

ORDINANCE 2023-07

AN ORDINANCE OF THE CITY OF BRENTWOOD, TENNESSEE, PROVIDING THAT THE CODE OF ORDINANCES BE AMENDED BY REVISING VARIOUS SECTIONS OF CHAPTER 56, ARTICLE I, DIVISION 1 AND ARTICLE II, DIVISIONS 2 THROUGH 5 IN REGARD TO THE STORMWATER MANAGEMENT, EROSION CONTROL AND FLOOD DAMAGE PREVENTION

WHEREAS, since 1972, the City of Brentwood has incorporated floodplain management regulations into the Brentwood Municipal Code, with a goal of reducing flood risks to residents and property owners; and

WHEREAS, adoption and enforcement of effective floodplain management regulations allow the City to be eligible for participation in the National Flood Insurance Program; and

WHEREAS, the Legislature of the State of Tennessee has, in Tenn. Code Ann. §§ 13-7-201 through 13-7-212, delegated the responsibility to local governments to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry; and

WHEREAS, Chapter 56, Article II of the Code of Ordinances of the City of Brentwood establishes regulations governing flood damage prevention; and

WHEREAS, the proposed amendments set forth in this ordinance will allow the City to continue protecting the public health, safety and welfare through effective floodplain management.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY OF BRENTWOOD, TENNESSEE, AS FOLLOWS:

SECTION 1. That the title of Chapter 56 of the Code of Ordinances of the City of Brentwood, Tennessee, is hereby amended to read “CHAPTER 56 STORMWATER MANAGEMENT, EROSION CONTROL AND FLOOD DAMAGE PREVENTION”.

SECTION 2. That Section 56-2 the Code of Ordinances of the City of Brentwood, Tennessee is hereby amended to read as follows:

Sec. 56-2. Definitions.

The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Best Management Practices Manual means a manual approved for use by the city's engineering director to provide examples of structural or non-structural practices intended to address water quantity or quality. The Best Management Practices Manual is intended to be utilized by design professionals and/or construction personnel in the course of development and construction activities within the city.

Channel means the portion of a natural stream which conveys normal flows of water.

Combined sewer means a sewer which conveys both sanitary sewage and stormwater.

Construction activities means activities which include but are not limited to clearing and grubbing, grading, excavating and demolition.

Cut means the portion of land surface or area from which earth has been or will be removed by excavation; also, the depth below original ground surface to excavated surface.

Disturbed area means an area of land subjected to erosion due to the removal of vegetative cover and/or earthmoving activities, including filling.

Drainage means the interception and removal of groundwater or surface water by natural or artificial means.

EPA means the United States Environmental Protection Agency.

Erosion means any removal or loss of soil by the action of wind and water. Erosion includes both the detachment and transportation of soil particles.

Erosion control measures means one or more of the following measures, or other methods of slowing or stopping the removal of soil by wind, water, or gravity used singularly or in combination as appropriate:

- (1) *Diversion*: A swale or channel with supporting ridge (berm, dike or wall) constructed across a sloping land surface along the contour, or with predetermined grades, to intercept and divert surface runoff before it gains sufficient volume or velocity to create conditions of erosion.
- (2) *Drains*: Underground conduits or filter drains to reduce surface runoff or lower a high-water table.
- (3) *Grade stabilization structures*: Drop structures made of concrete, corrugated metal pipe or other suitable materials which dissipate the energy of flowing water by dropping it in a relatively short horizontal distance.
- (4) *Grassed waterways*: A natural or constructed waterway, usually broad and shallow, covered with erosion-resistant grasses used to carry surface water.
- (5) *Land grading*: Reshaping the ground surface by grading to planned slopes and configurations that will prevent excessive erosion conditions.
- (6) *Mulching*: The application of plant or other suitable materials on the soil surface to conserve moisture, reduce erosion and aid in establishing plant cover.
- (7) *Sediment barriers*: A temporary barrier installed to intercept runoff containing sediment. The barrier shall filter sediment and allow runoff to pass through. Sediment barriers may include straw bale barriers and silt fences.

Excavation means the act of removing dirt or soil (see *Cut*).

Fill means the portion of land surface or area to which soil, rock or other materials have been or will be added; height above original ground surface after the material has been or will be added.

Grade means the slope or elevation of the ground surface prior to or after cutting and filling.

Grading means any operation or occurrence by which the existing site elevations are changed by cutting, filling, borrowing or stockpiling, or where any ground cover, natural or manmade, is removed, or any buildings or other structures are removed or any watercourse or body of water, either natural or

manmade, is relocated on any site, thereby creating an unprotected area. Grading shall be synonymous with land disturbance activity.

Hazardous material means any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property or the environment when improperly treated, stored, transported, disposed of or otherwise managed.

Immediate threat to public health and safety means a very serious threat to the community or adjacent property including, but not limited to, clogged drainage ditches, flooding of adjacent properties, threat of landslides or other problems which should be resolved without delay. In instances where this is the case, verbal instructions to remedy the situation with follow-up of written notification shall be sufficient to meet the notification requirements of this article.

Illicit discharge means either of the following:

- (1) Any discharge to a municipal separate storm sewer system that is not composed entirely of stormwater, except as authorized herein.
- (2) Any infiltration into the storm drain system resulting from spills, illegal dumping, or contaminated runoff from residential, commercial or industrial properties.

Illicit connection means either of the following:

- (1) Any drain or conveyance, whether on the surface or subsurface, that allows an illicit discharge to enter the storm drain system, including but not limited to any conveyance that allows any non-stormwater discharge (including sewage, processed wastewater or wash water) to enter the storm drain system or any connection to the storm drain system from an indoor drain or sink, regardless of whether said connection had been previously allowed, permitted or approved by an authorized enforcement agency.
- (2) Any drain or conveyance connected from a commercial or industrial land use to the storm drain system that has not been documented in plans, maps or equivalent records and approved by an authorized enforcement agency.

Land disturbance plan means the plan required before a grading permit may be issued. A land disturbance plan consists of a narrative description and appropriate drawings and plans that spell out the methods, techniques and procedures to be followed on a site to control erosion and other potential degradation of adjoining or nearby properties, during and after development, including methods of final stabilization of the site.

Municipal separate storm sewer system (MS4) means the system of conveyances (including sidewalks, roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

- (1) Owned or operated by the city;
- (2) Designed or used for collecting or conveying stormwater;
- (3) Which is not a combined sewer; and
- (4) Which is not part of a sanitary sewage treatment facility operated by a public utility.

National Pollutant Discharge Elimination System (NPDES) permit means a permit issued by the EPA or by the state under authority delegated by the EPA that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

Non-stormwater discharge means any discharge to the storm drain system that is not composed entirely of stormwater.

Owner means the person or entity holding the registered title to property. The city property tax rolls shall be prima facie evidence that the person or entity listed therein is the registered owner.

Permit holder means the owner of the property or the owner's representative in whose name a permit has been applied for and issued by the city.

Pollutant means anything that causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter or other discarded or abandoned objects and accumulations, so that some may cause or contribute to pollution; floatables; pesticides and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Potable water means any water from a public water supply system or private well that is suitable to drink.

Sediment means rocks, sand, gravel, silt or other material deposited by action of wind, water or gravity.

Sedimentation means the action of settling out of the soil particles which are transported by wind, water or gravity.

Site means any tract, lot or parcel of land or combination of tracts, lots or parcels of land proposed for development.

Stop work order means an order issued by the city requiring construction activity on a site to be stopped.

Stormwater means any accumulation of water from rain, snow or other forms of precipitation.

Stormwater runoff means stormwater flowing over the surface of the ground or collected in channels, watercourses or conduits, measured in depth of inches.

Stripping means any activity which removes or significantly disturbs the vegetative cover, including clearing and grubbing operations and top soil stripping.

Subdivision regulations means the City of Brentwood document written to cover a wide range of activities related to subdivision and/or development of land within the City of Brentwood as included as appendix A of the zoning ordinance.

Substantial rebuild lot means a lot on which modification to an existing structure or the lot itself is proposed, including but not limited to, residential addition, swimming pool, or other accessory building or structure such that the increase in impervious surface is greater than or equal to 800 square feet.

TDEC means the Tennessee Department of Environment and Conservation.

USGS means the U.S. Geological Survey, an agency of the U.S. Department of the Interior.

Vegetative cover means grasses, shrubs, trees and other vegetation which hold and stabilize soils.

Wastewater means the discharge of any water or other liquid, other than uncontaminated stormwater.

Waterway natural area or *WNA* means the area adjacent to, on either side, an intermittent or perennial stream waterway, as determined by the city, state, or USGS topographic information that is to remain in its natural state to protect the quality and ecology of the stream.

SECTION 3. That Section 56-13 of the Code of Ordinances of the City of Brentwood, Tennessee is hereby amended to read as follows:

Sec. 56-13. Land disturbance plan.

A land disturbance plan required under the provisions of this article shall comply with the requirements set forth in this section. The complexity of the plan shall be commensurate with the severity of site conditions and potential for off-site damage. The engineering department may require additional information if deemed necessary and appropriate to evaluate the feasibility of the plan.

- (1) *Basic plan requirements.* The plan shall identify the specific and appropriate erosion control practices and sediment trapping facilities proposed for the site to be disturbed, as well as a schedule for implementation and maintenance. The plan shall address the specific requirements of sections 58-14 through 58-18 herein. The plan shall also identify final stabilized conditions for the site, provisions for removing temporary control measures and stabilization of the site when temporary measures are removed, permanent stormwater conveyance structures and maintenance requirements for any permanent measures.
- (2) *Professional design.* The land disturbance plan shall be developed by a licensed Tennessee professional engineer or landscape architect when the area of disturbance meets substantial rebuild lot requirements, is greater than five acres, affects parking areas, or when potentially hazardous soil or drainage conditions exist due to types of soils, steep grades, floodplain development or nearby lakes, streams or large drainage ditches.
- (3) *Erosion control.* Erosion control measures shall be designed and carried out in accordance with the TDEC construction general permit for storm water discharge and the requirements of the city's Best Management Practices Manual. Areas that are to be developed or excavated shall apply these guidelines, fitting the appropriate measures to the specific soils and topography so as to minimize soil erosion and surface water runoff. The erosion control measures shall be maintained, and replaced if necessary, until vegetative cover is significantly established.
- (4) *Protection of natural vegetation and trees.* Natural vegetation shall be retained and protected whenever feasible during construction. If an area is stripped of vegetation during construction, the exposed area shall be limited to the smallest practical size, and duration of the exposure limited to the shortest practical time.
- (5) *Minimum information required.* It shall be at the discretion of the city's engineering director to determine how much information is necessary to obtain a grading permit. The engineering director may also determine the number of paper copies of the land disturbance plan to be submitted, and/or may require that the plan be submitted in a specified electronic format. At a minimum, a land disturbance plan shall contain the following:

- a. The registration seal and signature of the Tennessee licensed professional engineer or landscape architect who prepared the plan.
- b. Name, address and telephone number of the applicant, and the owners and developer, if other than the applicant, of the property to be graded.
- c. Email address for the design engineer or landscape architect.
- d. A brief project description.
- e. Current field run topography and actual elevations based on an identified benchmark by a Tennessee licensed land surveyor. Drawings showing pre-development topographic conditions and post-development grades, at a scale appropriate to the land area of the plan, and with contour intervals no greater than two feet. All existing improvements and utilities public and private shown. The plan shall include off-site existing topographic conditions extended to a minimum of 25 feet beyond the boundaries of the subject tract if grading is designed to be within 20 feet of any boundary line. Information on all public roads and utilities adjoining the subject property shall also be included. Identification of existing trees in excess of four-inch caliper and trees to be preserved shall be shown.
- f. The site location, boundaries, adjacent properties, location of any existing or proposed structures on the property or on adjacent land within 100 feet of the area to be disturbed, floodplain areas, ditch lines and any existing on-site and off-site structural or natural features of the land which have a significant impact on drainage or sediment control.
- g. The location and a description of temporary and permanent erosion control measures and drainage apparatuses to be constructed and structural changes and improvements to the land, including clearing and grading limits, daily cleanup and site control practices (to include designated concrete washout locations and waste disposal measures) and other activities to mitigate the adverse impact of land disturbance.
- h. Vicinity map with legible street names. Address, and zoning in title block. Include subdivision and lot number where applicable. Adjacent lot numbers and parcel data. Include recorded plat book and page number in title block.
- i. Standard details to include typical drainage swales, silt fence, temporary construction entrance, tree protection, retaining walls (if applicable) sealed by a Tennessee licensed professional engineer for walls that are four feet or greater in height, and additional items as necessary to mitigate the adverse impact of land disturbance.
- j. Property lines with bearing and distances to two decimal places. Building setbacks, easements, and all public utilities shown, labeled and dimensioned.
- k. Proposed contours distinguishable from existing contours. Spot elevations as necessary for proposed improvements. Site elevations, existing LFE, proposed LFE, minimum LFE.
- l. Retaining walls greater than four feet in height shall be certified by a Tennessee licensed professional engineer upon completion. Retaining wall heights to meet Subdivision Regulation and Municipal Code requirements.
- m. Drainage for sites shall be designed by a Tennessee licensed professional engineer. Hydraulic and hydrologic data to meet Subdivision Regulation requirements. All existing and proposed drainage pipes (including gutter downspouts if extended more than ten feet from structure) shall be shown on the plan.
- n. Site improvements are subject to regulation and code requirements applicable to the type of improvement proposed.

SECTION 4. That the title of Chapter 56, Article II of the Code of Ordinances of the City of Brentwood, Tennessee is hereby amended to read as follows: "ARTICLE II. FLOOD DAMAGE PREVENTION".

SECTION 5. That Section 56-61 of the Code of Ordinances of the City of Brentwood, Tennessee is hereby amended to read as follows:

Sec. 56-61. Findings of fact.

The city hereby finds:

- (1) The city and its board of commissioners wish 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 (CFR), Ch. 1, Section 60.3.
- (2) Areas of the city 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.
- (3) Flood losses are caused by the cumulative effect of obstructions in floodplains, causing increases in flood heights and velocities; the cumulative effect of land use changes, resulting in increased runoff; uses in flood hazard areas which are vulnerable to floods; or construction which is inadequately elevated, floodproofed, or otherwise unprotected from flood damages.

SECTION 6. That Section 56-63 of the Code of Ordinances of the City of Brentwood, Tennessee is hereby amended to read as follows:

Sec. 56-63. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning. The definitions listed in this section apply exclusively to this article and are intended to provide assistance in the interpretation and enforcement of this article. Unless specifically defined below or elsewhere in this Code, words or phrases used in this article shall be interpreted as to give them the meaning they have in common usage and to give this article its most reasonable application, given its stated purpose and objectives.

100-year flood. See "base flood".

Accessory structure means a subordinate structure to the principal structure on the same lot and, for the purpose of this article, shall conform to the following:

- (1) Accessory structures shall only be used for parking of vehicles and storage.
- (2) Accessory structures shall be designed to have low flood damage potential.
- (3) Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters.

- (4) Accessory structures shall be firmly anchored to prevent flotation, collapse and lateral movement, which otherwise may result in damage to other structures.
- (5) Utilities and service facilities such as electrical, heating equipment and duct-work shall be elevated at or above the regulatory flood protection elevation or otherwise protected from intrusion of floodwaters.

Act means the statutes authorizing the NFIP that are incorporated in 42 U.S.C. 4001-4128.

Addition (to an existing building) means any walled and roofed expansion to the perimeter or height of a building. See "horizontal addition" and "vertical addition".

Administrator means the city manager or his designee, who shall be responsible for the implementation and administration of the provisions set forth herein for the special flood hazard area.

Appeal means a request for a review of a local enforcement officer's interpretation of any provision of this article or a request for a variance.

Area of shallow flooding means a designated AO or AH zone on a community's FIRM with one percent or greater annual chance of flooding to an average depth of one to three feet 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.

Area of special flood hazard. See "special flood hazard area".

Base flood means the flood having a one percent 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 annual chance flood.

Basement means any portion of a building having its floor subgrade (below ground level) on all sides.

Buildable area means the area of a lot remaining after the minimum yard requirements for the specific zoning district have been met.

Building means any manmade walled and roofed structure affixed to a permanent site. (See "structure".)

Code of Federal Regulations (CFR) means the codification of the general and permanent rules and regulations published in the Federal Register by the executive departments and agencies of the federal government.

Conditional letter of map revision (CLOMR) means a letter from FEMA commenting on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA). The letter does not revise an effective FIRM; it indicates whether the project, if built as proposed, would meet minimum NFIP standards (see Title 44, Chapter 1, CFR, Parts 60, 65, and 72) and be recognized by FEMA.

Conditional letter of map revision based on fill (CLOMR-F) means a letter from FEMA stating that a parcel of land or proposed structure that will be elevated by fill would not be inundated by the base flood if fill is placed on the parcel as proposed or the structure is built as proposed.

Deck means an above-grade platform attached anywhere other than the front entrance to a building, with or without a roof, which may have supporting columns but must be unenclosed by any walls, windows, glass or screening.

Declaration of Land Restriction (Nonconversion Agreement) means a form provided by the Administrator to be signed and recorded by the owner on the property deed with the Register of Deeds for Williamson County, for the owner to agree not to convert or modify in any manner that is inconsistent with the terms of the building permit and these regulations, enclosures below elevated buildings, attached garages or storage rooms, detached garages, or accessory structures.

Development means any manmade 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.

Development permit means any permit required for development activities under this Code, or under any other code which has been adopted by the city.

Elevated building means 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.

Erosion means the process of the gradual wearing away of land masses. This peril is not “per se” covered under the NFIP.

Exception means a waiver from the provisions of this article which relieves the applicant from the requirements of a rule, regulation, order or other determination made or issued pursuant to this article.

Existing construction means any structure for which the "start of construction" commenced before November 27, 1972 (the effective date of the initial floodplain management code adopted by the city as a basis for participation in the NFIP).

Existing structures. See "existing construction".

FEMA means the Federal Emergency Management Agency of the United States government.

Flood or flooding means:

- (1) General and temporary condition of partial or complete inundation of normally dry land areas from:
 - a. The overflow of inland waters.
 - b. The unusual and rapid accumulation or runoff of surface waters from any source.
 - c. Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph (1)b. of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.
- (2) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or 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 flash flood, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph (1)a. of this definition.

Flood elevation determination means a determination by FEMA of the water surface elevations of the base flood, that is, the flood level that has a one percent or greater chance of occurrence in any given year.

Flood elevation study means 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.

Flood insurance rate map (FIRM) means 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.

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

Floodplain or floodprone area means any land area susceptible to being inundated by water from any source (see definition of "flood").

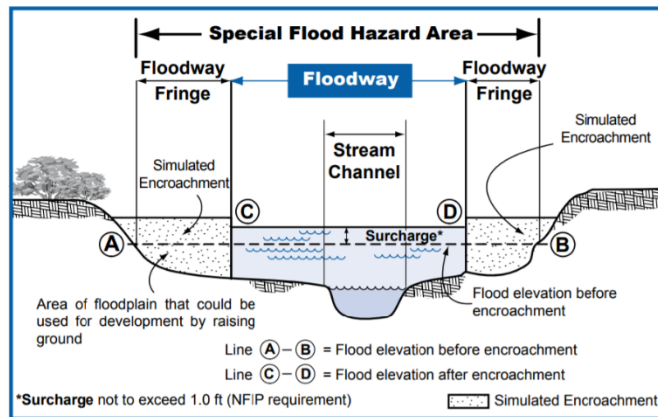
Floodplain management means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

Flood protection system means 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 special flood hazard area within a community and the depths of associated flooding. Such a system typically includes dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

Floodproofing means 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, utility facilities, and structures and their contents.

Floodway means 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 of 1 foot. (See Illustration #1.)

Illustration #1



Floodway encroachment lines mean the lines marking the limits of floodways on federal, state and local floodplain maps.

Floodway fringe means the area extending from the boundaries of the floodway to the outer boundary of the special flood hazard area, as depicted on a FIRM. (See Illustration #1.)

Freeboard means 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.

Functionally dependent use means 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.

Highest adjacent grade means the highest natural elevation of the ground surface, prior to construction, adjacent to the proposed walls of a structure.

Historic structure means any structure that is:

- (1) Listed individually in the National Register of Historic Places (i.e., 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;
- (2) 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 of the Interior to qualify as a registered historic district;
- (3) 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
- (4) Individually listed on the City of Brentwood or Williamson County, Tennessee inventory of historic places and determined as eligible by communities with historic preservation program that have been certified either:

- a. By the approved Tennessee program as determined by the Secretary of the Interior; or
- b. Directly by the Secretary of the Interior.

Horizontal addition (to an existing building) means any walled and roofed expansion to the perimeter of a building. See “addition” and “vertical addition”.

Letter of map amendment (LOMA) is a letter from FEMA officially amending the SFHA shown on the FIRM based on natural high ground that is above the base flood elevation.

Letter of map revision (LOMR) is a letter from FEMA officially revising the effective FIRM and FIS report based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective BFEs, or the SFHA.

Letter of map revision based on fill (LOMR-F) is FEMA's modification of the SFHA shown on the FIRM based on the placement of fill outside the existing regulatory floodway.

Levee means a manmade 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.

Lowest adjacent grade means the lowest natural elevation of the ground surface, prior to construction, adjacent to the proposed walls of a structure.

Lowest floor means the lowest floor of the lowest enclosed area, including a basement. An unfinished or flood resistant enclosure usable solely for parking of vehicles, building access or storage in an area other than a basement area, shall not be considered a building's lowest floor, provided that such enclosure is built in compliance with the applicable non-elevation design requirements of this article.

Manufactured home means a structure, transportable in one 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".

Manufactured home park or subdivision means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Map means the FIRM for a community issued by FEMA.

Mean sea level means 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 article, the term is synonymous with the North American Vertical Datum of 1988 (NAVD or NAVD88), to which base flood elevations shown on the city's FIRM are referenced.

National Flood Insurance Program (NFIP) means the National Flood Insurance Program authorized by 42 U.S.C. 4001-4128.

National Geodetic Vertical Datum of 1929 (NGVD or NGVD29) means a vertical control used as a reference for establishing varying elevations within the floodplain.

New construction means any structure for which the "start of construction" commenced on or after November 27, 1972 and includes any subsequent improvements to such structure.

New manufactured home park or subdivision means 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 November 27, 1972, or the date the property was first included within a special flood hazard area, whichever occurred later, and includes any subsequent improvements to such structures.

Nonsubstantial improvement means any reconstruction, rehabilitation, addition, alteration or other improvement of a structure in which the cost is less than fifty percent (50%) of the market value of the structure before the "start of construction" of the initial improvement, which is not deemed a "substantial improvement," as defined herein.

North American Vertical Datum of 1988 (NAVD or NAVD88) means a vertical control used as a reference for establishing varying elevations within the floodplain.

Person includes any individual or group of individuals, corporation, partnership, association, or any other entity, including state and local governments and agencies.

Porch means an above-grade platform attached at the front entrance to a building, with or without a roof, which may have supporting columns but must be unenclosed by walls, windows, glass or screening.

Reasonably safe from flooding means base floodwaters 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.

Recreational vehicle means a vehicle which is:

- (1) Built on a single chassis;
- (2) Four hundred square feet or less when measured at the largest horizontal projection;
- (3) Designed to be self-propelled or permanently towable by a light duty truck; and
- (4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Regulatory flood protection elevation means the "base flood elevation (BFE)" plus the "freeboard". In "special flood hazard areas" this elevation shall be the BFE plus three feet.

Regulatory floodway. See "floodway".

Riverine means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

Special flood hazard area (SFHA) is the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. The area may be designated on the FIRM as zones A, AO, AH, AE or A99.

Special hazard area means an area having special flood, mudslide (i.e., mudflow), or flood-related erosion hazards, and shown on a FIRM as zone A, AO, AH, AE, AR, AR/AE, AR/AO, AR/AH, AR/A, A99, VO, VE, V, M, or E.

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 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.

State coordinating agency means the Tennessee Emergency Management Agency, 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.

Structure, for purposes of the floodplain management provisions of this article, means a walled and roofed building, a manufactured home, or a gas or liquid storage tank that is principally above ground.

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial improvement means any reconstruction, rehabilitation, addition, alteration or other improvement of a structure, taking place during a five-year period, in which the cumulative cost equals or exceeds 50 percent 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 the value of the structure prior to the start of the initial improvement, or in the case of substantial damage, the value of the structure prior to the damage occurring. The market value can be based on: an appraisal of market value prepared within the previous 12 months by a Tennessee licensed real estate appraiser, 110% of the latest Market Appraisal Improvement Value determined by the Williamson County Property Assessor's Office, or an assessment of the structure's actual cash value (including depreciation) prepared within the previous 12 months. The term does not, however, include either:

- (1) 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
- (2) Any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure".

Variance is a grant of relief from the requirements of this article.

Vertical addition (to an existing building) means any walled and roofed expansion to the height of a building. See "addition and "horizontal addition".

Violation means the failure of a structure or other development to be fully compliant with the regulations set forth in this article. A structure or other development without the elevation certificate, other certification, or other evidence of compliance required in this article is presumed to be in violation until such time as that documentation is provided.

Water surface elevation means the height, in relation to the North American Vertical Datum of 1988 (NAVD88), of floods of various magnitudes and frequencies in the floodplains of riverine areas.

SECTION 7. That Section 56-64 of Code of Ordinances of the City of Brentwood, Tennessee is hereby amended to read as follows:

Sec. 56-64. Special flood hazard areas.

The special flood hazard areas for the city, as identified by FEMA, and in its FIS dated February 26, 2021 and FIRM Panel Numbers 47187C0086F, 47187C0087F, 47187C0088F, 47187C0089F, 47187C0091F, 47187C0204F, 47187C0205F, 47187C0206F, 47187C0207F, 47187C0208F, 47187C0209F, 47187C0220F and 47187C0240F, dated September 29, 2006, Panel Numbers 47187C0093G and 47187C0094G dated December 22, 2016, and Panel Numbers 47187C0115G, 47187C0230G, and 47187C0235G, dated February 26, 2021, along with all supporting technical data and any revisions by LOMRs approved by FEMA, are adopted by reference and declared to be a part of this article.

SECTION 8. That Section 56-70 of Chapter 56, Article II, Division 3, of the Code of Ordinances of the City of Brentwood shall be amended to read as follows:

Sec. 56-70. Penalties for violation.

- (a) Any person who violates the provisions of this article or fails to comply with any of its requirements, including any conditions and safeguards established in connection with grants of variance, shall be subject to punishment as provided in section 1-9 of this Code. In addition, any person who violates this article or fails to comply with any of its requirements shall pay all costs and expenses involved in the case. Each day any such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the city from taking such other lawful actions to prevent or remedy any violation.
- (b) Any structure or development without certification or other evidence of compliance required in this article is presumed to be in violation until such time as the required documentation is provided. Any structure or development for which the city's approval is required shall be in violation of this article if such approval is not obtained prior to the commencement of construction or development.

SECTION 9. That Section 56-77 of Chapter 56, Article II, Division 4, of the Code of Ordinances of the City of Brentwood shall be amended to read as follows:

Sec. 56-77. Duties and responsibilities of the administrator.

Duties of the administrator shall include, but not be limited to, the following:

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

- (3) Notify adjacent communities and the Tennessee Emergency Management Agency State NFIP Office prior to any alteration or relocation of a watercourse and submit evidence of such notification to FEMA.
- (4) For any altered or relocated watercourse, assure that engineering data/analysis are submitted within six months to FEMA to ensure accuracy of community FIRMs through the LOMR process.
- (5) Assure that the flood carrying capacity within an altered or relocated portion of any watercourse is maintained.
- (6) Record the elevation, in relation to NAVD88, or height above the highest adjacent grade, where applicable, of the lowest floor (including basement) of all new and substantially improved buildings, in accordance with section 56-78.
- (7) Where interpretation is needed as to the exact location of boundaries of the special flood hazard area (e.g., 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 article.
- (8) When base flood elevation data and floodway data have not been provided by FEMA, including areas designated zone A on the community's FIRM, require development permit applicants to provide certification of base flood elevation and floodway data by a Tennessee licensed professional engineer, to assure that new construction, substantial improvements, or other development in special flood hazard areas on the city's FIRM meet the requirements of this article.
- (9) Maintain all records pertaining to the provisions of this article in the office of the administrator and provide for such records to be open for public inspection. Permits issued under the provisions of this article shall be maintained in a separate file or marked for expedited retrieval within combined files.
- (10) A final finished construction elevation certificate (FEMA Form 086-0-33, or most current version thereof) is required after construction is completed and prior to certificate of compliance/occupancy issuance. It shall be the duty of the permit holder to submit to the floodplain administrator a certification of final as-built construction of the elevation of the reference level and all attendant utilities. The floodplain administrator shall review the certification data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to certificate of compliance/occupancy issuance. In some instances, another certification may be required to certify corrected as-built construction. Failure to submit the certification or failure to make required corrections shall be cause to withhold the issuance of a certificate of compliance/occupancy. The finished construction elevation certificate certifier shall, at a minimum, comply with the FEMA instructions for completing the elevation certificate.

SECTION 10. That Section 56-78 of the Code of Ordinances of the City of Brentwood, Tennessee is hereby amended to read as follows:

Sec. 56-78. Permit procedures.

- (a) Application for a development permit shall be made to the administrator on forms furnished by the city prior to any development activities within a special flood hazard area. The development permit application requirements shall include, but are not limited to, the following: plans in duplicate drawn to scale and prepared by a Tennessee licensed land surveyor or professional engineer, 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. The requirements herein shall be in addition to any and all requirements for development permits that may be imposed pursuant to other provisions of this Code. The following information is specifically required for permits for development within special flood hazard areas:

(1) Application stage.

- a. Proposed elevation in relation to NAVD88, or height above the highest adjacent grade, where applicable, of the proposed lowest floor, including basement, of all buildings where base flood elevations are available.
- b. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development. For projects proposing to alter or relocate a portion of a watercourse, the application must include:
 1. Notification of adjacent communities and the Tennessee Emergency Management Agency State NFIP Office of the extent of the proposed alteration or relocation of the watercourse.
 2. Hydrologic and hydraulic analyses performed in accordance with standard engineering practices demonstrating that:
 - (i) The flood carrying capacity within any altered or relocated portion of the watercourse is maintained.
 - (ii) The cumulative effect of the proposed alteration or relocation within the floodway, including floodways established per subsection (a)(1)c. of this section, shall not result in any increase (0.00') in the water surface elevation of the base flood during the occurrence of a base flood discharge at any point within the city.
 - (iii) These analyses shall be certified by a Tennessee licensed professional engineer, and include all supporting technical data and certification that the requirements of this subsection have been met, using the same methodologies as in 44 CFR 60.3(d)(3).
 3. In lieu of meeting the requirements of subsection (a)(1)b.2(ii) of this section, a CLOMR submitted in accordance with 44 CFR 60.3(d)(4) and 65.12, and approved by FEMA, provided that:
 - (i) The administrator shall be satisfied that the impacts demonstrated by hydrologic and hydraulic analyses performed in accordance with standard engineering practices, and certified by a Tennessee licensed professional engineer, do not adversely impact adjacent properties.
 - (ii) The complete CLOMR application is reviewed and approved by the administrator prior to submittal to FEMA.
 - (iii) All subsequent data submitted to FEMA, prior to approval of the CLOMR by FEMA, is submitted to the administrator.

- c. For any location within a special flood hazard area where base flood elevation data is not initially available, including areas designated zone A on the community's FIRM, or where the floodway has not been delineated, a Tennessee licensed professional engineer shall determine the base flood elevation and establish the limits of the regulatory floodway. The engineer's certification shall be submitted with the permit application.
 - d. In order to determine if improvements or damage meet the substantial improvement or substantial damage criteria, the applicant shall provide to the floodplain administrator a detailed cost to repair all damages and/or cost of improvements which includes the complete costs associated with all types of work necessary to completely repair or improve a building. These include the costs of all materials, labor, and other items necessary to perform the proposed work. These must be in the form of:
 - 1. An itemized cost of materials and labor, or estimates of materials and labor, that are prepared by licensed contractors or professional construction cost estimators.
 - 2. Building valuation tables published by building code organizations and cost-estimating manuals and tools available from professional building cost-estimating services.
 - 3. A qualified estimate of costs that is prepared by the local official using professional judgement and knowledge of local and regional construction costs.
 - 4. A detailed cost estimate provided and prepared by the building owner. This must include as much supporting documentation as possible (e.g., pricing information from lumber companies, plumbing and electrical suppliers, etc.). In addition, the estimate must include the value of labor, including the value of the owner's labor.
 - e. For projects proposing to enclose areas below elevated buildings, construct an attached garage or storage room, or construct a detached garage or accessory structure, include signed Declaration of Land Restriction (Nonconversion Agreement); the agreement shall be recorded by the owner on the property deed prior to certificate of compliance/occupancy issuance.
- (2) *Construction stage.*

- a. Elevation of the lowest floor relative to NAVD88, as determined by or under the direct supervision of a Tennessee licensed land surveyor and certified by a Tennessee licensed land surveyor, to be provided upon completion of the foundation. Should the elevation of the lowest floor be lower than the proposed elevation on the approved permit, construction shall be discontinued until corrective action has been taken or the administrator is otherwise satisfied that the lowest floor elevation will comply with the provisions of this article. The administrator shall record the elevation of the lowest floor on the development permit.
- b. For all new construction and substantial improvements, the permit holder shall provide to the administrator a final finished construction elevation certificate (FEMA Form 086-033). A final finished construction elevation certificate is required after construction is completed and prior to certificate of compliance/occupancy issuance. It shall be the duty of the permit holder to submit to the floodplain administrator a certification of final as-built construction of the elevation of the reference level and all attendant utilities. The administrator will keep the certificate on file in perpetuity.
- c. Where filling has been permitted for a new subdivision, a post-construction LOMR-F shall be submitted to the administrator after construction is complete. The final plat shall not be recorded until the administrator receives a copy of the LOMR-F as approved by FEMA. In lieu of a LOMR-F, a copy of a LOMR, as approved by FEMA, may be provided.

- d. For all projects altering or relocating a watercourse, a post-construction LOMR shall be submitted to the administrator after construction is complete, per section 56-77(4) and in accordance with 44 CFR 65.3. A portion of the performance security instrument held by the city for a subdivision or other new development shall be maintained, in an amount to be determined by the administrator, until the administrator receives a copy of the LOMR as approved by FEMA.
- (b) Any work undertaken prior to submission of any required engineer's 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.

SECTION 11. That Section 56-81 of the Code of Ordinances of the City of Brentwood, Tennessee is hereby amended to read as follows:

Sec. 56-81. General standards.

In all special flood hazard areas, the following provisions are required:

- (1) New construction and substantial improvements shall be anchored to prevent flotation, collapse and lateral movement of the structure.
- (2) 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 and local anchoring requirements for resisting wind forces.
- (3) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- (4) New construction and substantial improvements shall be constructed by methods and practices that minimize flood damage.
- (5) All electrical, heating, duct-work, ventilation, plumbing, air conditioning equipment and other service facilities shall be elevated at or above the regulatory flood protection elevation. Where underground service or feeder conductors are supplied to the structure, a conduit(s) for the main service from the ground to the structure is permitted so long as it is water-tight and extends continuously from the ground to a point above the regulatory flood protection elevation.
- (6) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
- (7) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters.
- (8) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.

- (9) Any alteration, repair, reconstruction or improvements to a building that is in compliance with the provisions of this article shall meet the requirements of "new construction" as contained in this article.
- (10) Any alteration, repair, reconstruction or improvements to a building that is not in compliance with the provisions of this article shall be undertaken only if said nonconformity is not further extended or replaced.
- (11) All new construction and substantial improvement proposals shall include and 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.
- (12) All subdivision proposals and other proposed new development proposals shall meet the standards of section 56-82.
- (13) When proposed new construction and substantial improvements are partially located in a special flood hazard area, the entire structure shall meet the standards for new construction in a special flood hazard area.
- (14) When new construction and substantial improvements are proposed for a location that lies in multiple special flood hazard area zones or in a special flood hazard area zone with multiple base flood elevations, the entire structure shall meet the standards for the most hazardous special flood hazard area zone and the highest base flood elevation.
- (15) Proposals for new construction, substantial improvements, subdivisions and other new developments, including manufactured home parks, shall be reviewed to determine whether such proposals will be reasonably safe from flooding and that compliance with the above provisions of this section will be achieved. All such proposals shall meet the following standards:
 - a. Each proposal shall be consistent with the need to minimize flood damage.
 - b. Each proposal shall have public utilities and facilities, such as sewer, gas, electrical and water systems, located and constructed to minimize or eliminate flood damage.
 - c. Each proposal shall have adequate drainage provided to reduce exposure to flood hazards.
 - d. Each proposal shall include base flood elevation data. (See section 56-78.)
 - e. Subdivision proposals shall not contain special flood hazard areas within the buildable area of the lots.
- (16) The final plat shall not be recorded until the administrator receives a copy of the LOMR-F, as approved by FEMA, where required by section 56 78(a)2.
- (17) A portion of the performance security instrument held by the city for a subdivision or other new development shall be maintained, in an amount to be determined by the administrator, until the administrator receives a copy of the LOMR as approved by FEMA, where required by section 56-78(a)2.
- (18) All elevation requirements required of this article must be certified by a Tennessee licensed land surveyor. The certification must be on the most current FEMA elevation certificate.
- (19) All floodproofing requirements required of this article must be certified by a Tennessee licensed professional engineer or architect. The certification must be on the most current FEMA floodproofing certificate.

SECTION 12. That Section 56-82 of the Code of Ordinances of the City of Brentwood, Tennessee is hereby amended to read as follows:

Sec. 56-82. Specific standards for areas other than the floodway.

In all special flood hazard areas other than the floodway, the following provisions, in addition to those set forth in section 56-81, shall apply:

(1) *Residential or nonresidential buildings.*

- a. In areas where base flood elevation data is available, new construction and substantial improvement of any nonresidential (including commercial, industrial and institutional) or residential building (or manufactured home), or horizontal addition to such buildings, may be permitted, provided that the lowest floor, including basement, shall be elevated to no lower than three feet above the base flood elevation.

Exception: For any nonresidential (including commercial, industrial and institutional) or residential building (or manufactured home) which was permitted as new construction or substantial improvement after January 16, 2003, but prior to [ordinance adoption date], and for which it is demonstrated that the lowest floor, including basement, is no lower than two feet above the base flood elevation, substantial improvement may be permitted without requiring the lowest floor, including basement, be elevated to no lower than three feet above the base flood elevation.

Solid foundation perimeter walls or piers may be used to elevate a structure, provided that:

1. Openings sufficient to facilitate equalization of flood hydrostatic forces on both sides of exterior walls shall be provided in accordance with subsection (2) of this section.
 2. The minimum number of piers necessary to structurally support the building shall be used, and piers shall be designed to provide the least resistance to the flow of water.
 3. In no event shall the elevated height of any residential building exceed 52 feet as measured from the highest point of the roof to the lowest adjacent grade.
- b. Within special flood hazard areas where base flood elevations have not been established, or where no floodways have been designated, no construction may be permitted until a Tennessee licensed professional engineer has determined the base flood elevation and established the limits of the regulatory floodway. Once the base flood elevation and floodway location have been established in accordance with standard engineering practices, construction shall comply with the building elevation requirements set forth in subsection (1)a. of this section.
- (2) *Enclosures below the lowest floor.* All new construction and substantial improvements that include fully or partially enclosed areas formed by foundation and walls below the lowest floor shall be designed to allow for the entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls.
- a. Designs for complying with this requirement must either be certified by a Tennessee licensed professional engineer or architect or meet or exceed the following minimum criteria:
 1. A minimum of two openings shall be provided, on at least two exterior walls, having a total net open area of not less than one square inch for every square foot of enclosed area subject to flooding.

2. The bottom of all openings shall be no higher than one foot above the higher of the exterior or interior finished grade or floor immediately below the opening.
3. Openings may be equipped with screens, louvers, valves or other coverings or devices, provided they permit the automatic flow of floodwaters in both directions.
- b. A Declaration of Land Restriction (Nonconversion Agreement) shall be recorded by the property owner for enclosed areas that exceed four feet in height, measured from the lowest adjacent grade to the top of lowest floor.
- c. The interior portion of such enclosed area may be used solely for parking, building access or storage, but shall not be finished or partitioned into separate rooms in such a way as to impede the movement of floodwaters. Any partitions shall comply with the provisions of this section.
- (3) *Garages, storage rooms, and accessory buildings.* Attached garages, attached storage rooms, and accessory buildings (including detached garages), whose floor is less than the regulatory flood protection elevation, shall be designed to allow for the entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls.
 - a. Designs for complying with this requirement shall comply with the requirements set forth in subsection (2)a. of this section.
 - b. A Declaration of Land Restriction (Nonconversion Agreement) shall be recorded by the property owner for any enclosed area in excess of 200 sq. ft.
 - c. The interior portion of such enclosed area shall comply with the requirements set forth in subsection (2)c. of this section.
 - d. Accessory buildings (including detached garages) shall also comply with the requirements set forth in Sec. 78-22. Any livable space, as permitted by Sec. 78-22, shall comply with the requirements set forth in subsection (1) of this section.
- (4) *Standards for manufactured homes and recreational vehicles.*
 - a. All manufactured homes must meet all the requirements for new construction, whether placed or substantially improved:
 1. On individual lots or parcels; or
 2. In new, substantially improved, existing, and expansions to existing manufactured home parks or subdivisions.
 - b. All manufactured homes placed or substantially improved on an individual lot or parcel or in a manufactured home park or subdivision must be elevated so that the lowest floor of the manufactured home lies on a permanent foundation no lower than three feet above the base flood elevation or three feet above the highest adjacent grade, whichever is higher.
Exception: For any manufactured home which was permitted as new construction or substantial improvement after January 16, 2003, but prior to [ordinance adoption date], and for which it is demonstrated that the lowest floor lies on a permanent foundation no lower than two feet above the base flood elevation, substantial improvement may be permitted without requiring the lowest floor be elevated to no lower than three feet above the base flood elevation or three feet above the highest adjacent grade.
 - c. Any manufactured home which has incurred "substantial damage" as the result of a flood must meet the standards of this division.
 - d. All manufactured homes must be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.
 - e. All recreational vehicles placed in an identified special flood hazard area must either:

1. Be on the site for fewer than 180 consecutive days;
 2. 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
 3. Meet all requirements for new construction.
- (5) *Compensatory cut and fill.*
- a. Engineered fill may be permitted at locations outside the floodway. The volume of material shall be based upon an equal cut/fill quantity, so that the total amount of fill material added shall equal the amount of material removed. The location of the cut must be hydraulically connected to the location of the fill, and the location of the cut must have a base flood elevation no lower than the base flood elevation of the location of the fill, unless hydrologic and hydraulic analyses performed in accordance with standard engineering practices and certified by a Tennessee licensed professional engineer is provided, demonstrating that an alternate location of the cut will not result in any increase (0.00') in the water surface elevation of the base flood during the occurrence of a base flood discharge at any point within the city. For lots governed by the Subdivision Regulations of the City of Brentwood, the building pad for each affected lot shall be filled to an elevation that equals or exceeds the regulatory flood protection elevation at that location. Approval for filling may be granted only if the administrator determines that the fill material will not unduly increase flood damage potential, and that the amount and dimensions of fill material in any location is not greater than is necessary to achieve the purpose of the fill as demonstrated in the plan submitted by the applicant.
 - b. In granting approval to fill property within the special flood hazard area, the administrator shall require that measures be taken against erosion through the use of rip-rap, vegetative cover, bulk heading, or other suitable means.
 - c. Where filling has been permitted on a platted lot, an as-built survey showing compliance with this division must be submitted to the administrator before a building permit will be issued
 - d. Where filling has been permitted for a new subdivision, an as-built survey showing compliance with this division must be submitted to the administrator before the final plat is recorded. A copy of the LOMR-F, as required by subsection 56-78(a)(2)c, as approved by FEMA, must be submitted to the administrator before the final plat is recorded.
- (6) *Private utility facilities.* In lieu of elevation, private utility facilities, including heating and air conditioning equipment and pool equipment, may be floodproofed and located and designed so as to minimize or eliminate flood damage. The administrator shall require certification by a Tennessee licensed professional engineer or architect that the floodproofing, location and/or design of the utility facilities are in accordance with accepted standards of practice for meeting the provisions of this article.
- (7) *Fences.* With the approval of the administrator, fences may be erected at any location within the special flood hazard area other than the floodway, provided that the fence is an open fence in compliance with Sec. 78-10 and the administrator shall be satisfied that the fence is designed so as not to interfere with the flow of floodwaters.

SECTION 13. That Section 56-83 of the Code of Ordinances of the City of Brentwood, Tennessee is hereby amended to read as follows:

Sec. 56-83. Special standards for floodways.

Located within the special flood hazard areas established in section 56-64 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 in addition to general standards set forth in this article:

- (1) Except as otherwise permitted in subsections (2), (3), (4), (5), (6), and (7) below, encroachments are prohibited within the floodway, including: earthen fill material, new construction, substantial improvements, decks or above-grade patios outside the existing building footprint, manufactured homes or recreational vehicles, and any other development.
- (2) Fences may be permitted, provided that:
 - a. The lot is three or more acres in size and is being utilized for an agricultural use related to animal husbandry,
 - b. The fence is an open fence in compliance with Sec. 78-10,
 - c. It is demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the cumulative effect of the proposed fence encroachments shall not result in any increase (0.00') in the water surface elevation of the base flood, velocities or floodway widths during the occurrence of a base flood discharge at any point within the city. The property owner shall submit certification from a Tennessee licensed professional engineer that the requirements of this subsection have been met, along with supporting technical data, using the same methodologies as in 44 CFR 60.3(d)(3),
 - d. When substantial repair (greater than 50 percent rebuilding) of any existing fence not conforming to the provisions of this section and Sec. 78-10 is needed, including fences partially within the floodway, the portion of the existing fence within the floodway shall be completely removed and not replaced, and
 - e. The fences shall be completely removed within one year of the lot no longer being utilized for an agricultural use related to animal husbandry.
- (3) The elevation of an existing building shall be permitted, provided that:
 - a. The building, including additions or above-grade patios, shall be limited to the existing footprint,
 - b. The building shall comply with the requirements set forth in section 56-82(1) and (2),
 - c. The height of any perimeter wall used to elevate a building shall not exceed four feet, measured from the lowest adjacent grade to the top of lowest floor,
 - d. The minimum number of piers necessary to structurally support the building shall be used, and piers shall be designed to provide the least resistance to the flow of water,
 - e. When the height of the building is elevated greater than four feet, measured from the lowest adjacent grade to the top of lowest floor, a single front wall façade with flood vents may be added in conjunction with piers used to support the structure. The number, size and location of vents must be approved by the administrator. The sides and rear of the structure may not be enclosed, and the building must be supported by the minimum number of piers to support

- the structure. For the purpose of this section, the front of the structure will be the elevation facing the street and parallel to the front building setback line, and
- f. It is demonstrated through hydrologic and hydraulic analysis performed in accordance with standard engineering practices that the cumulative effect shall not result in any increase (0.00') to the water surface elevation of the base flood, velocities or floodway widths during the occurrence of a base flood discharge at any point within the community. Certification thereof by a Tennessee licensed professional engineer, along with supporting technical data, shall be provided to the administrator before construction or placement may be initiated.
- (4) For an elevated building that complies with the requirements set forth in subsection (3) of this section, a deck that has its finished floor at least three feet above the 100-year flood elevation may be allowed. Any deck permitted pursuant to this subsection shall not have a roof and must be attached to the building and located in the rear buildable area of the lot. For a building with an existing outdoor roofed area, the existing roof may remain, provided the roof is completely connected to the building and is elevated with the building, as-is. The existing roof may cover any deck permitted pursuant to this subsection, provided that it includes a signed Declaration of Land Restriction (Nonconversion Agreement); the agreement shall be recorded by the property owner on the property deed prior to certificate of compliance/occupancy issuance. For existing roofs not located in the rear buildable area of the lot, a deck may be permitted outside of the rear buildable area, provided the deck is within the footprint of the existing roof only. Safety railings no taller than 48 inches are allowed on top of the surface perimeter of the deck. Such permitted deck may only have the minimum ingress and egress to comply with the adopted building code. The deck must be open underneath, and the minimum number of piers or columns necessary to structurally support the deck shall be used. The piers or columns shall be designed to provide the least resistance to the flow of water. The support system for the deck must be designed by a Tennessee licensed professional engineer. For any deck with ground supports, landings, or stairs that touch the ground or extend below the 100-year flood elevation, a no-rise (0.00') certification must be provided by a Tennessee licensed professional engineer. All other jurisdictional permits, design and placement requirements per the adopted building and municipal codes apply.
 - (5) For an elevated building that complies with the requirements set forth in subsection (3) of this section, a porch that has its finished floor at least three feet above the 100-year flood elevation may be allowed. Any porch permitted pursuant to this subsection must be attached at the front entrance to the building and located in the front buildable area of the lot. Safety railings no taller than 48 inches are allowed on top of the surface perimeter of the porch. Such permitted porch shall have a maximum footprint area equivalent to twenty-five percent (25%) of the front façade length of the home and eight (8) feet beyond the average front plane of the house. Stairs leading to such porch may not be larger than six (6) feet wide and one (1) foot deep; however, intermediate landings connecting two or more flights of straight stairs may be allowed provided they are no larger than 36 square feet. The porch, landing, and stairs must be open underneath, and the minimum number of piers or columns necessary to structurally support the porch, landing, and stairs shall be used. A front wall façade may be added but the sides must remain open. For the purposes of this subsection, the front of the porch, landing, and stairs will be deemed to be the elevation facing the street and parallel to the front building setback line. A no-rise (0.00') certification must be provided by a Tennessee licensed professional engineer. All other jurisdictional permits, design and placement requirements per the adopted building and municipal codes apply. Existing porches and landings that are larger

than the limitations provided herein can remain when a building is elevated, but they cannot be enlarged.

- (6) Nonsubstantial vertical additions to existing dwellings and nonsubstantial interior renovations within the existing building footprint may be permitted.
- (7) The construction or placement of certain structures, facilities and improvements identified below may be permitted by the administrator. Except where otherwise permitted by subsection 56-78(a)(1)b, such structures, facilities and improvements shall only be permitted if it is demonstrated through hydrologic and hydraulic analysis performed in accordance with standard engineering practices that their cumulative effect shall not result in any increase (0.00') to the water surface elevation of the base flood, velocities or floodway widths during the occurrence of a base flood discharge at any point within the community. Certification thereof by a Tennessee licensed professional engineer, along with supporting technical data, shall be provided to the administrator before construction or placement may be initiated. Structures, facilities and improvements permitted under these provisions shall be limited to:
 - a. Roads, sidewalks, bicycle/pedestrian paths and associated signs.
 - b. Drainage structures, including but not limited to bridges and culverts.
 - c. Other public infrastructure needs, including public utilities.
 - d. Parks and recreational facilities, including but not limited to open shelters, basketball courts and athletic fields.
 - e. Driveways and parking areas.

SECTION 14. That Section 56-86 of the Code of Ordinances of the City of Brentwood, Tennessee is hereby amended to read as follows:

Sec. 56-86. Standards for unmapped streams.

Located within the city are unmapped streams where special flood hazard areas are neither indicated nor identified. Adjacent to such streams, the following provisions shall apply:

- (1) No encroachments, including fill material, structures, or other development, shall be located within an area of at least twice the width of the stream, measured from the top of each stream bank, unless hydrologic and hydraulic analyses performed in accordance with standard engineering practices and certified by a Tennessee licensed professional engineer is provided, demonstrating that the cumulative effect of the proposed development will not result in any increase (0.00') in the water surface elevation of the base flood during the occurrence of a base flood discharge at any point within the city.
- (2) If the stream and the adjacent area are subsequently identified as a special flood hazard area, all development, including new construction and substantial improvements, shall meet the standards established in accordance with divisions 4 and 5 of this article.

SECTION 15. That Section 56-87 of the Code of Ordinances of the City of Brentwood, Tennessee is hereby amended to read as follows:

Sec. 56-87. Requirements for shallow flooding areas (Zone AO).

Located within the special flood hazard areas established in division 3, section 56-64, are areas designated as shallow flooding areas. These areas, designated zone AO on the community's FIRM, have special flood hazards associated with base flood depths of one to three feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate. In addition to the requirements of division 5, sections 56-81, 56-82 and 56-83, all new construction, and substantial improvements shall meet the following requirements:

- (1) The lowest floor (including basement) shall be elevated at least as high as the depth number specified on the FIRM, in feet, plus a freeboard of three feet above the highest adjacent grade; or at least five feet above the highest adjacent grade, if no depth number is specified.
- (2) Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

SECTION 16. That Section 56-88 of the Code of Ordinances of the City of Brentwood, Tennessee is hereby amended to read as follows:

Sec. 56-88. Requirements for shallow flooding areas (Zone AH).

Located within the special flood hazard areas established in division 3, section 56-64, are areas designated as shallow flooding areas. These areas, designated zone AH on the community's FIRM, are subject to inundation by one-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are one to three feet. Base flood elevations derived from detailed hydraulic analyses are shown in this zone. In addition to meeting the requirements of division 5, sections 56-81, 56-82 and 56-83, all new construction and substantial improvements shall meet the following requirements:

- (1) Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.


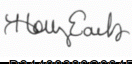
SECTION 17. That Section 56-89 of the Code of Ordinances of the City of Brentwood, Tennessee is hereby amended to read as follows:

Sec. 56-89. Standards for areas protected by flood protection system (A-99 Zones).

Located within the special flood hazard areas established in division 3, section 56-64, are areas designated as protected by a flood protection system but where base flood elevations have not been determined. These areas, designated zone A-99 on the community's FIRM, shall meet the requirements and standards established in accordance with divisions 4 and 5 of this article.

SECTION 18. If any section, subsection, clause, provision or portion of this ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, such holding shall not affect any other section, subsection, clause, provision or portion of this ordinance.

SECTION 19. That this ordinance shall take effect from and after its final passage and publication thereof, or fifteen days after its first passage, whichever occurs later, the general welfare of the City of Brentwood, Williamson County, Tennessee, requiring it.

PASSED:	1st reading	<u>05/22/2023</u>	PLANNING COMMISSION	<u>n/a</u>
	2nd reading	<u>06/12/2023</u>	NOTICE OF PASSAGE	
			Notice published in:	<u>Williamson Herald</u>
			Date of publication:	<u>06/15/2023</u>
PUBLIC HEARING			EFFECTIVE DATE	<u>06/15/2023</u>
Notice published in:	<u>n/a</u>			
Date of publication:	<u></u>			
Date of hearing:	<u></u>			
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MAYOR	Mark W. Gorman		RECORDER	Holly Earls

Approved as to form:

DocuSigned by:	
	
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CITY ATTORNEY	Kristen L. Corn