

Town of Middleton, MA

CHAPTER 339 WASTEWATER DISPOSAL

[HISTORY: Adopted by the Board of Health of the Town of Middleton, March 4, 2015. Amendments noted where applicable.]

ARTICLE I General Provisions (§ 339-1 — § 339-2) § 339-1 Authority.

A.

This regulation is adopted by the Town of Middleton by its Board of Health (BOH) pursuant to M.G.L. c. 111 and all the provisions of the Commonwealth of Massachusetts Department of Environmental Protection, 310 CMR 15.00, the State Environment Code Title 5, Minimum Requirements for the Subsurface Disposal of Sanitary Sewage.

B.

This regulation shall go into effect on July 13, 2011, and any wastewater disposal systems plans submitted to the BOH thereafter shall be subject to this regulation. Any revisions shall go into effect when approved by the BOH.

C.

The approving authority shall be the BOH of the Town of Middleton, Massachusetts.

§ 339-2 Definitions.

The terms and definitions used in this document shall have the same meaning as defined in 310 CMR 15.002, Definitions, as amended from time to time.

ARTICLE II Siting of Systems (§ 339-3 — § 339-11)

§ 339-3 Soil evaluation.

A.

Percolation tests may be performed at any time of the year provided that weather conditions are conducive to testing. Percolation tests shall be performed by a Massachusetts Registered Professional Engineer, a Massachusetts Registered Sanitarian, or a D.E.P. approved Soil Evaluator in the presence of a representative from the Board of Health. The Director of Public Health or his/her designee will make determinations relative to suitable weather conditions for conducting tests.

B.

Deep hole tests may be conducted at any time during the year provided a D.E.P. approved Soil Evaluator makes and records on site the soil evaluation as required in Title 5. This test may be conducted provided that weather conditions are conducive to testing. The Director of Public Health or his/her designee will make determinations relative to suitable weather conditions for conducting tests. All deep hole testing conducted for design of a sewage disposal system shall be performed in the presence of an authorized representative of the Board of Health.

C.

The Board of Health or its agents shall have sole authority to make final determinations as deemed necessary regarding deep hole testing.

D.

Soil testing shall be scheduled in writing with the BOH at least two weeks in advance of the time desired for such testing. Payment is due with request for scheduling, along with a completed application for soil and percolation testing. A trench permit is required to be completed for soil testing and filed with the soil test application.

E.

The BOH may require installation of monitoring wells at the time of soil testing to determine actual water table elevations during different times of the year. Water table elevations will be monitored by the system designer and reported to the BOH on the system design plans.

F.

The applicant shall submit soil testing logs and a plan showing the location of test pits within 90 days of test.

G.

Soil analysis and percolation test results are valid for 10 years from the date of the test and subject to changes in Title 5. The Director of Public Health or his/her designee may reduce the timeframe less than 10 years at his/her discretion due to alterations in the landscaping, landform, and/or development that could have affected the groundwater table in the area.

§ 339-4 Landscape position.

A.

All plans shall clearly show any ledge outcroppings or boulders in excess of five feet in diameter and within 25 feet of the proposed soil absorption system.

B.

Sites that appear to have significant ledge or boulders may require additional soil testing to demonstrate that soils in the receiving layer are suitable for wastewater disposal.

§ 339-5 Nonresidential systems.

Reserved for future regulations

§ 339-6 Proposed subdivisions.

Soil testing data forms shall be submitted to the BOH before approval of a definitive subdivision plan. The BOH shall assess

the suitability of soils on the site to accept an onsite wastewater disposal system. The applicant filing the definitive subdivision plan shall demonstrate that each lot is capable of supporting an onsite wastewater disposal system, taking into consideration all existing site features and all proposed site improvements without the need for a variance.

§ 339-7 Floodplain areas.

A.

No soil absorption system (bottom of system) shall be constructed less than one foot above the one-hundred-year flood elevation.

B.

Onsite wastewater disposal systems proposed for new construction in areas known as "bordering land subject to flooding" (BLSF) as defined by the Wetlands Protection Act under 310 CMR 10.57(2)(a) shall not be permitted.

C.

The BOH may require the applicant to determine the boundary of BLSF by engineering calculations in accordance with 310 CMR 10.57(2)(a)3. In such a case, the applicant shall retain a registered professional engineer or professional wetland scientist competent in such matters to perform calculations to determine the accurate boundary of the BLSF and appropriate corresponding elevation.

§ 339-8 Wetlands protection.

A.

Plans shall indicate all wetland resource areas, including isolated vegetated wetland (not jurisdictional under the Wetlands Protection Act), as defined by the Massachusetts Wetlands Protection Act (MGL c. 131, § 40) and its accompanying regulations (310 CMR 10.00) within 100 feet of a wastewater disposal system, including off-site areas.

B.

Wetland resource area delineations shall be approved by the Middleton Conservation Commission, Administrator, and/or Agent and the date of approval shall be clearly stated on the plan.

C.

No portion of the soil absorption system shall be constructed:

(1)

Within 100 feet of wetland resource identified in 310 CMR 10.02(1)(a) to (d), including: any bank, freshwater wetland, coastal wetland, beach, dune, flat, marsh, swamp, river (perennial stream), and vernal pool. Natural resource areas shall not be altered (filled) in order to obtain the 100 foot setback.

(2)

Within 100 feet of isolated wetland resources as described in Subsection A above

§ 339-9 Stormwater management.

Onsite wastewater disposal systems that will result in site grading to be elevated above existing grade shall be permitted only if the applicant demonstrates that stormwater runoff patterns will not adversely affect adjacent land. Design plans shall show existing and proposed topography on surrounding land to an extent that illustrates the nature of pre-development and post-development runoff patterns. The site plan shall, through calculations, or by proposed site grading, demonstrate that post-development peak discharge rates will not cause an increase in flooding impacts to adjacent land.

§ 339-10 Private on-site wells (Water Supply Systems)

A. Designers shall comply with the requirements set forth within the Middleton Board of Health regulations for water supply systems Chapter 343, Water Supply Systems

B.

Designers shall place on-site potable water supply wells in a location so that the entire one-hundred-foot protective well radius is within the lot lines.

C.

If the placement of an on-site well causes the one-hundred-foot protective well radii to cross onto adjacent lots, then the applicant shall comply with the additional requirements set forth within the Middleton Board of Health regulations for water supply systems § 343-6(5)

D.

The BOH is the approving authority and has jurisdiction over the design and construction of the Onsite wastewater disposal system and concerns should be directed to the BOH.

§ 339-11 Expansion or change of use of existing structures (for example, but not limited to; residential, commercial, institutional, educational, dwelling and buildings.

A.

No dwelling, building, or structure shall be allowed a change of use with an increase in design flow above the approved design capacity unless the system is upgraded. Additions to existing dwellings, buildings, structures, etc. that will add additional habitable rooms (i.e. bedrooms, living rooms, dens, family rooms, office, recreational rooms, additional living area, etc.) shall be required to upgrade the existing sewage disposal system as determined by the Director of Public Health. An upgrade shall be in accordance with the most recent State and local regulations, rules, laws, by-laws, etc. or as may reasonably be upgraded given certain site specific conditions.

Exemptions to this policy shall apply to cases where the total increase in proposed additions as described in the paragraph above does not exceed two hundred (200) square feet. Other cases, such as a garage to be used for storage of motor vehicles without habitable living space, a porch, deck, screen house, etc., shall also be exempt

from the requirement to upgrade a sewage disposal system as determined by the Director of Public Health

B.

The Middleton BOH will not accept requests for reductions in the design flows that are listed in 310 CMR 15.203 or for uses that are not listed but have been assigned a previous design flow.

C.

Where a new use or change in use is proposed within a structure/facility/establishment that is served by an Onsite wastewater disposal system, a Registered Professional Engineer (PE) or Registered Sanitarian (RS) shall submit to the Health Department a spreadsheet that outlines the existing and proposed uses within the structure(s) with the associated design flows. The PE/RS shall declare if the existing onsite wastewater disposal system has capacity to receive the design flow from proposed new use or change in use.

D. Any building expansion shall require a Title 5 inspection if one has not been done in the previous five years.

ARTICLE III Design of On-Site Wastewater Disposal Systems (§ 339-12 — § 339-14)

§ 339-12 General design criteria and plan preparation.

A.

Domestic wastewater flows from single-family and multiple-family dwellings shall be determined at a rate of 150 gallons per bedroom per day.

B.

Design flow calculations for dwellings shall be based on the total number of rooms in the dwelling and not necessarily on the number of proposed bedrooms. The number of bedrooms shall be calculated in accordance with the State Sanitary Code, 310 CMR 15.002. The plan shall clearly state the total number of habitable rooms in the dwelling (not including hallways, bathrooms, unfinished basements or unheated areas). Rooms that could easily be converted into a bedroom shall be included in the room count. A deed restriction may be required if the number of habitable rooms exceed the calculation for bedrooms for the dwelling.

C.

Wastewater disposal systems for new construction shall be designed to accommodate a minimum of four bedrooms.

D.

All soil absorption systems connected to a vent shall be equipped with a suitable air filtering system for odor control. Vents shall have a minimum setback to an abutting property line of five (5) feet.

E.

Reserve areas shall not include any of the leaching effective area of the primary leaching area.

F.

Profile and cross sections shown on the plan must show clearly the existing and proposed soil conditions, limits of excavation and fill replacement and graphically show the test pit data, percolation test data and estimated seasonal high water table (ESHWT) beneath all components of the system.

G.

Garbage Grinders are prohibited in any structure serviced by a wastewater disposal system within the Town of Middleton.

H.

Bench marks used to establish site elevations shall be clearly delineated on the plans. Bench marks established shall be constructed so as to be permanent and easily identified in the field. Plans shall be generated from elevations that correspond to NGVD datum or other datum that is consistent with elevations determined for already established site plans or subdivision plans. Plans submitted for isolated lots that have no reference to vertical datum may use an established permanent bench mark provided it can be easily found in the field, is clearly identified on the plan, and is established so as to be a permanent object which will be existent in future years.

I.

The applicant shall provide plans, profiles, cross sections, construction notes and test hole data, in accordance with the Design Checklist for Wastewater Disposal System found in the back of these regulations.

J.

All pump systems must be designed utilizing a dual-compartment monolithic tank.

K.

Septic Tanks shall be a dual compartment monolithic constructed tank. Non-monolithic tanks shall be tested in accordance with ASTM C 1227.

D.

Distribution boxes shall be constructed in H-20 capacity or of plastic construction [High Density Polyethylene (HDPE) or industry equivalent].

§ 339-13 Pressure distribution systems.

A.

All onsite wastewater disposal systems that require pumping into the leaching facility shall be designed as a pressure distribution system utilizing a central manifold and lateral piping network or shall be designed to flow by gravity from the distribution box to the leaching field.

B.

Use of mercury pump floats is prohibited. Mechanical pump floats are acceptable. When an existing pump system is to be replaced or removed, mercury pump floats shall be removed and properly disposed off in accordance with the law.

C.

If the design flow exceeds 2,000 gallons per day, then the soil absorption system shall be divided into two separate leaching systems, each capable of supporting 1/2 of the design flow.

D.

A maintenance contract shall be provided to the BOH prior to issuance of the certificate of compliance.

§ 339-14 Alternative systems.

The BOH reserves the right to request the applicant, in certain circumstances, when public health and safety may be at compromise, to provide information for the use of an alternative system as a means of onsite wastewater disposal system.

ARTICLE IV Construction and Inspection of Systems (§ 339-15 — § 339-17)

§ 339-15 Installation procedure.

A.

All onsite wastewater disposal systems shall be installed by a person or firm that has a valid installer's permit issued by the Middleton BOH.

B.

Construction of the onsite wastewater disposal systems system shall be performed in accordance with the approved plans and any requirements set forth by the BOH. Failure to comply with the requirements of the design shall constitute a basis for revocation of the installer's permit and fines as outlined under § 339-23 Severability.

C.

The designer shall inspect and verify the bottom of the leaching system elevation(s) and all pipe invert elevations during construction.

D.

The BOH shall be notified when the construction has been completed to the following stages to allow for inspection. The installer shall request an inspection a minimum of twenty-four-hours in advance for all inspections in addition to as outlined:

- (1) When excavation is completed prior to the placement of sand and stone for the leaching field;
- (2) When the trench, pit, or bed excavation is complete prior to placement of stone;
- (3) After placement of tanks, distribution boxes, piping, etc., prior to installation of backfill material around these items; and
- (4) When stone has been placed around system components prior to final backfilling. During this inspection, a water flow test may be conducted to determine if proper flow characteristics exist.

§ 339-16 Pressure testing sewer lines.

In special circumstances, and at the request of the BOH, a low-pressure air test shall be performed on sewer lines in accordance with the following guidelines:

A.

Low-pressure air shall be introduced into the sealed pipe line until the internal air pressure reaches four psi or greater than the average back pressure of any groundwater that may be over the pipe. At least two minutes shall be allowed for the air pressure to stabilize.

B.

The requirements shall be accomplished by performing the test as follows: The time required in minutes for the pressure to decrease from 3.5 to 2.5 psig (greater than the average back pressure of any groundwater over the pipe) shall not be less than the time shown for the given diameters in the following table:

TABLE 1: Pipe Diameter in Inches/Minutes

Inches	Minutes
--------	---------

4	2.0
---	-----

6	3.0
---	-----

8	4.0
---	-----

§ 339-17 Design & As-built requirements.

A.

The designer shall submit, in paper file and electronic format, design and as-built drawings of the onsite wastewater disposal system to the office of Middleton Health Department that have been drafted and calculated within Computer Aided Drafting (CAD) format. The designer of record shall submit the as-built plans prior to the

issuance of the certificate of compliance. The asbuilt shall be submitted within thirty (30) days after the completion of the system. The designer and installer are required to sign off on the certificate of compliance prior to signoff by the Health Department.

B.

The designer shall submit two certified copies of as-built plans of the new onsite wastewater disposal system, replacement system, upgrade or expansion system as installed to the BOH. The as-built plan shall clearly show any changes from the original approved design plan. This plan shall be noted "As-Built" in the lower right-hand corner of the plan and dated appropriately.

C.

The as built plans shall be prepared as follows.

(1) Provide a drawing of the complete sewage disposal system including ties from at least one (1) "permanent" reference point.

(2) Show the location of the building served relative to the nearest street(s).

(3) Label all components of the system.

(4) Specify the capacity of septic tanks, pump chambers, and any other similar components.

(5) Provide the dimensions of the soil absorption system.

(6) Provide ties to the soil absorption system, tanks, covers, inspection ports, distribution box, and cleanouts.

(7) Provide the actual setback distances from the system to the foundation, property line, well(s), natural resources.

(8) Specify if an outlet filter was installed within the tank and if magnetic locating tape were placed over system components for future reference.

(9) Specify the design flow with associated number of bedrooms the system was designed for.

D.

As-built plans shall be certified as follows: "I certify that the wastewater disposal system as shown on this plan was constructed in accordance with the provisions of 310 CMR 15.00 (the State Environmental Code Title 5), Rules and Regulations for On-Site wastewater disposal systems in Middleton, and the original plan through all of its revisions as amended by this as-built plan." Professional engineer or registered sanitarian seal and signature. Date.

ARTICLE V Administration Requirements (§ 339-18 — § 339-22)

§ 339-18 General administration.

A.

The applicant shall submit design plans (three copies) to the BOH with the application and appropriate application fee at least two weeks in advance of a regularly scheduled BOH meeting if the plan requires review by the BOH.

B.

The designer shall submit an electronic copy (PDF) of the design and (PDF & CAD SHAPE FILE FORMAT) of the asbuilt plans to the Health Department prior to the request for sign off on the certificate of compliance by the Health Department.

C.

Any modifications to the design plan will require approval from the Health Department prior to construction.

§ 339-19 Variances / Local Upgrade Approval Requests.

A.

When a variance from this regulation is requested, a letter from the design engineer requesting an appearance before the BOH shall be made in writing and submitted to the BOH with three copies of the plan at least two weeks prior to the meeting date.

B.

The applicant's designer shall attend the BOH meeting to propose and discuss the reasons the variance is requested. No variance shall be discussed or approved without an acceptable plan.

C.

Each plan shall clearly state the reasons for the variance requested and cite the regulation (state or local) reference number.

D. The BOH need not consider any plans nor requests that have not been submitted or made in accordance with these regulations.

§ 339-20 Fee schedule.

Fees will be published by the BOH on an annual basis and are available from the Health Department.

§ 339-21 Installer's permit.

A.

The BOH shall issue permits for the installation of onsite wastewater disposal systems upon completion of the necessary application forms and payment of any fees indicated in these regulations.

B.

Unsatisfactory performance and/or failure to complete installation of any disposal system in accordance with approved plans shall serve as a basis for revoking, suspension, or nonrenewal of the installer's permit.

C.

A contractor who wishes to obtain an installer's license must take and pass a written test conducted by the Health Department.

§ 339-22 System Inspections

A.

System inspectors shall obtain an annual license to perform system inspections within the Town of Middleton.

B.

When a site is served by both a onsite wastewater disposal system and a private (drinking) well, a complete water quality analysis of the well, in accordance with the Code of the Town of Middleton Chapter 343, Water Supply Systems, shall be completed at the time of the wastewater system inspection (Title 5 Inspection). Lab results shall be submitted by the system inspector with the system inspection report to the Middleton Health Department. Lab results are valid for five years from the date of analysis pending no significant land use change on the property or abutting properties has occurred and per the approval of the Director of Public Health.

§ 339-23 Severability.

A.

These regulations shall be interpreted as separate to the end that if any regulation or sentence, clause, or phrase thereof shall be held invalid for any reason, the remainder of that regulation and all other regulations shall continue in full force and shall not invalidate these rules and regulations.

B.

Any found in violation by the Board of Health, regulation, or order made preceding except as otherwise provided, shall be punished by a fine not exceeding \$25 per calendar day for each offense or as outlined below:

- Non-compliance in upgrading a failed system following a system inspection in accordance with the timeframe outlined in 310 CMR 15.000 or otherwise specified by the Middleton Health Department: Following the deadline date, \$25 per calendar day assessed to the property owner.
- For systems installed not according to the design plan in that the Middleton Health Department requires repair from the installer: Following the deadline date, \$50 per calendar day assessed to the installer until the system is brought into compliance as instructed by the Health Department. During this timeframe, the installers permit will be suspended within the Town of Middleton until the Health Department lifts the suspension.