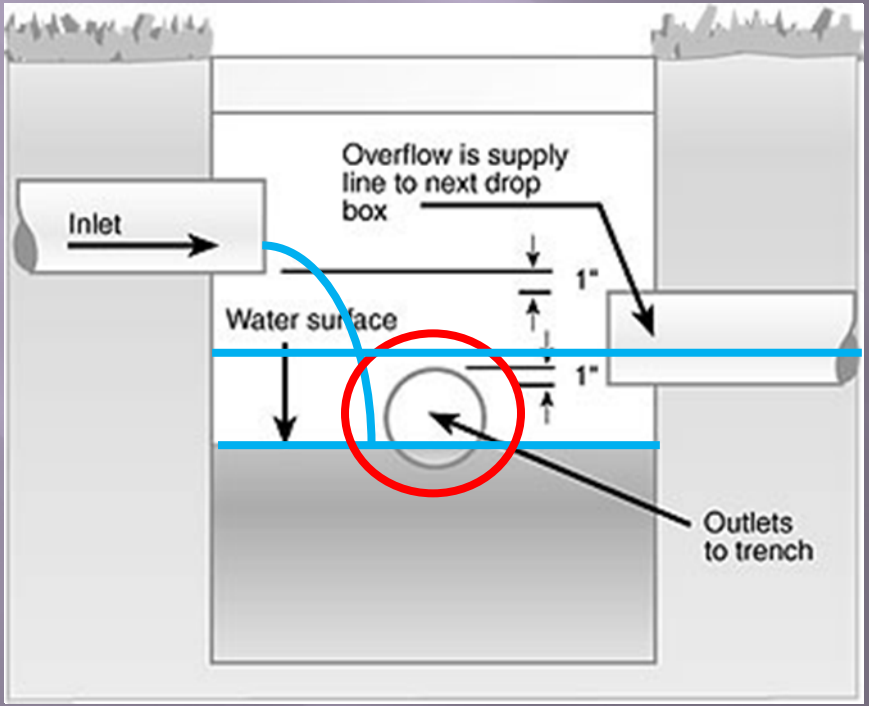
A device that receives septic tank effluent and distributes such effluent in equal portions to two or more disposal fields or distribution pipes within a disposal field.





Drop box:

A wastewater distribution device where the elevation of the incoming distribution line is higher than that of the outgoing distribution line.



ISSUES / COMPLAINTS

WHEN DOING INSPECTIONS

BE PREPARED TO SEE ANYTHING

Duties and powers of Local Plumbing Inspector:

The Local Plumbing Inspector shall enforce all the provisions of these Rules. He or she shall act on any question concerning the method or manner of construction and the materials to be used in the installation of a system, except as may be specifically provided for by other requirements of these Rules.

Notices and orders:

The LPI shall issue all necessary notices or orders pertaining to removal of illegal or unsafe conditions, the requirement of necessary safeguards during construction, and compliance with all requirements of these Rules for the safety, health, and general welfare of the public.

LPI's right of entry:

In the discharge of duties, the LPI, with the consent of the property owner, occupant, or owner's agent, shall have the authority to enter at any reasonable hour, any structure or premises in the jurisdiction to enforce the provisions of these Rules. See 30-A M.R.S. § 4213. If entry is refused, the LPI can seek a court order for entry.

Department official's right of entry:

In the discharge of duties, Department officials, with the consent of the property owner, occupant, or owner's agent, shall have the authority to enter at any reasonable hour any structure or premises to enforce the provisions of these Rules. If entry is refused, the Department can seek a court order for entry.

WHY CAN'T I HOOK UP TO MY SEPTIC?


Corsair

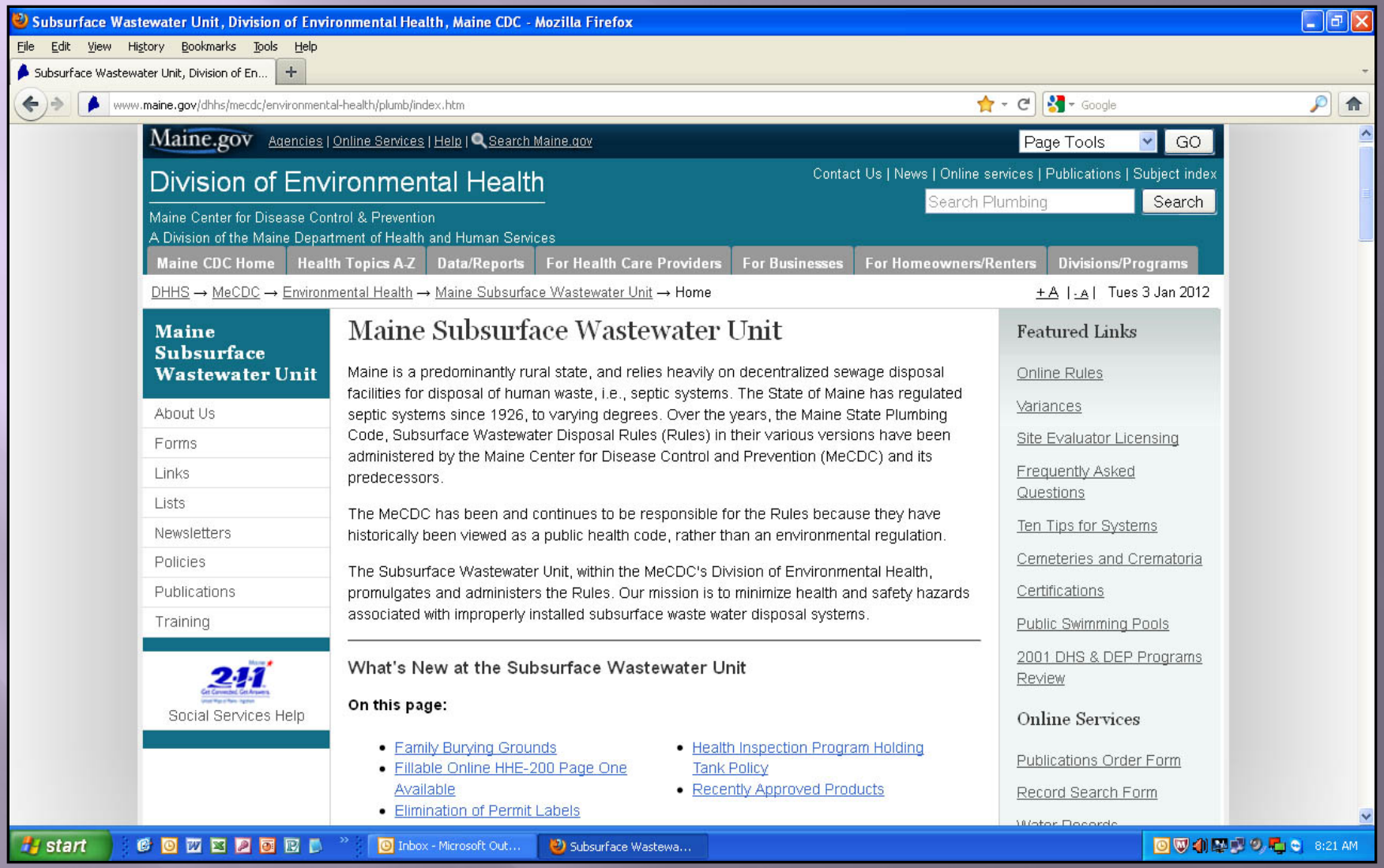

WASTEWATER
HOLDING TANK

Contact Information

Program Staff

- **Brent Lawson, State Plumbing Inspector 592-7376**
- **Glenn Angell, State Site Evaluator 592-2084**
- **James Jacobsen, Engineered Systems, Web**
- **Wendy Austin, Plumbing Permits & Data Entry 287-5672**
- **Lorraine Martin, Plumbing Permits and Program Support 287-5689**

www.mainepublichealth.gov/septic-systems



The End