

SECTION 560. EARTH FILLING AND EXCAVATION

560.1 Intent

The following Regulations regarding the establishment and continuance of earth filling and excavation operations have been developed to:

- a. Protect the health, welfare, and safety of the citizens of the Town of Killingly.
- b. Preserve and protect the Town's environmental resources, including but not limited to:
 1. Maintaining an adequate supply and quality of surface and underground water.
 2. Preventing the contamination of air, water and soils.
 3. Hydrological stability and control of flooding and erosion.
 4. Wildlife habitat protection.
- c. Protect property values by insuring that, following such activities, land utilized for filling, and/or excavation will be usable for residential, commercial or industrial purposes consistent with the underlying zoning district in which such use is located.
- d. Protect property values and quality of life for those properties neighboring earth filling, and/or excavation operations.

560.2 Definitions

For the purpose of these Regulations, certain numbers, abbreviations, terms and words used herein shall be used, interpreted and defined as set forth in this section. Unless the context clearly indicates to the contrary, words used in the present tense include the future tense; words used in the plural number include the singular; the word "Regulations" means "these Regulations."; "shall" is always mandatory; "may" is permissive.

- a. "Agricultural Production Purposes" means activities directly related to the production of agricultural commodities for the purpose of sale.
- b. "Bedrock" means the solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.
- c. "Bond, Performance" means sums of money placed in escrow by the applicant which may be used by the Town to complete and/or correct

permitted activities provided the applicant does not complete and/or correct the permitted activities as approved. This bonding assures that the Town will not be left with an incomplete or unsafe project should the applicant default or go bankrupt, and it allows the applicant to proceed in an orderly fashion and utilize staged financing.

- d. "Blasting" means the detonation of an explosive device as defined by NFPA 495.
- e. "Boulder" means a large rock of not less than one (1) cubic yard in size.
- f. "Clay" means a mineral soil consisting of particles less than 0.005 to 0.002 millimeters in equivalent diameter, depending on soil classification system.
- g. "Commercial Earth Excavation and/or Processing Operation" means a business engaged in the removal and/or alteration of earth materials on site, including screening, washing and mixing with other approved materials for sale.
- h. "Crushing" means a process by which rock is reduced in size.
- i. "Earth Products" means: natural soil, loam, sand, gravel, clay, rock or any other excavated natural material.
- j. "Excavate" means to sever from the earth's surface or to remove earth materials from the ground.
- k. "Gravel" means a loose mixture or unconsolidated deposit of pebbles and rock fragments sometimes mixed with clay, and other materials, rounded or angular fragments of rock.
- l. "Guidelines for Soil Erosion and Sedimentation Control" means a document (DEP Bulletin 34, ISBN 0-942085-10-8) prepared and amended by the Connecticut Council on Soil and Water Conservation in Cooperation with the Connecticut Department of Environmental Protection.
- m. "Imported Materials" means earth materials brought to a permit area.
- n. "Loam" means a soil consisting of a mixture of clay, silt and sand.
- o. "Overburden" means the surface soil material overlying a desired earth material that must be removed for excavation of the desired earth material to take place.

- p. "Peat" means unconsolidated soil material consisting largely of undecomposed, or slightly decomposed, organic matter accumulated under conditions of excessive moisture.
- q. "Processing" means an alteration of earth materials on site, including screening, washing and mixing with other approved materials.
- r. "Reclamation" means the restoration to conditions similar to what existed prior to the operation or that will be compatible with what existed prior to the operation on the area of land affected by mining under a reclamation plan. This may include but is not limited to, grading and shaping of the land, the planting of trees and shrubs, the seeding of grasses, legumes, or crops for harvest, or the enhancement of wildlife and aquatic resources.
- s. "Reclamation Plan" means a plan which depicts how the project area will be restored, or altered for the productive use of the land, after excavation is complete.
- t. "Rock Quarry" means a commercial surface excavation or pit from which bedrock is obtained by drilling, cutting or blasting for the preparation of marketable rock materials. A rock quarry shall not include the removal of solid rock materials in the preparation of a site as the result of an approved zoning permit.
- u. "Sand" means a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter.
- v. "Sand and gravel operation" means any operation the principal product of which is sand, gravel, pumice or any other common variety of material.
- w. "Silt" means a mineral soil generally consisting of soil particle ranging between 0.05 and 0.002 millimeter in size.
- x. "Slope" means the inclination of the land surface from the horizontal, measured as a percentage, as a numerical ratio or in degrees.
- y. "Soil" means the unconsolidated minerals and material on the immediate surface of the earth that serve as a natural medium for the growth of plants.
- z. "Soil analysis" means a chemical testing procedure to determine the nutrient content of soils in a given field.
- aa. "Subsoil" means technically, the B horizon; roughly, the part of the solum below plow depth (The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active).

- bb. "Topsoil" means the upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to top-dress road banks, lawns, and land affected by mining.
- cc. "Water Table" means the location beneath the ground where water saturated rock or sediment is first encountered.

560.3 Existing Operations

- a. Each permit issued by the Commission dated prior to 12:01 AM, Monday, October 10, 2005, shall continue in effect, and shall be governed and renewed by the Regulations that were in place when the permit was issued.

560.4 Permitted Activities

- a. Residential maintenance purposes such as landscaping, driveway repair, etc. involving ≤ 100 cubic yards of material shall be entirely exempt provided that there is no off the premises effect.
- b. Filling of property is permitted in accordance with an approved zoning permit, an approved subdivision plan, or a site plan approved by the Commission. Additional filling is permitted for situations over and above what has already been approved upon review and approval by the Planning and Development Office, when such filling is incidental to an existing structural use on a property so long as such filling does not exceed one thousand (1000) cubic yards.
 - 1. The Planning and Development Office, at their discretion, may forward any such request to the Commission for review.
 - 2. The Planning and Development Office may require such information as set forth in sections 560.6(b) and 560.7 of these regulations, as it deems appropriate to evaluate any such application, including those listed in subsection c of this section.
 - 3. In the event that the volume of fill exceeds one thousand (1000) cubic yards, the zoning permit, special permit, subdivision plan, or site plan shall include a plan for filling as detailed in subsections 560.6(b) and 560.7.
 - 4. Road sweepings as fill material requires a zoning permit and shall be subject to the recommended guidelines of the Connecticut Department of Environmental Protection and may

be further regulated by the Commission, when in their opinion, further regulation is warranted.

- c. Non-commercial excavation and removal of earth products is permitted in accordance with and as part of an approved zoning permit, special permit, an approved subdivision plan, or a site plan approved by the Commission. Additional excavation and removal is permitted for situations over and above what has already been approved upon review and approval by the Planning and Development Office, when such excavation or removal of earth products is incidental to an existing permitted use.
 - 1. The Commission may require such information as set forth in sections 560.6(b) and 560.7 of these regulations, as it deems appropriate to evaluate any such application. In the event that the volume of material to be excavated exceeds one-thousand (1,000) cubic yards, such zoning permit, subdivision plan, or site plan shall include a plan for such excavation as detailed in subsection 560.6(b) and 560.7.
- d. Excavation for agricultural production purposes is permitted, upon review and approval by the Planning and Development Office, when such excavation is essential to the agricultural production process, in the opinion of the Planning and Development Staff, to the farming operation.
- e. Excavation and filling is permitted for the repair or replacement of an on-site septic system.
- f. Commercial excavation and removal from the premises of sand, loam, gravel, peat, stone, topsoil or other earth products shall be permitted in all zoning districts with the exception of those contained in the Borough of Danielson and the Five-Mile River Overlay District upon the issuance of a Special Permit by the Commission in accordance with Article VII of these Regulations, after a public hearing with notice given as required by the General Statutes.
- g. Importation of material for sale or processing shall be allowed in Industrial Zones only, except as otherwise stated in these Regulations.
- h. On-site crushing is allowed:
 - 1. In conjunction with a project that has received Commission approval for on-site crushing as part of that project's required permits;

2. As part of an existing operations performing documented crushing prior to the adoption of these Regulations, or;
3. In conjunction with new operations located in the Industrial zone only and receiving approval for crushing under these Regulations.
 - i. Municipal sewer, drainage and road projects are permitted with pre-notification of the Town Planning Office.

560.5 Prohibited Activities

- a. Rock quarries are not permitted in any zone.

560.6 Activities Permitted with a Special Permit

Filling and excavation operations, except as prescribed by section 560.4, may be permitted upon the granting of a Special Permit by the Planning and Zoning Commission in accordance with Article VII of these Regulations and as detailed in this section.

- b. Application for such a permit shall be made by the owner of the property or his authorized agent. Such application shall be accompanied by a map prepared with an accuracy meeting or exceeding standards for a Class A-2 Survey as defined in the Code of Practice for Standards and Accuracy for Surveyors and Maps as published by the State of Connecticut Board of Professional Engineers and Land Surveyors. The map shall be clearly and legibly drawn and shall be submitted on good quality mylar or on other material that would be suitable for filing in the public Land Records on sheets having a size prescribed by Section 7-31 of the Connecticut General Statutes, as amended and as the same may, from time to time, be amended. The map shall preferably be drawn to a scale of one inch equals forty (40) feet but in no case smaller than 1 inch equals two hundred (200) feet. The map and plan, in addition to those requirements stated in Section 470 and Article VII of these Regulations, shall show the following:

Location of the premises, names of abutting owners, property lines, relations to roadway systems, wooded areas, outcrops, existing rivers, streams, watercourses, pond, swamps, and wetlands on or within two hundred (200) feet of the site

An operations statement that includes an estimate of the number of cubic yards of material to be brought to the site, cubic yards of material to be excavated, processed (including materials not originating at the site), or removed – including the rate of removal, which shall be done in phases appropriate to the site and scope of the proposed operation, and estimated time length for the operation including necessary sedimentation and erosion control measures in accordance with the State of

Connecticut "Guidelines for Soil Erosion and Sedimentation Control" as amended and the estimated time length for the operation.

Location of stockpiled material.

Grading plan showing existing contours in the area to be filled and proposed contours for the area after operations. Such plans shall include the area to be filled as well as the surrounding area within two-hundred (200) feet of the filling and shall be drawn at a scale of not less than forty (40) feet to the inch and with contours shown at intervals of not less than two (2) feet.

Existing and proposed drainage of the site (temporary and permanent). Such evaluation shall be based on the recommendation of the Town Engineer and may entail the analysis for a two (2), five (5), ten (10), twenty-five (25), fifty (50), and/or one-hundred (100) year storm.

Delineation of the one-hundred (100) year flood plain (if applicable).

The location and type of any building or fixed machinery to be used.

Details of final grading and planting of the site to prevent erosion of the site at the conclusion of operations made in accordance with the State of Connecticut "Guidelines for Soil Erosion and Sedimentation Control" as amended.

An estimate of the number and types of trucks and other machinery to be used on the site, including: the location and size of refueling pads, and maintenance locations for machinery and vehicles. Proposed truck access – including number of daily trips.

Credible evidence of the presence of an endangered or threatened species, or other natural resources, and/or archeological or historically significant features may require study by appropriate consultants. The results of these studies shall be considered in the approval process and the Commission may stipulate protective measures.

Details, to the satisfaction of the Commission, as to how all noise will be held to the site and not reach an unacceptable level to neighboring properties.

Proposed use and storage of explosives (excavation only). Application should detail the extent of such usage (amount, times to be used, places, circumstances etc.), location of temporary and permanent storage of explosives, and copies of all applicable State and/or Federal licenses/permits.

Proposed fencing, signage and gates.

Geological soundings and/or borings to determine level and drainage patterns of underlying bedrock (excavation only).

A statement and supporting documentation regarding potential impact, if any, of any change in surface or groundwater levels or water quality that may be caused by the proposed activities including impacts on private wells and wetlands habitats.

Other information the Commission deems necessary.

Specific requirements may be waived by the Commission when in its opinion such requirement is unnecessary because of the limited size of the operation, or other valid reason whereby the health, safety and public welfare will not be adversely affected.

560.7 Performance Standards

The following shall apply, in accordance with Section 560.4 of these regulations:

Screening, sifting, washing, crushing or other forms of processing shall, for commercial extraction and/or processing operations only, be conducted upon the premises between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday, Saturdays 7:00 a.m. and 12:00 p.m. There shall be no operational activities Sundays and the following holidays: Christmas, New Years Day, Memorial Day, Fourth of July, Labor Day, and Thanksgiving Day, except by special permission of the Commission.

No fixed or portable machinery used in a commercial operation shall be erected or maintained within two hundred (200) feet of any property or street line and not less than five-hundred (500) feet from any residence.

The location of crushing operations shall be dependant on a noise study performed by a qualified firm at the cost of the applicant.

Measures, to the satisfaction of the Commission, shall be taken to minimize nuisance from noise, dust, vibration and flying debris; all trucks shall be covered for off-site transport; suitable fences or other barricades shall be provide around the excavation to protect pedestrians and vehicles.

The operation shall not result in sharp declivities, pits or depressions or soil erosion, drainage or sewerage problems or conditions which would impair the reasonable reuse and development of the lot for purposes permitted under these Regulations in the District where the site is located.

It shall be the responsibility of the permittee to ensure that vehicles removing earth materials from the premises are so loaded and/or secured, including load covers, that there will be no spillage or release of such materials within the Town of Killingly. The permittee shall be liable for the cost of cleaning any earth material spillage or repairing any damage to a road or roads of the Town of Killingly caused by improper loading, securing of loads or other operationally related activities.

No building except a field office or temporary shelter for machinery shall be erected on the premises except as may be permitted in the Zoning Regulations subject to approval by the Commission.

At all stages of operations, proper drainage shall be provided to prevent the collection and stagnation of water and to prevent harmful effects upon surrounding properties.

No excavation conducted under a Permit issued pursuant to these Regulations shall be:

made below the grade of any abutting highway within one-hundred and fifty (150) feet thereof, unless approved by the commission, or

below the grade of any adjoining property at the property line within fifty (50) feet thereof, or

within one-hundred and fifty (150) feet of any dwelling existing at the date the permit is issued without the written approval of the abutting owner of private property or of the owner of the dwelling to be affected and the approval of the commission.

At no time shall an overhang and/or undercut be permitted on any face. At no time shall slopes in excess of 2:1 (horizontal-vertical) be present on any face except the face where active excavation is being carried on. Fencing may be required at the discretion of the Commission.

Truck access to the excavation shall be so arranged as to minimize danger to traffic and nuisance to surrounding properties. That portion of access road within the area of operation shall be treated to minimize dust.

The use and storage of explosives shall be limited to those times, locations specifically authorized by the Commission.

When filling, excavation and removal operation is completed the excavated area shall be graded so that slope in disturbed area shall be no steeper than one on two (2:1) (horizontal-vertical).

All debris, including but not limited to tree stumps shall be removed from the lot and all loose boulders not conducive to future development shall be removed.

Minimum separation distance between any excavation and the groundwater table shall be not less than six (6) feet, unless it can be demonstrated to the Commission's satisfaction that a smaller separation distance will not adversely impact groundwater and/or neighboring uses or future uses on the site. No excavation or fill shall be made that would reduce the final elevation below flood plain, change the area of the flood plain, or expose groundwater unless, after proper

analysis, it is determined that no pollution or silting of existing watercourses, or increased flood or erosion hazards, or other effect on water supply or purity will result and any necessary permits have been issued by the Killingly Inland Wetlands and Watercourses Agency.

Where necessary to protect the surrounding properties, the Commission may require a landscape buffer and/or an earthen berm of a size, to be determined by the Commission, necessary to protect such properties. Existing vegetation and natural topography shall be preserved where feasible.

Connecticut's "Guidelines for Soil Erosion and Sedimentation Control" as amended shall be followed.

Groundwater quality monitoring wells may be required by the Commission as a means of protecting water quality.

implementation of an erosion and sedimentation control plan.

Following a filling operation there shall be a layer of top-soil applied to the area to a depth of not less than four (4) inches. The area is to be seeded with a suitable ground cover and maintained until the area is stabilized. The depth of topsoil required may be increased at the discretion of the Commission based on the ultimate use of the property. The area is to be limed and fertilized as appropriate. Seeding is to be done between April 15 and June 15 or between August 15 and October 15.

In all cases, material used for filling shall be limited to suitable earth material for construction as approved by the Commission. Use of trash, garbage, or other junk material is expressly prohibited. Burial of stumps is not permitted under any circumstances.

The area disturbed by the excavation is to be restored by the spreading of subsoil and topsoil at depths not greater than those found at the site in its original state - to a maximum of twenty-four (24) inches, and not less than four (4) inches - dependant on the ultimate use of the property. Restoration shall be a continuous operation. The following shall govern all restoration.

a. Topsoil for re-spreading shall be used at a minimum depth of four (4) inches over the excavated area. The depth of topsoil required may be increased at the discretion of the Commission based on the ultimate use of the property. The area for the storage of topsoil shall be shown on the plans approved by the Commission. All stockpiled topsoil shall be seeded with appropriate perennial grasses and surrounded by appropriate erosion controls.

b. Following the re-spreading of topsoil, the area is to be seeded with a suitable ground cover and maintained until the area is stabilized. The area is to be limed and

fertilized as appropriate. Seeding is to be done between April 15 and June 15 or between August 15th and October 15.

Following the re-spreading of topsoil and in addition to the seeding requirements of Subsection 1 and 2 above, the Commission may require the planting of deciduous and non-deciduous trees (which may be root stock at the time of such planting) at a density appropriate for the site and its intended usage. To the extent practical, the trees shall be hardy native species and compatible with the post excavation site characteristics.

If blasting is proposed as part of a permit application, a plan for such activity shall be prepared and submitted to the Town Fire Marshal for review. Such plan shall include provision for monitoring weather conditions for production blasts, including plans to schedule blasting well enough in advance to take advantage of the days when air shock is likely to be at a minimum and to avoid blasting on days during times of unstable air masses and temperature inversions when air shock is more likely to occur. Additionally, the following Blasting Notice, Monitoring, and Damage Complaint requirements shall be in force:

Permittee shall provide the Town Planning Office with notification at least twenty-four (24) hours prior to any anticipated production blast and shall notify other individuals requesting such notification of a production blast.

All production and test blasts shall be monitored with air pressure, seismic, and decibel meters at no fewer than five (5) sites for each blast.

Permittee shall notify, in writing, any property owner who could reasonably be affected by the blasting.

Permittee shall provide, prior to any blasting, Certificates of Insurance written by sureties or insurers licensed in the State of Connecticut. The policies required shall be acceptable to the Town of Killingly. If, at any time, any of the insurance policies shall be or become unsatisfactory to the Town of Killingly in form or substance, or if the surety or insurer issuing any such policies is unsatisfactory to the Town of Killingly, the Permittee shall promptly obtain a new policy and submit a Certificate of Insurance to the Town of Killingly for approval. The Permittee and its insurers shall waive all rights of subrogation against the Town of Killingly and their respective agents and employees for losses arising from work performed under the permit. If any policy is a claims made policy, then following the expiration or termination of this contract contractor will continue such insurance coverage for a period of at least three (3) years or purchase a tail policy reasonably satisfactory to the Town of Killingly.

All work shall be done in phases whereby no more than five (5) acres of land may be disturbed at any one time. The Commission may, at their discretion, increase or decrease the maximum allowable phasing acreage.

Such other information and/or appropriate safeguards as the Commission deems necessary.

560.8 Performance Bond

Prior to the issuance of a permit by the Commission, the applicant shall post a performance bond with the Town in an amount and form and with surety and conditions satisfactory to the Commission and the Town Council, and to Town Counsel, with the following exception: Performance bonds in an amount of five thousand dollars (\$5000) or less do not require review and approval by Town Counsel and may, at the discretion of the Town Planner, be posted at the time that an application for a zoning permit for the work to be covered by the bond is submitted.

The performance bond shall secure to the Town of Killingly the actual construction, installation, and completion of each approved phase of permitted activities in accordance with these Regulations including without limitation soil erosion and sedimentation control, streets, private streets, drainage, inspection and monitoring fees, and any specific requirements of any conditions of approval by the Commission.

The applicant shall submit cost calculations for all permitted activities to be covered by the bond, which will be reviewed by the Town Planning Office and the Town Engineering Office and adjusted to include contingency and inflation factors; monitoring and inspection fee costs, calculated as 5% of the total calculated costs of activities; and revised cost figures as necessary. The bond will cover a period of two years and may be renewed until completion of all approved activities or the expiration of any approvals issued by the Commission.

Performance bonds shall be in the following:

A certified check payable only to the Town of Killingly, a certificate of deposit, a money market account, or a passbook savings account, which account shall be federally insured. The names of the applicant and the Town of Killingly shall be on the account and a signed withdrawal slip shall be provided.

4. The applicant may apply for a partial release of the performance bond. After submittal of an A2 as-built survey of the completed permitted activities and inspection by the Commission and the Town Council, the Commission may, with the agreement of the Town Council, release up to an amount equal to the costs of the completed permitted activities, but no more than 90% of the original bond.

5. If for any reason the performance bond is insufficient to pay for all costs of activities covered by the bond, and the applicant and/or property owner do not complete such activities to the satisfaction of the Commission and the Town Council, the applicant and/or property owner shall remain liable for the costs in excess of the performance bonds.

The performance bond shall be released in its entirety after:

The permitted activities covered by the bond have been completed to the satisfaction of the Commission;

As-built plans and survey, sealed by a land surveyor or engineer licensed to practice in the State of Connecticut, have been filed with the Town Planning Office; and

Waivers of Mechanic's Liens by all parties furnishing materials or services in connection with the project have been filed with the Town Council

560.9 Approval Criteria

After the public hearing, the commission may approve the plan and grant the special permit only when it is satisfied that the following conditions will be complied with in the undertaking of the proposed filling or excavation activity:

That the proposed activity will be carried out in accordance with the maps, operational statements and plans submitted by the applicant and in accordance with these Regulations.

The effect upon the premises and upon the surrounding premises; upon property values, health and any effect upon the future use of the premises involved consistent with the intent of these Regulations as stated in section 560.1.

The Commission or its authorized agents, shall at all times, have reasonable access to the site for the purpose of inspection and determination of compliance with this section.

The Commission may require the applicant to submit periodic reports, prepared by and bearing the seal of a land surveyor or engineer, showing the status and progress of the work.

In order to protect the character of the existing neighborhood or the environment, the Commission may restrict the hours of operation, the type of operation, the types and location of equipment, the use of explosive or any other aspect of the operation which may have adverse impacts on the surrounding properties and provide for increased buffering of surrounding properties.

No permit shall be issued by the Commission for a period exceeding twenty-four (24) months, but upon application, the permit may be renewed by the Commission for an additional twelve (12) month period. Any application to renew or amend an existing permit shall be filed with the Commission at least sixty-five (65) days prior to the expiration date for the permit. Any application to renew or amend such an existing permit shall be made in accordance with these Regulations provided:

The application may incorporate by reference, the documentation and record of the prior application;

The application shall describe the extent of work completed at the time of filing and the schedule for completing the activities authorized in the permit;

The application shall state the reason why the authorized activities were not initiated or completed within the time specified in the permit;

The application shall describe any changes in facts or circumstances for which the permit was issued;

The Commission may, prior to the expiration of a permit, accept an untimely application to renew such permit if the authorized activity is ongoing and allow the continuation of work beyond the expiration date if, in its judgment, the permit is likely to be extended and the public interest or environment will be best served by not interrupting the activity.

Failure to comply with the plans and conditions as approved and any deviation therefrom shall be a violation and the Commission may revoke the permit.

If the filling operation, as approved by the Commission is not undertaken within twenty-four (24) months after granting (subject to appeals that may result) of the permit, the permit will be automatically revoked.

Amend of September 19, 2005; Effective 12:01 AM, Monday, October 10, 2005