

CITY OF BELLEVUE, WASHINGTON

ORDINANCE NO. 6521

AN ORDINANCE amending the Bellevue Land Use Code to conform the frequently flooded areas regulations to current federal and state standards and to adopt the Federal Emergency Management Agency's updated countywide Flood Insurance Rate Maps and Flood Insurance Study, for the City's continued eligibility in the National Flood Insurance Program; providing for severability; and establishing an effective date.

WHEREAS, the City of Bellevue has participated in the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP) since 1978; and

WHEREAS, the United States Congress created the NFIP to minimize the rising disaster relief costs and to reduce the loss of life and property caused by flooding; and

WHEREAS, the NFIP is a voluntary program that provides reasonably-priced flood insurance to participating communities; and

WHEREAS, participation in the NFIP requires the City to conform its frequently flooded areas regulations in the Land Use Code (LUC) to current federal and state standards and to adopt FEMA's updated countywide Federal Insurance Rate Maps (FIRMs) and Federal Insurance Studies (FIS); and

WHEREAS, FEMA has prepared updated FIRMs and FIS for designated and mapped flood hazard areas to be effective August 19, 2020, including for the City; and

WHEREAS, on February 19, 2020, FEMA transmitted its Letter of Final Determination requiring the City to conform frequently flooded areas regulations in the LUC to current federal and state standards and to adopt FEMA's final FIRMs and FIS prior to the August 19, 2020 effective date; and

WHEREAS, the Washington State Department of Ecology (Ecology) in its role as the State Coordinating Agency conducted a review of the City's existing frequently flooded areas regulations in the LUC, and found the regulations needed to be amended in order to conform with federal and state standards; and

WHEREAS, the City desires to maintain its eligibility and participation in the NFIP to allow its residents and businesses to realize the benefits associated with NFIP participation; and

WHEREAS, the amendments contained herein are limited to those changes to the LUC that are required by FEMA and Ecology to conform the frequently flooded areas regulations in the LUC to current federal and state standards; and

WHEREAS, the amendments in this Ordinance do not impact the functions and values of the Area of Special Flood Hazard because there is no resulting change in the functions and values protected or method of protection under the City's critical areas ordinance, and therefore, the RCW 36.70A.172 requirement to include the best available science is not applicable; and

WHEREAS, on June 15, 2020, the City Council began review of LUC amendments to conform the frequently flooded areas regulations in the LUC to current federal and state standards, and the City Council found that it was necessary for the Council to hold the required public hearing associated with these LUC amendments; and

WHEREAS, the Environmental Coordinator for the City of Bellevue determined that the LUC amendments contained herein will not result in any probable significant adverse environmental impact; and

WHEREAS, the City complied with the State Environmental Policy Act (SEPA), Chapter 43.21C RCW, and the City's Environmental Procedures Code, Chapter 22.02 BCC, when it issued a final threshold determination of non-significance on July 2, 2020; and

WHEREAS, after providing legally-required public notice, the City Council held a public hearing on July 13, 2020 for the LUC amendments contained herein; and

WHEREAS, the City Council finds that the amendments contained herein meet the decision criteria of LUC 20.30J.135 and are consistent with the Comprehensive Plan, enhance the public safety and welfare, and are not contrary to the best interest of the citizens and property owners of the City of Bellevue; now, therefore,

THE CITY COUNCIL OF THE CITY OF BELLEVUE, WASHINGTON, DOES ORDAIN AS FOLLOWS:

Section 1. Section 20.25H.005 of the Bellevue Land Use Code is hereby amended to read as follows:

**20.25H.005 Scope.**

This part establishes standards and procedures that apply to development within the "Critical Areas Overlay District," which includes any site that is in whole or in part designated as a critical area or critical area buffer. All development within the Critical Areas Overlay District must be reviewed and approved pursuant to this part in addition to being subject to all other relevant standards of the Bellevue City Code.

Except for Frequently Flooded Areas, the Critical Areas Overlay District does not apply to the Downtown.

Section 2. Section 20.25H.055.B of the Bellevue Land Use Code is hereby amended to read as follows:

**B. Uses and Development Allowed within Critical Areas.**

The following chart lists uses and development that may be allowed in a critical area, critical area buffer, or critical area structure setback. The sections noted in the chart for each use or activity and critical area refer to the applicable performance standards that must be met.

		Type of Critical Area			
		Streams	Wetlands	Geologic Hazard Areas <sup>7</sup>	Frequently Flooded Areas
Allowed Use or Development	...				
	Reasonable use exception <sup>8</sup>	20.25H.080.A	20.25H.100	20.25H.125	20.25H.180.C 20.25H.180.D.7
	Recreational vehicle storage <sup>10</sup>				20.25H.180.C 20.25H.180.D.6
	Moorage and docks associated with a residential use				LUC 20.25E.065 <sup>14, 15</sup>

**Notes:**

...

(8) Except in frequently flooded areas, development authorized pursuant to a reasonable use exception, LUC 20.25H.190, shall incorporate the required performance standards to the maximum extent feasible. Development in frequently flooded areas shall incorporate the required performance standards, unless a Variance is granted pursuant to Part 20.30G.

...

Section 3. Section 20.25H.175.A of the Bellevue Land Use Code is hereby amended to read as follows:

## **A. Designation of Critical Area.**

All development within special flood hazard areas in the City of Bellevue is subject to the terms of this section and other applicable regulations. Frequently flooded areas shall be the greatest area identified in this subsection. In no case shall the extent or flood depths of a frequently flooded area be less than those identified on the current Flood Insurance Rate Maps.

Frequently flooded areas shall include:

1. Land Subject to One-Hundred-Year Flood. The land in the floodplain subject to the flood having a one percent chance or greater of being equaled or exceeded in any given year as determined by customary methods of statistical analysis defined in the City of Bellevue Storm and Surface Water Engineering Standards, now or as hereafter amended. Also referred to as the 100-year flood.
2. Areas Identified on the Flood Insurance Rate Map(s). Those areas identified by the Federal Insurance Administrator in a scientific and engineering report entitled "The Flood Insurance Study (FIS) for King County, Washington, and Incorporated Areas," dated August 19, 2020, with an accompanying Flood Insurance Rate Map(s) (FIRM(s)), dated August 19, 2020, and any revisions thereto. The FIS and accompanying FIRM(s) are hereby adopted by reference, declared part of Part 20.25H LUC, and are available for public review at the City of Bellevue. The best available information for flood hazard area identification as outlined in LUC 20.25H.175.A.6 shall be the basis for regulation until a new FIRM is issued that incorporates data utilized under LUC 20.25H.175.A.6.

...

Section 4. Section 20.25H.177 of the Bellevue Land Use Code is hereby amended to read as follows:

### **20.25H.177 Definitions.**

The following definitions are specific to the regulations for the frequently flooded areas in the Land Use Code and shall have the following meanings:

"Alteration of watercourse" means any action that will change the location of the channel occupied by water within the banks of any portion of a riverine waterbody.

"Area of special flood hazard" means the land in the floodplain within the City subject to a 1 percent or greater chance of flooding in any given year. It is shown on the Flood Insurance Rate Map (FIRM) as zone A, AO, AH, A1-30, AE, A99, AR (V, VO,

V1-30, VE). “Special flood hazard area” is synonymous in meaning with the phrase “area of special flood hazard”.

“Base flood” means the flood having a one percent change of being equaled or exceeded in any given year. Also referred to as the 100-year flood.

“Base flood elevation (BFE)” means the elevation to which floodwater is anticipated to rise during the base flood.

...

“Flood” or “flooding” means:

1. A general and temporary condition of partial or complete inundation of normally dry land areas from:
  - a. The overflow of inland waters; or
  - 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 number 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 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) and/or flood-related erosion hazards. Also known as a Flood Insurance Study (FIS).

“Flood Insurance Rate Map (FIRM)” means the official map delineating both special flood hazard areas and the risk premium zones applicable to the City that was prepared by the Federal Insurance Administrator for the City or as subsequently revised by the Federal Emergency Management Agency. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

“Floodplain or flood-prone area” means any land area susceptible to being inundated by water from any source. Floodplains are usually defined geographically on the basis of that area flooded by the most intense storm occurring during a certain period of years. Although floodwaters usually drain rapidly after precipitation has ceased, when floodwaters flow into wetland areas, they may be impounded for some time, due to the poor drainage characteristics of wetlands. See "Flood or flooding."

“Floodplain administrator” means the Director of the Development Services Department, or the designee thereof, responsible for administering and enforcing the floodplain management regulations, and granting or denying development permits on the basis thereof.

“Floodproofing” means any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents. Floodproofed structures are those that have the structural integrity and design to be impervious to floodwater below the Base Flood Elevation.

“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. Also referred to as "Regulatory Floodway."

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

“Historic structure” means any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the 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 to qualify as a registered historic district;
3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

- a. By an approved state program as determined by the Secretary of the Interior, or
- b. Directly by the Secretary of the Interior in states without approved programs.

...

“Lowest floor” means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking 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 nonelevation design requirements of this part found in LUC 20.25H.180.C.1.a.

...

“Mean Sea Level” means, for purposes of the National Flood Insurance Program, the vertical datum to which Base Flood Elevations shown on the City’s Flood Insurance Rate Map are referenced.

“New construction” means, for the purposes of determining insurance rates, structures for which the “start of construction” commenced on or after December 1, 1978 and includes any subsequent improvements to such structures. For floodplain management purposes, “new construction” means structures for which the “start of construction” commenced on or after the December 1, 1978 and includes any subsequent improvements to such structures.

“One-Hundred-Year Flood” See “Base flood elevation (BFE).”

...

“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 from the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include 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.

...

“Substantial improvement” includes the following: Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage,” regardless of the actual repair work performed. The term does not, however, include either (1) any project for improvement of a structure to correct previously identified existing violations of state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; 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” means a grant of relief by the City from the terms of a floodplain management regulation.

Section 5. Section 20.25H.178 of the Bellevue Land Use Code is hereby amended to read as follows:

**20.25H.178 Administration.**

- A. Designation of the Floodplain Administrator. The Director is appointed to administer, implement, and enforce the provisions of this chapter by granting or denying development permits in accordance with its provisions.
- B. Enforcement and penalty. The enforcement of the Frequently Flooded Areas provisions shall be in conformance with LUC 20.40.450 and the penalty provisions of LUC 20.40.460.
- C. Information to be obtained and maintained.
  - 1. Where base flood elevation data is provided through the FIS, FIRM, or as required by LUC 20.25H.175.A.6, the applicant shall obtain a record of the actual as-built elevation, in relation to mean sea level of the lowest floor, including basement, of all new or substantially improved structures, and whether or not the structure contains a basement. The Director shall maintain a record of this elevation.
  - 2. For all new or substantially improved flood proofed nonresidential structures where base flood elevation data is provided through the FIS, FIRM, or as required by LUC 20.25H.175.A.6, the applicant shall:



- a. Obtain and maintain a record of the elevation, in relation to mean sea level, to which the structure was flood proofed.
  - b. Maintain the flood proofing certification required by this chapter.
3. Certification is required for floodway encroachments.
4. Records of all variance actions, including justification for their issuance, are required.
5. Improvement and damage calculations are required.
6. The applicant shall maintain for public inspection all records pertaining to the provisions of this chapter.

Section 6. Section 20.25H.179 of the Bellevue Land Use Code is hereby amended to read as follows:

**20.25H.179 Development in the area of special flood hazard – Additional submittal requirements.**

The Director may waive specific submittal requirements determined to be unnecessary for review of an application. In addition to the provisions of LUC 20.25H.020, any application for development in Frequently Flooded Areas may be required to include, but not be limited to, the following:

- A. Elevation prepared by a surveyor licensed in the state of Washington in relation to mean sea level of the lowest floor, including basement, of all structures;
- B. Elevation prepared by a surveyor licensed in the state of Washington in relation to mean sea level to which any structure has been or will be floodproofed;
- C. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in LUC 20.25H.180.B and C;
- D. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development;
- E. Where development is proposed in a floodway, an engineering analysis indicating no rise of the BFE; and
- F. Any other such information that may be reasonably required by the Director to review the application.

Section 7. Section 20.25H.180 of the Bellevue Land Use Code is hereby amended to read as follows:

**20.25H.180 Development in the area of special flood hazard.**

Floodplain development approval required. No use, development or activity may occur in frequently flooded areas except as specifically allowed by this part. All use, development or activity which is allowed is subject to the performance standards of this section and shall not result in a rise in the BFE. The requirements of this section may only be modified through a Variance.

**A. Review of Proposed Development – Applicable Process.**

1. Critical Areas Land Use Permit. Proposals for development in frequently flooded areas shall require a Critical Areas Land Use Permit, Part 20.30P LUC. The Director shall determine that the requirements of this chapter have been satisfied; all necessary permits have been obtained from federal, state, or local agencies prior to approval; the site is reasonably safe from flooding, and the proposed development is not located in the floodway, or if located in the floodway, the development complies with the provisions of this chapter. The Director shall notify FEMA when annexations occur in frequently flooded areas.
2. Variance to the Frequently Flooded Areas provisions.
  - a. Applications to modify the requirements of LUC 20.25H.180 shall require a Variance Permit, Part 20.30G. The Director may approve or approve with modifications an application for a Variance from the requirements of LUC 20.25H.180 as set forth in LUC 20.30G.140.
  - b. All Variance records, including justification for approvals, shall be maintained in accordance with the City of Bellevue record retention policy. Upon approval of a Variance, the Director shall notify the applicant in writing the following:
    - i. That the issuance of a Variance to construct below the base flood elevation (BFE) will result in increased premium rates for flood insurance up to amounts as high as \$25 per \$100 of insurance coverage; and
    - ii. That such construction below the BFE increases risks to life and property.
3. Review of Development. Where elevation data is not available, either through the FIS, FIRM, or as provided in LUC 20.25H.175, applications for development in frequently flooded areas shall be reviewed to assure that

development will be reasonably safe from flooding. The test of reasonableness is a local judgement, which includes, but is not limited to, the use of historical data, high water marks, and photographs of past flooding where available.

## **B. General Performance Standards.**

Where use or development is allowed pursuant to LUC 20.25H.055, the following general performance standards apply, in addition to the applicable performance standards in subsection C of this section:

1. **Intrusion Over Frequently Flooded Areas Allowed.** Any structure may intrude over frequently flooded areas if:
  - a. The intrusion is located at least one foot above the BFE and does not alter the configuration of the frequently flooded area;
  - b. The intrusion is at an elevation and orientation which maintains the existing vegetation of the frequently flooded area in a healthy condition. Solar access to vegetation must be maintained at least 50 percent of daylight hours during the normal growing season; and
  - c. The intrusion does not encroach into the regulated floodway except in compliance with subsection B.5 of this section.  
Development not meeting the requirements of this subsection B.1 may be allowed pursuant to LUC 20.25H.055 and only in accordance with the requirements set forth in the remainder of this section B.
2. **Elevation Certificate Following Construction.** Following construction of a structure within a frequently flooded area, where the base flood elevation is provided, the applicant shall obtain an elevation certificate. The elevation certificate shall be completed by a surveyor licensed in the state of Washington and shall be submitted to City of Bellevue, Utilities Department. The Director shall obtain and transmit to the Director of the Utilities Department the elevation in relation to North American vertical datum (NAVD 88) of the lowest floor, including basement, and attendant utilities of a new or substantially improved structure permitted by this part. All records shall be maintained for public inspection in accordance with [44 C.F.R. 60.3\(b\)\(5\)\(iii\)](#).
3. **Construction Materials and Methods.**
  - a. **Site Design.** All structures, utilities, and other improvements shall be located on the buildable portion of the site out of the frequently flooded area unless there is no buildable site out of the frequently flooded area. For sites with no buildable area out of the frequently flooded area, structures, utilities, and other improvements shall be placed on the highest

land on the site, outside of the floodway, oriented parallel to flow rather than perpendicular, and sited as far from the stream and other critical areas as possible. If the Director detects any evidence of active hyporheic exchange on a site, the development shall be located to minimize disruption of such exchange.

b. Methods That Minimize Flood Damage.

- i. All new construction and substantial improvements shall be constructed using flood-resistant materials and using methods and practices that minimize or eliminate flood damage.
- ii. Building Mechanical Equipment. Unless otherwise specified in subsection C of this section, mechanical equipment, including but not limited to, electrical, heating, ventilation, plumbing, air-conditioning, and other service facilities, shall be dry floodproofed or elevated one foot or more above the BFE.

c. Utility Protection. Water wells shall be located on high ground that is not in the floodway; 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; and onsite waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

d. Anchoring.

- i. All new construction and substantial improvements, including those related to manufactured homes, shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads including the effects of buoyancy.
- ii. All manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors.

e. Enclosed Area Below the Lowest Floor. When buildings, including manufactured homes, are constructed or substantially improved with fully enclosed areas below the lowest floor, the areas shall be used solely for parking of vehicles, building access, or storage.

4. No Rise in the Base Flood Elevation (BFE). Any allowed use or development shall not result in a rise in the BFE.

- a. Post and Pile. Post and piling techniques are preferred and are presumed to produce no increase in the BFE so long as only posts or piles are located below the BFE. Demonstration of no net rise in the BFE through calculation is not required.
  - b. Compensatory Storage. Proposals using compensatory storage techniques to assure no rise in the BFE shall demonstrate no net rise in the BFE through the calculation by accepted engineering practice or methods established in the Utilities Storm and Surface Water Engineering Standards, Section D4-05.5, Floodplain/Floodway Analysis, whichever is more restrictive, now or as hereafter amended.
5. Development in the Regulatory Floodway.
- a. Encroachment into Regulatory Floodway Prohibited. A residential structure located partially within the regulatory floodway will be considered as totally within the regulatory floodway and must comply with this subsection B.5. Encroachments, including, but not limited to, fill, new construction, substantial improvements, and other development, are prohibited, unless a registered professional engineer certifies that the proposed encroachment into the regulatory floodway shall not result in any rise in the BFE using hydrological and hydraulic analysis performed in accordance with accepted engineering practice or City of Bellevue Storm and Surface Water Engineering Standards, whichever is more restrictive. All new construction and substantial improvements shall comply with this section.
  - b. Residential Structures. Construction or reconstruction of residential structures is prohibited within the regulatory floodway, except when:
    - i. Repairs, reconstruction, or improvements to a structure do not increase the footprint; and
    - ii. Repairs, reconstruction, or improvements to a structure, the cost of which do not exceed 50 percent of the market value of the structure either (1) before the repair, reconstruction, or improvement is begun, or (2) if the structure has been damaged, and is being restored, before the damage occurred. Work done to comply with state or local health, sanitary, or safety codes identified by the Building Official and which are the minimum necessary to assure safe living conditions or any alteration of a Historic Structure shall not be included in the 50 percent market value determination.
  - c. Substantially Damaged Residential Structures.

- i. The Director may request the Washington State Department of Ecology to assess the risk of harm to life and property posed by the specific conditions of the regulatory floodway, and provide the City with a recommendation on repair or replacement of a substantially damaged residential structure consistent with WAC 173-158-076, now or as hereafter amended. Property owners shall be responsible for submitting to the City any information necessary to complete the assessment when such information is not otherwise available. No repair or replacement of a substantially damaged residential structure located in the regulatory floodway is allowed without a recommendation from the Department of Ecology.
  - ii. Before the repair, replacement, or reconstruction is started, all requirements of this section must be satisfied. In addition, the following conditions shall be met:
    - (1) There is no potential safe building location for the replacement residential structure on the same property outside the regulatory floodway;
    - (2) A replacement residential structure is a residential structure built as a substitute for a previously existing residential structure of equivalent use and size;
    - (3) Repairs or reconstruction or replacement of a residential structure shall not increase the total square footage of floodway encroachment;
    - (4) The elevation of the lowest floor of the substantially damaged or replacement residential structure is a minimum of one foot higher than the base flood elevation;
    - (5) New and replacement water supply systems are designed to eliminate or minimize infiltration of flood water into the system;
    - (6) New and replacement sanitary sewerage systems are designed and located to eliminate or minimize infiltration of flood water into the system and discharge from the system into the flood waters; and
    - (7) All other utilities and connections to public utilities are designed, constructed, and located to eliminate or minimize flood damage.
6. Modification of Stream Channel. Alteration of open stream channels shall be avoided, if feasible. If unavoidable, the following provisions shall apply to the alteration:

- a. Modifications shall only be allowed in accordance with the habitat improvement projects.
  - b. Modification projects shall not result in blockage of side channels.
  - c. The City of Bellevue shall notify adjacent communities, the state departments of Ecology and Fish and Wildlife, and the Federal Insurance Administration about the proposed modification at least 30 days prior to permit issuance.
  - d. The applicant shall maintain the altered or relocated portion of the stream channel to ensure that the flood-carrying capacity is not diminished. Maintenance shall be bonded for a period of five years, and be in accordance with an approved maintenance program.
7. Compensatory Storage. Development proposals must not reduce the effective base flood storage volume of the area of special flood hazard. Grading or other activity that would reduce the effective storage volume must be mitigated by creating compensatory storage on the site. The compensatory storage must:
- a. Provide equivalent elevations to that being displaced;
  - b. Be hydraulically connected to the source of flooding;
  - c. Be provided in the same construction season and before the flood season begins on September 30th;
  - d. Occur on site or off site if legal arrangements can be made to assure that the effective compensatory storage volume will be preserved over time;
  - e. Be supported by a detailed hydraulic analysis that:
    - i. Is prepared by a licensed engineer;
    - ii. Demonstrates that the proposed compensatory storage does not adversely affect the BFE; and
  - f. Meet all other critical areas rules subject to this part. If modification to a critical area or critical area buffer is required to complete the compensatory storage requirement, such modification shall be mitigated pursuant to an approved mitigation and restoration plan, LUC 20.25H.210.
8. Floodplain Ecological Functions. The use or development shall meet National Flood Insurance Program requirements for the protection

of floodplain ecological functions in accordance with guidelines established by the Director. Floodplain ecological functions include, but are not limited to, stormwater quality, floodwater storage and conveyance capacity, and habitat.

9. Development containing 50 lots or five acres. Where detailed base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain either 50 lots or involve five acres, regardless of the number of lots.

### **C. Specific Performance Standards.**

In all areas of special flood hazards where BFE data has been provided as set forth in LUC 20.25H.175.A and where use or development is allowed pursuant to LUC 20.25H.055, the following specific performance standards apply:

1. New residential Construction, modification of Existing Development, and Existing Nonconforming Development. New Construction, lateral additions, and substantial improvements to existing development and existing nonconforming development is allowed only through a reasonable use exception, LUC 20.25H.190.
  - a. Residential Construction (Single-Family and Multifamily Dwellings), including new construction, Substantial Improvements, or reconstruction due to substantial damage. New Construction, Substantial improvements, and reconstruction due to substantial damage of any residential structure shall have the lowest floor, including basement, elevated one foot or more above the base flood elevation (BFE). Mechanical equipment and utilities, including but not limited to electrical, heating, ventilation, plumbing, air-conditioning, and other service facilities, shall be dry floodproofed or elevated one foot or more above the BFE. In an Unnumbered A zone for which a BFE is not available and cannot be reasonably obtained, the structure shall be reasonably safe from flooding, but in all cases the lowest floor shall be at least two feet above the Highest Adjacent Grade. Fully enclosed areas below the BFE that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:
    - i. A minimum of two openings having a total net area of not less than one square inch for every one square foot of enclosed area subject to flooding shall be provided.



- ii. The bottom of all openings shall be no higher than one foot above grade.
    - iii. Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the automatic entry and exit of flood waters.
    - iv. A garage attached to a residential structure, constructed with the garage floor slab below the BFE, must be designed to allow for the automatic entry and exit of floodwaters.
  - b. Pre-FIRM Buildings. Pre-FIRM buildings that qualify as a substantial improvement (including lateral additions) must meet the elevation standards of new construction.
2. Repair and Maintenance of Existing Parks and Park Facilities – New or Expanded City and Public Parks. Substantial improvement of any structure in frequently flooded areas must comply with the nonresidential performance standards found in this section.
  3. New or Expanded Essential Public Facilities.
    - a. The facility must be constructed in conformance with the residential and nonresidential construction standards of this subsection and be elevated to at least one foot above the BFE or in compliance with ASCE 24, whichever is more restrictive.
    - b. Dry floodproofing and sealing measures must be taken to ensure that hazardous or toxic substances will not be displaced by or released into flood waters.
  4. New or Expanded Public Rights-of-Way, Private Roads, Access Easements and Driveways.
    - a. The low chord on the bridge structure will be no less than the elevation of the BFE.
    - b. Access to essential public facilities must be elevated to or above the BFE to the nearest maintained public street or roadway.
  5. Changes to the Frequently Flooded Areas. If a project will alter the BFE or boundaries of the Special Flood Hazard Area (SFHA), then the project proponent shall provide the City with engineering documentation and analysis regarding the proposed change. If the change to the BFE or boundaries of the SFHA would normally require a Letter of Map Change, then the project proponent shall initiate, and receive approval of, a Conditional Letter of Map

Revision (CLOMR) prior to approval of the development permit. The project shall be constructed in a manner consistent with the approved CLOMR.

If a CLOMR application is made, then the project proponent shall also supply the full CLOMR documentation package to the Director to be attached to the floodplain development permit, including all required property owner notifications.

6. Recreational Vehicles. Recreational vehicles are required to either:
  - a. Be on the site for fewer than 180 consecutive days; and
  - b. Be fully licensed and ready for highway use on its wheels or jacking system, be attached to the site only by quick-disconnect-type utilities and security devices, and have no permanently attached additions; or
  - c. Obtain a development permit and meet the requirements, including elevation and anchoring, for manufactured homes.
7. Manufactured Homes. All manufactured homes to be placed or substantially improved or reconstructed due to substantial damage on sites shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot or more above the BFE. Mechanical equipment and utilities, including but not limited to, electrical, heating, ventilation, plumbing, air-conditioning, and other service facilities, shall be dry floodproofed or elevated one foot or more above the BFE. All manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors.
8. Nonresidential Construction. New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall meet the requirements of either subsection a or b of this section.
  - a. In AE and A1-30 zones or other A zoned areas where the BFE has been determined or can be reasonably obtained new construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall:
    - i. Have the lowest floor, including basement, elevated one foot or more above the BFE, or elevated as required by ASCE 24, whichever is greater. Mechanical equipment and utilities shall be waterproofed or elevated one foot or more above the BFE, or as required by ASCE 24, whichever is greater; and

- ii. If located in an Unnumbered A zone for which a BFE is not available and cannot be reasonably obtained, the structure shall be reasonably safe from flooding, but in all cases the lowest floor shall be two feet above the Highest Adjacent Grade.
- b. If the requirements of subsection a of this section are not met, new construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall:
  - i. Be dry floodproofed so that below one foot or more above the BFE the structure is watertight with walls substantially impermeable to the passage of water or dry floodproofed to the elevation required by ASCE 24, whichever is greater;
  - ii. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
  - iii. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications, and plans. Such certification shall be provided to the Development Services Department. Following construction of the structure, elevation certificates shall be submitted to the City that record the actual (as-built) elevation to which the structure was floodproofed. The City shall notify the applicant that insurance premiums will be based on rates that are one foot below the floodproofed level, and floodproofing the building an additional foot will reduce insurance premiums.
- c. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or fully enclosed areas below the BFE that are not floodproofed shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or must meet or exceed the following minimum criteria:
  - i. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;
  - ii. The bottom of all openings shall be no higher than one foot above grade;

- iii. Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the automatic entry and exit of flood waters; and
- iv. A garage attached to a residential structure, constructed with the garage floor slab below the BFE, must be designed to allow for the automatic entry and exit of flood waters.
- d. Lateral Additions. Lateral additions to structures that qualify as a substantial improvement must meet the elevation standards of new nonresidential construction. If the common wall between the lateral addition and the existing structure is demolished as part of the project, then the entire structure must meet the standards of new, nonresidential construction.
- e. Pre-FIRM Buildings. Pre-FIRM buildings that qualify as a substantial improvement (including lateral additions) must meet the elevation standards of new construction.

Section 8. Section 20.30G.140.C of the Bellevue Land Use Code is hereby amended to read as follows:

**C. Additional Decision Criteria – Variances from Standards Applicable to Areas of Special Flood Hazard.**

In addition to the decision criteria in subsections A and B of this section, a proposal to vary the requirements for areas of special flood hazard shall meet the following criteria:

- 1. A variance shall only be issued upon a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, nuisances, fraud on or victimization of the public, or conflict with existing laws or ordinances; and
- 2. For the repair, rehabilitation, or restoration of historic structures 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 to preserve the historic character and design of the structure; and
- 3. Upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief; and
- 4. Upon a showing of good and sufficient cause; and

5. Upon a determination that failure to grant the variance would result in exceptional hardship to the applicant; and
6. Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result; and
7. The granting of the variance will not foreseeably result in material being swept onto other lands that could cause injury to life or property; and
8. No other alternative development locations for the proposed structure or facility are available on the site that are not subject to flooding or erosion damage or reduced flooding and erosion; and
9. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the BFE, provided the requirements of LUC 20.25H.175-180 have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases; and
10. In considering variance applications, the Director shall consider all technical evaluations, all relevant factors, all standards specified in LUC 20.25H.180, and:
  - a. The danger that materials may be swept onto other lands to the injury of others;
  - b. The danger to life and property due to flooding or erosion damage;
  - c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
  - d. The importance of the services provided by the proposed facility to the community;
  - e. The necessity to the facility of a waterfront location, where applicable;
  - f. The availability of alternative locations for the proposed use, which are not subject to flooding or erosion damage;
  - g. The compatibility of the proposed use with existing and anticipated development;
  - h. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

- i. The safety of access to the property in time of flood for ordinary and emergency vehicles;
- j. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site; and
- k. 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 system, and streets and bridges.

Section 9. Section 20.45A.060.D.2 of the Bellevue Land Use Code is hereby amended to read as follows:

- 2. Subdivisions shall be designed to minimize or eliminate flood damage and impacts to floodplain functions and values. Public utilities and facilities that are installed as part of such subdivisions, such as sewer, gas, electrical, and water systems, shall be located and constructed to also minimize or eliminate flood damage and impacts to floodplain functions and values. Subdivisions should be designed using natural features of the landscape and should not incorporate flood protection changes.

Section 10. Section 20.45B.055.D.2 of the Bellevue Land Use Code is hereby amended to read as follows:

- 2. Short subdivisions shall be designed to minimize or eliminate flood damage and impacts to floodplain functions and values. Public utilities and facilities that are installed as part of such subdivisions, such as sewer, gas, electrical, and water systems, shall be located and constructed to also minimize or eliminate flood damage and impacts to floodplain functions and values. Short subdivisions should be designed using natural features of the landscape and should not incorporate flood protection changes.

Section 11. The definition of Floodplains in Section 20.50.020 of the Bellevue Land Use Code is hereby deleted.

Section 12. The definition of Floodway in Section 20.50.020 of the Bellevue Land Use Code is hereby deleted.

Section 13. The definition of Frequently Flooded Areas in Section 20.50.020 of the Bellevue Land Use Code is hereby deleted.

Section 14. Severability. If any section, subsection, paragraph, sentence, clause, or phrase of this ordinance is declared unconstitutional or invalid for any reason, such decision shall not affect the validity of the remaining parts of this Ordinance.

Section 15. Effective Date. This Ordinance shall take effect and be in force five (5) days after adoption and legal publication.

Passed by the City Council this \_\_\_\_\_ day of \_\_\_\_\_, 2020 and signed in authentication of its passage this \_\_\_\_\_ day of \_\_\_\_\_, 2020.

(SEAL)

\_\_\_\_\_  
Lynne Robinson, Mayor

Approved as to form:

Kathryn L. Gerla, City Attorney

\_\_\_\_\_  
Matthew McFarland, Assistant City Attorney

Attest:

\_\_\_\_\_  
Charmaine Arredondo, City Clerk

Published: \_\_\_\_\_