

ORDINANCE NO.

BILL NO. ____ (2023)

A BILL FOR AN ORDINANCE TO DELETE CHAPTER 19.62 AND CREATE A NEW CHAPTER IN TITLE 16, MAUI COUNTY CODE, RELATING TO FLOOD HAZARD AREAS

BE IT ORDAINED BY THE PEOPLE OF THE COUNTY OF MAUI:

SECTION 1. The purpose of this ordinance is to delete Chapter 19.62 and relocate Flood Hazard Areas to Title 16 of the Maui County Code.

SECTION 2. Maui County Code Chapter 16.29 [19.62] - FLOOD HAZARD AREAS

16.29.010[19.62.010] - Legislative intent.

- A. Within the County of Maui, certain areas are subject to periodic inundation by flooding or tsunami or both, resulting in loss of life and property, creation of health and safety hazards, disruption of commerce and governmental services as well as extraordinary public expenditures for flood and tsunami protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.
- B. The flood losses are caused by the cumulative effect of obstructions in areas of special flood hazard that increase flood heights and velocities, and, when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated, or otherwise protected from flood damage also contribute to flood loss.
- C. Congress has determined that regulation of construction in areas subject to flood hazards is necessary for the protection of life and property and reduction of public costs for flood control, rescue and relief efforts, thereby promoting the safety, health, convenience and general welfare of the community. In order to achieve these purposes, this chapter establishes flood hazard areas and imposes

restrictions upon man-made changes to improved and unimproved real estate within the areas. These restrictions are necessary to qualify the County of Maui for participation in the federal flood insurance program.

D. Failure to participate in the program would substantially increase the cost of flood insurance to individual residential and commercial property owners and result in the denial of federal financial assistance.

E. This chapter is designed to:

1. Protect human life and health and promote the general welfare.
2. Minimize expenditure of public money for costly flood control projects.
3. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.
4. Minimize prolonged business interruptions.
5. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard.
6. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard.
7. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

(Ord. No. 4411, § 1, 2017 ; Ord. 2223 § 1 (part), 1993: Ord. 1145 § 2 (part), 1981)

SECTION 3. 16.29.020 [19.62.020] - Statutory authority.

This chapter is enacted pursuant to the U.S. National Flood Insurance Act of 1968 (public laws 90-448 and 91-152), as amended, and the U.S. Flood Disaster Protection Act of 1973 (public law 93-234), as amended,

and chapter 46, Hawaii Revised Statutes.

(Ord. 2223 § 1 (part), 1993: Ord. 1145 § 2 (part), 1981)

SECTION 4. 16.29.030 [19.62.030] - Definitions.

Definitions contained in regulations governing the National Flood Insurance Program, 44 CFR 59 through 77, as amended, are incorporated by reference and made a part of this chapter as though set forth fully herein. Where terms are not defined in this chapter, they shall have their ordinary accepted meanings within the context in which they are used or as they are defined in chapter 19.04.040 [of this title]. The following words and terms used herein are only applicable to this chapter and are defined as follows:

"Architect" means a person who has a license to practice architecture in the State of Hawaii.

"Base flood" means the flood having a one percent chance of being equaled or exceeded in any given year (also called the "100-year flood").

"Base flood elevation" means the water surface elevation of the base flood.

"Basement" means any area of a building having its floor below ground level on all sides.

"Breakaway wall" means a wall that is not part of the structural support of a building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

"Coastal high hazard area" means a special flood hazard area subject to high velocity wave action from storms or seismic sources and designated on a flood insurance rate map (FIRM) as zone VE or V.

"Development" means any man-made change to improved or unimproved real estate, including walls, buildings, or other structures, filling, grading, excavation, mining, drilling operations, dredging, paving,

or storage of equipment or materials.

"Director" means the director of the department of [planning] public works, County of Maui, or the director's authorized representative.

"Encroachment" means the advance or infringement of uses, plant growth, fill, excavation, walls, buildings, permanent structures, or development into a floodplain which may impede or alter the flow capacity of a floodplain.

"Engineer" means a person who is licensed to practice civil or structural engineering in the State of Hawaii.

"FEMA" means Federal Emergency Management Agency.

"Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters, resulting from any source, such as tsunamis, or the unusual and rapid accumulation of runoff of surface waters or mud from any source.

"Flood insurance rate map (FIRM)" means the map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

"Flood insurance study" means the report provided by the Federal Insurance Administration that includes flood profiles, the flood insurance rate map, and the water surface elevation of the base flood.

"Floodproofing" means any combination of structural and nonstructural additions, changes, or adjustments to structures and properties that reduces flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents.

"Floodway" means the channel or 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 one foot.

"Floodway fringe" in a special flood hazard area in which a floodway is

designated, the floodway fringe means the area between the special flood hazard area boundary and the floodway boundary.

"General floodplain" means an area of special flood hazards for which detailed engineering studies were not performed by FEMA to determine the base flood elevations or to identify the floodways, and is identified as zones A, D, or V on the FIRM.

"Highest adjacent grade" means the highest natural elevation of the ground surface before construction next to the proposed walls of a structure.

"Historic structure" means a structure that is: (a) listed individually in the National Register of Historic Places or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; (b) certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the secretary to qualify as a registered historic district; (c) individually listed on a State inventory of historic places pursuant to a historic preservation program approved by the Secretary of Interior; or (d) individually listed on a local inventory of historic places pursuant to a historic preservation program certified either (1) by an approved State program as determined by the Secretary of the Interior, or (2) 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 of vehicles, building access, or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this chapter.

"Manufactured home" means a structure (other than a recreational vehicle), transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities.

"Market value" means the value determined by estimating the cost to replace the structure in new condition and adjusting that cost figure by the amount of depreciation that has accrued since the structure was constructed. In determining market value:

1. The cost of replacement of the structure shall be based on a square foot cost factor determined by reference to a building cost estimating guide recognized by the building construction industry.
2. The amount of depreciation shall be determined by taking into account the age and physical deterioration of the structure and functional obsolescence as approved by the director, but shall not include economic or other forms of external obsolescence.
3. Replacement costs or accrued depreciation factors different from those in recognized building cost estimating guides may be considered only if such costs or factors are included in a report prepared by an independent professional appraiser and supported by a written explanation of the differences.

"Mean sea level" means the Local Tidal Datum (LTD) also called local mean sea level or other datum, to which base flood elevations shown on a community's flood insurance rate map are referenced.

"New construction" means structures for which the "start of construction" commenced on or after the effective date of the ordinance codified in this chapter, as amended, and includes any subsequent improvements to such structures.

"Recreational vehicle" means a vehicle which is (a) built on a single chassis; (b) 400 square feet or less when measured at the largest horizontal projection; (c) designed to be self-propelled or permanently towable by a light duty truck; and (d) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

"Repetitive loss structure" means a structure that was damaged by flood two or more times within any ten-year period, where the cost of fully repairing the flood damage to the structure, on average, equaled or exceeded twenty-five percent of its market value at the time of each flood.

"Special flood hazard area (SFHA)" means an area having special flood or flood-related erosion hazards, and shown on a FIRM as zone A, AO, AE, AEF, A99, AH, D, VE, or V.

"Start of construction" includes substantial improvement and other proposed new development and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within one hundred eighty 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 footing, 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 or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erections 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, 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.

"Structure" means, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank that is principally above ground, and a manufactured home.

"Substantial damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damaged condition would equal or exceed fifty percent of the market value of the structure (excluding land) before the damage occurred.

"Substantial improvement" means any repair, replacement, reconstruction, rehabilitation, addition; or any series of repairs, replacement, reconstruction, rehabilitation, or additions; or other proposed new development of a structure or repetitive loss structure, in the ten-year period preceding the currently proposed improvement (but no earlier than September 25, 2009), the cumulative cost of which equals or exceeds fifty percent of the market value of the structure (excluding land) determined as follows:

For each improvement or proposed improvement ("improvement") the director shall establish the ratio expressed as a percentage, of the cost of improvement divided by the market value of the structure (excluding land) upon application for a flood development permit for the improvement. The director shall add the cumulative total of each of the individual percentages. If the cumulative total of percentages exceeds fifty percent then the improvements in the preceding ten-year period are substantial.

This term includes structures that have incurred "substantial damage," regardless of the actual repair work performed. An improvement shall constitute a substantial improvement only if:

1. The structure was constructed on or before June 1, 1981;
2. The structure was constructed after June 1, 1981 and was not within a special flood hazard area at the time of the issuance of the building permit;
3. The structure was constructed after June 1, 1981 and was the subject of a map change that resulted in higher base flood elevations; or
4. The structure was constructed after June 1, 1981 and was the subject of a map change that resulted in a FIRM zone change.

The following are exceptions to the above and do not constitute substantial improvement:

1. Any project for improvement of a structure to correct existing violations of State or County health, sanitary, or safety

specifications; or

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

"Surveyor" means a person who is licensed to practice surveying in the State of Hawaii.

"Violation" means the failure of a structure or other development to be fully compliant with this chapter. A structure or other development without a required elevation certificate, other certification, or other evidence of compliance with this chapter shall be presumed to be in violation until such time as the required certificate or other evidence of compliance is provided.

"Watercourse" means a stream, wash, channel, or other topographic feature on or over which waters flow at least periodically.

"Water surface elevation" means the height, in relation to the national geodetic vertical datum (NGVD) of 1929 (or other datum, where specific), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

"Zoning district" means a zoning district as established by the County of Maui zoning ordinances and a land use district as established by the State Land Use Commission, as applicable.

(Ord. No. 4411, § 1, 2017 ; Ord. No. 3687, § 1, 2009; Ord. 2223 § 1 (part), 1993; Ord. 1743 § 1, 1988; Ord.1624 § 1, 1987; Ord. 1292 § 1, 1983; Ord. 1145 § 2 (part), 1981)

SECTION 5. 16.29.040 [19.62.040] - Special flood hazard areas.

A. Applicability.

1. This chapter shall apply to all land within the special flood hazard areas and corresponding areas of special flood hazard delineated on the FIRM, as prepared by FEMA. The following special flood hazard areas are established:

- a. Floodway area (floodway in zone AEF).
 - b. Flood fringe area (zones AE, AH, AO).
 - c. Coastal high hazard area (zones V, VE).
 - d. General floodplain area (zones A, D, V).
- B. Identification of special flood hazard areas. The flood insurance rate map and flood insurance study effective September 25, 2009, and any subsequent revisions and amendments, are hereby adopted and declared to be part of this section, and shall be on file at the County of Maui, department of planning, 2200 Main Street, Wailuku, Maui, Hawaii 96793.
- C. Abrogation and greater restrictions. This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and another title or chapter of this code, easement, covenant, or deed restriction conflict, the more stringent restrictions shall prevail.
- D. Interpretation. All provisions of this chapter shall be considered as minimum requirements and liberally construed in favor of the County. This chapter neither limits nor repeals any powers granted under State statute.

(Ord. No. 4411, § 1, 2017 ; Ord. No. 3687, § 2, 2009; Ord. 2223 § 1 (part), 1993; Ord. 1145 § 2 (part), 1981)

SECTION 6. 16.29.045 [19.62.045] - Responsible County official.

The director of the department of [planning] public works shall be the official with the responsibility, authority, and means to implement the commitments required to implement the national flood insurance program.

(Ord. No. 4411, § 1, 2017)

SECTION 7. 16.29.050 [19.62.050] - Administration.

- A. Special flood hazard area development permit. A special flood hazard area development permit shall be obtained from the

director before construction of any development begins within any special flood hazard area, flood-related erosion hazard area, or mudslide (i.e., mudflow) area. Application for a permit shall be made on forms furnished by the director that may require: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevation of the area in question, existing or proposed structures, fill, stockpiles, and drainage facilities. The application shall require the following:

1. Proposed elevation, in relation to mean sea level, of the lowest floor (including basement) of all structures. In zone AO, elevation of highest adjacent grade and proposed elevation of lowest floor of all structures.
 2. Proposed elevation, in relation to mean sea level, to which any structure will be floodproofed.
 3. All appropriate certifications required under section 16.29.060 [19.62.060].
 4. Description of any anticipated watercourse alteration or relocation as a result of the proposed development.
- B. Permit review. The director shall review all special flood hazard development permit applications to determine the following:
1. That the requirements of this chapter have been satisfied.
 2. That the site is reasonably safe from flooding.
 3. That where base flood elevations have been determined but a floodway has not been designated, the cumulative effect of the proposed development (as certified by a civil engineer) when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood at any point.
 4. 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.
 5. That for proposed building sites in flood-prone areas where

special flood hazard areas have not been defined, water surface elevations have not been provided, and there is insufficient data to identify the floodway or coastal high hazard areas, but the director has determined that there are verifiable physical indications that such hazards are present, all new construction and substantial improvements (including the placement of manufactured homes) shall be:

- a. Designed and adequately anchored to prevent flotation, collapse, or lateral movement.
 - b. Constructed of flood-resistant materials.
 - c. Constructed by methods and practices that minimize flood damage.
 - d. Constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located at least one foot above the base flood elevation so as to prevent water from entering or accumulating within the components during conditions of flooding.
 - e. Constructed such that new and replacement utilities shall comply with the requirements of section 19.62.060.B.
- C. Use of other base flood data. Where base flood elevations have not been determined, the director shall obtain, review, and reasonably use any base flood elevation and floodway data available from a federal or state agency, or other source, in administering section 16.29.060 [19.62.060].
- D. Flood map revisions. Whenever the director determines that base flood elevations may increase or decrease due to a proposed development in a special flood hazard area, the owner of the property shall obtain a conditional letter of map revision from FEMA before the approval or issuance of any development permit, as follows:
1. If a floodway is not designated within the subject special flood hazard area, any development in the subject special flood

hazard area requires a conditional letter of map revision.

2. If a floodway is designated within the subject special flood hazard area and the development will cause a rise in the base flood elevation, a conditional letter of map revision is required. Development within the floodway fringe does not require a conditional letter of map revision.

A letter of map revision shall be obtained from FEMA whenever a development has increased or decreased the base flood elevation within any special flood hazard area. An application for a letter of map revision shall be submitted to FEMA no later than six months after the completion of a development.

- E. Watercourse alteration. Whenever a watercourse is to be altered or relocated, the director shall:
 1. For riverine situations, require the applicant to notify the State of Hawaii department of land and natural resources, commission on water resource management, before such alteration or relocation, and submit evidence of such notification to the Federal Insurance Administration and FEMA.
 2. Require that the flood-carrying capacity of the altered or relocated portion of the watercourse be maintained.
- F. Certifications. The director shall obtain and maintain for public inspection the certifications required under section 16.29.060 [19.62.060].
- G. Boundary determinations. The director shall determine, where needed, the exact location of boundaries of special flood hazard areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions).
 1. Where interpretation is needed as to whether or not a development lies within a special flood hazard area or as to the base flood elevation affecting a development, a request for such interpretation shall be submitted to the director. The request shall include a description of the development site, a location

plan showing the property lines and dimensions of the development, and a copy of the tax map showing the parcel upon which the development is proposed to be constructed. The director shall, where interpretation is possible from the information shown on the FIRM, issue written determination of the specific area boundaries and the base flood elevation.

2. Where, in the opinion of the director, interpretation is not possible from the information shown on the FIRM, the director shall require the applicant to provide more detailed information concerning the request for determination of flood boundaries and the base flood elevation. The additional information shall be submitted to the director and shall contain a recommendation certified by a civil engineer as to the flood area and base flood elevation that should apply to the proposed development and shall include three sets of documents certified by the engineer containing adequate data consistent with this chapter, such as flood and hydrology studies, project site and location plans, property maps showing lines and dimensions, tax maps, and topographic data including contours or spot heights based upon mean sea level. After review the director shall, in writing:
 - a. Inform the applicant that the detailed request contains inadequate data to make a determination as to flood area boundaries and base flood elevations, and specify the specific lack of data needed to resolve the question and decline to make a determination; or
 - b. Based upon the supporting data submitted with the request for interpretation and other available data, determine the flood area boundaries and the base flood elevations affecting the development.

(Ord. No. 4411, § 1, 2017 ; Ord. No. 3687, § 3, 2009; Ord. 2223 § 1 (part), 1993; Ord. 1624 § 2, 1987; Ord. 1145 § 2 (part), 1981)

SECTION 8. 16.29.060 [19.62.060] - Standards for development.

- A. Standards of construction. In special flood hazard areas the following standards shall be required:
1. Anchoring.
 - a. New construction and substantial improvements shall be adequately anchored to prevent flotation, collapse, or lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
 2. Construction materials and methods.
 - a. New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
 - b. New construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
 - c. New construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, air conditioning, and other service facilities that are designed or located at least one foot above the base flood elevation so as to prevent the entry and accumulation of floodwater.
 - d. New construction and substantial improvements within zones AH or AO shall provide adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.
 3. Elevation and floodproofing.
 - a. New construction and substantial improvements (except those in zone AO) shall have the lowest floor, including basement, elevated to at least one foot above the base flood elevation. Upon completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a

civil engineer or surveyor. FEMA's "elevation certificate" form, as amended, shall be used for the certification, and a copy provided to the director.

- b. New construction and substantial improvements in zone AO shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as one foot above the depth number specified in feet on the FIRM, or at least three feet if no depth number is specified. Upon completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a civil engineer or surveyor. FEMA's "elevation certificate" form, as amended, shall be used for the certification, and a copy provided to the director.
- c. Nonresidential construction shall either be elevated to conform with subparagraphs a or b of this paragraph or, together with attendant utility and sanitary facilities:
 - i. Be floodproofed so that walls below the base flood level are substantially impermeable to the passage of water.
 - ii. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
 - iii. Be certified by a structural engineer or architect as satisfying the standards of this subparagraph. FEMA's "floodproofing certificate" form, as amended, shall be used for the certification, and a copy provided to the director.
- d. New construction and substantial improvements of fully enclosed areas below the lowest floor that are usable solely for vehicular parking, building access, or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of

floodwater. Designs for meeting this requirement must be either certified by an engineer or architect or meet or exceed one of the following minimum criteria:

- i. Provide 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, with the bottom of all openings no higher than one foot above grade. (Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwater.); or
 - ii. Be certified by an engineer as complying with a County floodproofing standard approved by the Federal Insurance Administration or FEMA.
- e. New construction and substantial improvements shall be reasonably safe from flooding in accordance with FEMA technical bulletin 10-01 and amendments thereto. Designs for meeting this requirement shall be certified by an engineer.
4. Building height allowance. Building heights in the agricultural, rural, and residential zoning districts may be increased by a height equal to the base flood, up to a maximum of five feet above the maximum building height permitted by the zoning regulations for the zoning district in which the building is located.
 5. Certification shall be provided by an architect or engineer that all new construction and substantial improvements meet or exceed applicable standards for flood hazard reduction, including those regarding anchoring, construction materials and methods, elevation and floodproofing, utilities, subdivisions, and manufactured homes.
 6. Within zones A, AH, AO, and AE, except where there is a designated floodway or flooding caused by coastal run up, no

new construction, substantial improvement, or other development (including fill) shall be permitted unless it is demonstrated that the cumulative effect of the proposed construction, substantial improvement, or development, when combined with all other existing and anticipated construction, substantial improvement, and development, will not increase the water surface elevation of the base flood at any point.

B. Utilities.

1. New and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate, infiltration of floodwaters into such systems and discharge from such systems into floodwaters.
2. On-site waste disposal systems shall be located to avoid impairment to, or contamination from, such systems during flooding.

C. Subdivisions and other developments.

1. All subdivisions and other developments where special flood hazard areas have not been defined, water surface elevations have not been provided, and there is insufficient data to identify the floodway or coastal high hazard areas, but there are verifiable physical indications that such hazards are present as determined by the director, shall:
 - a. Be consistent with the need to minimize flood damage.
 - b. Have utilities, such as sewer, gas, electric, and water systems located and constructed to minimize flood damage.
 - c. Provide adequate drainage to reduce exposure to flood hazards.
 - d. Provide documentation and a certification that the requirements of subsection 16.29.050 [19.62.050] have been satisfied.
2. All subdivision and other development applications shall

identify special flood hazard areas and base flood elevations on the proposed site. If such information is not provided by the FIRM and if the proposed development or subdivision consists of more than fifty lots or more than five acres, the developer or subdivider shall include base flood elevation data within the proposal.

3. Approved final subdivision plats for subdivisions within special flood hazard areas or flood-prone areas shall include the base flood elevations within the lots as provided in subsection C.2.
- D. Manufactured homes. Manufactured homes that are placed or substantially improved within special flood hazard areas that are not coastal high hazard areas shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to at least one foot above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement. Manufactured homes that are placed or substantially improved within coastal high hazard areas shall meet the requirements of subsection G of this section.
- E. Recreational vehicles. Recreational vehicles placed on sites within zones A, AH, AE, AO, V, or VE shall either:
1. Be on site for fewer than thirty consecutive days;
 2. Be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on wheels or a jacking system, is attached to the site only by a quick disconnect type utilities and security device, and has no permanently attached additions); or
 3. Meet the permit requirements of section 16.29.050 [19.62.050] and the requirements for manufactured homes under subsection D.
- F. Floodways. No encroachments, including fill, new construction, substantial improvement, or other new development shall be

allowed within floodways unless certification by a civil engineer is provided to the director demonstrating that the encroachments will not result in any increases in base flood levels.

G. Coastal high hazard areas. Within coastal high hazard areas:

1. New construction and substantial improvements shall be elevated on adequately anchored pilings or columns and securely anchored to such pilings or columns so that the lowest horizontal portion of the structural members of the lowest floor (excluding the pilings or columns) is elevated to at least one foot above the base flood level. The pile or column foundation and the structure attached thereto shall be anchored to resist flotation, collapse, and lateral movement due to the simultaneous action of wind and water loads on all building components. Water loading values used for purposes of meeting this requirement shall be those associated with the base flood. Wind loading values used shall be those required by the International Building Code and the International Residential Code, as amended.
2. New construction and substantial improvements shall be located on the landward side of the reach of mean high tide.
3. New construction and substantial improvements shall have the space below the lowest floor free of obstructions, or constructed with breakaway walls, open wood latticework, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. Such space shall not be used for human habitation, but shall be useable solely for vehicular parking, building access, or storage. Machinery and equipment that service the building, such as furnaces, air conditioners, heat pumps, water heaters, elevator lift equipment, electrical junction and circuit boxes are prohibited in such spaces. A breakaway wall shall have a

safe design loading resistance of not less than ten and no more than twenty pounds per square foot. Breakaway wall collapse shall be designed to result from a water load less than that which would occur during a base flood and the elevated portion of the building shall be designed so as not to incur any structural damage from wind and water loads acting simultaneously during a base flood.

4. Fill shall not be used for structural support of buildings.
5. Man-made alteration of sand dunes shall not increase potential flood damage.
6. The director shall be provided and shall maintain the following records:
 - a. Certification by an engineer or architect that the proposed structure complies with paragraphs 1 through 5 of this subsection.
 - b. Certification by a structural engineer or surveyor of the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings or columns) of all new and substantially improved structures. FEMA's "elevation certificate" form, as amended, shall be used for the certification.
7. Areas of a structure below the base flood elevation may be used for parking vehicles, storage, or access to the building, but not for human habitation. For such areas that are five feet or more in height as measured from any point within such areas, the property owner shall enter into a "Non-conversion Agreement for Construction Within Flood Hazard Areas" with the County. The agreement shall be in a form acceptable to the director and shall be recorded with the bureau of conveyances or land court as a deed restriction.

The director or the director's authorized representative may, upon prior notice of at least seventy-two hours, inspect any area of a structure below the base flood elevation to ensure compliance.

H. General floodplain. For areas within the general floodplain:

1. The director may obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, including information requested of a permit applicant, to determine base flood elevations and the locations of floodways within the general floodplain.
2. Development or subdivision proposals shall conform to the requirements of section 16.29.060.C [19.62.060.C].
3. An applicant for a special flood hazard area development permit within a general floodplain area shall submit the following information to the director:
 - a. Project location and site plan showing dimensions.
 - b. Relationship to floodway and floodway fringes as determined by flood elevation study.
 - c. Contour map of appropriate scale and contours showing the topography of existing ground based on elevation reference marks on flood maps.
 - d. Existing and proposed base flood elevations.
 - e. Existing and proposed floodproofing and flood control measures. The director may waive informational requirements if the director has sufficient information to make an evaluation and determination regarding flood elevation, or may request further information, including a detailed flood elevation study and a drainage report to evaluate flood risks and determine the applicability of flood construction and development standards.
 - f. If the information provided gives the director reason to believe that there may be a significant impact on the floodplain, the director may require additional information.
4. For new construction and substantial improvements in zone A, the director, shall, based on base flood information and

floodway data obtained through subsections H.1 and H.3, require compliance with the standards for zones AE, AO, and AH, as applicable. For new construction and substantial improvements in zone V, the director shall require compliance with the standards for zone VE, as applicable.

5. New construction and substantial improvements within the general floodplain shall conform to sections 16.29.050 and 16.29.060 [19.62.050 and 19.62.060].
6. All manufactured homes shall be elevated and anchored to resist flotation, collapse, or lateral movement.

(Ord. No. 4411, § 1, 2017 ; Ord. No. 3687, § 4, 2009; Ord. 2223 § 1 (part), 1993; Ord. 1743 § 2, 1988; Ord. 1624 § 3, 1987; Ord. 1292 § 2, 1983; Ord. 1145 § 2 (part), 1981)

SECTION 9. 16.29.100 [19.62.100] - Developments adjacent to drainage facilities.

- A. Applications involving developments encompassing or adjoining any stream, river, or drainage facility outside of the special flood hazard areas identified on the FIRM shall be subject to review by the director. Upon request by the director, further information concerning base flood elevation, floodways, surface water runoff, existing and proposed drainage patterns, and other information, including a detailed flood elevation study, drainage report, and findings and opinions by a licensed professional civil engineer, shall be provided to evaluate the potential flooding of the area.
- B. The director shall not issue or recommend issuance of any permit or approval involving modification, construction, lining, or alteration of any drainage facility, river, or stream unless such modification, construction, lining, or alteration does not reduce the capacity of the drainage facility, river, or stream, or adversely affect any downstream or adjacent property.
- C. New construction and substantial improvements encompassing or adjoining any stream, river, or drainage facility outside of the special flood hazard areas shall conform to sections 16.29.050

and 16.29.060 [19.62.050 and 19.62.060].

(Ord. No. 4411, § 1, 2017 ; Ord. No. 3687, § 5, 2009; Ord. 2223 § 1 (part), 1993; Ord. 1145 § 2 (part), 1981)

SECTION 10. 16.29.130 [19.62.130] - Enforcement.

The director shall enforce this chapter pursuant to chapter 19.530 [of this title].

(Ord. No. 4411, § 1, 2017)

SECTION 11. 16.29.140 [19.62.140] - Variances and appeals.

- A. The board of variances and appeals shall hear and decide appeals alleging an error in any requirement or determination by the director and requests for variances from the requirements of this chapter.
- B. Application. Applications for variances and appeals shall conform to the requirements of chapter 19.520 [of this title]. The application shall be certified by an architect or engineer, and shall include three sets of the following documentation:
 1. Plans and specifications showing: the site and location; dimensions of all property lines and topographic elevation of the lot; existing and proposed structures and improvements, fill, and storage areas; location and elevations of existing and proposed streets and utilities; floodproofing measures; relationship of the site to flood boundaries; and existing and proposed flood control measures and improvements.
 2. Cross-sections and profile of the area and the base flood elevations based on mean sea level.
 3. Flood study and drainage report.
 4. Description of surrounding properties and existing structures and uses, and the effect of a base flood as a result of the variance.
 5. Justification for the variance with consideration of the intent

and provisions of this chapter and information on the impact the variance would have on the factors listed in subsection C and proposed mitigative measures.

6. An agreement to insert and record covenants in the conveyance and title documents of the property that the property is located in a special flood hazard area and is subject to flooding and flood damage. The covenants shall contain statements attesting to all adverse effects resulting from the variance. The covenants shall also state that the property owner or owners and assigns shall not file any lawsuit or action against the County for costs or damages or any claim, and shall indemnify and save harmless the County from any liability when such loss, damage, injury, or death results due to the flood hazard variance and flooding of the property. Upon approval of the flood hazard variance, such covenants shall be fully executed and submitted to the director for approval. Upon approval, the applicant shall file the covenants with the bureau of conveyances.
- C. In passing upon variance applications, the board of variances and appeals shall consider:
1. The danger that materials may be swept onto other lands to the injury of others.
 2. The danger to life and property due to flooding or erosion damage.
 3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the existing owner and future owners of the property.
 4. The importance of the services provided by the proposed facility to the community.
 5. The necessity, if any, to the facility of a waterfront location.
 6. The availability of alternative locations for the proposed use that are not subject to flooding or erosion damage.
 7. The compatibility of the proposed use with existing and

anticipated development.

8. The relationship of the proposed use to the community plan and floodplain management program for that area.
9. The safety of access to the property in time of flood for ordinary and emergency vehicles.
10. The expected heights, velocity, duration, rate of rise, and sediment transport of floodwaters expected at the site.
11. The costs of providing governmental services during and after flood conditions, including maintenance and repair of utilities and facilities, such as sewer, gas, electric, and water systems, and streets and bridges.

D. Conditions for variances.

1. Variances shall be issued only upon a determination that the variance is peculiar to the property involved and is the minimum necessary to afford relief to the applicant with minimum deviation from the requirements of this chapter.
2. Variances shall be issued only upon (a) a showing of good and sufficient cause; (b) a determination that failure to grant the variance would result in exceptional hardship to the applicant; and (c) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, defraud or victimize the public, or conflict with existing County or State laws. Mere economic or financial hardship, or inconvenience, or aesthetic preferences, shall not, by themselves, constitute a finding of exceptional hardship.
3. Variances shall not be issued within any designated floodway if any increase in base flood levels would result.
4. Variances may be issued for new construction, substantial improvements, and other proposed new developments 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 base flood level, provided that the procedures of sections 16.29.050 and 16.29.060 [19.62.050 and 19.62.060] have been fully considered. For lots greater than one-half acre, the technical justification required for issuing the variance shall be greater.

5. Variances may be issued for the repair or rehabilitation 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.
 6. Variances may be issued for new construction, substantial improvements, and other proposed new developments necessary for the conduct of a use that cannot perform its intended purpose unless located in close proximity to water. Such uses shall include only docking facilities, port facilities necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities (but not long-term storage or manufacturing facilities); provided that the provisions of subsection B are satisfied and that the structure or other development is protected by methods that minimize base flood damage and create no additional threats to public safety.
 7. Upon consideration of the factors of subsection B and the purposes of this chapter, the board of variances and appeals may attach such conditions to the granting of a variance as it deems necessary to further the purposes of this chapter.
- E. Any applicant to whom a variance is granted shall be given written notice over the signature of the director that (a) the issuance of a variance to construct a structure below the base flood level will likely result in substantially increased premium rates for flood insurance and (b) such construction below the base flood level increases risks to life and property. A copy of the notice

shall be recorded by the applicant in the bureau of conveyances of the State of Hawaii in a manner that appears in the chain of title of the affected parcel.

- F. The director shall maintain a record of all variance actions, including justification for their issuance, and report such variances issued in its biennial report submitted to the Federal Insurance Administration and FEMA.

(Ord. No. 4411, § 1, 2017 ; Ord. 2223 § 1 (part), 1993: Ord. 1743 § 7, 1988: Ord. 1145 § 2 (part), 1981)

SECTION 12. 16.29.160 [19.62.160] - Warning and disclaimer of liability.

- A. The degree of flood and tsunami protection required by this chapter is considered reasonable for regulatory purposes and is based on standard engineering methods of study. Larger floods or tsunamis than the base flood as designated on the flood maps, may occur on occasions, or flood or tsunami elevations may be increased by man-made or natural causes. This chapter does not imply that areas outside the flood hazard area will be free from flooding or damage.
- B. This chapter shall not create liability on the part of the County or any officer, official, or employee for any flood or tsunami damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

(Ord. No. 4411, § 1, 2017 ; Ord. 2223 § 1 (part), 1993: Ord. 1145 § 2 (part), 1981)

SECTION 13. 16.29.170 [19.62.170] - Other laws and regulations.

All construction and improvements subject to this chapter shall comply with other applicable laws and regulations.

(Ord. 2223 § 1 (part), 1993: Ord. 1145 § 2 (part), 1981)

SECTION 14. 16.29.180 [19.62.180] - No exemptions.

Neither the County itself nor any agency, department, or division under its control shall be exempted from compliance with the provisions of this chapter.

(Ord. No. 4411, § 1, 2017 ; Ord. 2223 § 1 (part), 1993: Ord. 1145 § 2 (part), 1981)

SECTION 15. Material to be repealed is bracketed. New material is underscored. In printing this ordinance, the County Clerk need not include the brackets, the bracketed material, or the underscoring.

SECTION 16. This ordinance shall take effect upon its approval.

APPROVED AS TO FORM AND LEGALITY:

Department of Corporation Counsel
County of Maui