

**TOWN OF CHESTER  
WARREN COUNTY, NEW YORK**

**ON-SITE WASTEWATER  
TREATMENT  
LOCAL LAW**

**EFFECTIVE DATE: JUNE 20, 2005**

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# ARTICLE 1

## INTRODUCTORY PROVISIONS

### **Section 1.010 – Short Title**

This local law shall be known as the Town of Chester on-site wastewater treatment local law. The Town of Chester is hereinafter referred to as the “Town”.

### **Section 1.020 – Applicability**

This local law shall govern the design and installation of all wastewater treatment systems within the Town except the design or installation of, or treatment of wastewater by means of a community or public sewer. For systems that are jurisdictional to DEC, the design, construction and operation shall comply with DEC regulations and permit requirements.<sup>1</sup>

### **Section 1.030 – Authority**

Enactment of this Local Law is pursuant to the Municipal Home Rule law, Article 3 of the Public Health Law and Article 27 of the Executive Law of the State of New York.

### **Section 1.040 – Purpose**

The purpose of this local law is to promote the health, safety and general welfare of the community by insuring through the location, construction and use of properly designed facilities that non-industrial sewage is treated in a manner that will not create a health hazard, adversely affect the environment, or impair the enjoyment or use of property.

### **Section 1.050 – Compliance**

Wastewater treatment systems shall comply with specifications and standards set forth in this ordinance. These specifications and standards are derived from the specifications and standards for wastewater treatment systems set forth in the current edition of:

- “Wastewater Treatment Standards Individual Household Systems,” NYS Department of Health (DOH) (10 NYCRR Appendix 75-A).
- “Standards for Waste Treatment Works – Institutional and Commercial Sewerage Facilities,” NYS Department of Environmental Conservation (DEC).
- Adirondack Park Agency Guidelines for On-Site Sewage and Disposal Systems (1991).
- On-Site Wastewater Treatment Systems Manual, EPA (Publication EPA625-R-00-008, Feb, 2002)

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<sup>1</sup> DEC permit required for domestic sewage systems which discharge 1) 1,000 or more gallons per day, 2) to surface water, and/or 3) waste other than domestic sewage.

**ARTICLE II**  
**GENERAL PROVISIONS**

**Section 2.010 – Prohibited Acts**

Except as otherwise provided in this local law:

- A. It shall be unlawful for any person to construct, alter, make major repairs to, enlarge, or extend any facility or part of such facility intended or used for the discharge of wastewater without obtaining all required governmental approvals.
- B. It shall be unlawful for any person to cause to be discharged within the Town any wastewater except by systems designed, installed, and approved in accordance with the requirements of this ordinance except that holding tank wastewater shall be disposed of in a location and by a method approved by the Town Board provided that such location has received all required governmental approvals.
- C. It shall be unlawful for any person to use or maintain any individual wastewater treatment system that is unsafe, is a source of pollution to any of the surface waters or groundwater source of the state, permits the seepage of raw or partially treated sewage to ground surface, creates a potential health hazard, adversely affects the environment or impairs the use of development of the lot on which it is situated or nearby lands or interferes with the enjoyment or use of property.
- D. It shall be unlawful for any person to abandon a septic tank or seepage pit, unless at the time of such abandonment the septic tank is pumped out and filled with clean, granular soil or inert, free-flowing, dense material.
- E. It shall be unlawful for any person to discharge pollutants to the waters of the State from any outlet or point source without first obtaining a State Pollution Discharge Elimination System (SPDES) permit from the Department of Environmental Conservation if so required.
  - 1. The SPDES permit is not required for the construction and use of a new or modified wastewater treatment system or outlet when such disposal system, point source or outlet is designed to discharge and discharges sewage effluent without the admixture of industrial wastes or other wastes to the ground waters of the State from premises when the discharge from such wastewater treatment system consists of a flow of less than one thousand gallons per day.
  - 2. It shall be unlawful for any person, until a written SPDES permit therefore has been granted by the Department of Environmental Conservation, and unless such permit remains in full force and effect, to:

- a. Make or cause to make or use any outlet or point source for the discharge of sewage, industrial waste or other wastes or the effluent therefrom, into the water of this state, or
- b. Construct or operate and use a wastewater treatment system for the discharge of sewage, industrial waste, or other wastes or the effluent therefrom, into the waters of the State, or make any change in addition to or an extension of any existing disposal system or part thereof which would materially alter the volume of, or the method or effect of treating or disposing of the sewage, industrial waste or other wastes, or
- c. Increase or alter the content of the wastes discharged through an outlet or point source into the waters of the State by a change in volume or physical, chemical or biological characteristics.

“Other wastes” means garbage, refuse, decayed wood, sawdust, shavings, bark, sand, lime, cinders, ashes, offal, oil, tar, dye-stuffs, acids, chemicals, ballast and all other discarded matter not sewage or industrial waste which may cause or might reasonably be expected to cause pollution of the waters of the State.

## **Section 2.020 – Definitions**

**Abandonment** – the relinquishment of the use of an on-site waste water treatment system with the intention of not continuing use of such system in the future. An on-site waste water treatment system shall be presumed to be abandoned when a new waste water system is being built to replace it.

**Absorption area** – that area to which effluent is distributed for infiltration and treatment into the soil. It includes the area of the subsurface absorption system and, if required by the design, the area covered by fill used to grade around the system.

**Absorption system** – any structure designed to distribute effluent into the soil and provide for its treatment. See conventional and alternative systems defined below.

### **Conventional absorption system**

**Absorption field** – a system of narrow trenches partially filled with a bed of washed gravel or crushed stone  $\frac{3}{4}$  to  $1\frac{1}{2}$  inches in diameter (i.e., aggregate) through which a perforated distribution pipe is laid.

**Gravelless absorption systems** – generally proprietary products, which allow septic tank effluent to infiltrate soil in the absence of installed aggregate.

**Seepage pit** – a covered pit with an open-jointed or perforated lining through which septic tank effluent infiltrates into the surrounding soil.

**Shallow absorption trenches** – an absorption field with trenches installed at or no more than two feet below original ground level on sites where there is a depth of at least two feet but less than four feet of usable soil.

**Absorption beds** – similar to an absorption field except that several laterals (lengths of perforated distribution pipe) are installed in a single excavation.

**Fill (a.k.a. “Site Modification” or “Amended Soil” system)** – system employed when the soil percolation rate is faster than one minute per inch, wherein all soil bounded by two feet from the proposed absorption trenches (i.e., horizontally and vertically) is removed and blended with fine sand or sandy loam and replaced in six inch layers with mechanical compaction to the approximate density of the on-site soil.

### **Alternative absorption system**

**Raised system** – a conventional absorption trench system constructed in stabilized permeable fill placed above the original ground surface.

**Mound system** – a soil absorption system that is elevated above the natural soil surface in suitable fill material; similar to a raised system utilizing sandy fill material without requiring a stabilization period prior to construction of the absorption bed/trenches.

**Intermittent sand filters** – a system which comprises the intermittent application of settled wastewater to a bed of granular material which is underdrained to collect and discharge filtered effluent to a subsurface absorption facility (i.e., downstream absorption mound or modified shallow trench system).

**Non-waterborne systems** – (composters, chemicals and recirculating toilets, incinerator toilets, sanitary privies) systems designed to treat human wastes with no wet plumbing. These systems must be accompanied by systems designed to treat household wastewater (i.e., greywater) from sinks, showers, tubs and other fixtures by settling and soil absorption.

**Other engineered systems** – a wastewater treatment system of a type not addressed in the Department of Health Design Handbook, designed by a design professional and construction certified by a licensed professional engineer. These systems should meet Class A national sanitary foundation certification.

**Application rate** – the rate at which effluent is applied to a subsurface absorption area, for design purposes, expressed in gallons per day per square foot (gpd/sq.ft.).

**Baffle** – a flow deflecting device used in septic tanks and distribution boxes to inhibit the discharge of floating solids, reduce the amount of settleable solids that exit and reduce the exit velocity of the wastewater.

**Building** – a structure wholly or partially enclosed with exterior or party walls, and a roof, affording shelter to persons, animals or property.

**Building drain** – that part of the lowest piping of a drainage system which receives the discharge of wastewater and conveys such discharge to the building sewer. The building drain extends to three feet outside the building wall.

**Cesspool** – a covered pit into which wastewater is discharged for disposal by infiltration of the liquid portion into the surrounding soil.

**Cleanout** – an opening providing access to wastewater collection and treatment devices (house sewer, septic tank, distribution box) which allows for the cleaning or purging of materials and obstructions.

**Combined sewer** – a sewer receiving both surface runoff and wastewater.

**Design professional** – a person licensed or registered in the State of New York and authorized by the State Education Law to design the wastewater treatment systems described.

**Distribution box or device** – a device used to uniformly distribute effluent to the distribution lines.

**Distribution lines** – the perforated pipe used to distribute effluent to the absorption area.

**Effluent** – the liquid discharged from a septic tank outlet.

**Emergency repairs** – repairs designed to prevent or abate an existing or imminent threat to the public health, safety or welfare caused or about to be caused by a wastewater treatment system.

**Enforcement officer** – a person appointed by the Town Board whose duty and authority is to administer and enforce the provisions of this ordinance.

**Existing grade** – the natural topography of land prior to construction activity.

**Final grade** – the elevation that ground will have at the conclusion of cutting, filling or other site work.

**Garbage** – organic solid wastes from domestic and commercial preparation, cooking, or dispensing of food, or from the handling, storage and sale of produce.

**Grade** – the slope of a line of pipe, trench bottom, or ground surface in reference to a horizontal surface.

**Gravel** – a mixture of mineral soil particles whose individual diameters range from ¼ inch to 3 inches.



**Greywater** – all sewage or wastewater from a house except waste from flush toilets and urinals.

**Groundwater** – subsurface water occupying a zone of saturated soil.

**Holding tank** – a sealed, vault or tank, usually a reinforced concrete septic tank with no outlet, into which wastewater is discharged for temporary storage.

**Impervious material** – material with a percolation rate of slower than 60 minutes per inch.

**In existence** – means that with respect to a wastewater treatment system, such structure has been lawfully completed.

**Industrial wastes** – any liquid, gaseous, solid, or waste substance or a combination thereof resulting from any process or industry, manufacturing, trade or business or from development or recovery of any natural resource.

**Invert** – the bottom most point of an open conduit or the bottom most point on the inside of a closed conduit.

**Local Board of Health** – the Town acting pursuant to its authority found in Article 3 of the Public Health Law.

**Major repair/alteration** – any replacement or reconstruction affecting the septic tank, other than baffle repair, or at least one-half of the subsurface absorption system of a wastewater treatment system.

**Mean High Water Mark** – the average annual high water level.

**Minor repair/alteration** – any remedial measure not defined as a major repair, major alteration, or extension.

**Percolation** – the movement of water downward through the pores of a soil or other porous medium following infiltration through the soil surface.

**Percolation test** – a standard procedure for testing the soil's ability to accept and convey water to establish the application rate. See Appendix A for proper testing procedures.

**Person** – means any individual, corporation, partnership, association, trustee, municipality or other legal entity, but shall not include the State or any State agency.

**Privy** – a building fixed to a vault or pit, equipped with seating to allow for excretion of body waste.

**Preexisting individual wastewater treatment system** – any treatment system that was lawfully in existence prior to (effective date or ordinance).

**Public water system** – a community, non-community or non-transient non-community water system which provides piped water to the public for human consumption, if such system has at least five service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

**Sanitary tee** – a pipe used in septic tanks, distribution boxes and drop manholes to reduce wastewater or effluent flow velocities and to increase solids retention in septic tanks which prevents carry-over of solids to subsurface absorption systems. See Baffle.

**Seasonal high groundwater table** – the highest surface of a zone of saturated soil which is at least six inches thick and which persists during the average year for more than a week when the ground is free of frost.

**Seepage pit** – a covered pit with an open-jointed or perforated lining through which septic tank effluent infiltrates into the surrounding soil.

**Septic tank** - a large, watertight chamber which promotes the growth of anaerobic bacteria for the biological decomposition of sewage.

**Slope** – the ratio of the maximum vertical rise or fall of the land in 50 feet of horizontal distance, expressed as a percentage.

**Soil mottles** – spots or blotches of different color, or shades of color, interspersed with the dominant background color. See Appendix B, High Groundwater Determination.

**Subdivision** – the division of land into two or more lots, parcels or sites.

**Surface Water Body** – any lake, pond, river, permanent or intermittent stream.

**Toilet wastes** – human excreta and toilet flushing fluid.

**Treatment System Building Permit** – the permit required before construction of an on-site wastewater treatment system.

**Treatment System Use Certificate** – the certificate required before any portions of an on-site sewage treatment system are backfilled or covered.

**Usable soil** – soil with a percolation rate between one and sixty minutes per inch.

**Wastewater** – any water discharged through a plumbing fixture to include, but not limited to, sewage and any water or waste from a device(e.g. water softener brine) which is produced in the house or property.

**Wastewater treatment system** – a complete system of piping, tanks or other facilities for the on-site collection and treatment of wastewater, and not connected to a community or public sewer system. A wastewater treatment system is also referred to as a disposal system in SPDES regulations.

**Watercourse** – a visible path through which surface water travels on a regular basis. Drainage areas which contain water only during and immediately following precipitation or snow melt shall not be considered a watercourse.

**Wetland** – any land which is annually subject to periodic or continual inundation by water and commonly referred to as a bog, swamp, or marsh which is either, (a) one acre or more in size, or (b) located adjacent to a body of water, including a permanent stream, with which there is free interchange of water at the surface, in which case there is no size limitation. Adirondack Park Agency staff are available to determine wetland boundaries (definition as found in 9 NYCRR 578.3).

## ARTICLE III

### STANDARDS FOR NEW WASTEWATER TREATMENT SYSTEMS

#### Section 3.010 – General Standards

##### A. Permitted Systems

Where on-site conditions permit, conventional on-site wastewater disposal systems shall be installed. Since fill systems are more complicated than other “conventional” systems (e.g. six inch layers of new soil to match existing soil), these systems shall be designed (and submitted) by a design professional and reviewed by an enforcement officer. Seepage pits shall not be permitted.

Alternative systems shall be allowed in accordance with provisions as set forth in Section 5.030B of this code.

- B. All wastewater must be discharged into the on-site wastewater treatment system. Surface and subsurface water including roof, cellar, foundation and storm drainage shall be excluded from such systems and shall be disposed of so they will in no way affect the system, and are not discharged to surface waters or other waters that would contravene water quality standards.
- C. No component of a subsurface absorption area shall be located under driveways, roads, parking areas or areas subject to heavy loading, or any paved area unless the absorption system is structurally designed to support vehicular traffic and provide for ventilation.
- D. No on-site wastewater treatment system shall be allowed in areas where flooding occurs.
- E. Most proposed absorption facilities shall not be located where the final slope of stabilized soil exceeds 15%, but absorption trench systems with stringent minimum horizontal and vertical separation distances (i.e. 10 ft., 9 ft., 8 ft. or 7 ft. between parallel trenches and 2 ft., 3 ft. or 5 ft. between trench bottom and high ground water, bedrock, or impermeable soil, respectively) may be constructed on sites with in situ soil having a slope of >15% to <20% and a soil percolation rate of 1 to 60 minutes per inch. For absorption beds, the slope of the site shall not exceed 8%. Alternative systems must meet the slope siting criteria of DOH or DEC.
- F. Standards related to subdivision plats:

All new building lots not served by a public water supply shall be at least 20,000 sq. ft. in area. All new building lots shall include an area for wastewater treatment large enough to absorb 440 gallons per day (suitable for a four bedroom house), with a 100% replacement leaching area.

G. Horizontal separation distances and systems layout shall be governed by NYS DOH requirements as set forth in the NYS Department of Health "Individual Residential Wastewater Treatment Systems Design Handbook, 1996," which sets forth the minimum horizontal separation distances required (see Appendix I of this code). The following guidelines are intended to provide additional protection of public health and water quality:

1. The piping distance of sewage to an absorption system treatment area serving one or two single family dwellings is not recommended to be permitted beyond 250 ft. or in areas crossing wetlands, waterbodies, rights-of-way, property lines or a soil with any limiting feature.
2. An absorption system treatment area should not be located within 35 ft. of: (a) steep slopes (greater than 25%); (b) shallow soils (less than 4 ft. to bedrock or an impervious soil layer); or (c) soils with a high seasonal water table (groundwater less than 2 ft. from the surface); (d) rock outcroppings or (e) within 10 ft. from an unsuitable test pit.
3. A qualified soils scientist or engineer may be required when an absorption system or replacement area is proposed: (a) where the natural soil materials have been disturbed by excavation, removed or covered by more than 12 inches of fill; (b) within 25 ft. of an area whose soil depth to (i) bedrock is less than 48 inches, or (ii) impervious layer is less than 48 inches, or (iii) seasonal high groundwater table is less than 24 inches; (c) within 25 ft. of a slope greater than 25%.

H. Standards for Areas with special soil conditions.

1. The natural ground intended for the subsurface absorption system must have a minimum depth of four feet of usable soil above bedrock or impervious material. The separation distance to the seasonal high groundwater table shall be at least two feet with two feet of additional usable soil as backfill. When fractured bedrock is encountered, the usable soil depth must be at least six feet.
2. Within 200 ft. of the shoreline of a lake, pond, river or stream: if the percolation rate is 0 to 3 minutes per inch, and usable soil is less than 4 feet or the depth to bedrock or seasonal high groundwater is less than 4 feet, a leaching (absorption) facility will not be permitted and an alternative on-site treatment system will be required.

*See Appendices for high groundwater determination and percolation test procedure.*

*Source: Appendix Q-4 of the APA Rules and Regulations as referenced in NYCRR Part 582 and Adirondack Park Agency Guidelines for On-Site Sewage Disposal Systems (March 25, 1991).*

## ARTICLE IV

### PREEXISTING SYSTEMS

#### **Section 4.010 – Continuation of Preexisting Systems**

Subject to the provisions of this ordinance, the use or maintenance of a preexisting wastewater treatment system may be continued without a wastewater treatment system use certificate provided it shows no evidence of failure but it shall be unlawful to alter, repair or enlarge such systems except in conformity with the provisions herein. Wastewater systems and or properties within 200 feet of lakes, streams or ponds must be inspected by a licensed professional engineer and Town Zoning Administrator prior to the sale, gift or transfer of the property. This inspection shall include a test pit in the leachfield and an examination of the leachfield. This article shall not be construed to allow any unsafe use or structure, or permit such structures or their use when such structure or use constitutes a threat to public health, safety, welfare or environmental quality; permits the seepage of wastewater to ground surface; or interferes with the enjoyment or use of property.

Wastewater systems and or properties within 200 feet of lakes, streams or ponds must be inspected by a licensed professional engineer and Town Zoning Administrator prior to the sale, gift or transfer of the property. This inspection shall include a test pit in the leachfield and an examination of the leachfield.

#### **Section 4.020 – Repair, Alteration, Enlargement or Extension of a System**

- A. It shall be unlawful to repair, alter, enlarge or extend a preexisting wastewater treatment system except as provided by the following definitions:
- (1) Minor repairs – minor repairs shall be limited to components of the system that are not critical to the long-term operation of the system. These types of repairs would include changing tank lids and covers, repairs to cleanout and inspection ports and repairing floats and alarms.
  - (2) Major repairs – all repairs not classified as minor shall be classified as a major repair. For major repairs, a repair permit shall be obtained prior to conducting the repair. Repair permits shall be maintained by the regulatory agency.
  - (3) Emergency repairs – repairs designed to prevent or abate an existing or imminent threat to public health, safety or welfare caused or to be caused by on-site wastewater treatment system. The permitting agency shall be notified immediately, but in no case should this repair include enlarging the absorption area or replacing or disconnecting septic tanks.

## ARTICLE V

### ADMINISTRATIVE PROVISIONS

#### **Section 5.010 – Enforcement Officer**

The Enforcement Officer shall have the duty to administer and enforce the provisions of this local law. The Enforcement Officer shall be appointed and may be removed by the Town Board. Persons adversely affected by an action, omission, decision or ruling by the Enforcement Officer may appeal to the Local Board of Health, which shall render a decision regarding the appeal only after holding a hearing on the matter pursuant to the terms of this article. The Enforcement Officer shall not plan, design, construct, sell or install wastewater treatment systems within the town.

#### **Section 5.020 – Required Records**

The original or certified copy of all findings, decisions, permits, certificates or other rulings of the Enforcement Officer or Local Board of Health under this local law, shall be retained in the files of the Enforcement Officer as a permanent public record. (It is recommended that owners also retain a copy of the plan of the installed treatment system.)

#### **Section 5.030 – Issuance of Wastewater Treatment System Permits and Treatment System Use Certificates**

##### A. Wastewater Treatment System Permits:

1. It shall be unlawful for any person to construct, alter, repair or enlarge a wastewater treatment system within the Town unless a treatment system permit has been issued therefore, except that minor repairs and alterations or emergency repairs may be made without a permit.
2. Applications for treatment system permits (see Appendix E) may be made only by the owner of the lot for which the system is proposed or his/her duly authorized agent or assign. Applications shall be in writing, signed by the applicant in such form as the Local Board of Health shall determine. A fee as set by resolution of the Town board must accompany the application for a treatment system permit. Applications shall be submitted to the Enforcement Officer and include such information as the Local Board of Health and Enforcement Officer shall require including the following:
  - a. The name and address of the applicant.
  - b. Specific location of the property on which the construction, alteration, repair or enlargement is proposed.

- c. A plan of the proposed treatment system and replacement areas with substantiating data indicating that the minimum standards set forth in this ordinance would be complied with.
- d. A sketch of the property showing the location of the proposed treatment system construction, alteration, repair, or enlargement and including delineation of the property lines and sources of water supply for the property and adjoining properties and any surface waterbodies or wetlands within 200 ft.
- e. Evidence to demonstrate to the satisfaction of the Enforcement Officer that there is not public sewer available into which the wastewater can be discharged from plumbing facilities on the proposed building site, or that it is impracticable to discharge wastewater from on-site plumbing facilities into a public sewer system.
- f. A minimum of two soil percolation tests and one deep hole test pit are required for the site of a proposed absorption area. The percolation rate shall be determined by the methods described in Appendix C.

The Enforcement Officer may verify the results of such tests and require supporting information from the applicant necessary for such review. When in his/her discretion warranted, the Enforcement Officer shall request an individual designated by the Board of Health to conduct this test.

- g. Site data which might affect, or be affected by, the proposed system including but not limited to specifications regarding soil type, topography, depth to seasonal high groundwater, depth to impervious material, depth to bedrock and distance to surface waterbodies and wetlands. An intensity subsurface investigation will be required when a subsurface absorption system or replacement area is proposed:
  - i. where the natural soil materials have been disturbed by excavation, removed or covered by more than 12 inches of fill;
  - ii. within 25 ft. of an area whose soil depth to a) bedrock is less than 48 inches, or b) impervious layer is less than 48 inches, or c) seasonal high groundwater table is less than 24 inches;
  - iii. within 25 ft. of a slope of greater than 25%.

The determination of depth to seasonal high groundwater shall be made in accordance with Appendix B of this local law. All determinations shall be accompanied by a detailed statement of



the testing methods used as well as the basis for the determination.

The Enforcement Officer shall determine whether an application is complete. (It is recommended that the Local Board of Health consult with the State Department of Health for assistance in the training of the Enforcement Officer.)

3. The Enforcement Officer may require certification or retesting to verify information submitted as part of the application.
4. The Enforcement Officer may conduct such investigations, examinations, tests and site evaluations as he/she deems necessary to verify information contained in an application for a treatment system permit, and the applicant or owner of land on which the system is proposed shall grant the Enforcement Officer or his/her agents permission to enter on his/her land for these purposes.
5. The Enforcement Officer shall not issue a treatment system permit unless:
  - a. all pertinent site data has been submitted, verified and certified as required by this local law; all permit fees have been paid, and the Enforcement Officer has determined that the alteration, repair or construction as proposed in the application complies with all specifications contained in this local law, or
  - b. the Enforcement Officer is specifically ordered to issue a treatment system permit by the Local Board of Health pursuant to Section 5.070 of this local law or authorized by specific waiver of the NYS Department of Health and all permit fees have been paid.
6. The Enforcement Officer shall disapprove an application for a treatment system permit if he/she determines:
  - a. that the applicant has failed to supply all data necessary to make a determination as to whether or not such wastewater treatment system conforms to the requirements or specifications of this local law and has failed to supply such information for sixty (60) days after a written request for such additional information has been mailed;
  - b. that the wastewater treatment system, as proposed, will not conform to the requirements or specifications of this local law and Appendix 75-A or an order of the Local Board of Health;

- c. that the wastewater treatment systems, as proposed, cannot comply with any prior subdivision, site plan, or Class A or B regional project authorization for such locations;
  - d. that any required SPDES permit from DEC has not been issued.
7. The Enforcement Officer may, by written notice, order all further work stopped on any wastewater treatment system which is being constructed or installed in violation of this local law.

B. Engineered System Approval:

The treatment systems addressed in the previous subsurface treatment section are classified as conventional systems and shall be used on sites with adequate soil percolation and vertical/horizontal separation distances to boundary conditions. At sites that are not suitable for conventional systems, consideration can be given to the construction of alternative systems to assure proper treatment of sewage rather than to restrict use of land. Sites compatible with development using alternative systems generally require detailed evaluation, complicated design and more costly construction and maintenance. The following standards shall be complied with regarding the design and construction of alternative systems:

1. New Construction:

- a. All new individual on-site alternative wastewater systems, as described in the New York State Individual Residential Wastewater Treatment Systems Design Handbook, shall be designed or approved by a licensed professional engineer. A separate approval by NYSDOH for an individual lot is not required.
- b. The engineered system may include any advanced on-site treatment systems approved by the NYSDOH including raised systems, mounds, intermittent sand filters, evaporation-transpiration (ET) and evapo-transpiration absorption (ETA) systems, non-waterborne systems, and holding tanks.
- c. All advanced on-site systems plans must include an operation and maintenance manual and all manufacturers' recommendations are to be followed in the installation, operation and maintenance of the system.
- d. An annual inspection by a licensed professional engineer must be completed and submitted to the Town by the property owner. The Town will send a letter annually in June to property owners with the required inspection forms for submittal to the Town within 60 days or prior to

September 1<sup>st</sup> . All remedial measures to assure consistent operation must be implemented by the owner within 5 days if related to equipment or 30 days if related to absorption field. These time limits may be extended by a letter from a licensed professional engineer is submitted describing the anticipated remedial measures are to be implemented.

- e. The project engineer may propose an advanced on-site wastewater disposal field that is smaller than a conventional septic system leach field. A backup absorption field is not required for replacement systems utilizing advanced on-site wastewater treatment.
- f. All information and process requirements of 5.030(A) must be met.

## 2. Replacement Systems:

- a. All replacement individual on-site alternative wastewater systems, as described in the New York State Individual Residential Wastewater Treatment Systems Design Handbook, shall be designed or approved by a licensed professional engineer.
- b. The replacement system may include any advanced on-site treatment systems approved by the NYSDOH including raised systems, mounds, intermittent sand filters, evaporation-transpiration (ET) and evapo-transpiration absorption (ETA) systems, non-waterborne systems, and holding tanks.
- c. Alternative design "engineered systems" not addressed in the New York State Individual Residential Wastewater Treatment Systems Design Handbook may be approved by the Town Board (local health department) for replacement systems on a limited experimental basis on extremely limited sites such as within 200 feet of a lake, stream or wetland.
- d. All advanced on-site systems plans must include an operation and maintenance manual and all manufacturers' recommendations are to be followed in the installation, operation and maintenance of the system.
- e. An annual inspection by a licensed professional engineer must be completed and submitted to the Town by the property owner. The Town will send a letter annually in June to property owners with the required inspection forms for submittal to the Town within 60 days or prior to

September 1<sup>st</sup>. All remedial measures to assure consistent operation must be implemented by the owner within 5 days if related to equipment or 30 days if related to absorption field. These time limits may be extended upon receipt of a letter from a licensed professional engineer describing the anticipated remedial measures to be implemented.

- f. The project engineer may propose an advanced on-site wastewater disposal field that is smaller than a conventional septic system leach field. A backup absorption field is not required for replacement systems utilizing advanced on-site wastewater treatment.
- g. All information and process requirements of 5.030(A) must be met.

### 3. Engineer Review:

- a. In reviewing any application for an alternative system, the Town Board acting as the Local Board of Health, may require an independent engineer to evaluate the proposal and the cost of such evaluation shall be borne by the applicant.

### C. Wastewater Treatment System Use Certificates:

1. It shall be unlawful for any unauthorized person to cover with soil or other material, or utilize, any wastewater treatment system for which a treatment system building permit has been issued unless a treatment system use certificate has been issued therefore.
2. The holder of a treatment system building permit shall notify the Enforcement Officer when the treatment system is ready for inspection. The inspection shall be made as soon thereafter as practicable by the Enforcement Officer. The Enforcement Officer may also make inspections during construction to ensure that the system is being installed in accordance with the terms of the treatment system permit. Any part of any installation which has been covered prior to final approval shall be uncovered upon order of the Enforcement Officer.
3. A treatment system use certificate shall not be granted until the Enforcement Officer has determined that the wastewater treatment system has been installed in compliance with the terms of the treatment system permit. The Enforcement Officer shall make such a determination only after he/she has made an on-site investigation of the system, or received a certification from the design professional that the system conforms to the

specifications as set forth in the application and this local law, or an order of the Local Board of Health pursuant to this Article. The Enforcement Officer may withhold a determination until after an on-site investigation has been completed notwithstanding that the system has been certified as properly installed and designed.

4. In the case of multiple family systems or systems serving more than one principal use, the establishment of a proper legal entity, such as a transportation corporation or homeowners association, may be required.

#### **Section 5.040 – Form of Petitions, Applications and Appeals**

Unless otherwise stated, all petitions, applications and appeals provided for in this local law shall be made on forms prescribed by the Local Board of Health. Completed forms shall be accompanied by whatever further information, plans or specifications as may be required by such forms.

#### **Section 5.050 – Application Fees**

Fees shall be paid upon the submission of applications provided for by the terms of this local law.

#### **Section 5.060 – Variances**

The Local Board of Health may vary or adapt the strict application of any of the requirements of this Ordinance in the case whereby such strict application would result in unnecessary hardship that would deprive the owner of the reasonable use of the land involved. No variance in the strict application of any provision of this Ordinance shall be granted by the Local Board of Health unless it shall find all of the following:

- (a) That there are special circumstances or conditions, fully described in the findings of the Local Board of Health, applying to such land and that such circumstances or conditions are such that strict application of the provisions of this Ordinance would deprive the applicant of the reasonable use of such land.
- (b) That the variance would not be materially detrimental to the purposes and objectives of this Ordinance, or to other adjoining properties, or otherwise conflict with the purpose or objectives of any plan or policy of the Town.
- (c) That, for reasons fully set forth in the findings of the Local Board of Health, the granting of the variance is necessary for the reasonable use of the land and that the variance as granted by the Local Board of Health is the minimum variance which would alleviate the specific unnecessary hardship found by the Local Board of Health to affect the applicant.

- (d) In granting any variance, the Local Board of Health shall prescribe and attach any reasonable conditions that it deems to be necessary or desirable.

### **Section 5.070 – Application for Variance**

Variations may be instituted by filing an application with the Local Board of Health using forms supplied by the Local Board of Health, which shall include all information reasonably considered by the Board as necessary to make its findings under Section 5.035 of this Ordinance including, among other things, the legal description of property for which the variance is sought, a map showing the property and all properties within a radius of 500 feet of the exterior boundaries thereof, plans and elevations necessary to fully describe the conditions for which a variance is sought, and all other information reasonably considered necessary by the Local Board of Health for an understanding of the conditions of the property for which the variance is sought and the relationship thereof to surrounding properties.

### **Section 5.080 – Variance Application Hearing and Decision**

- (a) Within thirty (30) days of receipt by the Local Board of Health of a completed application for a variance from the provisions of this Ordinance, the Local Board of Health shall give notice by publication in an official newspaper of the Town of a public hearing to be held on the variance application which public hearing shall be held not less than five (5) days nor more than thirty (30) days after the publication of said notice. In addition to the publication of the Notice of Public Hearing, at least ten (10) days prior to said public hearing, the Enforcement Officer shall mail notices of said public hearing to all owners of properties located within 500 feet of the property for which the variance is sought. For purposes of said notice by mail, the owners of properties within 500 feet shall be determined from the latest completed assessment roll of the Town of Chester and the notices shall be mailed to said owners at the addresses set forth on said roll.
- (b) Within sixty-two (62) days of the closing of the public hearing, the Local Board of Health shall grant, grant with condition, or deny the variance applied for. The decision of the Local Board of Health shall be in writing and shall contain each of the findings specified in Section 5.035 of this Ordinance.

### **Section 5.090 – Appeal from Action of the Local Board of Health**

An action, decision, omission or ruling of the Local Board of Health pursuant to this ordinance may be reviewed at the instance of any aggrieved person in accordance with Article 78 of the Civil Practice Law and Rules, but application for such review must be made not later than 60 days from the effective date of the decision or ruling or the date when the action or omission occurred.

### **Section 5.100 – Site Inspections**

- A. In filing an application for a treatment system permit, an applicant shall be deemed to have consented to the Enforcement Officer, and/or other person designated by the Local Board of Health to conduct examinations, tests, and other inspections of the treatment system site. Entrance upon the applicant's property shall be made only at reasonable times and with advance notice to the applicant where possible.
  
- B. The Enforcement Officer or his/her designee may inspect any wastewater treatment system built after this local law takes effect to ensure that it is being maintained in proper working order. Inspections shall be made, where practical, after reasonable notice to the owner or occupant. Where the Enforcement Officer determines that a system is not being maintained in compliance with this local law or any permit issued hereunder, he/she may order that use of the system cease, and/or that the defects be corrected, and/or misuse abated within a reasonable time. If the prescribed action is not taken within the time fixed by the Enforcement Officer, he/she may revoke the use permit for the system and/or refer the matter to the Local Board of Health for appropriate corrective action.

### **Section 5.110 – Recording or Expiration of Treatment System Permits**

Any permit issued pursuant to this local law shall be filed and duly recorded in the Town Office.

### **Section 5.120 – Expiration of Permits**

Unless otherwise provided for in the permit, all permits shall expire within one (1) year of issuance. Once a permit expires, and the treatment system is not completed, a new permit application is required.

**ARTICLE VI**  
**ENFORCEMENT**

**Section 6.010 – Penalty**

Any person owning, controlling or managing any building, structure, land, or premises therein or whereon there shall be placed on or there exists a structure or system in violation of this ordinance, or who shall build, erect, construct, or attempt the same, any structure contrary to the plans or specifications submitted to the authorized official and by him/her certified as complying with this local law and any person who shall omit, neglect, or refuse to do any act required by this ordinance, shall be subject to a civil penalty of not more than (\$1,000) to be recovered by the Town Board in any court of competent jurisdiction. Each such person shall be deemed guilty of a separate offense for each day that such violation, disobedience, omission, neglect or refusal shall continue. Where the person committing such violation is a partnership, association or corporation, the principal executive officer, partner, agent or manager may be considered to be the person for the purposes of this article.

The penalty provisions of DEC regulations may also apply.

**Section 6.020 – Alternative Remedies**

In case of any violation or threatened violation of any of the provisions of this local law, in addition to other remedies herein provided, the Town Board may institute any appropriate action or proceeding to prevent unlawful construction, structural alteration, repair, reconstruction, moving and/or use, to restrain, correct or abate such violation to prevent the use of the wastewater treatment system or to prevent any illegal act, conduct, business or use regarding such treatment system.

**Section 6.030 – Misrepresentation**

Any permit or approval granted under this local law which is based upon or is granted in reliance upon any material misrepresentation, or failure to make a material fact or circumstance known, by or in behalf of an applicant, shall be void. This section shall not be construed to affect the remedies available to the Town Board under Sections 6.010 and 6.020 of this ordinance.



## ARTICLE VII

### MISCELLANEOUS PROVISIONS

#### **Section 7.010 – Interpretation**

Where the conditions imposed by any provision of this local law are less restrictive than comparable conditions imposed by any other provisions of this ordinance, or of any other statute, ordinance, local law, order, rule, regulations, the provisions which are more restrictive shall govern.

#### **Section 7.020 – Severability**

The provisions of this ordinance are severable. If any article, section, subsection or provision shall be invalid, such invalidity shall apply only to the article, section, subsection or provisions adjudged invalid, and the rest of this ordinance shall remain valid and effective.

#### **Section 7.030 – Savings Clause**

The adoption of this ordinance shall not affect or impair any act done, offense committed or right accrued or acquired or liability, penalty, forfeiture or punishment incurred prior to the time this ordinance takes effect.

#### **Section 7.040 – Other Authority**

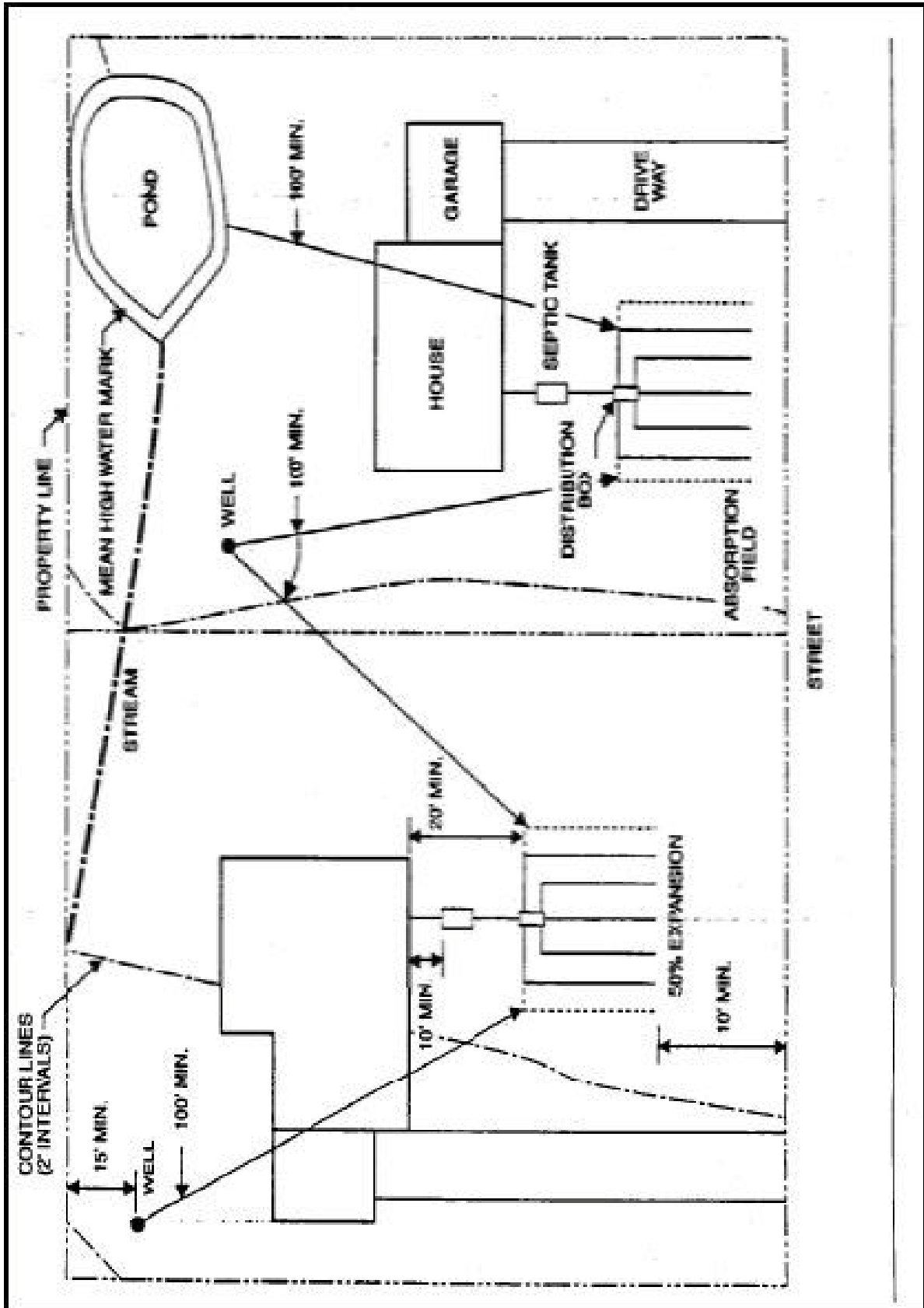
No provision of this ordinance shall be construed to limit any State standards for wastewater treatment systems including the provisions of the Adirondack Park Agency Act relating to shorelines and Class A and B projects.

#### **Section 7.050 – Effective Date**

This local law shall take effect immediately upon filing with the Secretary of State and completion of the publishing and filing requirements as prescribed by Section 308 of the Public Health Law.

# APPENDIX I

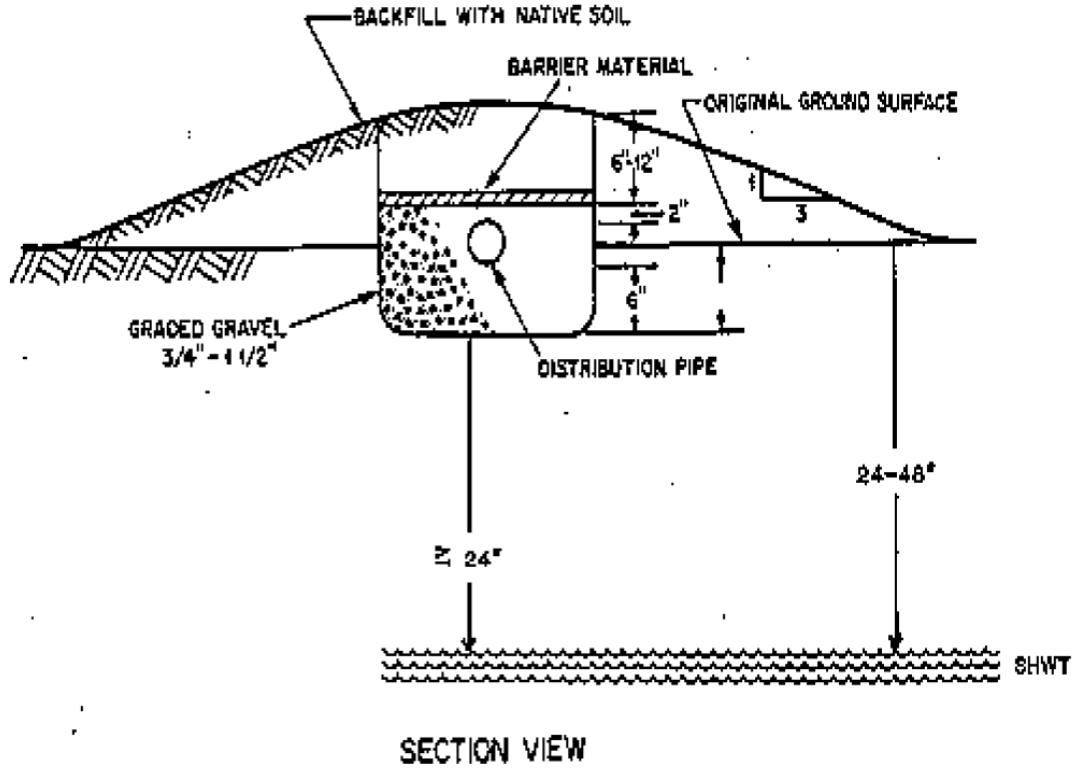
## NYS DOH Required Separation Distances



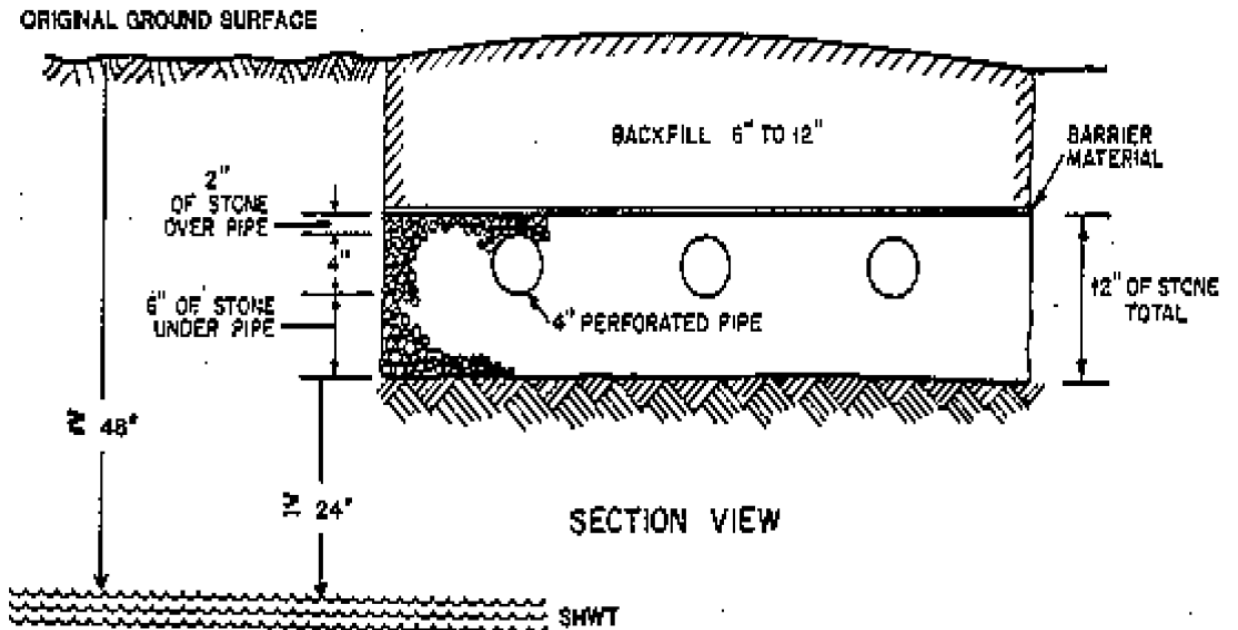
## APPENDIX II

### Absorption Field Diagrams

#### Shallow Absorption Trench Details

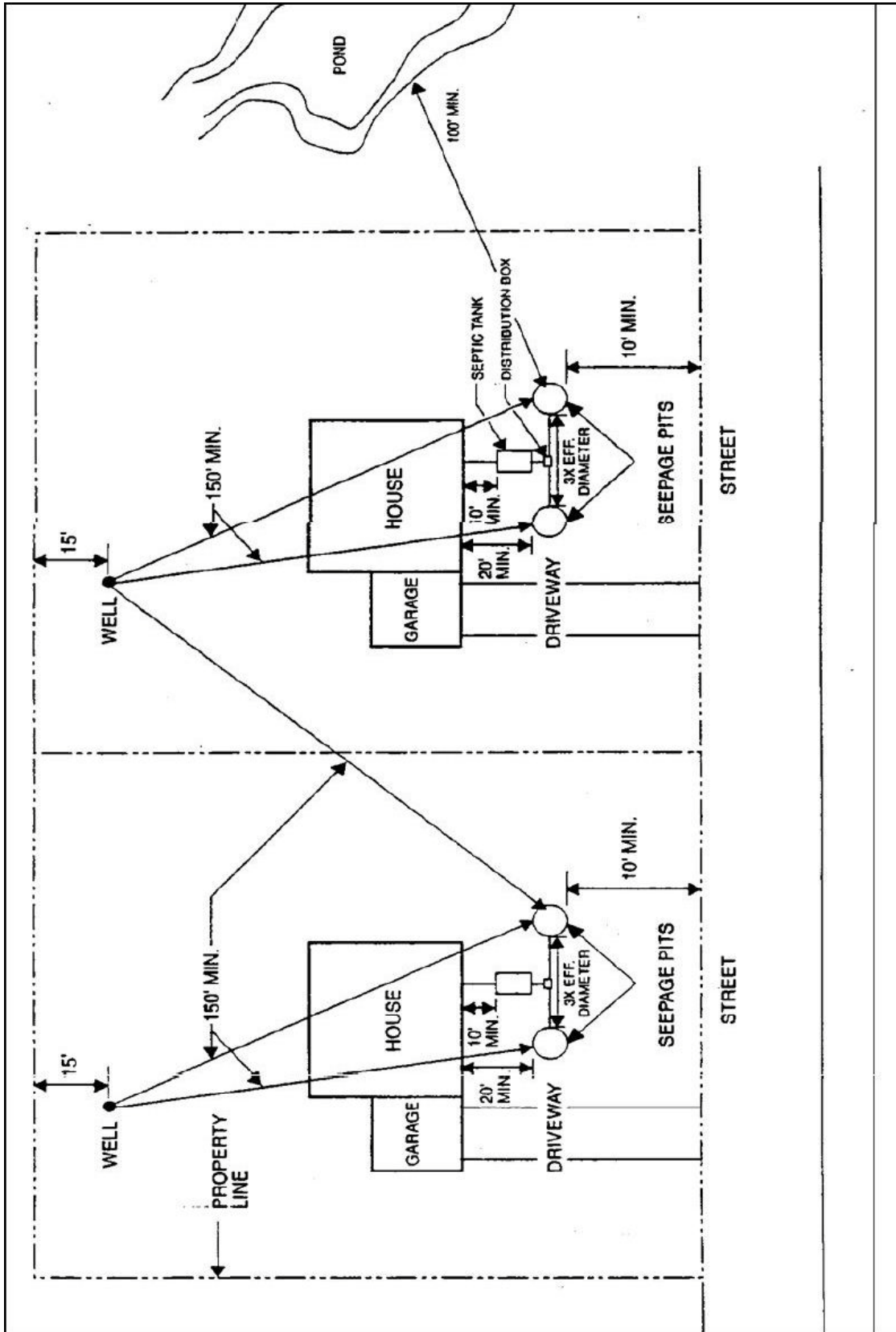


#### Conventional Absorption Bed



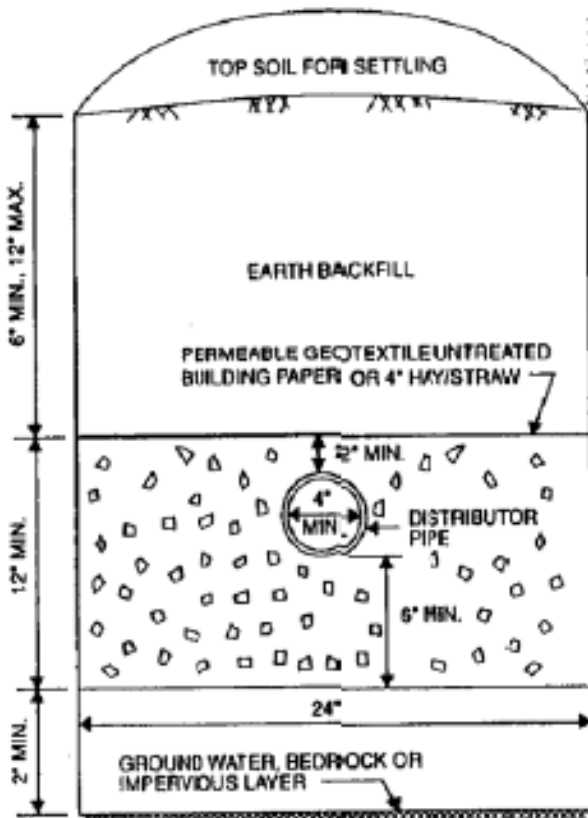
# APPENDIX III

## Seepage Pit Diagrams for Replacement System

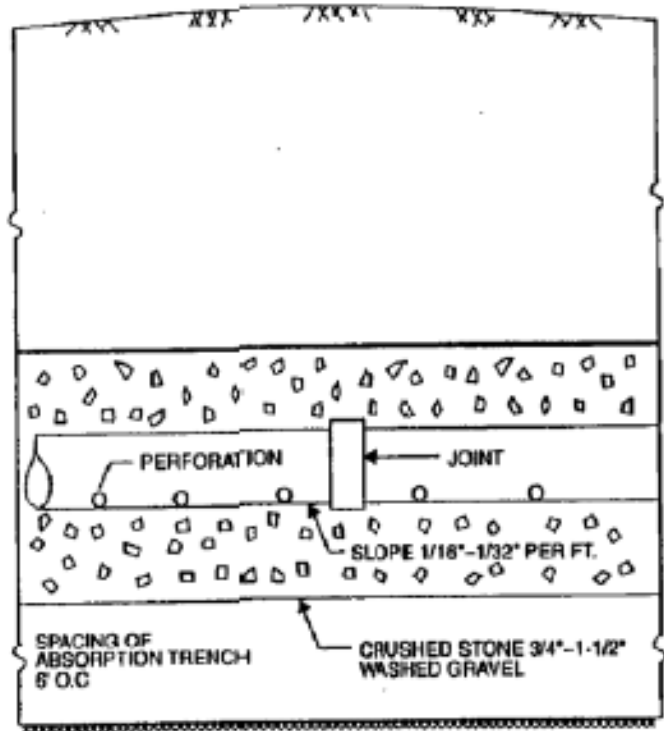


# APPENDIX IV

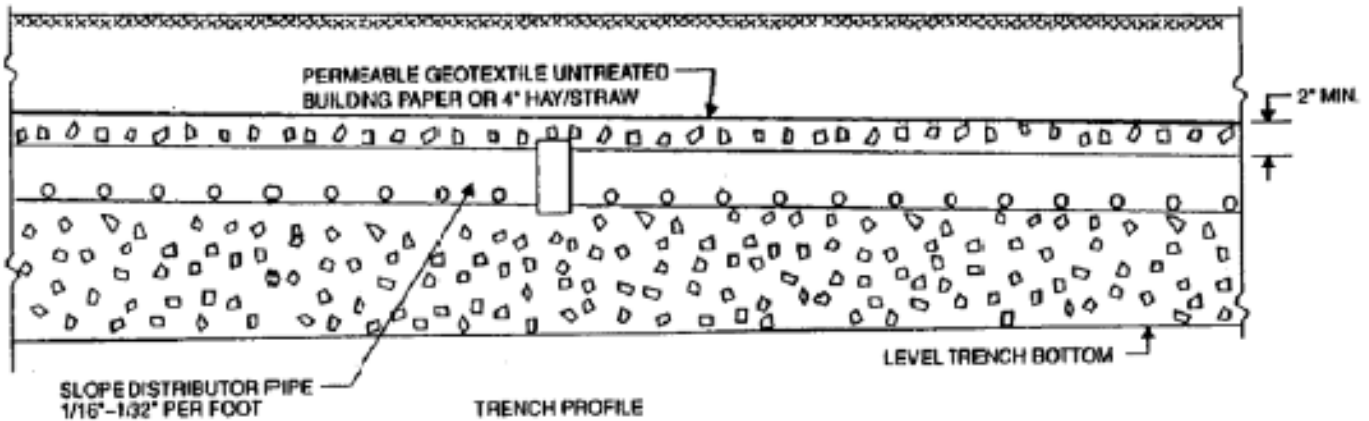
## Absorption Trench Details



CROSS SECTIONAL VIEW



LONGITUDINAL VIEW



TRENCH PROFILE

NOTE: DO NOT INSTALL TRENCHES IN WET SOIL.  
 INSTALL TRENCHES PARALLEL TO CONTOURS.  
 INSTALL TRENCHES AS SHALLOW AS POSSIBLE WHICH MEET ABOVE NOTED MINIMUM DEPTHS.  
 RAKE SIDES AND BOTTOM OF TRENCH PRIOR TO PLACING GRAVEL.  
 ENDS OF ALL DISTRIBUTOR PIPES MUST BE CAPPED

## APPENDIX V

### Seasonal High Groundwater Determination Methodology

The seasonal high groundwater table shall be determined by observing its elevation and evidence of soil mottling in a deep hole test pit dug to a depth of at least five feet deeper than the anticipated depth of the invert of the subsurface absorption system and/or by methods employed by a qualified soil scientist or engineer. The soil mottles are spots or blotches of different color, or shades of color, interspersed with the dominant background soil color. Oxidation (bright colors) and reduction (dull colors) are caused by alternating aerobic and anaerobic conditions attributable to a seasonal fluctuating groundwater table, or intermittent presence of a perched water table. Soil mottles indicate a zone in which the soil is saturated for at least a two week period during the average water year. Water which seeps into test pit only indicates the current status of the water table and is not a reliable method of predicting the seasonal high groundwater table, particularly if the test pits are dug outside of the normally high groundwater period of March 15 to June 30.

The applicant may be required to retain the services of a qualified soil scientist or engineer to determine the seasonal high groundwater table.

## APPENDIX VI

### Soil Percolation Test Procedure & Data Sheet

The procedure noted below should be followed in performing a soil percolation test:

1. Make sure proper construction safety practices are followed.
2. Dig a hole with vertical sides approximately 12 inches wide on all four sides or 12 inches in diameter. If an absorption field is being considered, the depth of the test holes should be 24 to 30 inches below final grade or at the projected bottom of trenches in shallower/deeper systems. If a seepage pit must be used, percolation tests should be conducted at one-half the depth and at the full estimated depth of the seepage pit. In order to facilitate conducting the test and preventing cave-in, a two-tiered excavation should be made approximately two feet above the bottom of the proposed seepage pit and two feet above the half-depth of the proposed seepage pit. Percolation test pits should be dug approximately two feet deep into each tier base. It is necessary to place washed aggregate in the lower two inches of each percolation test hole to reduce scouring and silting action when water is poured into the hole. The sides of percolation holes should be scraped to avoid smearing.
3. Pre-soak the test hole by periodically filling the hole with water and allowing the water to seep away. This procedure should be performed for at least four hours and should begin one day before the test, except in clean, coarse sand and gravel. After the water from the final pre-soaking has seeped away, remove any loose soil that has fallen from the sides of the hole.
4. Pour clean water into the hole, with as little splashing as possible, to a depth of six inches above the bottom of the test hole.
5. Observe and record the time in minutes required for the water to drop from the six inch depth to the five inch depth.
6. Repeat the test a minimum of three times until the time for the water to drop from six inches to five inches for two successive tests is approximately equal (i.e.,  $\leq 1$  min. for 1 – 30 min./inch,  $\leq 2$  min. for 31-60 min./inch). The longest time interval to drop one inch shall be taken as the stabilized rate of percolation and shall serve as the basis of design for the absorption system.

Source: Individual Residential Wastewater Treatment Systems Design Handbook 1996

**PERCOLATION TEST DATA SHEET**

**Development/Site:** \_\_\_\_\_ **(T/V/C):** \_\_\_\_\_ **County:** \_\_\_\_\_

**Date:** \_\_\_\_\_ **Test Conducted By:** \_\_\_\_\_

Test Hole No.	Test Hole Depth (Inches)	Lot No.	Soil Profile	Presoaking Date & Time	Time	Percolation Test		
						1	2	3
					End			
					Begin			
					Result			
					End			
					Begin			
					Result			
					End			
					Begin			
					Result			
					End			
					Begin			
					Result			
					End			
					Begin			
					Result			

*Begin time and end time in minutes for water elevation change from 6" to 5" above bottom of hole. DOH*



## APPENDIX VII

### Guidelines for Operation and Maintenance of Household Systems

- The contents of the septic tank should be pumped every 2-3 years or when the total depth of sludge and scum exceeds one third of the liquid depth of the tank. The individual or firm retained to pump out the septic tank must have a valid permit issued by NYS DEC. If the tank is not cleaned periodically, solids are carried into the absorption field; rapid clogging occurs; premature failure follows and finally, the absorption field must be replaced. Pumping your septic tank is less expensive than replacing your absorption field.
- Detergents, kitchen wastes, laundry wastes, and household chemicals in normal amounts do not affect the proper operation of household wastewater treatment systems. However, excessive quantities can be harmful.
- Avoid the disposal of cigarette butts, disposable diapers, sanitary napkins, plastics, trash, etc., into your household wastewater system. These items are not readily decomposed.
- Septic tank additives are discouraged. Additives are unnecessary to the proper operation of household systems and may cause the sludge and scum in the septic tank to be discharged into the disposal field, resulting in premature failure.
- Garbage grinders substantially increase the accumulation of solids in the septic tank, as well as the solids entering the disposal fields and pits. Their disadvantages outweigh the convenience they provide and are not recommended for households with their own wastewater treatment systems. If used, the septic tank size must be increased.
- All roof, cellar and footing drainage, and surface water must be excluded from the system. This drainage water can be discharged to the ground surface without treatment; make sure it drains away from your wastewater treatment system.
- Roof downspouts should not drain toward the absorption field.
- Roots from trees in the immediate area of the absorption lines may clog the system.
- Keep swimming pools (above or in-ground) away from the absorption field.
- Never permit heavy equipment to pass over the absorption field.
- Conserve water usage; this can prolong the life of your wastewater treatment system. Check defective toilet tank valves, repair leaky fixtures, install appliances and fixtures which use less water, and avoid wasteful practices.

- A wastewater treatment system is normally designed to accommodate two persons per bedroom. If the household is larger than this, or if additional bedrooms are added, enlarge the system. Expansions must comply with this ordinance and, as necessary, DEC requirements.
- If surface water from higher ground is running onto the absorption field, install a ditch or berm to intercept this surface water.

***For more detailed information concerning special conditions in our area, contact the county health department or the NYS District Health Office serving our locality.***

APPENDIX VIII

Wastewater Treatment System Permit Application

TOWN OF CHESTER
P.O. Box 423, Chestertown, NY, 12817
Telephone: (518) 494-7369

Application # \_\_\_\_\_
Inspection Date: \_\_\_\_\_
By: \_\_\_\_\_

Application for Septic Wastewater Treatment System

Owner's Name: \_\_\_\_\_
Mailing Address: \_\_\_\_\_
Tax Map #: \_\_\_\_\_ Phone #: \_\_\_\_\_
911 Address (Physical address): \_\_\_\_\_
Installer's Name: \_\_\_\_\_
Installer's Phone #: \_\_\_\_\_

Instructions for completion of Septic Permit Application:

It is very important that ALL applicable spaces be completed and application is SIGNED. Other items that must be submitted with this form are:

- 1) ONE PLOT PLAN showing:
A. Lot boundaries with dimensions and adjacent roads and streets.
B. All existing and proposed structures, showing all setback distances from property lines.
C. Location of existing or proposed water lines and septic systems.
D. Location of ALL neighboring wells and septic leach fields with distances measured.
2) PERCOLATION TEST RESULTS. (Forms available in Zoning Office). THIS IS A REQUIRED TEST.
3) FEE, as per Fee Schedule. Checks to be made payable to "Town of Chester."

Number of bedrooms (residential only): \_\_\_\_\_
Total daily flow (compute @ 150 gal. per bedroom). \_\_\_\_\_
Topography: (Circle one) Flat Rolling Slope %of Slope \_\_\_\_\_
Soil investigation results and dates conducted:
Percolation test #1 \_\_\_\_\_ min/in. Percolation test #2 \_\_\_\_\_ min/in. Date: \_\_\_\_\_
Depth to: groundwater: \_\_\_\_\_ mottling: \_\_\_\_\_
Impermeable soil or bedrock: \_\_\_\_\_ Date: \_\_\_\_\_
Name of individual who performed soil test: \_\_\_\_\_
Phone # of test performer: \_\_\_\_\_
Domestic water supply: (Circle one) Municipal Well Other \_\_\_\_\_
If domestic water is a well, list separation from Septic absorption field: \_\_\_\_\_ feet.
Proposed system: Septic tank: \_\_\_\_\_ (minimum 1000 gal. Concrete)
Tile Field: Each trench: \_\_\_\_\_ / Total system length: \_\_\_\_\_ feet

Note: Size of stone to be used MUST be #3.

See next page and SIGN application.

**IMPORTANT: PLEASE LIST ON PLOT PLAN ALL NEW EQUIPMENT TO BE INSTALLED.**

**INSPECTIONS:**

\* All applications for Septic system installations, alterations or repairs, as required by the Town of Chester On Site Wastewater Treatment Local Law, shall be submitted to the Zoning Administrator at least 24 hours before start of construction, and shall include a plot plan showing, as a minimum:

1. The proposed location (properly staked) of the system, along with replacement area indicated for any new construction.
2. Location and distance to lot lines.
3. Location and distance to structures.
4. Location and distance to water supply on property, **and** water supply of direct property adjoiners.
5. Size and dimension of all tanks, distribution boxes and tile fields. **Seepage pits shall not be permitted.**
6. Two (2) soil perc tests and one (1) deep hole test pit at site of proposed absorption area.

**At sites not suitable for conventional systems, all new individual or replacement on-site *alternative* wastewater systems, as described in NYS Individual Residential Wastewater Treatment System Design Handbook, shall be designed or approved by a licensed professional engineer.**

\* No system shall be covered before inspection and approval by the Zoning Administrator. Failure to comply may result in the uncovering of the system by the installer, and levy of a fine.

\* Should unforeseen problems during construction prevent proper installation, alteration or repair of an approved system, **a new proposal must be submitted to Code Enforcement Officer before further construction.**

**INSPECTIONS REQUIRE 24 HOUR ADVANCE NOTICE.**

\* All new septic systems or repairs **before** covering any work.

**FINAL ACCURATE PLOT PLAN MUST BE SUBMITTED BEFORE CERTIFICATE OF OCCUPANCY IS ISSUED.**

\*\*\*\*\*

**I have read the regulations above and agree to abide by these and all requirements of the Town of Chester On-Site Wastewater Treatment Local Law.**

\_\_\_\_\_  
**Signature of responsible person (Owner, Installer, or other)**

\_\_\_\_\_  
**Date**

**Engineered plans, if required, are attached** \_\_\_\_\_

**Adirondack Park Agency permit, if required, is attached** \_\_\_\_\_

**Any permit, other than the Town of Chester, that is required, (such as NYS Department of Health), is attached** \_\_\_\_\_

## APPENDIX IX

### APA Guidelines for On-Site Sewage Disposal Systems

#### ADIRONDACK PARK AGENCY

#### GUIDELINES FOR ON-SITE SEWAGE DISPOSAL SYSTEMS

March 25, 1991

This document sets forth guidelines for the design and installation of on-site sewage disposal systems for projects requiring a permit from the Adirondack Park Agency. These guidelines apply to pre-existing lots and lots on which a system is being replaced, but, in these cases, alternative systems may be allowed (see Pre-Existing Lots and Failing Systems, p. 6). These guidelines supersede Chapter 22 (Sewage Disposal) of the Adirondack Park Agency publication Development in the Adirondack Park, 1977. These guidelines deal with site evaluation, design specifications and installation requirements for both individual and small multi-family on-site sewage disposal systems with a flow rate of less than 1000 gallons per day.

#### LEGAL EFFECT OF THESE GUIDELINES

These are guidelines, not rules. Failure to meet them will not automatically result in disapproval of an application. Each application will be judged on its particular merits, including all other aspects of its impact on the resources of the Adirondack Park and mitigation measures or offsets proposed. If these guidelines are not met, the Project Review Officer assigned to the application will consult with the Agency's technical staff, and may, depending on the individual case, recommend that a public hearing be held to further examine sewage disposal methods.

#### SITE EVALUATION AND RESOURCE REQUIREMENTS

The soil and slope factors listed here are described in detail in the Adirondack Park Agency Soils Handbook (August 1990). To ensure the information provided to the Agency is consistent, the Handbook prescribes standard methods for performing percolation tests and for describing soils.

All applications for new development and subdivisions requiring a permit from the Adirondack Park Agency and subject to these guidelines must demonstrate that each proposed building lot meets these minimum site requirements.

#### Flood Areas:

No on-site sewage disposal systems shall be allowed in areas within a 10-year flood plain.

Horizontal Separation Distances:

The table below sets forth the minimum horizontal separation distances required, measured from the finished graded edge of the sewage disposal area (see System Extent p. 4) to each listed feature:

Minimum Horizontal Separation Distances	
Individual Drilled Well	100 feet
Community Drilled Well	200 feet
Dug Well	150 feet
Wetland	100 feet*
Lake George	200 feet
Other waterbodies	100 feet**
Property line	25 feet
Dwellings	20 feet
Soil Depth to: Bedrock $\leq$ 48"	25 feet
Impervious Layer $\leq$ 48"	25 feet
SEASONAL HIGH	25 feet***
GROUNDWATER TABLE $\leq$ 24"	
25 % Slopes	25 feet
<p>* May require a greater separation distance where low nutrient bop are present.</p> <p>** The shoreline setback requirement includes both:</p> <ol style="list-style-type: none"> <li>1. Intermittent streams with a defined bed and bank, regardless of navigability (9 NYCRR. 575.1 [c]).</li> <li>2. Within 200 feet of the shoreline of a lake, pond, riser or stream: if the percolation rate is 0 to 3 minutes per inch, a leaching facility will not be permitted (9 NYCRR. Appendix Q4).</li> </ol> <p>***Seasonal High Ground Water Table.</p>	

For features not listed in the above table, use Table 2 in the Design Standards for Wastewater Treatment Works 1988, NYS Department of Environmental Conservation, 1980, revised 1988.

Slope:

Conventional in-ground absorption trenches shall only be permitted on natural slopes of 15% or less. All other acceptable on-site sewage disposal systems shall only be permitted on natural slopes of 8% or less. For the purpose of these guidelines, the slope is measured as the ratio of the maximum vertical rise or fall of the land in 50 feet of horizontal distance and is expressed as a percentage.

Soil Percolation Rate:

In order to be approved for conventional in-ground absorption trenches or beds or for shallow absorption trenches, soil percolation rates shall be between 1 to 60 minutes per inch. No on-site sewage disposal systems shall be allowed in soils where the percolation rate is less than 1 minute per inch or exceeds 60 minutes per inch. Also, within 200 feet of the shoreline of a lake, pond, river or stream: if the percolation rate is 0 to 3 minutes per inch, a leaching facility will not be permitted (9 NYCRR Appendix Q-4).

Note: Aquifer Protection in Fast Perc Soils

In areas with percolation rates faster than 10 minutes per inch that overlie aquifers designated by New York State as Principal Aquifers, or other aquifers that meet the criteria defined in NYS Department of Environmental Conservation, Division of Water Technical and Operational Guidance Series 2.13, Primary and Principal Aquifer Determinations, April 1, 1987, additional protection will be required to prevent degradation of groundwater quality. In such cases, the absorption system design shall be modified to provide enhanced treatment of the wastewater by the soil system, or additional treatment provided prior to subsurface discharge. The Agency staff should be consulted before substantial sums are spent on design.

Soil Test Pit:

A soil test pit is required to examine the soil to a depth of at least 7 feet or 5 feet below the bottom of the proposed system, whichever is deeper. Soil test pits must be described by a qualified soil scientist as defined by the New York Department of Agriculture and Markets Rules and Regulations (1 NYCRR 370.2 [v]).

Soil Depth to Seasonal High Groundwater Table (SHGWT):

The depth of the undisturbed and natural soil measured from the soil surface (minus the surface organic forest floor layers) to the top of the seasonal high water table must be 24 inches or more. This depth shall also be determined by a qualified soil scientist.

**Soil Depth to Bedrock or Other Impervious Layer:**

The depth of the undisturbed and natural soil measured from the soil surface (minus the surface organic forest floor layers) to the top of bedrock or other impervious layer must be 48 inches or more (72 inches if the bedrock is fractured). In addition, the bottom of any sewage disposal system shall be at least four feet above bedrock or impervious strata. An impervious strata is defined as any layer with a percolation rate of slower than 60 minutes per inch.

**Filled Areas or Disturbed Sites:**

Sewage disposal systems are generally not allowed on sites where the natural soil materials have been disturbed by excavation, removed or covered by more than 12 inches of fill. Where proposed on such sites, intensive sub-surface investigation will be required. The Agency staff should be consulted prior to conducting such an investigation.

**DESIGN STANDARDS****Design Flow and Replacement Area:**

All proposed lots for new subdivisions subject to these guidelines are required to have an area of suitable site conditions large enough to accommodate a sewage system designed for a minimum of 500 gallons per day flow rate (4 bedroom house) and a reserve area capable of installing a 100 percent replacement system according to the specifications in this document.

**System Extent:**

The sewage disposal area includes the area of the leaching facilities and, if required by the design, the area covered by fill used to grade around the system and the up-slope diversion ditch (curtain drain). This area is the finished graded edge of the sewage disposal system used for the measurement of horizontal separation distances.



Piping Distances:

In general the piping of sewage to an on-site sewage disposal system serving one or two single family dwellings a distance of 250 feet or more or across wetlands, waterbodies, right-of-ways, property lines or a soil with any limiting feature, is not allowed. Review of such proposals will be on a case-by-case basis and alternative lot configurations will likely be suggested.

Mounding Analysis:

Where site conditions are marginal, an analysis will be required to predict the extent of groundwater mounding that will occur when the system is in operation and how this discharge will affect groundwater levels downgradient.

Other:

All other standard design features are the same as in Sewage Standards for Wastewater Treatment Works 1988, DEC, revised 1988, unless otherwise noted herein.

ACCEPTABLE SEWAGE DISPOSAL SYSTEMS for New Development

The sewage disposal systems defined herein are the same systems used in Sewage Standards for Wastewater Treatment Works 1988 DEC, revised 1988, and are described in further detail by that publication. The design standards in that publication are applicable, but the site conditions used herein may in some instances be more restrictive, and represent the minimum site conditions necessary in order to recommend the approval of a lot for new development without a public hearing.

Conventional Absorption Trenches and Beds:

Conventional Absorption Trenches and Beds are in-ground sewage disposal systems which may be used only with the following site conditions:

- Percolation rate: 1 to 60 minutes/inch
- Slope:  $\leq 15\%$  for Trenches  
 $\leq 8\%$  for Beds
- Depth to SHGWT:  $\geq 48$  inches
- Depth to Bedrock:  $\geq 72$  inches

Such systems are constructed wholly within the existing native soil, yet are able to maintain a 24 inch vertical separation distance between the bottom of the system and the top of the seasonal high water table, and 48 inches to bedrock. Conventional absorption beds differ from trenches in that they are up to 15 feet wide, while trenches are generally 2 feet wide. Cross-sections for trenches and beds are from the 1988 DEC publication set forth in Appendix A and Appendix B.

#### Shallow Absorption Trenches

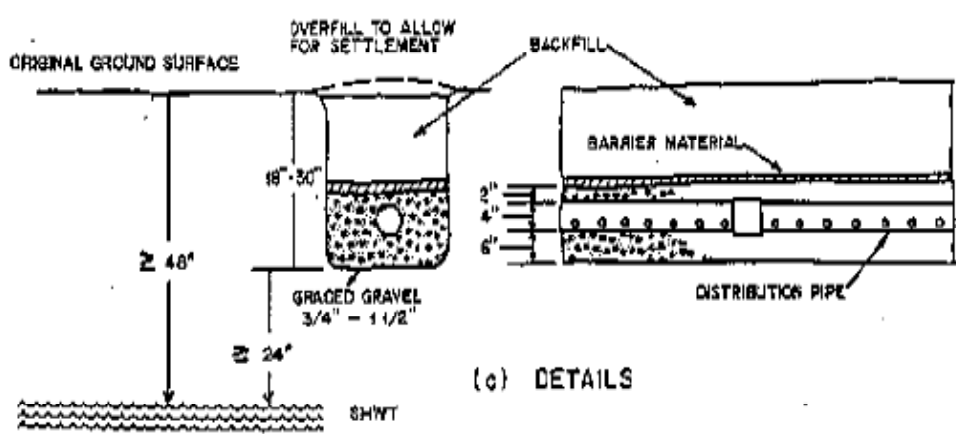
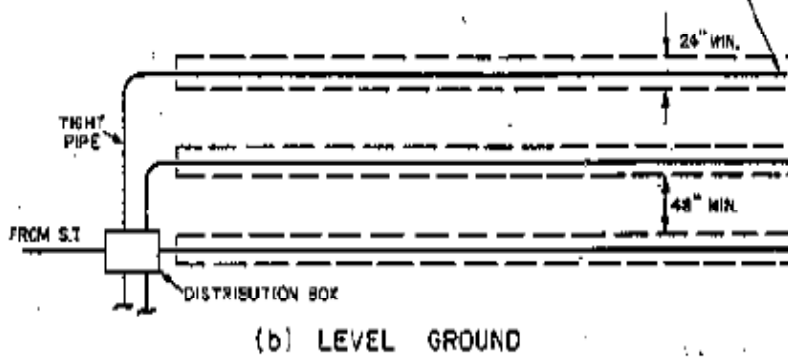
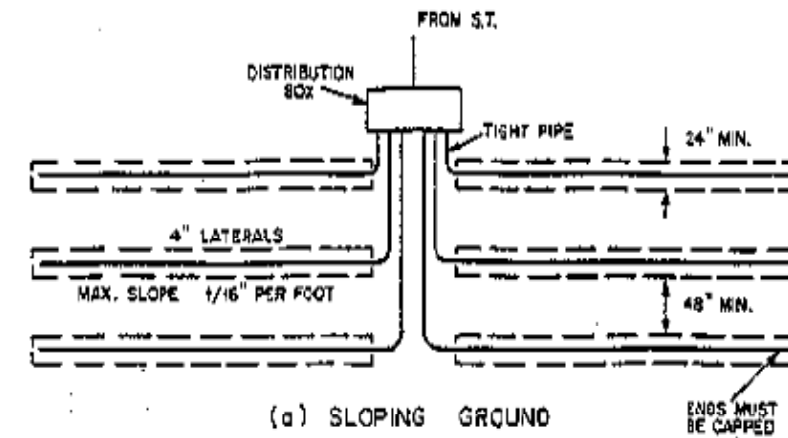
Shallow Absorption trenches are sewage disposal systems which may be used only with the following site conditions:

Percolation rate:	1 to 60 minutes/inch
Slope:	$\leq 8\%$
Depth to SHGWT:	24 to 48 inches
Depth to Bedrock:	$\geq 48$ inches

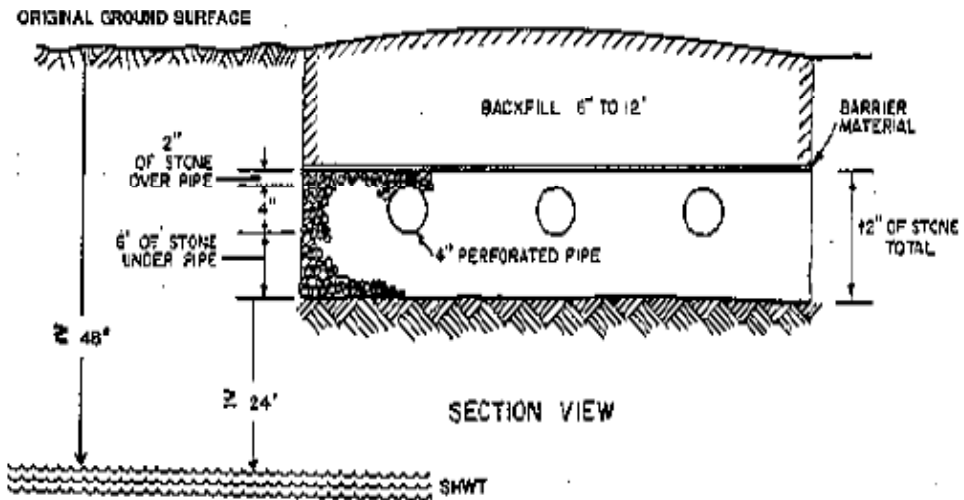
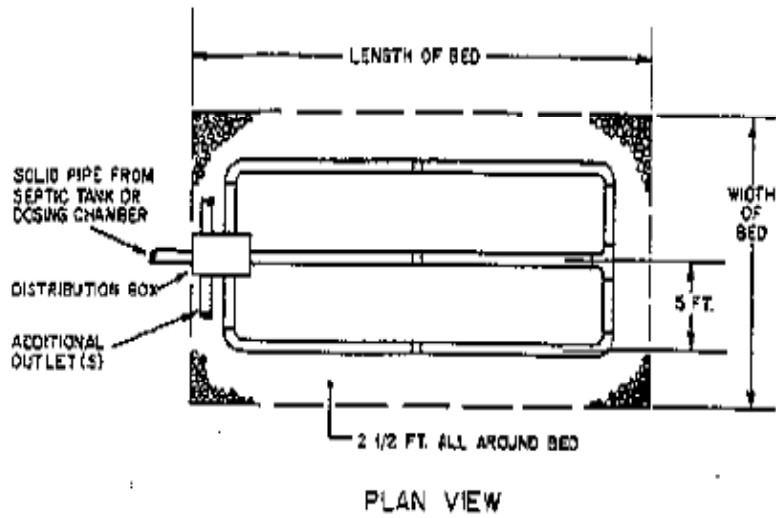
Such systems are constructed with the bottom of the system wholly within the existing native soil. Fill is required to grade over the sides and top of the system. The total height of the system above the original soil surface is 1 to 24 inches, depending on the system design, slope and depth to the seasonal high water table. A cross-section from the 1988 DEC publication is set forth in Appendix C. All shallow absorption trenches shall be designed and certified as to their proper installation by a licensed Professional Engineer.

#### PRE-EXISTING LOTS and FAILING SYSTEMS

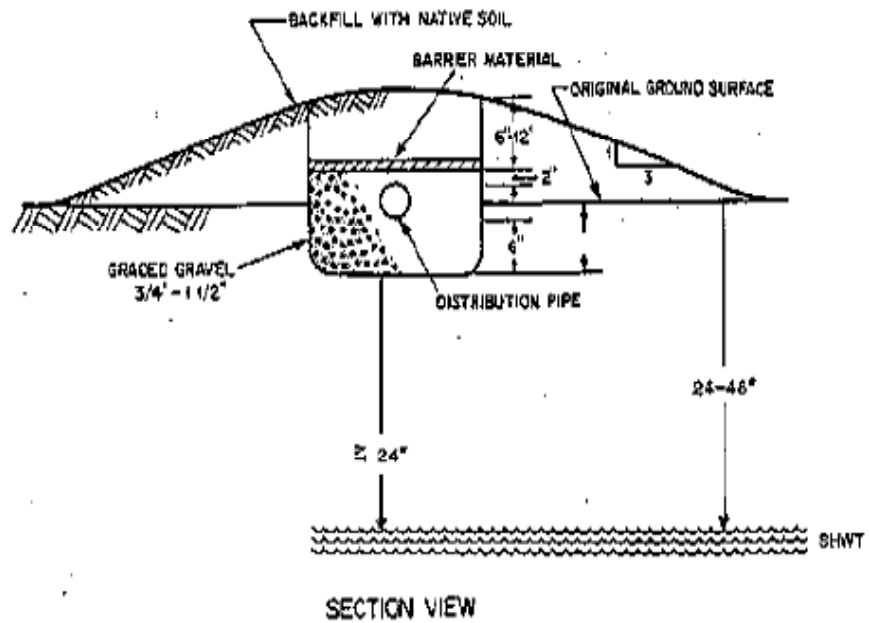
If a pre-existing lot does not meet the minimum site requirements in this document, Agency staff will consider, on a case-by-case basis, acceptability of alternative systems. If an existing on-site sewage disposal system is failing, Agency staff will consider proposals of demonstrated new technology or alternative systems, such as, but not limited to mounds or non-waterborne systems, as designed by a licensed Professional Engineer. Holding tanks will not be allowed for year-round usage on a permanent basis, however.



APPENDIX A CONVENTIONAL ABSORPTION TRENCH



APPENDIX B CONVENTIONAL ABSORPTION BED



APPENDIX C SHALLOW ABSORPTION TRENCH

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