SECTION 18-701. General provisions. (1) Purpose. It is the purpose of this chapter to:

(a) Protect, maintain, and enhance the environment of the town and the public health, safety and the general welfare of the citizens of the town, by controlling discharges of pollutants to the town's stormwater system and to maintain and improve the quality of the receiving waters into which the stormwater outfalls flow, including, without limitation, lakes, rivers, streams, ponds, wetlands, and groundwater of the town;

(b) Enable the town to comply with the National Pollution Discharge Elimination System permit (NPDES) and applicable regulations, 40 CFR 122.26 for stormwater discharges;

(c) Allow the town to exercise the powers granted in Tennessee Code Annotated, § 68-221-1105, which provides that, among other powers cities have with respect to stormwater facilities, is the power by ordinance or resolution to:

(i) Exercise general regulation over the planning, location, construction, and operation and maintenance of stormwater facilities in the town, whether or not owned and operated by the town;

(ii) Adopt any rules and regulations deemed necessary to accomplish the purposes of this statute, including the adoption of a system of fees for services and permits;

(iii) Establish standards to regulate the quantity of stormwater discharge and to regulate stormwater contaminants as may be necessary to protect water quality;
(iv) Review and approve plans and plats for stormwater management in proposed subdivisions or commercial developments;
(v) Issue permits for stormwater discharges, or for the construction, alteration, extension, or repair of stormwater facilities;
(vi) Suspend or revoke permits when it is determined that the permittee has violated any applicable ordinance, resolution, or condition of the permit;
(vii) Regulate and prohibit discharges into stormwater facilities of sanitary, industrial, or commercial sewage or waters that have otherwise been contaminated; and
(viii) Expend funds to remediate or mitigate the detrimental effects of contaminated land or other sources of stormwater contamination, whether public or private.

(2) **Administering entity.** The Town of Signal Mountain shall administer the provisions of this chapter.

(3) **Stormwater management ordinance.** The intended purpose of this chapter is to safeguard property and public welfare by regulating stormwater drainage and requiring temporary and permanent provisions for its control. It should be used as a planning and engineering implement to facilitate the necessary control of stormwater. (as added by Ord. #2001-6, Dec. 2001, and replaced by Ord. #2014-10, Dec. 2014)

18-702. **Definitions.** For the purpose of this chapter, the following definitions shall apply: words used in the singular shall include the plural, and the plural shall include the singular; words used in the present tense shall include the future tense. The word "shall" is mandatory, and not discretionary. The word "may" is permissive. Words not defined in this section shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster’s Dictionary.

(1) "Administrative or civil penalties." Under the authority provided in Tennessee Code Annotated, § 68-221-1106, the town declares that any person violating the provisions of this chapter may be assessed a civil penalty by the town of not less than fifty dollars ($50.00) and not more than five thousand dollars ($5,000.00) per day for each day of violation. Each day of violation shall constitute a separate violation.

(2) "As built plans" means drawings depicting conditions as they were actually constructed.

(3) "Best Management Practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the state. BMPs also include treatment requirements, operating procedures,
and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

(4) "Borrow pit" is an excavation from which erodible material (typically soil) is removed to be fill for another site. There is no processing or separation of erodible material conducted at the site. Given the nature of activity and pollutants present at such excavation, a borrow pit is considered a construction activity for the purpose of this permit.

(5) "Buffer zone" means a setback from the top of water body's bank of undisturbed vegetation, including trees, shrubs and herbaceous vegetation; enhanced or restored vegetation; or the re-establishment of native vegetation bordering streams, ponds, wetlands, springs, reservoirs or lakes, which exists or is established to protect those water bodies. The goal of the water quality buffer is to preserve undisturbed vegetation that is native to the streamside habitat in the area of the project. Vegetated, preferably native, water quality buffers protect water bodies by providing structural integrity and canopy cover, as well as stormwater infiltration, filtration and evaportranspiration. Buffer width depends on the size of a drainage area. Streams or other waters with drainage areas less than one (1) square mile will require buffer widths of thirty feet (30') minimum. Streams or other waters with drainage areas greater than one (1) square mile will require buffer widths of sixty feet (60') minimum. The sixty feet (60') criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than thirty feet (30') at any measured location. The MS4 must develop and apply criteria for determining the circumstances under which these averages will be available. A determination that standards cannot be met may not be based solely on the difficulty or cost associated with implementation. Every attempt should be made for development and redevelopment activities not to take place within the buffer zone. If water quality buffer widths as defined above cannot be fully accomplished on-site, the MS4 must develop and apply criteria for determining the circumstances under which alternative buffer widths will be available. A determination that water quality buffer widths cannot be met on site may not be based solely on the difficulty or cost of implementing measures, but must include multiple criteria, such as: type of project, existing land use and physical conditions that preclude use of these practices.

(6) "Buffer zone requirements." (a) "Construction":

(i) Applies to all streams adjacent to construction sites, with an exception for streams designated as impaired or exceptional Tennessee waters, as designated by the Tennessee Department of Environment and Conservation. A thirty foot (30') natural riparian buffer zone adjacent to all streams at the construction site shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality buffer zone is required to protect waters of the state located
within or immediately adjacent to the boundaries of the project, as identified using methodology from Standard Operating Procedures for Hydrologic Determinations (see rules to implement a certification program for Qualified Hydrologic Professionals, TN Rules Chapter 0400-40-17). Buffer zones are not primary sediment control measures and should not be relied upon as such. Rehabilitation and enhancement of a natural buffer zone is allowed, if necessary, for improvement of its effectiveness of protection of the waters of the state. The buffer zone requirement only applies to new construction sites. The riparian buffer zone should be preserved between the top of stream bank and the disturbed construction area. The thirty feet (30') criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than fifteen feet (15') at any measured location.

(ii) Buffer zone requirements for discharges into impaired or high quality waters: A sixty foot (60') natural riparian buffer zone adjacent to the receiving stream designated as impaired or high quality waters shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality buffer zone is required to protect waters of the state (e.g., perennial and intermittent streams, rivers, lakes, wetlands) located within or immediately adjacent to the boundaries of the project, as identified on a 7.5-minute USGS quadrangle map, or as determined by the director. Buffer zones are not sediment control measures and should not be relied upon as primary sediment control measures. Rehabilitation and enhancement of a natural buffer zone is allowed, if necessary, for improvement of its effectiveness of protection of the waters of the state. The buffer zone requirement only applies to new construction sites. The riparian buffer zone should be established between the top of stream bank and the disturbed construction area. The sixty feet (60') criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than thirty feet (30') at any measured location.

(b) "Permanent" New development and significant redevelopment sites are required to preserve water quality buffers along waters within the MS4. Buffers shall be clearly marked on site development plans, grading permit applications, and/or concept plans. Buffer width depends on the size of a drainage area. Streams or other waters with drainage areas greater than one (1) square mile will require buffer widths of sixty feet (60') minimum. The sixty feet (60') criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more
than thirty feet (30') at any measured location. Streams or other waters with drainage areas less than one (1) square mile will require buffer widths of thirty feet (30') minimum. The thirty foot (30') criterion for the width of the buffer zone can be established on an average width basis, as long as the minimum width of the buffer zone is more than fifteen feet (15') at any measured location.

(7) "Channel" means a natural or artificial watercourse with a definite bed and banks that conducts flowing water continuously or periodically.

(8) "Common plan of development or sale" is broadly defined as any announcement or documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot. A common plan of development or sale identifies a situation in which multiple areas of disturbance are occurring on contiguous areas. This applies because the activities may take place at different times, on different schedules, by different operators.

(9) "Design storm event" means a hypothetical storm event, of a given frequency interval and duration, used in the analysis and design of a stormwater facility. The estimated design rainfall amounts, for any return period interval (i.e., two (2) yr, five (5) yr, twenty-five (25) yr, etc.,) in terms of either twenty-four (24) hour depths or intensities for any duration, can be found by accessing the following NOAA National Weather Service Atlas 14 data for Tennessee: http://hdsc.nws.noaa.gov/hdsc/pfds/pfds.map_cont.html?bkmrk=tn. Other data sources may be acceptable with prior written approval by TDEC Water Pollution Control.

(10) "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water.

(11) "Discharge" means dispose, deposit, spill, pour, inject, seep, dump, leak or place by any means, or that which is disposed, deposited, spilled, poured, injected, seeped, dumped, leaked, or placed by any means including any direct or indirect entry of any solid or liquid matter into the municipal separate storm sewer system.

(12) "Easement" means an acquired privilege or right of use or enjoyment that a person, party, firm, corporation, town or other legal entity has in the land of another.

(13) "Erosion" means the removal of soil particles by the action of water, wind, ice or other geological agents, whether naturally occurring or acting in conjunction with or promoted by human activities or effects.

(14) "Erosion prevention and sediment control plan (EPSCP)" means a written plan (including drawings or other graphic representations) that is designed to minimize the erosion and sediment runoff at a site during construction activities.
(15) "Hotspot" means an area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater. The following land uses and activities are deemed stormwater hot spots, but that term is not limited to only these land uses:
   (a) Vehicle salvage yards and recycling facilities
   (b) Vehicle service and maintenance facilities
   (c) Vehicle and equipment cleaning facilities
   (d) Fleet storage areas (bus, truck, etc.)
   (e) Industrial sites (included on standard industrial classification code list)
   (f) Marinas (service and maintenance)
   (g) Public works storage areas
   (h) Facilities that generate or store hazardous waste materials
   (i) Commercial container nursery
   (j) Restaurants and food service facilities
   (k) Other land uses and activities as designated by an appropriate review authority

(16) "Illicit connections" means illegal and/or unauthorized connections to the municipal separate stormwater system whether or not such connections result in discharges into that system.

(17) "Illicit discharge" means any discharge to the municipal separate storm sewer system that is not composed entirely of storm water and not specifically exempted under § 18-707(2).

(18) "Improved sinkhole" is a natural surface depression that has been altered in order to direct fluids into the hole opening. Improved sinkhole is a type of injection well regulated under TDEC's Underground Injection Control (UIC) program. Underground injection constitutes an intentional disposal of waste waters in natural depressions, open fractures, and crevices (such as those commonly associated with weathering of limestone).

(19) "Inspector" An inspector is a person that has successfully completed (has a valid certification from) the "Fundamentals of Erosion Prevention and Sediment Control Level I" course or equivalent course. An inspector performs and documents the required inspections, paying particular attention to time-sensitive permit requirements such as stabilization and maintenance activities. An inspector may also have the following responsibilities:
   (a) Oversee the requirements of other construction-related permits, such as Aquatic Resources Alteration Permit (ARAP) or Corps of Engineers permit for construction activities in or around waters of the state;
   (b) Update field SWPPPs;
   (c) Conduct pre-construction inspection to verify that undisturbed areas have been properly marked and initial measures have been installed; and
(d) Inform the permit holder of activities that may be necessary to gain or remain in compliance with the Construction General Permit (CGP) and other environmental permits.

(20) "Land disturbing activity" means any activity on property that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land-disturbing activities include, but are not limited to, development, redevelopment, demolition, construction, reconstruction, clearing, grading, filling, and excavation.

(21) "Maintenance" means any activity that is necessary to keep a stormwater facility in good working order so as to function as designed. Maintenance shall include complete reconstruction of a stormwater facility if reconstruction is needed in order to restore the facility to its original operational design parameters. Maintenance shall also include the correction of any problem on the site property that may directly impair the functions of the stormwater facility.

(22) "Maintenance agreement" means a document recorded in the land records that acts as a property deed restriction, and which provides for long-term maintenance of stormwater management practices.

(23) "Municipal Separate Storm Sewer System (MS4)" means the conveyances owned or operated by the town for the collection and transportation of stormwater, including the roads and streets and their drainage systems, catch basins, curbs, gutters, ditches, manmade channels, and storm drains, and where the context indicates, it means the municipality that owns the separate storm sewer system.

(24) "National Pollutant Discharge Elimination System permit" or a "NPDES permit" means a permit issued pursuant to 33 U.S.C. 1342.

(25) "Off-site facility" means a structural BMP located outside the subject property boundary described in the permit application for land development activity.

(26) "On-site facility" means a structural BMP located within the subject property boundary described in the permit application for land development activity.

(27) "Peak flow" means the maximum instantaneous rate of flow of water at a particular point resulting from a storm event.

(28) "Person" means any and all persons, natural or artificial, including any individual, firm or association and any municipal or private corporation organized or existing under the laws of this or any other state or country.

(29) "Runoff" means that portion of the precipitation on a drainage area that is discharged from the area into the municipal separate storm sewer system.

(30) "Sediment" means solid material, both inorganic and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.
31) "Sedimentation" means soil particles suspended in stormwater that can settle in stream beds.

32) "Soils report" means a study of soils on a subject property with the primary purpose of characterizing and describing the soils. The soils report shall be prepared by a qualified soils engineer, who shall be directly involved in the soil characterization either by performing the investigation or by directly supervising employees conducting the investigation.

33) "Stabilization" means providing adequate measures, vegetative and/or structural, that will prevent erosion from occurring.

34) "Stormwater" means stormwater runoff, snow melt runoff, surface runoff, street wash waters related to street cleaning or maintenance, infiltration and drainage.

35) "Stormwater entity" means the entity designated by the town to administer the stormwater management ordinance, and other stormwater rules and regulations adopted by the town.

36) "Stormwater management" means the programs to maintain quality and quantity of stormwater runoff to pre-development levels.

37) "Stormwater management facilities" means the drainage structures, conduits, ponds, ditches, combined sewers, sewers, and all device appurtenances by means of which stormwater is collected, transported, pumped, treated or disposed of.

38) "Stormwater management plan" means the set of drawings and other documents that comprise all the information and specifications for the programs, drainage systems, structures, BMPs, concepts and techniques intended to maintain or restore quality and quantity of stormwater runoff to pre-development levels.

39) "Stormwater Pollution Prevention Plan (SWPPP)" means a written plan that includes site map(s), an identification of construction/contractor activities that could cause pollutants in the stormwater, and a description of measures or practices to control these pollutants. It must be prepared and approved before construction begins. In order to effectively reduce erosion and sedimentation impacts, Best Management Practices (BMPs) must be designed, installed, and maintained during land disturbing activities. The SWPPP should be prepared in accordance with the current Tennessee Erosion and Sediment Control Handbook. The handbook is intended for use during the design and construction of projects that require erosion and sediment controls to protect waters of the state. It also aids in the development of SWPPPs and other reports, plans, or specifications required when participating in Tennessee’s water quality regulations. All SWPPPs shall be prepared and updated in accordance with section 3 of the general NPDES permit for discharges of stormwater associated with construction activities.

40) "Stormwater runoff" means flow on the surface of the ground, resulting from precipitation.
(41) "Structural BMPs" means facilities that are constructed to provide control of stormwater runoff.

(42) "Surface water" includes waters upon the surface of the earth in bounds created naturally or artificially including, but not limited to, streams, other water courses, lakes and reservoirs.

(43) "Waste site" means an area where waste material from a construction site is deposited. When the material is erodible, such as soil, the site must be treated as a construction site.

(44) "Water quality buffer" see "buffer."

(45) "Watercourse" means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

(46) "Watershed" means all the land area that contributes runoff to a particular point along a waterway.

(47) "Waters" or "waters of the state" means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.

(48) "Wetland(s)" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs, and similar areas.

(49) "Wet weather conveyances" are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality and whose channels are above the groundwater table and are not suitable for drinking water supplies; and in which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow, there is not sufficient water to support fish or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two (2) months. (Rules and Regulations of the State of Tennessee, Chapter 1200-4-3-.04(3)). (as added by Ord. #2001-6, Dec. 2001, replaced by Ord. #2003-7, Nov. 2003, amended by Ord. #2004-4, June 2004, and replaced by Ord. #2014-10, Dec. 2014)

18-703. Waivers. (1) General. No waivers will be granted any construction or site work project. All construction and site work shall provide for stormwater management as required by this ordinance. However, alternatives to the 2010 NPDES general permit for discharges from small municipal separate storm sewer systems primary requirement for on-site permanent stormwater management may be considered, if: 
(a) Management measures cannot be designed, built and maintained to infiltrate, evaportranspire, harvest and/or use, at a minimum, the first inch of every rainfall event preceded by seventy-two (72) hours of no measurable precipitation. This first inch of rainfall must be one hundred percent (100%) managed with no discharge to surface waters.

(b) It can be demonstrated that the proposed development is not likely to impair attainment of the objectives of this chapter. Alternative minimum requirements for on-site management of stormwater discharges have been established in a stormwater management plan that has been approved by the town.

(2) Downstream damage, etc. prohibited. In order to receive consideration, the applicant must demonstrate to the satisfaction of the the Town of Signal Mountain that the proposed alternative will not lead to any of the following conditions downstream:

(a) Deterioration of existing culverts, bridges, dams, and other structures;
(b) Degradation of biological functions or habitat;
(c) Accelerated streambank or streambed erosion or siltation;
(d) Increased threat of flood damage to public health, life or property.

(3) Land disturbance permit not to be issued where alternatives requested. No land disturbance permit shall be issued where an alternative has been requested until the alternative is approved. If no alternative is approved, the plans must be resubmitted with a stormwater management plan that meets the primary requirement for on-site stormwater management. (as added by Ord. #2001-6, Dec. 2001, and replaced by Ord. #2003-7, Nov. 2003, and Ord. #2014-10, Dec. 2014)

18-704. Stormwater system design: Construction and Permanent stormwater management. (1) MS4 stormwater design or BMP manuals.

(a) Adoption. The town adopts as its MS4 stormwater design and best management practices (BMP) manuals for stormwater management, construction and permanent, the following publications, which are incorporated by reference in this ordinance as if fully set out herein:

(ii) The City of Chattanooga, Hamilton County and Town of Signal Mountain Stormwater Management Manual (BEST MANAGEMENT PRACTICES (BMP) MANUAL - most current edition). (Note: this selection is provided as a suggestion only. TDEC plans on issuing a similar manual in cooperation with the University of Tennessee's Water Resources Center in 2013.)
(iii) A collection of MS4 approved BMPs developed or collected by the MS4 that comply with the goals of the MS4 permit and/or the CGP.

(b) The town’s BMP manual(s) include a list of acceptable BMPs including the specific design performance criteria and operation and maintenance requirements for each stormwater practice. These include town approved BMPs for permanent stormwater management including green infrastructure BMPs.

(c) The town manual(s) may be updated and expanded from time to time, at the discretion of the town council, upon the recommendation of the Town of Signal Mountain, based on improvements in engineering, science, monitoring and local maintenance experience, or changes in federal or state law or regulation. Stormwater facilities that are designed, constructed and maintained in accordance with these BMP criteria will be presumed to meet the minimum water quality performance standards.

(2) Land development. This section shall be applicable to all land development, including, but not limited to, site plan applications, subdivision applications, land disturbance applications and grading applications. These standards apply to any new development or redeveloper site that meets one (1) or more of the following criteria:

(a) One (1) acre or more;
   (i) New development that involves land development activities of one (1) acre or more;
   (ii) Redevelopment that involves other land development activity of one (1) acre or more;

(b) Projects or developments of less than one acre of total land disturbance may also be required to obtain authorization under this chapter if:

   (i) The Town of Signal Mountain has determined that the stormwater discharge from a site is causing, contributing to, or is likely to contribute to a violation of a state water quality standard;
   (ii) The Town of Signal Mountain has determined that the stormwater discharge is, or is likely to be a significant contributor of pollutants to waters of the state;
   (iii) Changes in state or federal rules require sites of less than one acre that are not part of a larger common plan of development or sale to obtain a stormwater permit;
   (iv) Any new development or redevelopment, regardless of size, that is defined by the Town of Signal Mountain to be a hotspot land use; or
   (v) Minimum applicability criteria set forth in item (a) above if such activities are part of a larger common plan of
development, even multiple, that is part of a separate and distinct land development activity that may take place at different times on different schedules.

Note: Any discharge of stormwater or other fluid to an improved sinkhole or other injection well, as defined, must be authorized by permit or rule as a Class V underground injection well under the provisions of Tennessee Department of Environment and Conservation (TDEC) Rules, Chapter 1200-4-6.

(3) Submittal of a copy of the NOC, SWPPP and NOT to the local MS4 permittees who discharge stormwater through an NPDES-permitted municipal separate storm sewer system (MS4) who are not exempted in section 1.4.5 (Permit Coverage through Qualifying Local Program) of the Construction General Permit (CGP) must provide proof of coverage under the Construction General Permit (CGP); submit a copy of the Stormwater Pollution Prevention Plan (SWPPP); and at project completion, a copy of the signed Notice of Termination (NOT) to the Town of Signal Mountain. Permitting status of all permittees covered (or previously covered) under this general permit as well as the most current list of all MS4 permits is available at the TDEC's data viewer web site.

Copies of additional applicable local, state or federal permits (i.e.: ARAP, etc.) must also be provided upon request.

If requested, these permits must be provided before the issuance of any land disturbance permit or the equivalent.

(4) Stormwater Pollution Prevention Plan (SWPPP) for construction stormwater management: The applicant must prepare a stormwater pollution prevention plan for all construction activities that complies with subsection (5) below. The purpose of this plan is to identify construction/contractor activities that could cause pollutants in the stormwater, and to describe measures or practices to control these pollutants during project construction.

(5) Stormwater pollution prevention plan requirements. The erosion prevention and sediment control plan component of the SWPPP shall accurately describe the potential for soil erosion and sedimentation problems resulting from land disturbing activity and shall explain and illustrate the measures that are to be taken to control these problems. The length and complexity of the plan is to be commensurate with the size of the project, severity of the site condition, and potential for off-site damage. If necessary, the plan shall be phased so that changes to the site during construction that alter drainage patterns or characteristics will be addressed by an appropriate phase of the plan. The plan shall be sealed by a registered professional engineer or landscape architect licensed in the state of Tennessee. The plan shall also conform to the requirements found in the MS4 BMP manual, and shall include at least the following:

(a) Project description - Briefly describe the intended project and proposed land disturbing activity including number of units and structures to be constructed and infrastructure required.
(b) A topographic map with contour intervals of five feet (5') or less showing present conditions and proposed contours resulting from land disturbing activity.

c) All existing drainage ways, including intermittent and wet-weather. Include any designated floodways or flood plains.

d) A general description of existing land cover. Individual trees and shrubs do not need to be identified.

e) Stands of existing trees as they are to be preserved upon project completion, specifying their general location on the property. Differentiation shall be made between existing trees to be preserved, trees to be removed and proposed planted trees. Tree protection measures must be identified, and the diameter of the area involved must also be identified on the plan and shown to scale. Information shall be supplied concerning the proposed destruction of exceptional and historic trees in setbacks and buffer strips, where they exist. Complete landscape plans may be submitted separately. The plan must include the sequence of implementation for tree protection measures.

(f) Approximate limits of proposed clearing, grading and filling.

(g) Approximate flows of existing stormwater leaving any portion of the site.

(h) A general description of existing soil types and characteristics and any anticipated soil erosion and sedimentation problems resulting from existing characteristics.

(i) Location, size and layout of proposed stormwater and sedimentation control improvements.

(j) Existing and proposed drainage network.

(k) Proposed drain tile or waterway sizes.

(l) Approximate flows leaving site after construction and incorporating water run-off mitigation measures. The evaluation must include projected effects on property adjoining the site and on existing drainage facilities and systems. The plan must address the adequacy of outfalls from the development: when water is concentrated, what is the capacity of waterways, if any, accepting stormwater off-site; and what measures, including infiltration, sheeting into buffers, etc., are going to be used to prevent the scouring of waterways and drainage areas off-site, etc.

(m) The projected sequence of work represented by the grading, drainage and sedimentation and erosion control plans as related to other major items of construction, beginning with the initiation of excavation and including the construction of any sediment basins or retention/detention facilities or any other structural BMPs.

(n) Specific remediation measures to prevent erosion and sedimentation run-off. Plans shall include detailed drawings of all control measures used; stabilization measures including vegetation and
non-vegetation measures, both temporary and permanent, will be detailed. Detailed construction notes and a maintenance schedule shall be included for all control measures in the plan.

(o) Specific details for: the construction of stabilized construction entrance/exits, concrete washouts, and sediment basins for controlling erosion; road access points; eliminating or keeping soil, sediment, and debris on streets and public ways at a level acceptable to the town. Soil, sediment, and debris brought onto streets and public ways must be removed by the end of the work day to the satisfaction of the town. Failure to remove the sediment, soil or debris shall be deemed a violation of this ordinance.

(p) Proposed structures: location and identification of any proposed additional buildings, structures or development on the site.

(q) A description of on-site measures to be taken to recharge surface water into the ground water system through runoff reduction practices.

(r) Specific details for construction waste management. Construction site operators shall control waste such as discarded building materials, concrete truck washout, petroleum products and petroleum related products, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality. When the material is erodible, such as soil, the site must be treated as a construction site.

(6) General design performance criteria for permanent stormwater management: the following performance criteria shall be addressed for permanent stormwater management at all development sites:

(a) Site design standards for all new and redevelopment require, in combination or alone, management measures that are designed, built and maintained to infiltrate, evapotranspire, harvest and/or use, at a minimum, the first inch of every rainfall event preceded by seventy-two (72) hours of no measurable precipitation. This first inch of rainfall must be one hundred percent (100%) managed with no discharge to surface waters.

(b) Limitations to the application of runoff reduction requirements include, but are not limited to:

(i) Where a potential for introducing pollutants into the groundwater exists, unless pretreatment is provided;

(ii) Where pre-existing soil contamination is present in areas subject to contact with infiltrated runoff;

(iii) Presence of sinkholes or other karst features.

(c) Pre-development infiltrative capacity of soils at the site must be taken into account in selection of runoff reduction management measures.

(d) Incentive standards for re-developed sites: a ten percent (10%) reduction in the volume of rainfall to be managed for any of the
following types of development. Such credits are additive such that a maximum reduction of fifty percent (50%) of the standard in the paragraph above is possible for a project that meets all five (5) criteria:

(i) Redevelopment;
(ii) Brownfield redevelopment;
(iii) High density (>7 units per acre);
(iv) Vertical density, (Floor to Area Ratio (FAR) of 2 or > 18 units per acre); and
(v) Mixed use and transit-oriented development (within one half (1/2) mile of transit).

(e) For projects that cannot meet one hundred percent (100%) of the runoff reduction requirement unless subject to the incentive standards, the remainder of the stipulated amount of rainfall must be treated prior to discharge with a technology documented to remove eighty percent (80%) Total Suspended Solids (TSS) unless an alternative provided under this chapter is approved. The treatment technology must be designed, installed and maintained to continue to meet this performance standard.

(f) For projects that cannot meet one hundred percent (100%) of the runoff reduction requirements, the Town of Signal Mountain may allow runoff reduction measures to be implemented at another location within the same USGS twelve (12) digit hydrologic unit code (HUC) as the original project. Off-site mitigation must be a minimum of 1.5 times the amount of water not managed on site. The off-site mitigation location (or alternative location outside the twelve (12) digit HUC) and runoff reduction measures must be approved by the Town of Signal Mountain. The Town of Signal Mountain shall identify priority areas within the watershed in which mitigation projects can be completed. The Town of Signal Mountain must create an inventory of appropriate mitigation projects, and develop appropriate institutional standards and management systems to value, evaluate and track transactions. Mitigation can be used for retrofit or redevelopment projects, but should be avoided in areas of new development.

(g) To protect stream channels from degradation, specific channel protection criteria shall be provided as prescribed in the MS4 BMP manual.

(h) Stormwater discharges to critical areas with sensitive resources (i.e., cold water fisheries, shellfish beds, swimming beaches, recharge areas, water supply reservoirs) may be subject to additional performance criteria, or may need to utilize or restrict certain stormwater management practices.

(i) Stormwater discharges from hot spots may require the application of specific structural BMPs and pollution prevention
practices. In addition, stormwater from a hot spot land use may not be infiltrated.

(j) Prior to or during the site design process, applicants for land disturbance permits shall consult with the Town of Signal Mountain to determine if they are subject to additional stormwater design requirements.

(k) The calculations for determining peak flows as found in the MS4 BMP manual shall be used for sizing all stormwater facilities.

(7) Minimum volume control requirements. (Note: the volume control requirements are by the MS4 and not the TDEC MS4 permit) in accordance with § 18-701(1)(e)(ii) the MS4 may establish standards to regulate the quantity of stormwater discharged, therefore:

(a) Stormwater designs shall meet the multi-stage storm frequency storage requirements as identified in the MS4 BMP manual.

(b) If hydrologic or topographic conditions warrant greater control than that provided by the minimum control requirements, the Town of Signal Mountain may impose any and all additional requirements deemed necessary to control the volume, timing, and rate of runoff.

(8) Permanent stormwater management plan requirements. The stormwater management plan shall include sufficient information to allow the Town of Signal Mountain to evaluate the environmental characteristics of the project site, the potential impacts of all proposed development of the site, both present and future, on the water resources, and the effectiveness and acceptability of the measures proposed for managing stormwater generated at the project site. To accomplish this goal the stormwater management plan shall include the following:

(a) Topographic base map: Topographic base map of the site which extends a minimum of one hundred feet (100') beyond the limits of the proposed development and indicates:

(i) Existing surface water drainage including streams, ponds, culverts, ditches, sink holes, wetlands; and the type, size, elevation, etc., of nearest upstream and downstream drainage structures;

(ii) Current land use including all existing structures, locations of utilities, roads, and easements;

(iii) All other existing significant natural and artificial features;

(iv) Proposed land use with tabulation of the percentage of surface area to be adapted to various uses; drainage patterns; locations of utilities, roads and easements; the limits of clearing and grading.

(b) Proposed structural and non-structural BMPs;
(c) A written description of the site plan and justification of proposed changes in natural conditions may also be required;

(d) Calculations: Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in the MS4 BMP manual. These calculations must show that the proposed stormwater management measures are capable of controlling runoff from the site in compliance with this chapter and the guidelines of the MS4 BMP manual. Such calculations shall include:

(i) A description of the design storm frequency, duration, and intensity where applicable;

(ii) Time of concentration;

(iii) Soil curve numbers or runoff coefficients including assumed soil moisture conditions;

(iv) Peak runoff rates and total runoff volumes for each watershed area;

(v) Infiltration rates, where applicable;

(vi) Culvert, stormwater sewer, ditch and/or other stormwater conveyance capacities;

(vii) Flow velocities;

(viii) Data on the increase in rate and volume of runoff for the design storms referenced in the MS4 BMP manual; and

(ix) Documentation of sources for all computation methods and field test results.

(e) Soils information: If a stormwater management control measure depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles and soil survey reports. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the control measure.

(9) Maintenance and repair plan: The design and planning of all permanent stormwater management facilities shall include detailed maintenance and repair procedures to ensure their continued performance. These plans will identify the parts or components of a stormwater management facility that need to be maintained and the equipment and skills or training necessary. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan.

(10) Buffers and buffer zones: Buffer and buffer zones shall be those buffers and buffer zones as those terms are defined in § 18-702(5) and (6), above, and shall meet the requirements contained in those provisions.

(a) Construction. (i) Construction requires buffer zone widths of a minimum of thirty feet (30'). The thirty foot (30') criterion for the width of the buffer zone can be established on an average
width basis. As long as the minimum width of the buffer zone is fifteen feet (15'). The buffer zone shall meet all the other applicable requirements of § 18-702(5) and (6).

(ii) Construction on impaired or exceptional waters. The width of the buffer zone shall be a minimum of sixty feet (60'). The sixty feet (60') criterion for the width of the buffer zone can be established on an average basis at a project as long as the minimum width of the buffer is more than thirty feet (30') at any measured location. The buffer zone shall meet all the other applicable requirements of § 18-702(5) and (6).

(b) Permanent. (i) More than one (1) square mile drainage area will require buffer zones of a minimum of sixty feet (60'). The sixty foot (60') criterion for the width of the buffer zone can be established on an average width basis, as long as the minimum width of the buffer zone is more than thirty feet (30') at any measured location.

(ii) Less than one (1) square mile drainage area. Less than one (1) square mile drainage area will require buffer zones of a minimum of thirty feet (30'). The thirty foot (30') criterion for the width of the buffer zone can be established on an average width basis, as long as the minimum width of the buffer zone is more than fifteen feet (15') at any measured location. The buffer zone shall meet all the other applicable requirements of § 18-702(5) and (6). (as added by Ord. #2001-6, Dec. 2001, and replaced by Ord. #2014-10, Dec. 2014)

18-705. Permanent stormwater management: operation, maintenance, and inspection. (1) As built plans. All applicants are required to submit actual as built plans for any structures located on-site after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and must be sealed by a registered professional engineer licensed to practice in Tennessee. A final inspection by the town is required before any performance security or performance bond will be released. The town shall have the discretion to adopt provisions for a partial pro-rata release of the performance security or performance bond on the completion of various stages of development. In addition, occupation permits shall not be granted until corrections to all BMPs have been made and accepted by the town.

(2) Landscaping and stabilization requirements.

(a) Any area of land from which the natural vegetative cover has been either partially or wholly cleared by development activities shall stabilize. Stabilization measures shall be initiated as soon as possible in portions of the site where construction activities have temporarily or permanently ceased. Temporary or permanent soil stabilization at the construction site (or a phase of the project) must be completed not later
than fifteen (15) days after the construction activity in that portion of the site has temporarily or permanently ceased. In the following situations, temporary stabilization measures are not required:

(i) Where the initiation of stabilization measures is precluded by snow cover or frozen ground conditions or adverse soggy ground conditions, stabilization measures shall be initiated as soon as practicable; or

(ii) Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within fifteen (15) days.

(b) Permanent stabilization with perennial vegetation (using native herbaceous and woody plants where practicable) or other permanently stable, non-eroding surface shall replace any temporary measures as soon as practicable. Unpacked gravel containing fines (silt and clay sized particles) or crusher runs will not be considered a non-eroding surface.

(c) The following criteria shall apply to revegetation efforts:

(i) Reseeding must be done with an annual or perennial cover crop accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until such time as the cover crop is established over ninety percent (90%) of the seeded area.

(ii) Replanting with native woody and herbaceous vegetation must be accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until the plantings are established and are capable of controlling erosion.

(iii) Any area of revegetation must exhibit survival of a minimum of seventy-five percent (75%) of the cover crop throughout the year immediately following revegetation. Revegetation must be repeated in successive years until the minimum seventy-five percent (75%) survival for one (1) year is achieved.

(iv) In addition to the above requirements, a landscaping plan must be submitted with the final design describing the vegetative stabilization and management techniques to be used at a site after construction is completed. This plan will explain not only how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved.

(3) Inspection of stormwater management facilities. Periodic inspections of facilities shall be performed, documented, and reported in accordance with this chapter, as detailed in § 18-706.
(4) Records of installation and maintenance activities. Parties responsible for the operation and maintenance of a storm water management facility shall make records of the installation of the stormwater facility, and of all maintenance and repairs to the facility, and shall retain the records for at least three (3) years. These records shall be made available to the town during inspection of the facility and at other reasonable times upon request.

(5) Failure to meet or maintain design or maintenance standards. If a responsible party fails or refuses to meet the design or maintenance standards required for stormwater facilities under this chapter, the town, after reasonable notice, may correct a violation of the design standards or maintenance needs by performing all necessary work to place the facility in proper working condition. In the event that the stormwater management facility becomes a danger to public safety or public health, the town shall notify the party responsible for maintenance of the stormwater management facility. Upon receipt of that notice, the responsible person shall have thirty (30) days to effect maintenance and repair of the facility in an approved manner. In the event that corrective action is not undertaken within that time, the town may take necessary corrective action. The cost of any action by the town under this section shall be charged to the responsible party. (as added by Ord. #2001-6, Dec. 2001, and replaced by Ord. #2003-7, Nov. 2003, and Ord. #2014-10, Dec. 2014)

18-706. Existing locations and ongoing developments. (1) On-site stormwater management facilities maintenance agreement:

(a) Where the stormwater facility is located on property that is subject to a development agreement, and the development agreement provides for a permanent stormwater maintenance agreement that runs with the land, the owners of property must execute an inspection and maintenance agreement that shall operate as a deed restriction binding on the current property owners and all subsequent property owners and their lessees and assigns, including but not limited to, homeowner associations or other groups or entities.

(b) The maintenance agreement shall:

(i) Assign responsibility for the maintenance and repair of the stormwater facility to the owners of the property upon which the facility is located and be recorded as such on the plat for the property by appropriate notation.

(ii) Provide for a periodic inspection by the property owners in accordance with the requirements of subsection (v) below for the purpose of documenting maintenance and repair needs and to ensure compliance with the requirements of this ordinance. The property owners will arrange for this inspection to be conducted by a registered professional engineer licensed to practice in the State of Tennessee, who will submit a signed written report of the inspection to the Town of Signal Mountain. It shall also grant
permission to the town to enter the property at reasonable times and to inspect the stormwater facility to ensure that it is being properly maintained.

(iii) Provide that the minimum maintenance and repair needs include, but are not limited to: the removal of silt, litter and other debris, the cutting of grass, cutting and vegetation removal, and the replacement of landscape vegetation, in detention and retention basins, and inlets and drainage pipes and any other stormwater facilities. It shall also provide that the property owners shall be responsible for additional maintenance and repair needs consistent with the needs and standards outlined in the MS4 BMP manual.

(iv) Provide that maintenance needs must be addressed in a timely manner, on a schedule to be determined by the Town of Signal Mountain.

(v) Provide that if the property is not maintained or repaired within the prescribed schedule, the Town of Signal Mountain shall perform the maintenance and repair at its expense, and bill the same to the property owner. The maintenance agreement shall also provide that the Town of Signal Mountain's cost of performing the maintenance shall be a lien against the property.

2 Existing problem locations - no maintenance agreement.

(a) The Town of Signal Mountain shall in writing notify the owners of existing locations and developments of specific drainage, erosion or sediment problems affecting or caused by such locations and developments, and the specific actions required to correct those problems. The notice shall also specify a reasonable time for compliance. Discharges from existing BMPs that have not been maintained and/or inspected in accordance with this ordinance shall be regarded as illicit.

(b) Inspection of existing facilities. The town may, to the extent authorized by state and federal law, enter and inspect private property for the purpose of determining if there are illicit non-stormwater discharges, and to establish inspection programs to verify that all stormwater management facilities are functioning within design limits. These inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of the town's NPDES stormwater permit; and joint inspections with other
agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in drainage control facilities; and evaluating the condition of drainage control facilities and other BMP’s.

(3) **Owner/operator inspections - generally** The owners and/or the operators of stormwater management practices shall:

(a) Perform routine inspections to ensure that the BMPs are properly functioning. These inspections shall be conducted on an annual basis, at a minimum. These inspections shall be conducted by a person familiar with control measures implemented at a site. Owners or operators shall maintain documentation of these inspections. The Town of Signal Mountain may require submittal of this documentation.

(b) Perform comprehensive inspection of all stormwater management facilities and practices. These inspections shall be conducted once every five (5) years, at a minimum. Such inspections must be conducted by either a professional engineer or landscape architect, licensed in the State of Tennessee. Complete inspection reports for these five (5) year inspections shall include:

(i) Facility type,

(ii) Inspection date,

(iii) Latitude and longitude and nearest street address,

(iv) BMP owner information (e.g. name, address, phone number, fax, and email),

(v) A description of BMP condition including: vegetation and soils; inlet and outlet channels and structures; embankments, slopes, and safety benches; spillways, weirs, and other control structures; and any sediment and debris accumulation,

(vi) Photographic documentation of BMPs, and

(vii) Specific maintenance items or violations that need to be corrected by the BMP owner along with deadlines and reinspection dates.

(c) Owners or operators shall maintain documentation of these inspections. The Town of Signal Mountain may require submittal of this documentation.

(4) **Requirements for all existing locations and ongoing developments.** The following requirements shall apply to all locations and development at which land disturbing activities have occurred previous to the enactment of this ordinance:

(a) Denuded areas must be vegetated or covered under the standards and guidelines specified in § 18-705(2)(e)(i), (ii), (iii) and on a schedule acceptable to the Town of Signal Mountain.

(b) Cuts and slopes must be properly covered with appropriate vegetation and/or retaining walls constructed.
(c) Drainage ways shall be properly covered in vegetation or secured with rip-rap, channel lining, etc., to prevent erosion.
(d) Trash, junk, rubbish, etc. shall be cleared from drainage ways.
(e) Stormwater runoff shall, at the discretion of the Town of Signal Mountain, be controlled to the maximum extent practicable to prevent its pollution. Such control measures may include, but are not limited to, the following:
   (i) Ponds
       (A) Detention pond
       (B) Extended detention pond
       (C) Wet pond
       (D) Alternative storage measures
   (ii) Constructed wetlands
   (iii) Infiltration systems
       (A) Infiltration/percolation trench
       (B) Infiltration basin
       (C) Drainage (recharge) well
       (D) Porous pavement
   (iv) Filtering systems
       (A) Catch basin inserts/media filter
       (B) Sand filter
       (C) Filter/absorption bed
       (D) Filter and buffer strips
   (v) Open channel
       (A) Swale

(5) Corrections of problems subject to appeal. Corrective measures imposed by the Town of Signal Mountain under this section are subject to appeal under § 18-710 of this chapter. (as added by Ord. #2001-6, Dec. 2001, and replaced by Ord. #2014-10, Dec. 2014)

18-707. Illicit discharges. (1) Scope. This section shall apply to all water generated on developed or undeveloped land entering the town's separate storm sewer system.
(2) Prohibition of illicit discharges. No person shall introduce or cause to be introduced into the municipal separate storm sewer system any discharge that is not composed entirely of stormwater or any discharge that flows from stormwater facility that is not inspected in accordance with § 18-706 shall be an illicit discharge. Non-stormwater discharges shall include, but shall not be limited to, sanitary wastewater, car wash wastewater, radiator flushing disposal, spills from roadway accidents, carpet cleaning wastewater, effluent from septic tanks, improper oil disposal, laundry wastewater/gray water, improper disposal of auto and household toxics. The commencement, conduct or
continuance of any non-stormwater discharge to the municipal separate storm sewer system is prohibited except as described as follows:

(a) Uncontaminated discharges from the following sources:
   (i) Water line flushing or other potable water sources;
   (ii) Landscape irrigation or lawn watering with potable water;
   (iii) Diverted stream flows;
   (iv) Rising groundwater;
   (v) Groundwater infiltration to storm drains;
   (vi) Pumped groundwater;
   (vii) Foundation or footing drains;
   (viii) Crawl space pumps;
   (ix) Air conditioning condensation;
   (x) Springs;
   (xi) Non-commercial washing of vehicles;
   (xii) Natural riparian habitat or wetland flows;
   (xiii) Swimming pools (if dechlorinated - typically less than one (1) PPM chlorine);
   (xiv) Firefighting activities;
   (xv) Any other uncontaminated water source.

(b) Discharges specified in writing by the town as being necessary to protect public health and safety.

(c) Dye testing is an allowable discharge if the town has so specified in writing.

(d) Discharges authorized by the Construction General Permit (CGP), which comply with Section 3.5.9 of the same:
   (i) Dewatering of work areas of collected stormwater and groundwater (filtering or chemical treatment may be necessary prior to discharge);
   (ii) Waters used to wash vehicles (of dust and soil, not process materials such as oils, asphalt or concrete) where detergents are not used and detention and/or filtering is provided before the water leaves site;
   (iii) Water used to control dust in accordance with COP section 3.5.5;
   (iv) Potable water sources including waterline flushings from which chlorine has been removed to the maximum extent practicable;
   (v) Routine external building washdown that does not use detergents or other chemicals;
   (vi) Uncontaminated groundwater or spring water; and
   (vii) Foundation or footing drains where flows are not contaminated with pollutants (process materials such as solvents, heavy metals, etc.).
(3) Prohibition of illicit connections. The construction, use, maintenance or continued existence of illicit connections to the municipal separate storm sewer system is prohibited. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

(4) Reduction of stormwater pollutants by the use of best management practices. Any person responsible for a property or premises, which is, or may be, the source of an illicit discharge, may be required to implement, at the person's expense, the BMPs necessary to prevent the further discharge of pollutants to the municipal separate storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed in compliance with the provisions of this section. Discharges from existing BMP's that have not been maintained and/or inspected in accordance with this ordinance shall be regarded as illicit.

(5) Notification of spills. Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting in, or may result in, illicit discharges or pollutants discharging into, the municipal separate storm sewer system, the person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials the person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, the person shall notify the town in person or by telephone, fax, or email, no later than the next business day. Notifications in person or by telephone shall be confirmed by written notice addressed and mailed to the town within three (3) business days of the telephone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three (3) years.

(6) No illegal dumping allowed. No person shall dump or otherwise deposit outside an authorized landfill, convenience center or other authorized garbage or trash collection point, any trash or garbage of any kind or description on any private or public property, occupied or unoccupied, inside the town. (as added by Ord. #2001-6, Dec. 2001, and replaced by Ord. #2003-7, Nov. 2003, and Ord. #2014-10, Dec. 2014)

18-708. Enforcement. (1) Enforcement authority. The Town of Signal Mountain shall have the authority to issue notices of violation and citations, and to impose the civil penalties provided in this section. Measures authorized include:
(a) Verbal warnings - At a minimum, verbal warnings must specify the nature of the violation and required corrective action.
(b) Written notices - Written notices must stipulate the nature of the violation and the required corrective action, with deadlines for taking such action.
(c) Citations with administrative penalties - The MS4 has the authority to assess monetary penalties, which may include civil and administrative penalties.
(d) Stop work orders - Stop work orders that require construction activities to be halted, except for those activities directed at cleaning up, abating discharge, and installing appropriate control measures.
(e) Withholding of plan approvals or other authorizations - Where a facility is in noncompliance, the MS4's own approval process affecting the facility's ability to discharge to the MS4 can be used to abate the violation.
(f) Additional measures - The MS4 may also use other escalated measures provided under local legal authorities. The MS4 may perform work necessary to improve erosion control measures and collect the funds from the responsible party in an appropriate manner, such as collecting against the project's bond or directly billing the responsible party to pay for work and materials.

(2) Notification of violation. (a) Verbal warning. Verbal warning may be given at the discretion of the inspector when it appears the condition can be corrected by the violator within a reasonable time, which time shall be approved by the inspector.
(b) Written notice. Whenever the Town of Signal Mountain finds that any permittee or any other person discharging stormwater has violated or is violating this ordinance or a permit or order issued hereunder, the Town of Signal Mountain may serve upon such person written notice of the violation. Within ten (10) days max or as specified in the written notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted to the Town of Signal Mountain. Submission of this plan in no way relieves the discharger of liability for any violations occurring before or after receipt of the notice of violation.
(c) Consent orders. The Town of Signal Mountain is empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with the person responsible for the noncompliance. Such orders will include specific action to be taken by the person to correct the noncompliance within a time period also specified by the order. Consent orders shall have the same force and effect as administrative orders issued pursuant to paragraphs (d) and (e) below.
(d) Show cause hearing. The Town of Signal Mountain may order any person who violates this chapter or permit or order issued hereunder, to show cause why a proposed enforcement action should not be taken. Notice shall be served on the person specifying the time and place for the meeting, the proposed enforcement action and the reasons for such action, and a request that the violator show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days prior to the hearing.

(e) Compliance order. When the Town of Signal Mountain finds that any person has violated or continues to violate this chapter or a permit or order issued hereunder, the town may issue an order to the violator directing that, following a specific time period, adequate structures or devices be installed and/or procedures implemented and properly operated. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the construction of appropriate structures, installation of devices, self-monitoring, and management practices.

(f) Cease and desist and stop work orders. When the Town of Signal Mountain finds that any person has violated or continues to violate this chapter or any permit or order issued hereunder, the Town of Signal Mountain may issue a stop work order or an order to cease and desist all such violations and direct those persons in noncompliance to:

(i) Comply forthwith; or

(ii) Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation; including halting operations except for terminating the discharge and installing appropriate control measures.

(g) Suspension, revocation or modification of permit. The Town of Signal Mountain may suspend, revoke or modify the permit authorizing the land development project or any other project of the applicant or other responsible person within the town. A suspended, revoked or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein, provided such permit may be reinstated upon such conditions as the Town of Signal Mountain may deem necessary to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.

(h) Conflicting standards. Whenever there is a conflict between any standard contained in this chapter and in the BMP manual adopted by the town under this ordinance, the strictest standard shall prevail. (as added by Ord. #2001-6, Dec. 2001, deleted by Ord. #2003-7, Nov. 2003, and replaced by Ord. #2014-10, Dec. 2014)
18-709. Penalties. (1) Violations. Any person who shall commit any act declared unlawful under this chapter, who violates any provision of this chapter, who violates the provisions of any permit issued pursuant to this chapter, or who fails or refuses to comply with any lawful communication or notice to abate or take corrective action by the Town of Signal Mountain, shall be guilty of a civil offense.

(2) Penalties. Under the authority provided in Tennessee Code Annotated, § 68-221-1106, the town declares that any person violating the provisions of this chapter may be assessed a civil penalty by the Town of Signal Mountain of not less than fifty dollars ($50.00) and not more than five thousand dollars ($5,000.00) per day for each day of violation. Each day of violation shall constitute a separate violation.

(3) Measuring civil penalties. In assessing a civil penalty, the Town of Signal Mountain may consider:
   (a) The harm done to the public health or the environment;
   (b) Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity;
   (c) The economic benefit gained by the violator;
   (d) The amount of effort put forth by the violator to remedy this violation;
   (e) Any unusual or extraordinary enforcement costs incurred by the town;
   (f) The amount of penalty established by ordinance or resolution for specific categories of violations; and
   (g) Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.

(4) Recovery of damages and costs. In addition to the civil penalty in subsection (2) above, the town may recover:
   (a) All damages proximately caused by the violator to the town, which may include any reasonable expenses incurred in investigating violations of, and enforcing compliance with, this chapter, or any other actual damages caused by the violation.
   (b) The costs of the town's maintenance of stormwater facilities when the user of such facilities fails to maintain them as required by this chapter.

(5) Referral to TDEC. Where the town has used progressive enforcement to achieve compliance with this ordinance, and in the judgment of the town has not been successful, the town may refer the violation to TDEC. For the purposes of this provision, "progressive enforcement" shall mean two (2) follow-up inspections and two (2) warning letters. In addition, enforcement referrals to TDEC must include, at a minimum, the following information:
   (a) Construction project or industrial facility location;
   (b) Name of owner or operator;
(c) Estimated construction project or size or type of industrial activity (including SIC code, if known);
(d) Records of communications with the owner or operator regarding the violation, including at least two (2) follow-up inspections, two (2) warning letters or notices of violation, and any response from the owner or operator.
(6) **Other remedies.** The town may bring legal action to enjoin the continuing violation of this chapter, and the existence of any other remedy, at law or equity, shall be no defense to any such actions.
(7) **Remedies cumulative.** The remedies set forth in this section shall be cumulative, not exclusive, and it shall not be a defense to any action, civil or criminal, that one (1) or more of the remedies set forth herein has been sought or granted. (as added by Ord. #2001-6, Dec. 2001, and replaced by Ord. #2014-10, Dec. 2014)

**18-710. Appeals.** Pursuant to [Tennessee Code Annotated](#), § 68-221-1106(d), any person aggrieved by the imposition of a civil penalty or damage assessment as provided by this chapter may appeal said penalty or damage assessment to the town council.

(1) **Appeals to be in writing.** The appeal shall be in writing and filed with the municipal recorder within fifteen (15) days after the civil penalty and/or damage assessment is served in any manner authorized by law.

(2) **Public hearing.** Upon receipt of an appeal, the town council shall hold a public hearing within thirty (30) days. Ten (10) days prior notice of the time, date, and location of said hearing shall be published in a daily newspaper of general circulation. Ten (10) days' notice by registered mail shall also be provided to the aggrieved party, such notice to be sent to the address provided by the aggrieved party at the time of appeal. The decision of the town council shall be final.

(3) **Appealing decisions of the town council.** Any alleged violator may appeal a decision of the town council pursuant to the provisions of [Tennessee Code Annotated](#), title 27, chapter 8. (as added by Ord. #2001-6, Dec. 2001, and replaced by Ord. #2014-10, Dec. 2014)

CHAPTER 8

STORMWATER UTILITY ORDINANCE

SECTION
18-801. Legislative findings and policy.
18-802. Creation of stormwater board and utility.
18-803. Definitions.
18-804. Funding of stormwater utility.
18-805. Stormwater fund.
18-806. Operating budget.
18-807. Stormwater user's fee established.
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18-809. Adjustment to stormwater user's fees.
18-810. Property owners to pay charges.
18-811. Billing procedure and penalties for late payment.
18-812. Appeals of fees.

18-801. Legislative findings and policy. The town council finds, determines and declares that the stormwater system which provides for the collection, treatment, storage and disposal of stormwater provides benefits and services to all property within the incorporated town limits. Such benefits include, but are not limited to, the provision of adequate systems of collection, conveyance, detention, treatment and release of stormwater; the reduction of hazards to property and life resulting from stormwater runoff; improvements in general health and welfare through reduction of undesirable stormwater conditions; and improvements to the water quality in the stormwater and surface water system and its receiving waters. (as added by Ord. #2002-4, Aug. 2002)

18-802. Creation of stormwater board and utility. For those purposes of the Federal Clean Water Act and of Tennessee Code Annotated, § 68-221-1011, et seq., there is created a stormwater utility which shall consist of a stormwater operating board.

The stormwater operating board, under the legislative policy created by the stormwater management board, shall:

(1) Administer the acquisition, design, construction, maintenance and operation of the stormwater utility system, including capital improvements designated in the capital improvement program;

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1Appendix A "Calculating Stormwater User Fees" and Appendix B to Ord. #2002-4 are of record in the recorder's office.
(2) Administer and enforce this ordinance and all regulations and procedures adopted relating to the design, construction, maintenance, operation and alteration of the utility stormwater system, including, but not limited to, the quantity, quality and/or the velocity of the stormwater conveyed thereby;

(3) Advise the town council and other town departments on matters relating to the utility;

(4) Prepare and revise a comprehensive drainage plan for adoption by the town council;

(5) Review plans and approve or deny, inspect and accept extensions and connections to the system;

(6) Enforce regulations to protect and maintain water quality and quantity within the system in compliance with water quality standards established by state, regional and/or federal agencies as now adopted or hereafter amended;

(7) Annually analyze the cost of services and benefits provided, and the system and structure of fees, civil penalties and other revenues of the utility. (as added by Ord. #2002-4, Aug. 2002, and replaced by Ord. #2003-8, Nov. 2003)

18-803. Definitions. For the purpose of this ordinance, the following definitions shall apply: Words used in the singular shall include the plural, and the plural shall include the singular; words used in the present tense shall include the future tense. The word "shall" is mandatory and not discretionary. The word "may" is permissive. Words not defined in this section shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster's Dictionary.

(1) "Construction" means the erection, building, acquisition, alteration, reconstruction, improvement or extension of stormwater facilities; preliminary planning to determine the economic and engineering feasibility of stormwater facilities; the engineering, architectural, legal, fiscal and economic investigations and studies, surveys, designs, plans, working drawings, specifications, procedures, and other action necessary in the construction of stormwater facilities; and the inspection and supervision of the construction of stormwater facilities;

(2) "Developed property" means real property which has been altered from its natural state by the creation or addition of impervious areas, by the addition of any buildings, structures, pavement or other improvements.

(3) "Exempt property" means all properties of the federal, state, county, and Town of Signal Mountain governments, and any of their divisions or subdivisions, and property that does not discharge stormwater runoff into the stormwater or flood control facilities of the municipality.

(4) "Fee" or "Stormwater user's fee" means the charge established under this ordinance and levied on owners or users of parcels or pieces of real property to fund the costs of stormwater management and of operating, maintaining, and improving the stormwater system in the town. The
stormwater user's fee is in addition to any other fee that the municipality has the right to charge under any other rule or regulation of the municipality.

(5) "Fiscal year" means July 1 of a calendar year to June 30 of the next calendar year, both inclusive.

(6) "Impervious surface area" means the number of square feet of horizontal surface covered by buildings and other impervious surfaces. All building measurements shall be made between exterior faces of walls, foundations, columns or other means of support or enclosure.

(7) "Impervious surface" means a surface area which is compacted or covered with material that is resistant to infiltration by water, including, but not limited to, most conventionally surfaced streets, roofs, sidewalks, patios, driveways, parking lots, and any other oiled, graveled, compacted, or any other surface which impedes the natural infiltration of surface water.

(8) "Other developed property" means developed property other than single-family residential property. Such property shall include, but not be limited to, commercial properties, industrial properties, parking lots, hospitals, schools, recreational and cultural facilities, hotels, officers, and churches.

(9) "Person" means any and all persons, natural or artificial, including any individual, firm or association and any municipal or private corporation organized or existing under the laws of this or any other state or country.

(10) "Property owner" means the property owner of record as listed in the county's assessment roll. A property owner includes any individual, corporation, firm, partnership, or group of individuals acting as a unit, and any trustee, receiver, or personal representative.

(11) "Single family residential property" means a developed property which serves the primary purpose of providing a permanent dwelling to a single family. A single family detached dwelling or a townhouse containing an accessory apartment or second dwelling unit is included in this definition.

(12) "Stormwater" means stormwater runoff, snow melt runoff, surface runoff, street wash waters related to street cleaning or maintenance, infiltration (other than infiltration contaminated by seepage from sanitary sewers or by other discharges) and drainage.

(13) "Stormwater management fund" or "fund" means the fund created by this ordinance to operate, maintain, and improve the town's stormwater system.

(14) "Stormwater management" means the planning, design, construction, regulation, improvement, repair, maintenance, and operation of facilities and programs relating to water, flood plains, flood control, grading erosion, tree conservation, and sediment control.

(15) "Stormwater management board" means the Signal Mountain Town Council.

(16) "Surface water" includes waters upon the surface of the earth in bounds created naturally or artificially including, but not limited to, streams, other water courses, lakes, and reservoirs.
(17) "User" shall mean the owner of record of property subject to the stormwater user's fee imposed by this ordinance.

(18) "Stormwater appeals board" is the board established by Town of Signal Mountain Ord. #2001-6.¹

(19) "Stormwater operating board" is a committee that includes a minimum of the following:
- Town manager
- Town recorder
- Town engineer
- Director of public utilities
- Designated police department representative
- Designated fire department representative

18-804. Funding of stormwater utility. Funding for the stormwater utility's activities may include, but not be limited to, the following:

(1) Stormwater user's fees.

(2) Civil penalties imposed for the violation of the town's stormwater management ordinance.

(3) Stormwater permit and inspection fees.

(4) Other funds or income obtained from federal, state, local, and private grants, or revolving funds, and from the Local Grant Public Obligations Act of 1986 (Tennessee Code Annotated, Title 9, Chapter 2).

To the extent that the stormwater drainage fees collected are insufficient to construct needed stormwater drainage facilities, the cost of the same may be paid from such town funds as may be determined by the town council. (as added by Ord. #2002-4, Aug. 2002)

18-805. Stormwater fund. All revenues generated by or on behalf of the stormwater utility, including stormwater user's fees, civil penalties for the violation of the town's stormwater management ordinance, permit and inspection fees, and interest earnings on those revenues, shall be deposited in a stormwater utility fund and used exclusively for the stormwater utility. (as added by Ord. #2002-4, Aug. 2002)

18-806. Operating budget. The town council shall adopt an operating budget for the stormwater utility each fiscal year. The operating budget shall set forth for such fiscal year the estimated revenues and the estimated costs for operations and maintenance, extension and replacement and debt service. (as added by Ord. #2002-4, Aug. 2002)

¹Title 18, chapter 7 of this municipal code was added by Ord. #2001-6.
18-807. **Stormwater user's fees established.** There shall be imposed on each and every developed property in the town, except exempt property, a stormwater user's fee, which shall be set from time to time by ordinance or resolution, and in the manner and amount prescribed by this ordinance.

Prior to establishing or amending user's fees, the town shall advertise its intent to do so by publishing notice in a newspaper of general circulation in the town at least thirty (30) days in advance of the meeting of the stormwater management board which shall consider the adoption of the fee or its amendment. (as added by Ord. #2002-4, Aug. 2002)

18-808. **Rate.** The stormwater management board shall establish the rate for the stormwater user's fee applicable in the town by ordinance. The rate of the stormwater user's fee shall be calculated to insure adequate revenues to fund the costs of stormwater management and to provide for the operation, maintenance, and capital improvements of the stormwater system in the town. The minimum stormwater user's fee shall be established at thirty-nine dollars and sixty cents ($39.60) per year for an impervious area of three thousand nine hundred sixty (3,960) square feet or less. The established fee for parcels with impervious areas over three thousand nine hundred sixty (3,960) square feet shall be $.0165 per square foot. Undeveloped, vegetated land will not be charged a stormwater fee within the town. (as added by Ord. #2002-4, Aug. 2002, as replaced by Ord. #2008-11, Aug. 2008)

18-809. **Adjustment to stormwater user's fee.** The stormwater utility shall have the right on its own initiative to adjust upward or downward the stormwater user's fees with respect to any property, based on any significant variation in the volume or rate of stormwater, or any significant variation in the quality of stormwater, emanating from the property, compared to other similar properties. In making determinations of the similarity of property, the stormwater utility shall take into consideration the location, geography, size, use, impervious area, stormwater facilities on the property, and any other factors that have a bearing on the variation. The stormwater utility shall make upward or downward adjustments in the stormwater user's fees, based on the approximate percentage of the variance of volume or rate of stormwater, or variance in the quality of stormwater, emanating from the property, compared to other similar properties. (as added by Ord. #2002-4, Aug. 2002)

18-810. **Property owners to pay charges.** The owner of each lot or parcel which directly or indirectly uses the stormwater system maintained by the town shall pay the stormwater user's fees and charges as provided in this ordinance. (as added by Ord. #2002-4, Aug. 2002)
18-811. Billing procedure and penalties for late payment. (1) The stormwater user's fee shall become effective at the rates set by a separate ordinance or resolution, shall be billed annually.

(2) The stormwater charge shall be paid in person or by mail at the town hall and shall become delinquent on March 1, of each year following the effective date of this ordinance, after which the unpaid taxes shall bear interest at the same rate as any unpaid property taxes of the town.

(3) Penalties for late payment. Stormwater user fees shall be subject to the same penalties as delinquent property taxes. The town shall be entitled to recover attorney's fees incurred in collecting delinquent stormwater fees. Any charge due under this ordinance which shall not be paid may be recovered at law by the town.

(4) Pursuant to Tennessee Code Annotated, § 68-221-1112, each bill that shall contain stormwater charge shall contain the following statement in bold:

THIS TAX HAS BEEN MANDATED BY CONGRESS

(as added by Ord. #2002-4, Aug. 2002, and replaced by Ord. #2003-8, Nov. 2003)

18-812. Appeals of fees. (1) Generally. Any person who disagrees with the calculation of the stormwater user's fee, as provided in this ordinance, or who seeks a stormwater user's fee adjustment based upon stormwater management practices, may appeal such fee determination to the stormwater appeals board within thirty (30) days from the date of the last bill containing stormwater user's fee charges. Any appeal shall be filed in writing and shall state the grounds for the appeal. The stormwater appeals board chairman may request additional information from the appealing party.

(2) Upward or downward adjustments based on stormwater volume, rate or quality. Stormwater user's fee adjustments for stormwater management practices may be considered for reductions in stormwater release rates and provision of additional storage volume; improvements in stormwater quality; reductions in runoff volume including discharging to a non-town drainage system; and properly designed constructed and maintained existing detention facilities. Based upon the information provided by the utility and the appealing party, the stormwater utility shall make a final calculation of the stormwater drainage fee. The stormwater utility shall notify the parties, in writing, of its decision. (as added by Ord. #2002-4, Aug. 2002)
CHAPTER 9
FLOOD INSURANCE REGULATIONS

SECTION
18-901. Statutory authorization, findings of fact, purpose and objectives.
18-902. Definitions.
18-903. General provisions.
18-904. Administration.
18-907. Legal status provisions.

18-901. Statutory authorization, findings of fact, purpose and objectives.

(1) Statutory authorization. The Legislature of the State of Tennessee has in Tennessee Code Annotated, § 6-19-101 delegated the responsibility to units of local government to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the Town of Signal Mountain, Tennessee, Mayor and Town Council do ordain as follows:

(2) Findings of fact. (a) The Town of Signal Mountain, Tennessee, Mayor and its Legislative Body wishes to maintain eligibility in the National Flood Insurance Program (NFIP) and in order to do so must meet the NFIP regulations found in title 44 of the Code of Federal Regulations (C.F.R.), ch. 1, section 60.3.

(b) Areas of the Town of Signal Mountain, Tennessee are subject to periodic inundation which could result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

(c) Flood losses are caused by the cumulative effect of obstructions in floodplains, causing increases in flood heights and velocities; by uses in flood hazard areas which are vulnerable to floods; or construction which is inadequately elevated, floodproofed, or otherwise unprotected from flood damages.

(3) Statement of purpose. It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas. This chapter is designed to:

(a) Restrict or prohibit uses which are vulnerable to flooding or erosion hazards, or which result in damaging increases in erosion, flood heights, or velocities;

(b) Require that uses vulnerable to floods, including community facilities, be protected against flood damage at the time of initial construction;
(c) Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters;
(d) Control filling, grading, dredging and other development which may increase flood damage or erosion;
(e) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

(4) Objectives. The objectives of this chapter are:
(a) To protect human life, health, safety and property;
(b) To minimize expenditure of public funds for costly flood control projects;
(c) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
(d) To minimize prolonged business interruptions;
(e) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in flood prone areas;
(f) To help maintain a stable tax base by providing for the sound use and development of flood prone areas to minimize blight in flood areas;
(g) To ensure that potential homebuyers are notified that property is in a flood prone area;
(h) To maintain eligibility for participation in the NFIP. (as added by Ord. #2010-13, July 2010)

18-902. Definitions. Unless specifically defined below, words or phrases used in this chapter shall be interpreted as to give them the meaning they have in common usage and to give this chapter its most reasonable application given its stated purpose and objectives.
(1) "Accessory structure." A subordinate structure to the principal structure on the same lot and, for the purpose of this chapter, shall conform to the following:
(a) Accessory structures shall only be used for parking of vehicles and storage.
(b) Accessory structures shall be designed to have low flood damage potential.
(c) Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters.
(d) Accessory structures shall be firmly anchored to prevent flotation, collapse, and lateral movement, which otherwise may result in damage to other structures.
(e) Utilities and service facilities such as electrical and heating equipment shall be elevated or otherwise protected from intrusion of floodwaters.

(2) "Addition (to an existing building)." Any walled and roofed expansion to the perimeter or height of a building.

(3) "Appeal." A request for a review of the local enforcement officer's interpretation of any provision of this chapter or a request for a variance.

(4) "Area of shallow flooding" means a designated AO or AH Zone on a community's Flood Insurance Rate Map (FIRM) with one percent (1%) or greater annual chance of flooding to an average depth of one to three feet (1'-3') where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate; and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

(5) "Area of special flood-related erosion hazard." The land within a community which is most likely to be subject to severe flood-related erosion losses. The area may be designated as Zone E on the Flood Hazard Boundary Map (FHBM). After the detailed evaluation of the special flood-related erosion hazard area in preparation for publication of the FIRM, Zone E may be further refined.

(6) "Area of special flood hazard." See "special flood hazard area."

(7) "Base flood." The flood having a one percent (1%) chance of being equaled or exceeded in any given year. This term is also referred to as the 100-year flood or the one percent (1%) annual chance flood.

(8) "Basement." Any portion of a building having its floor subgrade (below ground level) on all sides.

(9) "Building." See "structure."

(10) "Development." Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating, drilling operations, or storage of equipment or materials.

(11) "Elevated building." A non-basement building built to have the lowest floor of the lowest enclosed area elevated above the ground level by means of solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of floodwater, pilings, columns, piers, or shear walls adequately anchored so as not to impair the structural integrity of the building during a base flood event.

(12) "Emergency flood insurance program" or "emergency program."
The program as implemented on an emergency basis in accordance with section 1336 of the Act. It is intended as a program to provide a first layer amount of insurance on all insurable structures before the effective date of the initial FIRM.

(13) "Erosion." The process of the gradual wearing away of land masses. This peril is not "per se" covered under the program.
(14) "Exception." A waiver from the provisions of this chapter which relieves the applicant from the requirements of a rule, regulation, order or other determination made or issued pursuant to this chapter.

(15) "Existing construction." Any structure for which the "start of construction" commenced before the effective date of the initial floodplain management code or ordinance adopted by the community as a basis for that community's participation in the NFIP.

(16) "Existing manufactured home park or subdivision." A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, final site grading or the pouring of concrete pads) is completed before the effective date of the first floodplain management code or ordinance adopted by the community as a basis for that community's participation in the NFIP.

(17) "Existing structures." See "existing construction."

(18) "Expansion to an existing manufactured home park or subdivision." The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

(19) "Flood" or "flooding." A general and temporary condition of partial or complete inundation of normally dry land areas from:

(a) The overflow of inland or tidal waters.
(b) The unusual and rapid accumulation or runoff of surface waters from any source.

(20) "Flood elevation determination." A determination by the Federal Emergency Management Agency (FEMA) of the water surface elevations of the base flood, that is, the flood level that has a one percent (1%) or greater chance of occurrence in any given year.

(21) "Flood elevation study." An examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) or flood-related erosion hazards.

(22) "Flood Hazard Boundary Map (FHBM)." An official map of a community, issued by FEMA, where the boundaries of areas of special flood hazard have been designated as Zone A.

(23) "Flood Insurance Rate Map (FIRM)." An official map of a community, issued by FEMA, delineating the areas of special flood hazard or the risk premium zones applicable to the community.

(24) "Flood insurance study" is the official report provided by FEMA, evaluating flood hazards and containing flood profiles and water surface elevation of the base flood.

(25) "Floodplain" or "floodprone area." Any land area susceptible to being inundated by water from any source (see definition of "flooding").
(26) "Floodplain management." The operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

(27) "Flood protection system." Those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the area within a community subject to a "special flood hazard" and the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

(28) "Floodproofing." Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities and structures and their contents.

(29) "Flood-related erosion." The collapse or subsidence of land along the shore of a lake or other body of water as a result of undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a flash flood, or by some similarly unusual and unforeseeable event which results in flooding.

(30) "Flood-related erosion area" or "flood-related erosion prone area." A land area adjoining the shore of a lake or other body of water, which due to the composition of the shoreline or bank and high water levels or wind-driven currents, is likely to suffer flood-related erosion damage.

(31) "Flood-related erosion area management." The operation of an overall program of corrective and preventive measures for reducing flood-related erosion damage, including but not limited to emergency preparedness plans, flood-related erosion control works and floodplain management regulations.

(32) "Floodway." The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

(33) "Freeboard." A factor of safety usually expressed in feet above a flood level for purposes of floodplain management. "Freeboard" tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, blockage of bridge or culvert openings, and the hydrological effect of urbanization of the watershed.

(34) "Functionally dependent use." A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for
the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

(35) "Highest adjacent grade." The highest natural elevation of the ground surface, prior to construction, adjacent to the proposed walls of a structure.

(36) "Historic structure." Any structure that is:
   (a) Listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
   (b) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
   (c) Individually listed on the Tennessee inventory of historic places and determined as eligible by states with historic preservation programs which have been approved by the Secretary of the Interior; or
   (d) Individually listed on the Town of Signal Mountain, Tennessee inventory of historic places and determined as eligible by communities with historic preservation programs that have been certified either:
      (i) By the approved Tennessee program as determined by the Secretary of the Interior; or
      (ii) Directly by the Secretary of the Interior.

(37) "Levee." A man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control or divert the flow of water so as to provide protection from temporary flooding.

(38) "Levee system." A flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

(39) "Lowest floor." The lowest floor of the lowest enclosed area, including a basement. An unfinished or flood resistant enclosure used solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this chapter.

(40) "Manufactured home." A structure, transportable in one (1) or more sections, which is built on a permanent chassis and designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle."
(41) "Manufactured home park or subdivision." A parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

(42) "Map." The Flood Hazard Boundary Map (FHBMM) or the Flood Insurance Rate Map (FIRM) for a community issued by FEMA.

(43) "Mean sea level." The average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the floodplain. For the purposes of this chapter, the term is synonymous with the National Geodetic Vertical Datum (NGVD) of 1929, the North American Vertical Datum (NAVD) of 1988, or other datum, to which Base Flood Elevations shown on a community’s flood insurance rate map are referenced.

(44) "National Geodetic Vertical Datum (NGVD)." As corrected in 1929, a vertical control used as a reference for establishing varying elevations within the floodplain.

(45) "New construction." Any structure for which the "start of construction" commenced on or after the effective date of the initial floodplain management ordinance and includes any subsequent improvements to such structure.

(46) "New manufactured home park or subdivision." A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of the ordinance comprising this chapter or the effective date of the initial floodplain management ordinance and includes any subsequent improvements to such structure.

(47) "North American Vertical Datum (NAVD)." As corrected in 1988, a vertical control used as a reference for establishing varying elevations within the floodplain.

(48) "100-year flood." See "base flood."

(49) "Person." Includes any individual or group of individuals, corporation, partnership, association, or any other entity, including state and local governments and agencies.

(50) "Reasonably safe from flooding." Base flood waters will not inundate the land or damage structures to be removed from the special flood hazard area and that any subsurface waters related to the base flood will not damage existing or proposed structures.

(51) "Recreational vehicle." A vehicle which is:

(a) Built on a single chassis;

(b) Four hundred (400) square feet or less when measured at the largest horizontal projection;

(c) Designed to be self-propelled or permanently towable by a light duty truck;
(d) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

(52) "Regulatory floodway." The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

(53) "Riverine." Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

(54) "Special flood hazard area" is the land in the floodplain within a community subject to a one percent (1%) or greater chance of flooding in any given year. The area may be designated as Zone A on the FHBM. After detailed ratemaking has been completed in preparation for publication of the FIRM, Zone A usually is refined into Zones A, AO, AH, A1-30, AE or A99.

(55) "Special hazard area." An area having special flood, mudflow (i.e., mudflow) and/or flood-related erosion hazards, and shown on an FHBM or FIRM as Zone A, AO, A1-30, AE, A99, or AH.

(56) "Start of construction." Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within one hundred eighty (180) days of the permit date. The actual start means either the first placement of permanent construction of a structure (including a manufactured home) on a site, such as the pouring of slabs or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; and includes the placement of a manufactured home on a foundation. Permanent construction does not include initial land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds, not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

(57) "State coordinating agency." The Tennessee Department of Economic and Community Development’s Local Planning Assistance Office, as designated by the Governor of the State of Tennessee at the request of FEMA to assist in the implementation of the NFIP for the state.

(58) "Structure." For purposes of this chapter, means a walled and roofed building, including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.

(59) "Substantial damage." Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged
condition would equal or exceed fifty percent (50%) of the market value of the structure before the damage occurred.

(60) (a) "Substantial improvement." Any reconstruction, rehabilitation, addition, alteration or other improvement of a structure in which the cost equals or exceeds fifty percent (50%) of the market value of the structure before the "start of construction" of the initial improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The market value of the structure should be:

(i) The appraised value of the structure prior to the start of the initial improvement; or

(ii) In the case of substantial damage, the value of the structure prior to the damage occurring.

(b) The term does not, however, include either:

(i) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been pre-identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions and not solely triggered by an improvement or repair project; or

(ii) Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

(61) "Substantially improved existing manufactured home parks or subdivisions" is where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads equals or exceeds fifty percent (50%) of the value of the streets, utilities and pads before the repair, reconstruction or improvement commenced.

(62) "Variance" is a grant of relief from the requirements of this chapter.

(63) "Violation." The failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certification, or other evidence of compliance required in this chapter is presumed to be in violation until such time as that documentation is provided.

(64) "Water surface elevation." The height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, the North American Vertical Datum (NAVD) of 1988, or other datum, where specified, of floods of various magnitudes and frequencies in the floodplains of riverine areas. (as added by Ord. #2010-13, July 2010)

18-903. General provisions. (1) Application. This chapter shall apply to all areas within the incorporated area of the Town of Signal Mountain, Tennessee.
(2) **Basis for establishing the areas of special flood hazard.** The areas of special flood hazard in the Town of Signal Mountain, Tennessee, as identified by FEMA, and in its November 7, 2002, Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM), Hamilton County 47065 Community ID 470078 and Panel Numbers 0195, 0211, 0212, 0213, 0214, 0326, 0327, dated November 7, 2002, along with all supporting technical data, are adopted by reference and declared to be a part of this chapter.

(3) **Requirement for development permit.** A development permit shall be required in conformity with this chapter prior to the commencement of any development activities.

(4) **Compliance.** No land, structure or use shall hereafter be located, extended, converted or structurally altered without full compliance with the terms of this chapter and other applicable regulations.

(5) **Abrogation and greater restrictions.** This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants or deed restrictions. However, where this chapter conflicts or overlaps with another regulatory instrument, whichever imposes the more stringent restrictions shall prevail.

(6) **Interpretation.** In the interpretation and application of this chapter, all provisions shall be:
   
   (a) Considered as minimum requirements;
   
   (b) Liberally construed in favor of the governing body; and
   
   (c) Deemed neither to limit nor repeal any other powers granted under Tennessee statutes.

(7) **Warning and disclaimer of liability.** The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the Town of Signal Mountain, Tennessee or by any officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

(8) **Penalties for violation.** Violation of the provisions of this chapter or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance shall constitute a misdemeanor punishable as other misdemeanors as provided by law. Any person who violates this chapter or fails to comply with any of its requirements shall, upon adjudication therefore, be fined as prescribed by Tennessee statutes, and in addition, shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the Town of Signal Mountain,
Tennessee from taking such other lawful actions to prevent or remedy any violation. (as added by Ord. #2010-13, July 2010)

18-904. Administration. (1) Designation of ordinance administrator. The building inspector is hereby appointed as the administrator to implement the provisions of the ordinance comprising this chapter.

(2) Permit procedures. Application for a development permit shall be made to the administrator on forms furnished by the community prior to any development activities. The development permit may include, but is not limited to the following: plans in duplicate drawn to scale and showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, earthen fill placement, storage of materials or equipment, and drainage facilities. Specifically, the following information is required:

(a) Application stage. (i) Elevation in relation to mean sea level of the proposed lowest floor, including basement, of all buildings where base flood elevations are available, or to certain height above the highest adjacent grade when applicable under this chapter.

(ii) Elevation in relation to mean sea level to which any non-residential building will be floodproofed where base flood elevations are available, or to certain height above the highest adjacent grade when applicable under this chapter.

(iii) A FEMA floodproofing certificate from a Tennessee registered professional engineer or architect that the proposed non-residential floodproofed building will meet the floodproofing criteria in § 18-905(1) and (2).

(iv) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

(b) Construction stage. Within AE Zones, where base flood elevation data is available, any lowest floor certification made relative to mean sea level shall be prepared by or under the direct supervision of, a Tennessee registered land surveyor and certified by same. The administrator shall record the elevation of the lowest floor on the development permit. When floodproofing is utilized for a non-residential building, said certification shall be prepared by, or under the direct supervision of, a Tennessee registered professional engineer or architect and certified by same.

Within approximate A Zones, where base flood elevation data is not available, the elevation of the lowest floor shall be determined as the measurement of the lowest floor of the building relative to the highest adjacent grade. The administrator shall record the elevation of the lowest floor on the development permit. When floodproofing is utilized for a non-residential building, said certification shall be prepared by, or under
the direct supervision of a Tennessee registered professional engineer or architect and certified by same.

For all new construction and substantial improvements, the permit holder shall provide to the administrator an as-built certification of the lowest floor elevation or floodproofing level upon the completion of the lowest floor or floodproofing.

Any work undertaken prior to submission of the certification shall be at the permit holder's risk. The administrator shall review the above-referenced certification data. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further work being allowed to proceed. Failure to submit the certification or failure to make said corrections required hereby, shall be cause to issue a stop-work order for the project.

(3) Duties and responsibilities of the administrator. Duties of the administrator shall include, but not be limited to, the following:

(a) Review all development permits to assure that the permit requirements of this chapter have been satisfied, and that proposed building sites will be reasonably safe from flooding.

(b) Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by federal or state law, including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.

(c) Notify adjacent communities and the Tennessee Department of Economic and Community Development, Local Planning Assistance Office, prior to any alteration or relocation of a watercourse and submit evidence of such notification to FEMA.

(d) For any altered or relocated watercourse, submit engineering data/analysis within six (6) months to FEMA to ensure accuracy of community FIRMs through the letter of map revision process.

(e) Assure that the flood carrying capacity within an altered or relocated portion of any watercourse is maintained.

(f) Record the elevation, in relation to mean sea level or the highest adjacent grade, where applicable, of the lowest floor (including basement) of all new and substantially improved buildings, in accordance with § 18-904(2).

(g) Record the actual elevation, in relation to mean sea level or the highest adjacent grade, where applicable to which the new and substantially improved buildings have been floodproofed, in accordance with § 18-904(2).

(h) When floodproofing is utilized for a non-residential structure, obtain certification of design criteria from a Tennessee registered professional engineer or architect, in accordance with § 18-904(2).
(i) Where interpretation is needed as to the exact location of boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. Any person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this chapter.

(j) When base flood elevation data and floodway data have not been provided by FEMA, obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other sources, including data developed as a result of these regulations, as criteria for requiring that new construction, substantial improvements, or other development in Zone A on the Town of Signal Mountain, Tennessee FIRM meet the requirements of this chapter.

(k) Maintain all records pertaining to the provisions of this chapter in the office of the administrator and shall be open for public inspection. Permits issued under the provisions of this chapter shall be maintained in a separate file or marked for expedited retrieval within combined files. (as added by Ord. #2010-13, July 2010)

18-905. Provisions for flood hazard reduction. (1) General standards. In all areas of special flood hazard, the following provisions are required:

(a) New construction and substantial improvements shall be anchored to prevent flotation, collapse and lateral movement of the structure;

(b) Manufactured homes shall be installed using methods and practices that minimize flood damage. They must be elevated and anchored to prevent flotation, collapse and lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State of Tennessee and local anchoring requirements for resisting wind forces;

(c) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;

(d) New construction and substantial improvements shall be constructed by methods and practices that minimize flood damage;

(e) All electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;

(f) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
(g) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;

(h) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding;

(i) Any alteration, repair, reconstruction or improvements to a building that is in compliance with the provisions of this chapter, shall meet the requirements of "new construction" as contained in this chapter;

(j) Any alteration, repair, reconstruction or improvements to a building that is not in compliance with the provision of this chapter, shall be undertaken only if said non-conformity is not further extended or replaced;

(k) All new construction and substantial improvement proposals shall provide copies of all necessary federal and state permits, including section 404 of the Federal Water Pollution Control Act amendments of 1972, 33 U.S.C. 1334;

(l) All subdivision proposals and other proposed new development proposals shall meet the standards of § 18-905(2);

(m) When proposed new construction and substantial improvements are partially located in an area of special flood hazard, the entire structure shall meet the standards for new construction;

(n) When proposed new construction and substantial improvements are located in multiple flood hazard risk zones or in a flood hazard risk zone with multiple base flood elevations, the entire structure shall meet the standards for the most hazardous flood hazard risk zone and the highest base flood elevation.

(2) Specific standards. In all areas of special flood hazard, the following provisions, in addition to those set forth in § 18-905(1), are required:

(a) Residential structures. In AE Zones where base flood elevation data is available, new construction and substantial improvement of any residential building (or manufactured home) shall have the lowest floor, including basement, elevated to no lower than one foot (1') above the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate equalization of flood hydrostatic forces on both sides of exterior walls shall be provided in accordance with the standards of this section: "Enclosures."

Within approximate A Zones where base flood elevations have not been established and where alternative data is not available, the administrator shall require the lowest floor of a building to be elevated to a level at least three feet (3') above the highest adjacent grade (as defined in § 18-902). Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate equalization of flood
hydrostatic forces on both sides of exterior walls shall be provided in accordance with the standards of this section: "Enclosures."

(b) Non-residential structures. In AE Zones, where base flood elevation data is available, new construction and substantial improvement of any commercial, industrial, or non-residential building, shall have the lowest floor, including basement, elevated or floodproofed to no lower than one foot (1') above the level of the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate equalization of flood hydrostatic forces on both sides of exterior walls shall be provided in accordance with the standards of this section: "Enclosures."

In approximate A Zones, where base flood elevations have not been established and where alternative data is not available, new construction and substantial improvement of any commercial, industrial, or non-residential building shall have the lowest floor, including basement, elevated or floodproofed to no lower than three feet (3') above the highest adjacent grade (as defined in § 18-902). Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate equalization of flood hydrostatic forces on both sides of exterior walls shall be provided in accordance with the standards of this section: "Enclosures."

Non-residential buildings located in all A Zones may be floodproofed, in lieu of being elevated, provided that all areas of the building below the required elevation are watertight, with walls substantially impermeable to the passage of water, and are built with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. A Tennessee registered professional engineer or architect shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions above, and shall provide such certification to the administrator as set forth in § 18-904(2).

(c) Enclosures. All new construction and substantial improvements that include fully enclosed areas formed by foundation and other exterior walls below the lowest floor that are subject to flooding, shall be designed to preclude finished living space and designed to allow for the entry and exit of flood waters to automatically equalize hydrostatic flood forces on exterior walls.

(i) Designs for complying with this requirement must either be certified by a Tennessee professional engineer or architect or meet or exceed the following minimum criteria:

(A) Provide a minimum of two (2) openings having a total net area of not less than one (1) square foot of enclosed area subject to flooding;
(B) The bottom of all openings shall be no higher than one foot (1') above the finished grade;

(C) Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.

(ii) The enclosed area shall be the minimum necessary to allow for parking of vehicles, storage or building access.

(iii) The interior portion of such enclosed area shall not be finished or partitioned into separate rooms in such a way as to impede the movement of floodwaters and all such partitions shall comply with the provisions of § 18-905(2).

(d) Standards for manufactured homes and recreational vehicles. (i) All manufactured homes placed, or substantially improved, on:

(A) Individual lots or parcels;

(B) In expansions to existing manufactured home parks or subdivisions; or

(C) In new or substantially improved manufactured home parks or subdivisions; must meet all the requirements of new construction.

(ii) All manufactured homes placed or substantially improved in an existing manufactured home park or subdivision must be elevated so that either:

(A) In AE Zones, with base flood elevations, the lowest floor of the manufactured home is elevated on a permanent foundation to no lower than one foot (1') above the level of the base flood elevation; or

(B) In approximate A Zones, without base flood elevations, the manufactured home chassis is elevated and supported by reinforced piers (or other foundation elements of at least equivalent strength) that are at least three feet (3') in height above the highest adjacent grade (as defined in § 18-902).

(iii) Any manufactured home, which has incurred "substantial damage" as the result of a flood, must meet the standards of § 18-905(1) and (2).

(iv) All manufactured homes must be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.

(v) All recreational vehicles placed in an identified special flood hazard area must either:

(A) Be on the site for fewer than one hundred eighty (180) consecutive days;
(B) Be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is licensed, on its wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached structures or additions); or

(C) The recreational vehicle must meet all the requirements for new construction.

(d) Standards for subdivisions and other proposed new development proposals. Subdivisions and other proposed new developments, including manufactured home parks, shall be reviewed to determine whether such proposals will be reasonably safe from flooding.

(i) All subdivision and other proposed new development proposals shall be consistent with the need to minimize flood damage.

(ii) All subdivision and other proposed new development proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

(iii) All subdivision and other proposed new development proposals shall have adequate drainage provided to reduce exposure to flood hazards.

(iv) In all approximate A Zones require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than fifty (50) lots or five (5) acres, whichever is the lesser, include within such proposals base flood elevation data (see § 18-905(5)).

(3) Standards for special flood hazard areas with established base flood elevations and with floodways designated. Located within the special flood hazard areas established in § 18-903(2), are areas designated as floodways. A floodway may be an extremely hazardous area due to the velocity of floodwaters, debris or erosion potential. In addition, the area must remain free of encroachment in order to allow for the discharge of the base flood without increased flood heights and velocities. Therefore, the following provisions shall apply:

(a) Encroachments are prohibited, including earthen fill material, new construction, substantial improvements or other development within the regulatory floodway. Development may be permitted however, provided it is demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the cumulative effect of the proposed encroachments or new development shall not result in any increase in the water surface elevation of the base flood elevation, velocities, or floodway widths during the occurrence of a base flood discharge at any point within the community. A Tennessee registered professional engineer must provide
supporting technical data, using the same methodologies as in the effective Flood Insurance Study for the Town of Signal Mountain, Tennessee and certification, thereof.

(b) New construction and substantial improvements of buildings, where permitted, shall comply with all applicable flood hazard reduction provisions of § 18-905(1) and (2).

(4) Standards for areas of special flood hazard Zones AE with established base flood elevations but without floodways designated. Located within the special flood hazard areas established in § 18-903(2), where streams exist with base flood data provided but where no floodways have been designated (Zones AE), the following provisions apply:

(a) No encroachments, including fill material, new construction and substantial improvements shall be located within areas of special flood hazard, unless certification by a Tennessee registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot (1') at any point within the community. The engineering certification should be supported by technical data that conforms to standard hydraulic engineering principles.

(b) New construction and substantial improvements of buildings, where permitted, shall comply with all applicable flood hazard reduction provisions of § 18-905(1) and (2).

(5) Standards for streams without established base flood elevations and floodways (A Zones). Located within the special flood hazard areas established in § 18-903(2), where streams exist, but no base flood data has been provided and where a floodway has not been delineated, the following provisions shall apply:

(a) The administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from any federal, state, or other sources, including data developed as a result of these regulations (see (b) below), as criteria for requiring that new construction, substantial improvements, or other development in approximate A Zones meet the requirements of § 18-905(1) and (2).

(b) Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than fifty (50) lots or five (5) acres, whichever is the lesser, include within such proposals base flood elevation data.

(c) Within approximate A Zones, where base flood elevations have not been established and where such data is not available from other sources, require the lowest floor of a building to be elevated or floodproofed to a level of at least three feet (3') above the highest adjacent grade (as defined in § 18-902). All applicable data including elevations or
floodproofing certifications shall be recorded as set forth in § 18-904(2). Openings sufficient to facilitate automatic equalization of hydrostatic flood forces on exterior walls shall be provided in accordance with the standards of § 18-905(2).

(d) Within approximate A Zones, where base flood elevations have not been established and where such data is not available from other sources, no encroachments, including structures or fill material, shall be located within an area equal to the width of the stream or twenty feet (20'), whichever is greater, measured from the top of the stream bank, unless certification by a Tennessee registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot (1') at any point within the Town of Signal Mountain, Tennessee. The engineering certification should be supported by technical data that conforms to standard hydraulic engineering principles.

(e) New construction and substantial improvements of buildings, where permitted, shall comply with all applicable flood hazard reduction provisions of § 18-905(1) and (2). Within approximate A Zones, require that those subsections of § 18-905(2) dealing with the alteration or relocation of a watercourse, assuring watercourse carrying capacities are maintained and manufactured homes provisions are complied with as required.

(6) Standards for areas of shallow flooding (AO and AH Zones). Located within the special flood hazard areas established in § 18-903(2), are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one to three feet (1'-3') where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate; therefore, the following provisions, in addition to those set forth in § 18-905(1) and (2) apply:

(a) All new construction and substantial improvements of residential and non-residential buildings shall have the lowest floor, including basement, elevated to at least one foot (1') above as many feet as the depth number specified on the FIRMs, in feet, above the highest adjacent grade. If no flood depth number is specified on the FIRM, the lowest floor, including basement, shall be elevated to at least three feet (3') above the highest adjacent grade. Openings sufficient to facilitate automatic equalization of hydrostatic flood forces on exterior walls shall be provided in accordance with standards of § 18-905(2).

(b) All new construction and substantial improvements of non-residential buildings may be floodproofed in lieu of elevation. The structure together with attendant utility and sanitary facilities must be floodproofed and designed watertight to be completely floodproofed to at
least one foot (1') above the flood depth number specified on the FIRM, with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. If no depth number is specified on the FIRM, the structure shall be floodproofed to at least three feet (3') above the highest adjacent grade. A Tennessee registered professional engineer or architect shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this chapter and shall provide such certification to the administrator as set forth above and as required in accordance with § 18-904(2).

(c) Adequate drainage paths shall be provided around slopes to guide floodwaters around and away from proposed structures.

(7) Standards for areas protected by flood protection system (A99 Zones). Located within the areas of special flood hazard established in § 18-903(2), are areas of the 100-year floodplain protected by a flood protection system but where base flood elevations have not been determined. Within these areas (A99 Zones) all provisions of §§ 18-904 and 18-905 shall apply.

(8) Standards for unmapped streams. Located within the Town of Signal Mountain, Tennessee, are unmapped streams where areas of special flood hazard are neither indicated nor identified. Adjacent to such streams, the following provisions shall apply:

(a) No encroachments including fill material or other development including structures shall be located within an area of at least equal to twice the width of the stream, measured from the top of each stream bank, unless certification by a Tennessee registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot (1') at any point within the locality.

(b) When a new flood hazard risk zone, and base flood elevation and floodway data is available, new construction and substantial improvements shall meet the standards established in accordance with §§ 18-904 and 18-905. (as added by Ord. #2010-13, July 2010)

18-906. Variance procedures. (1) Board of floodplain review.

(a) Creation and appointment. A board of floodplain review is hereby established which shall consist of three (3) members appointed by the chief executive officer. The term of membership shall be four (4) years except that the initial individual appointments to the board of floodplain review shall be terms of one (1), two (2), and three (3) years, respectively. Vacancies shall be filled for any unexpired term by the chief executive officer.
(b) Procedure. Meetings of the board of floodplain review shall be held at such times as the board shall determine. All meetings of the board of floodplain review shall be open to the public. The board of floodplain review shall adopt rules of procedure and shall keep records of applications and actions thereof, which shall be a public record. Compensation of the members of the board of floodplain review shall be set by the legislative body.

(c) Appeals: how taken. An appeal to the board of floodplain review may be taken by any person, firm or corporation aggrieved or by any governmental officer, department, or bureau affected by any decision of the administrator based in whole or in part upon the provisions of this chapter. Such appeal shall be taken by filing with the board of floodplain review a notice of appeal, specifying the grounds thereof. In all cases where an appeal is made by a property owner or other interested party, a fee of fifty dollars ($50.00) for the cost of publishing a notice of such hearings shall be paid by the appellant. The administrator shall transmit to the board of floodplain review all papers constituting the record upon which the appeal action was taken. The board of floodplain review shall fix a reasonable time for the hearing of the appeal, give public notice thereof, as well as due notice to parties in interest and decide the same within a reasonable time which shall not be more than thirty (30) days from the date of the hearing. At the hearing, any person or party may appear and be heard in person or by agent or by attorney.

(d) Powers. The board of floodplain review shall have the following powers:

(i) Administrative review. To hear and decide appeals where it is alleged by the applicant that there is error in any order, requirement, permit, decision, determination, or refusal made by the administrator or other administrative official in carrying out or enforcement of any provisions of this chapter.

(ii) Variance procedures. In the case of a request for a variance the following shall apply:

(A) The Town of Signal Mountain, Tennessee Board of Floodplain Review shall hear and decide appeals and requests for variances from the requirements of this chapter.

(B) Variances may be issued for the repair or rehabilitation of historic structures as defined herein, upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary deviation from the requirements of this chapter to preserve the historic character and design of the structure.
(iii) In passing upon such applications, the board of floodplain review shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this chapter, and:

(A) The danger that materials may be swept onto other property to the injury of others;
(B) The danger to life and property due to flooding or erosion;
(C) The susceptibility of the proposed facility and its contents to flood damage;
(D) The importance of the services provided by the proposed facility to the community;
(E) The necessity of the facility to a waterfront location, in the case of a functionally dependent use;
(F) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
(G) The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
(H) The safety of access to the property in times of flood for ordinary and emergency vehicles;
(I) The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site;
(J) The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, water systems, and streets and bridges.

(iv) Upon consideration of the factors listed above, and the purposes of this chapter, the board of floodplain review may attach such conditions to the granting of variances, as it deems necessary to effectuate the purposes of this chapter.

(v) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(2) Conditions for variances. (a) Variances shall be issued upon a determination that the variance is the minimum relief necessary, considering the flood hazard and the factors listed in § 18-906(1).

(b) Variances shall only be issued upon: a showing of good and sufficient cause, a determination that failure to grant the variance would result in exceptional hardship; or a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisance, cause fraud
on or victimization of the public, or conflict with existing local laws or ordinances.

(c) Any applicant to whom a variance is granted shall be given written notice that the issuance of a variance to construct a structure below the base flood elevation will result in increased premium rates for flood insurance (as high as twenty-five dollars ($25.00) for one hundred dollars ($100.00)) coverage, and that such construction below the base flood elevation increases risks to life and property.

(d) The administrator shall maintain the records of all appeal actions and report any variances to FEMA upon request. (as added by Ord. #2010-13, July 2010)

18-907 Legal status provisions. (1) Conflict with other ordinances. In case of conflict between the ordinance comprising this chapter or any part thereof, and the whole or part of any existing or future ordinance of the Town of Signal Mountain, Tennessee, the most restrictive shall in all cases apply.

(2) Severability. If any section, clause, provision, or portion of the ordinance comprising this chapter shall be held to be invalid or unconstitutional by any court of competent jurisdiction, such holding shall not affect any other section, clause, provision, or portion of the ordinance comprising this chapter which is not of itself invalid or unconstitutional. (as added by Ord. #2010-13, July 2010)