



BOARD OF HEALTH
Dorothea L. Frederico
Richard J. Kirejczyk
Shawn P. McAvey

TOWN OF GRAFTON

GRAFTON MEMORIAL MUNICIPAL CENTER
30 PROVIDENCE ROAD
GRAFTON, MA 01519

(508) 839-5335 x 119 * Fax: (508) 839-8559
E-mail: healthdept@town.grafton.ma.us

HEALTH AGENT
Lois Luniewicz, REHS/RS, CHO
(508) 839-5335 X 128

PUBLIC HEALTH NURSE
Barbara Johnson, R.N.
(508) 839-5335 X 129

SUPPLEMENTAL REGULATIONS TO TITLE 5

November 1, 2004
Amended April 25, 2005

The Grafton Board of Health, in accordance with Chapter 111, Section 31 of the Massachusetts General Laws, hereby adopts the following rules and regulations to supplement the State Environmental Code Title 5, 310 CMR 15.000. Effective date for all systems to be designed in accordance with these regulations is November 1, 2004.

GLOSSARY

Board-Board of Health, its Agent or the Health Department.

MDEP-Massachusetts Department of Environmental Protection

Permit-Disposal Works Construction Permit

Plan-Septic Design Plan

System-All components utilized to treat wastewater

LOT TESTING

- 1.) Since no two sites are alike, when there is any doubt as to the acceptability of a location for the subsurface disposal system, the Board of Health may require additional information to confirm the suitability of the site. This may consist of additional deep hole test pits, percolation tests or waiting until a more suitable time of the year to conduct perc and deep hole tests. (MADEP's "Title 5 Alternative to Percolation Testing Policy" for system upgrades (Effective Date: September 8, 2000, Policy #: BRP/DWM/PeP-P00-4) may only be used at the discretion of the local approving authority.)
- 2.) The Soil Evaluator performing the soil test shall provide to the Health Department the information listed below using the MDEP approved Soil Evaluator Form #11 and the Percolation Test Form #12 completed in their entirety plus any other additional information as needed within thirty (30) days after testing, but in all cases prior to submitting the plans. This will include all witnessed soil testing, passed or failed. Failure to submit to the Board this soil testing information may be grounds for invalidating testing for the lot:
 - a. Lot Location shall include the street address, Assessors Map and Parcel #, Builders Lot #
 - b. Site plan showing locations of a minimum of two (2) control points that locate the deep holes and perc areas. These control points shall preferably be permanent (i.e. corner of stone wall, property corner, corner building). If there are no permanent control points available, the Soil Evaluator must set a control point that is permanent/semi-permanent but in all cases can be easily re-established. For **all** soil testing, the test locations shall be flagged and clearly labeled in the field.
 - c. The Town's witnessing agent shall review and verify the accuracy of the soil evaluator's submitted data. If the agent concurs with the results and information shown on the logs, then he/she shall sign the soil evaluator's logs. If the witnessing agent discovers discrepancies with his/her own recorded field review, or questionable data, then no design plans shall be reviewed until such discrepancies are resolved. Additional field testing may be required to resolve unqualified discrepancies.
 - d. Based upon an evaluation of the suitability of the proposed disposal area for a proposed, upgraded or expanded system in accordance with 310CMR15.100 through 15.107, the Soil Evaluator shall certify to the approving authority and the Designer as to the accuracy of the soil evaluation in conformance with 310CMR15.201 through 15.293. The certification shall contain a recitation of the facts and rationale underlying the soil evaluation and a copy of the soil evaluation form. The soil evaluator shall submit the results on the MADEP approved form with the following statement:
I certify that on _____(date) I have passed the examination approved by MADEP and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.018(2). Any soil testing certifications shall be forwarded to the approving authority, the Designer and the Property owner. Failure to forward these certifications to the approving authority within thirty (30) days of the date of the field testing shall be cause for invalidation of the test results.
- 3.) Excavation of additional test holes beyond four total holes (in any combination) per lot shall be charged at an additional rate per hole. Passing, failed and abandoned holes and supplemental holes shall count toward this total. The costs incurred by additional holes shall be paid immediately following the testing at the Board office. The Board Agent may withhold submittal of official test results if the fees are not paid. If fees remain unpaid at the time of plan submittal, the plan will not be accepted.

- (4.) The soil evaluator shall be prepared to perform testing and have both deep and perc holes prepared at the scheduled time of the Agent's arrival on site. The witness fee may be forfeited if the site is not prepared at the scheduled time of witnessing.
- (5.) Witnessing of overnight perc testing shall be at the Agent's discretion based upon availability, site and weather conditions. If the Soil Evaluator cannot perform the overnight testing the next day, a new application fee will be collected, new holes dug and tested.
- (6.) No testing done under the 1978 code of Title V will be accepted.
- (7.) In the case of a cancellation of soil testing, the Board of Health must be notified a minimum of 24 hours prior to the scheduled test to avoid forfeiture of application fee. All reasonable efforts will be made to notify both the Board office and the Agent prior to the twenty-four hour period.
- (8.) Perc testing between December 15th and March 31st will be at the Agent's discretion based upon weather conditions.

DESIGN

- (1.) At a minimum, five (5) sets of plans are required to be submitted as part of the application for a Permit.
- (2.) Retaining walls, impervious barriers and grading easements may be allowed, upon review of a written variance request, at the discretion of the Board of Health for new construction on lots created prior to November 1, 2004 or repairs for existing homes when, in the opinion of the Board of Health, circumstances on the site uniquely affect the installation of the system and are not believed to be potentially hazardous to the public health. The use of retaining walls, grading easements or impervious barriers will in no case be allowed for new construction on lots created after November 1, 2004.
- (3.) Designers must incorporate the most restrictive perc rate and groundwater depth determined on site for design unless supplemental information or additional soil testing is performed which will support variations from this policy. The highest existing elevation in the area of the proposed system shall be used for design determination of the high groundwater table unless said supplemental information is provided and accepted by the Board or its Agent. The seasonal high ground water table shall be assumed to run parallel to existing grade unless supplemental evidence is produced by the soil evaluator to support otherwise.
- (4.) The location on the plan of the reserve area designated on septic designs for new construction must be structurally feasible in accordance with these supplemental regulations for new construction. Additional revisions and/or soil testing may be necessary in order to assure that the reserve area can be constructed and be functional.
- (5.) Systems requiring a local upgrade approval and/or a MDEP variance will not be issued a Permit until the Board has approved the local upgrade request and when applicable, been notified by MDEP that the request for variance has been approved.
- (6.) No Permit will be issued unless property/personal taxes are current.
- (7.) All septic design plans will show the location of all wetlands, watercourses, waterbodies and floodplains and if there are none, the plan shall state such. No Permit for designs within these above protected areas will be issued until the Grafton Conservation Commission issues their decision with a copy to the Health Department.
- (8.) All system vent pipes will be fitted with a charcoal filter.
- (9.) Plans must show any and all survey markers (monuments) used to locate the subsurface disposal system on subject property.
- (10.) On plans submitted for repairs, any systems within ten (10) feet of a boundary line must have the boundary line staked by a land surveyor or be registered by the Commonwealth of Massachusetts. The plans must include a statement reference and explanation for any proposed upgrade approvals and/or variance required for system approval and installation and be submitted on MDEP Form 9. Local upgrades and variances will not be granted for new construction. When abutter notification is required by the applicant it shall be by certified U.S. mail. Proof of such must be submitted to the Board of Health forty-eight (48) hours prior to commencement of the hearing.
- (11.) All septic design plans must show the location of all abandoned and failed soil test pits.
- (12.) A minimum of two benchmarks within seventy-five (75) feet of the proposed system must be on the plan.
- (13.) Plans must show dimensional ties to all existing/proposed wells within one hundred fifty (150) feet of the proposed subsurface disposal system. Dimensional ties to all the septic systems within one hundred fifty feet (150) of all existing/proposed wells must also be shown. Accordingly, plans shall note the absence of wells/septic systems within 150' as applicable.
- (14.) All plans must show all property lines with metes and bounds of the lot. If a reduced scale version of the lot is used it must show the house, septic system, well and any other critical site features.
- (15.) All foundation drains, water treatment system backwash discharges and dry wells must be on the plan. Per Title 5 regulations, no water treatment/conditioning/softening systems are allowed to be connected to the on-site septic system.
- (16.) All underground utilities must be identified on the plan to the maximum extent feasible. A note must be included on the plan requiring notification to Dig Safe prior to commencement of work along with the Dig Safe telephone number.
- (17.) Plans utilizing alternative technology shall be accompanied by data on the use and design as well as MDEP approval status. The name and telephone number of the Alternative Technology Company shall be on the plan.
- (18.) For lots created after November 1, 2004, soil absorption systems must be designed to accommodate the number of bedrooms in the final house design using Title V definition of 'bedroom'; deed restrictions will not be granted. To verify compliance, one (1) copy of the final house design plans must also be submitted to the Health Department with the septic system design plans. In the event that the final house design has not yet been determined at the time that the septic design plan is submitted, a conditional soil absorption construction permit, clearly designated as such will be issued. Prior to issuance of the final soil absorption system construction

permit, the final house plans must be reviewed. If the number of bedrooms in the final house plan exceeds the number of bedrooms conditionally approved on the septic system design, the septic system must be redesigned.

SEPTIC SYSTEM DESIGN PLAN REVIEW

- (1.) Septic design plans will be accepted for review by the Health Department with a completed application and appropriate fee. Plans will be reviewed on a first in, first out basis.
- (2.) No more than five (5) septic system design plans will be accepted from any one subdivision into the review process at a time. A plan is considered in the review process until it is approved. Only two reviews, initial and one revision will be allowed per application. If a second revision is required, the plan will be removed from the review queue requiring both a new application and application fee which will begin a new review process.
- (3.) No more than ten septic design plans for new construction will be accepted into the review process at a time including the five described in (2.) above; all septic design plans for existing homes with failed systems will be accepted regardless of the total number of plans in process for new construction.
- (4.) Prior to submitting individual septic design plans for subdivision lots or simultaneously with the first submittal, a subdivision overlay plan showing the locations of all proposed septic systems and all proposed wells, when applicable, must be submitted. The plan must show all encumbrances, whether naturally occurring or manmade. Plans must also show exact house design, layout and size; field changes will not be allowed. If the final house design impacts the location or approved design of any part of the system including the septic tank, a revised septic design plan must be submitted for approval prior to construction of the system; all review timeframes will apply. If several house designs are possible for one lot, the system must be designed to fit the most restrictive house design initially.

DISPOSAL SYSTEM PUMPING

A copy of the MDEP Disposal System Pumping Record must be submitted to the Health Department within thirty days after the pumping service has been performed.

INSTALLATION

- (1.) In order to be licensed by the Town of Grafton, an installer must pass the Grafton Installers written exam achieving a minimum score of eighty (80) percent (%) and present from surrounding municipalities either three current licenses or two current licenses and one letter of recommendation.
- (2.) The installer must work from a copy of the approved Plan to install the system available at all times at the site.
- (3.) Installers must schedule all inspections a minimum of forty eight (48) hours in advance with the Agent and notify the Agent in advance if an inspection needs to be canceled.
- (4.) Leach areas shall be covered with a filter fabric on top of the pea stone or on top of chambers. Said filter fabrications shall have the minimum specifications:

Physical			
Grab tensile strength	ASTM-D-4632		90 lbs.
Puncture	ASTM-D-4833		65 lbs.
Hydraulic			
Apparent Opening Size	ASTM-D-4751		70 US Sieve
Permittivity	ASTM-D-4491		2.5 Sec. -1
Flow Rate	ASTM-D-4491		175 gal/min/ft ²
- (5.) The outlet tee of the septic tank shall be equipped with an effluent tee filter which has been approved by MADEP for all soil absorption areas.
 - a. Inlet and outlet tees shall be made accessible for inspection and maintenance year round by providing precise concrete or equivalent watertight risers (with steps where appropriate) with covers over the access ports to within six inches of finish grade. Manholes brought to final grade shall have locking covers to prevent unauthorized access.
 - b. A sign constructed on durable material shall be placed at the sewer cleanout in the basement to indicate to the homeowner that the septic tank is equipped with an effluent tee filter and shall include a copy of the as-built as well as basic information relative to the maintenance of the system. Both the sign and maintenance information will be provided by the Board.
- (6.) Construction cannot commence until the installer has signed the application.
- (7.) Garbage grinders will not be allowed in buildings served by subsurface disposal systems unless the systems are designed to support their use as per 310 CMR 15.223 and 15.241(4).
- (8.) Under no circumstances can any component of an approved septic system be relocated during construction without approval of both the design engineer and the Board in writing; these field changes will be allowed **only** if unforeseen field conditions are encountered.
- (9.) Installation inspections will include: bottom of bed, in process construction including approval of sand and stone, components, final grade, impervious barrier and retaining wall (when permitted) and any additional inspections deemed necessary by the Agent.
- (10.) The septic system designer will not be permitted to install the system.
- (11.) Septic System installation between December 15th and March 31st will require approval by the Agent a minimum of forty-eight hours prior to commencement of excavation.

(12.) All vent pipes will be equipped with a charcoal filter and should be constructed as far away from any dwelling as possible within the lot constraints.

AS-BUILT

(1.) Five (5) copies of the as-built plans shall be submitted to the Board prior to signing the Certificate of Compliance. The Board will not sign the Certificate of Compliance at the time of the final inspection.

(2.) The Design Engineer or engineer who is certifying the as-built plan and the installer shall sign off on the Certificate of Compliance and MDEP Form 3A. The as-built will be submitted electronically superimposed on the approved septic design plan showing the location and elevation of the system and its components as constructed, well location and final grading showing finished grade topography in the area of the system and its adjacent side slopes. Any structures must be shown as actual footprints, not proposed. Under no circumstances will as-built plans be accepted with hand-written drawings or notes.

(3.) The as-built design must also show ties to a minimum of two permanent locations to locate the septic system components, such as septic tank, pump chamber, d-box, corners of SAS, private wells, etc.

(4.) Upon the completion of the Final As-Built drawings, the Installer shall review the drawings and sign the Certificate of Compliance for the system.

(5.) As-built designs must be received within thirty (30) days from the final BoH inspection. Failure to do so could prevent issuance of the Disposal Works Certificate of Compliance and the Occupancy Permit from the Building Department in the case of new construction.

(6.) If for any reason the Board votes to hire an independent septic system designer or engineer, the Applicant will be responsible for paying the associated fee(s).

PENALTIES

(1.) Failure to comply with any of these regulations may be punishable through issuance of a Non-compliance fee, to be assessed per day per violation dating back to the date when the violation(s) occurred or discovered and continuing until corrected, as determined by the Board.

A TRUE COPY,
ATTEST:

GRAFTON BOARD OF HEALTH

Dorothea L. Frederico
Chairman

Richard J. Kirejczyk
Vice-Chairman

Shawn P. McAvey
Clerk