

ARTICLE VIIA

Small Wind Energy Systems; Steep Slope Protection**[Added 10-12-2010 by Ord. No. 03.2010.03]****§ 235-44.1. Small wind energy systems. [Added 10-25-2010 by Ord. No. 04.2010.04]**

A. Purpose. This small wind energy systems section is enacted in accordance with RSA 674:62 to 674:66 and the purposes outlined in RSA 672:1, III-a. The purpose of this section is to accommodate small wind energy systems which are intended to reduce on-site consumption of utility power in appropriate locations, while protecting the public's health, safety and welfare. In addition, this section provides a permitting process for small wind energy systems to ensure compliance with the provisions of the requirements and standards established herein.

B. Definitions. As used in this section, the following terms:

FALL ZONE — The potential fall area for the small wind energy system. It is measured by using 120% of the total system height as the radius around the center point of the base of the tower. For example, if the total system height is 60 feet, the fall zone would be defined by a circle with a radius of 120% of 60 feet equals 72 feet around the tower (as measured from the center of the base of the tower).

FLICKER — The moving shadow created by the sun shining on the rotating blades of the wind turbine.

METEOROLOGICAL TOWER (MET TOWER) — Includes the tower, base plate, anchors, guy wires and hardware, anemometers (wind speed indicators), wind direction vanes, booms to hold equipment for anemometers and vanes, data loggers, instrument wiring, and any telemetry devices that are used to monitor or transmit wind speed and wind flow characteristics over a period of time for either instantaneous wind information or to characterize the wind resource at a given location. For the purpose of this section, met towers shall refer only to those whose purpose is to analyze the environmental factors needed to assess the potential to install, construct or erect a small wind energy system.

MODIFICATION — Any change to the small wind energy system that materially alters the size, type or location of the small wind energy system. Like-kind replacements shall not be construed to be a modification.

NET METERING — The difference between the electricity supplied to a customer over the electric distribution system and the electricity generated by the customer's small wind energy system that is fed back into the electric distribution system over a billing period.

POWER GRID — The transmission system, managed by ISO New England, created to balance the supply and demand of electricity for consumers in New England.

SHADOW FLICKER — The visible flicker effect when rotating blades of the wind generator cast shadows on the ground and nearby structures causing a repeating pattern of light and shadow.

SMALL WIND ENERGY SYSTEM — A wind energy conversion system consisting of a wind generator, a tower, and associated control or conversion electronics, which has a rated capacity of 100 kilowatts or less and will be used primarily for on-site consumption.

SYSTEM HEIGHT — The vertical distance from ground level to the tip of the wind generator blade when it is at its highest point.



TOWER — The monopole, guyed monopole, or lattice structure that supports a wind generator.

TOWER HEIGHT — The height above grade of the fixed portion of the tower, excluding the wind generator.



WIND GENERATOR — The blades and associated mechanical and electrical conversion components mounted on top of the tower whose purpose is to convert kinetic energy of the wind into rotational energy used to generate electricity.

C. Procedure for review.

- (1) Building permit. Small wind energy systems and met towers are an accessory use permitted in all zoning districts where structures of any sort are allowed. No small wind energy system shall be erected, constructed, or installed without first receiving a building permit from the Building Inspector. A building permit shall be required for any physical modification to an existing small wind energy system. Met towers that receive a building permit shall be permitted on a temporary basis not to exceed 18 months.
- (2) Rooftop units. Small wind energy systems to be installed on buildings shall be reviewed and approved by the Planning Department pursuant to Architectural Design Regulations. For those systems which are proposed to exceed the height restriction within the zoning district they are to be installed, wind energy systems

shall be reviewed and approved as a conditional use. The proposed rooftop systems shall comply with Subsection D(2)(c) through (k) in Subsection D, Standards.

- (3) Meteorological (met) towers. The construction of a met tower for the purpose of collecting data to develop a small wind energy system is exempt from all provisions of this section; however, the met tower shall abide with the following requirements:
 - (a) The construction, installation or modification of a met tower shall require a building permit and shall conform to all applicable sections of the New Hampshire State Building Code and the building codes adopted by the City of Laconia. The information required by Subsection C(2) of this section shall be submitted with the application for a building permit.
 - (b) Met towers shall be permitted on a temporary basis not to exceed 18 months.
 - (c) Met towers shall comply with all setback requirements.
- (4) Application. A development plan with the following information shall be submitted:
 - (a) Property lines and physical dimensions of the applicant's property.
 - (b) Location, dimensions, and types of existing structures on the property.
 - (c) Location of the proposed small wind energy system, foundations, guy anchors, and associated equipment.
 - (d) Tower foundation blueprints or drawings; engineered plans may be required.
 - (e) Tower blueprints or drawings; engineered plans may be required.
 - (f) Setback requirements as outlined in this section.
 - (g) The right-of-way of any public road that is contiguous with the property.
 - (h) Utility lines.
 - (i) Wetlands and/or water bodies and buffers.
 - (j) Small wind energy system specifications, including manufacturer, model, rotor diameter, tower height, tower type, nameplate, and generation capacity.
 - (k) Small wind energy systems that will be connected to the power grid shall include a copy of the application for interconnection with their electric utility provider.
 - (l) Sound level analysis prepared by the wind generator manufacturer or qualified engineer.
 - (m) Electrical components in sufficient detail to allow for a determination that the manner of installation conforms to all applicable building codes adopted by the City of Laconia.

- (n) Evidence of compliance or nonapplicability with Federal Aviation Administration requirements.
 - (o) The Building Inspector/Planning Department may require the applicant to submit a computer-enhanced viewshed analysis.
 - (p) List of abutters to the applicant's property.
 - (q) Method of connecting to the structure(s) on the site and to the grid. Power lines for such connections shall be located underground.
- (5) Abutter and regional notification. In accordance with RSA 674:66, a municipal Building Inspector shall notify all abutters by certified mail upon application for a building permit to construct a small wind energy system. Abutters shall be afforded a thirty-day comment period prior to the issuance of a building permit. An appeal may be made to the Building Code Board of Appeals pursuant to RSA 674:34 or to the Zoning Board of Adjustment pursuant to RSA 676:5, as may be appropriate.
- (a) The cost of abutter notification shall be borne by the applicant.
 - (b) The Building Inspector shall provide notice of the application for a building permit to the City Council.
 - (c) The Building Inspector, acting as a local land use board pursuant to RSA 672:7, shall review an application for a small wind energy system pursuant to RSA 36:56 to determine whether it is a development of regional impact, as defined in RSA 36:55. If the Building Inspector determines that the proposal has the potential for regional impact he or she shall follow the procedures set forth in RSA 36:57, IV.

D. Standards.

- (1) Small wind energy systems must be related to on-site consumption of power and accessory to the primary use(s) on the lot.
- (2) The Building Inspector shall evaluate the application for compliance with the following standards:
 - (a) Minimum setback requirements. The setback shall be calculated by multiplying 1.2 by the system height. This setback is applicable to occupied buildings on abutting property; property lines; overhead utility lines; public roads; railroads. The setback is measured from the center of the tower base to the applicable structures/utilities previously mentioned. The setback is not applicable to occupied structures on the participating landowner's property. Example: A one-hundred-fifty-foot-tall wind energy system requires a setback of 180 feet (150 feet x 1.2).

[1] Small wind energy systems must meet all setbacks for principal structures for the zoning district in which the system is located.

- [2] Guy wires used to support the tower are exempt from the small wind energy system setback requirements.
- [3] Setbacks from property lines can be waived only if the affected landowner provides written permission through a recorded easement allowing the small wind energy system's fall zone to overlap with the abutting property.
- (b) Number of towers. Towers are limited to one per lot.
- (c) Tower height. The maximum tower height shall be restricted to 35 feet above the tree canopy that is within 300 feet of the small wind energy system. In no situation shall the tower height exceed 150 feet.
- (d) Sound level. The small wind energy system shall not exceed 60 decibels using the A scale (dBA), as measured at the site property line, except during short-term events such as severe windstorms and utility outages.
- (e) Shadow flicker. Small wind energy systems shall be sited in a manner that does not result in significant shadow flicker impacts. "Significant shadow flicker" is defined as more than 30 hours per year on abutting occupied buildings. The applicant has the burden of proving that the shadow flicker will not have significant adverse impact on neighboring or adjacent uses. Potential shadow flicker will be addressed either through siting or mitigation measures.
- (f) Signs/advertising. All signs and/or advertisements including flags, streamers, symbols, and decorative items, both temporary and permanent, are prohibited on the small wind energy system except for appropriate warning signs.
- (g) Telecommunications attachments. All telecommunications features must be concealed inside the small wind energy system.
- (h) Code compliance. The small wind energy system shall comply with all applicable sections of the New Hampshire State Building Code.
- (i) Aviation:
- [1] The small wind energy system shall be built to comply with all applicable Federal Aviation Administration regulations, including but not limited to 14 CFR Part 77, Subpart B, regarding installations close to airports, and the New Hampshire aviation regulations, including but not limited to RSA 422-B and RSA 424. Applicants are encouraged to contact the Federal Aviation Administration prior to submitting an application to the City.
- [2] No small wind energy system shall be located within 300 feet of the heliport that is located at Lakes Region General Hospital's 85 Spring Street lot, MBL reference as 431-204-57.

- (j) Visual impacts. It is inherent that small wind energy systems may pose some visual impacts due to the tower height needed to access wind resources. The purpose of this section is to reduce the visual impacts, without restricting the owner's access to the optimal wind resources on the property.
- [1] The applicant shall demonstrate through project site planning and proposed mitigation that the small wind energy system's visual impacts will be minimized for surrounding neighbors and the community. This may include, but not be limited to, information regarding site selection, wind generator design or appearance, buffering, and screening of ground-mounted electrical and control equipment. Where wind characteristics permit, wind towers shall be set back from the tops of visually prominent ridgelines to minimize the visual contrast from any public access. All electrical conduits shall be underground.
- [2] The design of the system shall, to the extent reasonably possible, use nonreflective materials and colors, textures, screening, and landscaping that will blend the system into the natural setting and existing environment. White, off-white, gray, or neutral subdued tones, such as earthtones of green or brown, are also permissible. Most stock colors are also permissible.
- [3] A small wind energy system shall not be artificially lit unless such lighting is required by the Federal Aviation Administration (FAA). If lighting is required, the applicant shall provide a copy of the FAA determination to establish the required markings and/or lights for the small wind energy system.
- (k) Approved wind generators. The manufacturer and model of the wind generator to be used in the proposed small wind energy system must have been approved by the California Energy Commission or the New York State Energy Research and Development Authority, or a similar list approved by the State of New Hampshire, if available.
- (l) Utility connection. If the proposed small wind energy system is to be connected to the power grid through net metering, it shall adhere to RSA 362-A:9; any new utility lines required to accomplish this shall be placed underground.
- (m) Access. The tower shall be designed and installed so as not to provide step bolts or a ladder readily accessible to the public for a minimum height of eight feet above the ground. All ground-mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.
- (n) Clearance of blades. No portion of the residential wind energy system's blades shall extend within 20 feet of the ground.
- (o) Clearing. Clearing of natural vegetation shall be limited to that which is necessary for the construction, operation and maintenance of the small wind

energy system and as otherwise prescribed by applicable laws, regulations, and ordinances.

E. Compliance.

- (1) An as-built plan may be required; this plan may be required to include notation of the structure height and setbacks may be required.
- (2) Verification of sound decibel levels at the property line may be required.

F. Abandonment.

- (1) At such time that a small wind energy system is scheduled to be abandoned or discontinued, the applicant will notify the Building Inspector by certified U.S. mail of the proposed date of abandonment or discontinuation of operations.
- (2) Upon abandonment or discontinuation of use, the owner shall physically remove the small wind energy system within 90 days from the date of abandonment or discontinuation of use. This period may be extended at the request of the owner and at the discretion of the Building Inspector. "Physically remove" shall include, but not be limited to:
 - (a) Removal of the wind generator and tower and related above-grade structures.
 - (b) Restoration of the location of the small wind energy system to its natural condition, except that any landscaping, grading or below-grade foundation may remain in its same condition at initiation of abandonment.
- (3) In the event that an applicant fails to give such notice, the system shall be considered abandoned or discontinued if the system is out of service for a continuous twelve-month period. After the 12 months of inoperability, the Building Inspector may issue a notice of abandonment to the owner of the small wind energy system. The owner shall have the right to respond to the notice of abandonment within 30 days from notice receipt date. After review of the information provided by the owner, the Building Inspector shall determine if the small wind energy system has been abandoned. If it is determined that the small wind energy system has not been abandoned, the Building Inspector shall withdraw the notice of abandonment and notify the owner of the withdrawal.
- (4) If the owner fails to respond to the notice of abandonment or if, after review by the Building Inspector, it is determined that the small wind energy system has been abandoned or discontinued, the owner of the small wind energy system shall remove the wind generator and tower at the owner's sole expense within three months of receipt of the notice of abandonment. If the owner fails to physically remove the small wind energy system after the notice of abandonment procedure, the Building Inspector may pursue legal action to have the small wind energy system removed at the owner's expense.

G. Violation. It is unlawful for any person to construct, install, or operate a small wind energy system that is not in compliance with this section. Small wind energy systems

installed prior to the adoption of this section are exempt from this section, except when modifications are proposed to the small wind energy system.

- H. Penalties. Any person who fails to comply with any provision of this section or a building permit issued pursuant to this section shall be subject to enforcement and penalties as allowed by New Hampshire Revised Statutes Annotated 676:17.

§ 235-44.2. Steep slope protection.

A. Purpose.

- (1) Steep slopes in the City of Laconia are environmentally sensitive landforms and valuable natural resources, which are of benefit to the entire City and the surrounding region. The establishment of regulatory and conservation practices in this sensitive area is needed to protect public health, safety, community character and heritage and general welfare. Experience has demonstrated that where steep slopes have to be disturbed, careful review and regulation including ongoing oversight and monitoring including mitigation measures are required.
- (2) The purpose of this section is to promote responsible stewardship of development and protect streams and lakes from the consequences of stormwater runoff and erosion resulting from excessive and improper construction on steep slopes; to preserve the natural topography, drainage patterns, vegetative cover, scenic views, wildlife habitats; and to protect unique natural areas. This section is intended to protect the City from undue hardship or expense caused by excessive erosion of hillsides due to improper excavation, drainage, construction of driveways, or other activities which disturb the fragile soil conditions of steep slope areas and which activities may result in sedimentation, erosion, or the creation of watercourses where ones did not previously exist on neighboring properties or by interfering with the City or state road drainage system.

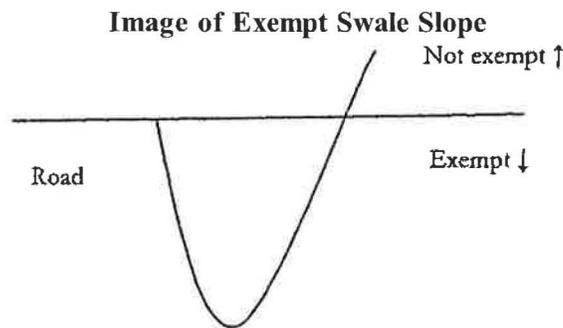
- B. Findings. Low-impact development (LID) is an approach to land development (or redevelopment) that works with the existing surface hydrology to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treats stormwater as a resource rather than a waste stream. There are many practices that have been used to adhere to these principles such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. By implementing LID principles and practices, stormwater can be managed in a way that reduces the impact of built areas and promotes the natural hydrologic cycle within an ecosystem and watershed. Applied on a broad scale, LID can maintain or restore a watershed's hydrologic and ecological functions. LID has been characterized as a sustainable stormwater practice by the Water Environment Research Foundation and others. (EPA, <http://www.epa.gov/nps/lid/#fact>, January 2010)

C. Delineation/jurisdiction.

- (1) This section shall apply to all areas with:
 - (a) Precautionary steep slopes between 15% and 24%.
 - (b) Prohibitive steep slopes greater than 25%.
- (2) Slopes of a half percentage or greater shall be rounded up to the nearest whole number.

D. Exemptions.

- (1) Construction of a single-family home on a legally existing lot created prior to October 6, 2009, is exempt from this section.
- (2) Slopes ancillary to drainage swales along existing roadways. These slopes shall be measured from the edge of roadway down to the lowest point of the swale and then back up the side slope to a point at equal elevation as the roadway. The elevation of the roadway up the slope into the lot shall be considered the slope under the jurisdiction of this section.



E. Definitions. As used in this section, the following terms shall have the meanings indicated:

ALTERATION OF TERRAIN — Any activity proposing to dredge, excavate, place fill, mine, transport forest products or any activity proposing to significantly alter the characteristics of the terrain, in such a manner as to impede the natural runoff or create an unnatural runoff.

BASAL AREA — The cross-sectional area of a tree measured at a height of 4 1/2 feet above the ground, usually expressed in square footage per acre for a stand of trees.

BENCHED OR TERRACED SLOPE — A land-filling practice along a slope that results in a relatively horizontal surface that is greater than 10 feet wide as measured from the intersection with the original slope.

CLEAR-CUTTING — Harvesting all the trees in one area at one time, a practice that can encourage fast rainfall or snowmelt runoff, erosion, sedimentation of streams and lakes, and flooding, and destroys vital habitat. (<http://www.epa.gov/OCEPATERMS/cterms.html>)

EROSION — The wearing away of the ground surface as a result of the movement of wind, water, ice, and/or land disturbance activities.

LOW-IMPACT DEVELOPMENT (LID) — A land development practice that decentralizes the retention and detention of stormwater runoff to replicate the surface runoff hydrologic conditions that existed prior to development activities.

PRECAUTIONARY STEEP SLOPE — Land with a slope that ranges from 15% up to but not inclusive of 25%. For determining the steep slope category, slope percentages are rounded to the nearest whole number.

PROHIBITIVE STEEP SLOPE — Land with a slope that equals or exceeds 25%. For determining the steep slope category, slope percentages are rounded to the nearest whole number.

SCENIC VISTA — An area in which a view of a particular scenic beauty or historically significant area is achievable.

SEDIMENTATION — The process by which sediment resulting from accelerated erosion has been or is being transported from the site of the land-disturbing activity into a lake, natural watercourse or wetland, or drainageway.

SLOPE — The degree of deviation of a surface from the horizontal, usually expressed in percent or degrees, or vertical rise over a horizontal run.

SLOPE INTERRUPTION — A land development practice performed along a slope that is designed to slow stormwater runoff velocity, dissipate erosive forces, promote a sheetflow-like surface runoff characteristic, and trap sediment and soluble pollutants.

STEEP SLOPE — Land with a slope that equals or exceeds 15% and has a slope-length of 10 feet or greater.

VEGETATIVE COVER — Grasses, shrubs, trees, and other vegetation which holds and stabilizes soils and resists erosion.

F. Permitted uses.

- (1) The following uses are permitted by right (with site plan/subdivision approval where required) within both precautionary and prohibitive steep slope areas:
 - (a) Wildlife refuges, conservation areas, open space, and nature trails.
 - (b) Downhill and cross-country ski trails and lifts, snow-making facilities, and associated first aid shelters, but not lodges, parking lots, or equipment structures.
- (2) The following uses are permitted by conditional use permit (with site plan/subdivision approval where required) within both precautionary and prohibitive steep slope areas:

- (a) Logging; however, only 25% of the basal area of timber located on steep slopes may be taken within a three-year period, and the CUP application submission must include a restoration/replanting plan.
- (b) Alteration of terrain activities, including but not limited to constructing roadways, driveways, buildings, utilities, parking areas, drainage structures, infrastructure, and any associated grading.
- (c) Clear-cutting may be permitted only as a forestry practice to correct a serious disease, insect damage, or blowdown condition, provided that the need for such action is certified by a licensed professional forester and is carried out in accordance with an approved forestry management plan and supervised by a licensed, professional forester.

G. Standards for granting conditional use permit.

(1) Precautionary steep slope criteria.

- (a) Proposed alteration of terrain activities shall be designed to meet the highest standard of care for public safety; shall protect against damages to nearby and down-slope properties; shall not result in impairment of sensitive environments; and shall preserve high-scenic-value vistas and the community's character and heritage.
- (b) Uses of LID practices as outlined in the New Hampshire Department of Environmental Services (NHDES) Stormwater Manual, Volume 2, are considered activities that aid in preserving the predevelopment surface hydrology and minimize environmental impacts and shall be used to the maximum extent possible.
- (c) Stormwater management systems shall be designed for the twenty-four-hour, two-year storm event for treatment and for the fifty-year storm event for system sizing and water detention/retention. An analysis for the one-hundred-year design storm shall be completed to ensure the system is capable of conveying the storm flow rate and volume and will not have significant adverse visual, environmental, or safety impacts. The post-development peak runoff rate shall not exceed the pre-development peak runoff rate. Sizing and selection shall be in accordance with the NHDES Stormwater Manual, Volume 2, as amended.
- (d) Stormwater infiltration practices shall be sized based upon the criteria and methods outlined in the NHDES Stormwater Manual, Volume 2, Sections 2-4 and 4-3, as amended. Stormwater infiltration practices are allowed in benched or terraced slope areas only if the applicant can demonstrate that the practice will not reduce the stability of fill and existing slope areas or create conditions that may result in a slope failure.
- (e) A stormwater management report shall be provided which must include at least the following: a narrative of the existing and proposed surface hydrology, identification of nearby surface water bodies and sensitive

environments, a summary of existing and proposed surface hydrology subcatchment runoff coefficients, a High Intensity Soil Survey (HISS) soil survey for the proposed development areas, a summary of pre and post-development peak runoff rates and volumes for the two-year, fifty-year and one-hundred-year design storm events, a narrative assessment of receiving stream corridors, a summary of channel protection criteria in accordance with the NHDES Stormwater Manual, Volume 2, Section 2-6, as amended, and a summary of selected management structures and practices demonstrating the selection as the least impacting and most compatible with the existing topography.

- (f) Benched or terraced slopes for the construction of building lots, roadways, parking lots, pools, impervious surfaces, utility structures, underground structures, any other stormwater-related improvements and landscaping shall be allowed only if the applicant can demonstrate that it is the least impacting alternative.
- (g) Roads and driveways shall follow the natural topography to the greatest extent possible in order to minimize the potential for erosion or concentrated surface runoff and shall be consistent with other applicable regulations of the City and current engineering practices.
- (h) Road and driveways may cross slopes, provided that the resulting fill slope does not exceed 25% and the applicant can demonstrate that such road or driveway will not have significant adverse visual, environmental, or safety impacts.
- (i) A retaining wall may be used, designed, and constructed to minimize impacts to slopes, provided that the wall will not have a significant adverse visual, environmental, or safety impact and that proper drainage is provided for the stability of the wall. Retaining walls shall be engineered if they are greater in height than four feet.
- (j) The top and bottom of a cut-and-fill slope shall be set back from structures a distance that will ensure the safety of the structure in the event of the collapse of the cut-or-fill slopes. Such distance shall be at least six feet plus 1/2 the height of the cut or fill or 10 feet, whichever is greater. A structure may be built on a cut-and-fill slope or at the toe of a cut-and-fill slope if it is properly designed by a licensed professional engineer to retain the slope and withstand the forces exerted on it by the retained slope. A geotechnical report prepared by a licensed professional engineer shall be provided summarizing the analysis of these conditions.
- (k) Alteration of steep slopes shall be undertaken in workable units or phases in which the disturbance can be completed and stabilized in one construction season so that areas are stabilized and not left bare and exposed during winter and spring thaw periods (i.e., October 15 through April 15).
- (l) Disturbance of existing vegetative ground cover shall not take place more than 15 days prior to grading and construction and shall be preceded with the

installation of appropriate erosion control barrier and temporary stormwater control measures.

- (m) Stockpiling shall not be permitted on slopes greater than 10%.
 - (n) Fill soils used for alteration of terrain shall be no less granular than the soil upon which it is placed and shall drain readily.
 - (o) Compaction of fill soils in fill areas shall achieve 95% of its maximum dry density as determined by ASTM D-1577-02, ASTM 1556-00, and ASTM D2922-01.
 - (p) An erosion control plan and construction schedule, both of which include winter maintenance protocols, shall be prepared in accordance with the NHDES Stormwater Manual, Volume 3, as revised.
 - (q) A third-party licensed professional engineer, paid for by the applicant, shall be retained by the City to conduct weekly construction oversight on behalf of the City to monitor compliance with CUP requirements and implementation of the erosion control plan, and to provide technical assistance to the property owner, applicant, and construction team and the City as needed if erosion control and water quality issues arise on site because of the slopes and associated stormwater and drainage. Inspection reports shall be submitted to the City after every 0.5-inch storm or once a week, whichever is less frequent. Reports shall also be provided to the applicant and the design engineer who is expected to provide the as-built as described below in Subsection G(1)(r).
 - (r) An as-built plan shall be provided to the City following completion of the project, certified by a licensed professional engineer, preferably the engineer who drafted the approved plan, certifying that all buildings and infrastructure were completed per the approved plan and all stormwater infrastructure and LID infrastructure were installed and functioning as designed. The licensed professional engineer shall provide interim and milestone completion reports to the City documenting inspection of the construction of major infrastructure components, including but not limited to infiltration practices, stormwater treatment practices, retaining walls, benched or terraced slopes, and roadways. The licensed professional engineer must inspect the construction activities at regular intervals to certify that proper excavation depths, soil amendments, materials, pipe sizes, elevations, and fill lifts were installed in accordance with the approved plans.
- (2) Prohibitive slope criteria.
- (a) All of the criteria as described in Subsection G(1), plus all criteria listed below.
 - (b) A tree survey shall be completed for the site for all areas within prohibitive slopes, as well as all areas within 75 feet from prohibitive slopes. No more

than 50% of the tree cover may be removed from slopes and this seventy-five-foot area for construction.

- (c) Stormwater infiltration practices shall be prohibited in prohibitive slopes areas, as well as the area within 75 feet up gradient of prohibitive slopes.
- (d) Benched or terraced slopes for the construction of building lots, roadways, parking lots, pools, impervious surfaces, utility structures, underground structures, and landscaping shall be allowed only if the applicant can demonstrate that it is the least impacting alternative. A geotechnical engineering evaluation shall be performed of all benched or terraced slopes by a licensed professional engineer with geotechnical experience. A detailed summary report of the geotechnical evaluation shall be provided with the application.
- (e) Roads and driveways shall cross slopes only up to 30%, provided that the resulting fill slope does not exceed 25% and the applicant can demonstrate that such road or driveway will not have significant adverse visual, environmental, or safety impacts. Roadways and driveways are not permitted within prohibitive slopes of greater than 30%. Slopes of a half percentage or greater shall be rounded up to the nearest whole number.
- (f) Disturbance of rock outcrops and bedrock shall be by means of explosives only if labor and machines are not effective and only if rock blasting is conducted in accordance with applicable regulations on the City and the State of New Hampshire. A pre-blasting survey shall be performed of all structures, wells and septic systems within a one-thousand-foot radius of the blasting activities. Vibration monitoring shall be performed for all blasting events. Copies of the preblasting survey and vibration monitoring reports shall be provided to the City prior to the start of blasting.
- (g) A geotechnical report shall be provided which must include the location of major geographic and geologic features, the depth to bedrock, structural features, folds, fractures, and potential slide and high-hazard areas. The report shall include details of the overburden soils, including but not limited to shrink-swell potential, groundwater table elevation, general soil classification, erosion potential, and suitability of soils for foundations, infiltration practices, benched or terraced slopes, and retaining wall structures.
- (h) During construction cut-and-fill slopes 25% or greater shall include temporary slope interruption every 20 feet until a permanent stabilized surface is established. Detention ponds, drainage swales and an area within a ten-foot radius of the building and/or structure are exempt.
- (i) A third-party licensed professional engineer, paid for by the applicant, shall be retained by the City to conduct daily construction oversight while construction is occurring in or within 50 feet of prohibitive slope areas. This third-party licensed professional engineer paid for by the applicant shall act on behalf of the City to monitor compliance with CUP requirements and implementation of the erosion control plan, and to provide technical

assistance to the property owner, applicant, and construction team and the City as needed if erosion control and water quality issues arise on site because of the slopes and associated stormwater and drainage. Inspection reports shall be submitted to the City after every 0.5-inch storm or once a week, whichever is less frequent. Reports shall also be provided to the applicant and the design engineer who is expected to provide the as-built as described above in Subsection (G)(1)(r).

ARTICLE VIII

Off-Street Parking and Loading Requirements; Driveways and Access

§ 235-45. Applicability.

- A. Areas and buildings subject to parking requirements. In any district, except the Commercial Core Parking Overlay District(s), if any structure is constructed or enlarged or if any use of land is established or changed, off-street parking spaces shall be provided for the entire use in accordance with the parking requirements established by this article.
- B. Exemption from parking requirements.
- (1) Within the Commercial Core Parking Overlay District(s), all development and changes in use shall be exempt from the off-street parking requirements of this article because public parking is provided for the uses in this district(s).
 - (2) Within the Downtown Riverfront District, all development and changes in use shall provide parking in one of the following ways: **[Added 5-22-2000 by Ord. No. 05.2000.05]**
 - (a) No parking is required due to property being located in the CCPOD; or
 - (b) Is not exempt and shall not exceed the minimum requirements as prescribed in this chapter and shall be screened year-round from the river view with a combination of vegetation and fencing or earth materials.
- C. Changes in use of existing buildings in commercial districts (P, C, CR, BCI, BC, and DR). In any commercial district, changes of use in buildings existing as of January 1, 1996, and which do not result in an increase in the total gross floor area of the building shall not be required to develop additional off-street parking spaces for uses in the building, provided that the number of existing parking spaces and loading areas serving the building are maintained and any nonconformity is not increased. In addition to the above conditions, where the green space requirements are conforming and additional parking can be accommodated, the site shall be designed to accommodate the greatest number of parking spaces and loading areas up to the total number required by the ordinance for the proposed use. **[Amended 10-14-1997 by Ord. No. 10.97.10; 5-22-2000 by Ord. No. 05.2000.05]**
- D. Conditional use permits for alternative parking requirements. The Planning Board is authorized to issue conditional use permits to reduce the number of off-street parking spaces otherwise required by this article for the following flexible parking arrangements: