Chapter 15.30 FLOOD HAZARD PROTECTION REGULATIONS

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15.30.010 Purpose.

It is the purpose of this chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- A. To protect human life and health;
- B. To minimize expenditure of public money and costly flood-control projects;
- C. To minimize need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general projects;
- To minimize prolonged business interruptions;
- E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- F. To help maintain a stable tax base providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
- G. To ensure that potential buyers are notified that property is in an area of special flood hazard; and
- H. To ensure that those who occupy the areas of special flood hazard assume responsibility of their actions. (Ord. 00-025 § 6 (part))

15.30.020 Definitions.

Unless specifically defined below in this section, words or phrases used in this chapter shall be interpreted so as to give them meaning they have in common usage and to give this chapter its most reasonable application.

"Area of shallow flooding" means a designated OA or AH zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and, velocity flow may be evident.

"Base flood" means the flood having a one percent chance of being equalled or exceeded in any given year.

"Development" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving excavation or drilling operations.

"Existing mobile home park or mobile home subdivision" means a parcel (or contiguous parcels) of land divided into two or more mobile home lots for rent or sale for which the construction of facilities for servicing the lot on which the mobile home is to be affixed (including, at a minimum, the installation of utilities, either final site

grading or the pouring of concrete pads, and the construction of streets) is completed before the effective date of the ordinance codified in this chapter.

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

"Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

"Flood insurance study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.

"Habitable floor" means any floor usable for living purposes, which includes working, sleeping, eating, cooking or recreation, or a combination thereof. A floor used only for storage purposes is not a habitable floor.

"Mobile home" means a structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. It does not include recreational vehicles or travel trailers. The term includes, but is not limited to, the definition of mobile home as set forth in regulations governing the mobile home safety and construction standards program.

"New construction" means structures for which the "start of construction" commenced on or after the effective date of the ordinance codified in this chapter.

"New mobile home park or mobile home subdivision" means a parcel (or contiguous parcels) of land divided into two or more mobile home lots for rent or for sale for which the construction of facilities for servicing the lot (including, at a minimum, the installation of utilities, either final site grading or the pouring of concrete pads, and the construction of streets) is completed on or after the effective date of the ordinance codified in this chapter.

"Regulatory 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.

"Start of construction" means the first placement of permanent construction of a structure (other than a mobile home) on a site, such as the pouring of slabs or footings or any work beyond the stage of excavation. 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, footing, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garage or sheds not occupied as dwelling units or not as part of the main structure. For a structure (other than a mobile home) without a basement or poured footings, the start of construction includes the first permanent framing or assembly of the structure or any part thereof, its piling or foundation. For mobile homes not within a mobile home park or mobile home subdivision, start of construction means the affixing of the mobile home to its permanent site. For mobile homes within mobile home parks or mobile home subdivisions, start of construction is the date on which the construction of facilities for servicing the site on which the mobile home is to be affixed (including, at a minimum, the construction of streets, either final site grading or the pouring of concrete pads, and installation of utilities) is completed.

Substantial Improvement.

1. "Substantial improvement" means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure either:

- a. Before the improvement or repair is started; or
- b. If the structure has been damaged and is being restored, before the damage occurred. For the purpose of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.
- The term does not, however, include either:
- a. Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; or
- b. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

"Variance" means a grant of relief from the requirements of this chapter which permits construction is a manner that would otherwise be prohibited by this chapter. (Ord. 00-025 § 6 (part))

15.30.030 General provisions.

- A. Lands to which this chapter applies. This chapter shall apply to all areas of special flood hazards within the jurisdiction of the city.
- B. Basis for Establishing the Areas of Special Flood Hazard. The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for the City of Valdez" dated March 1980 with the Flood Boundary and Floodway Maps dated December 1, 1983 is adopted by reference and declared to be a part of this chapter. The Flood Insurance Study is on file at City Hall, 201 Chenega Avenue, Valdez, Alaska.
- C. Warning and Disclaimer of Liability. The degree of flood protection required by this section is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasion. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder. (Ord. 00-025 § 6 (part))

15.30.040 Administration.

- A. Establishment of Development Permit. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 15.30.030(B). The permit shall be for all structures including mobile homes, as set forth in Section 15.30.020, and for all other development including fill and other activities, also set forth in Section 15.30.020. Application for a development permit shall be made on forms furnished by the city building official and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required:
- 1. Elevation in relation to mean sea level, of the lowest floor (including the basement) of all structures;
- 2. Elevation in relation to mean sea level to which any structure has been floodproofed;
- 3. That where floodproofing is utilized for a particular structure either:

- a. A registered professional engineer or architect shall certify that the floodproofing methods are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood, and a record of such certificates indicating the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the community,
- b. A certified copy of local regulation containing detailed floodproofing specifications which incorporate standard, accepted watertight performance standards shall be submitted to the FIA for approval;
- Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.
- a. Assurance that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained.
- B. Designation of the City Building Official. The city building official is appointed to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions.
- C. Duties and Responsibilities of the Building Official. Duties of the building official shall include, but not be limited to:
- 1. Permit Review.
- a. Review all development permits to determine that the permit requirements of this chapter have been satisfied;
- b. Review all development permits to determine that all necessary permits have been obtained from those federal, state or local governmental agencies from which prior approval is required.
- 2. Information to be Obtained and Maintained.
- a. Obtain and record the actual elevation (in relation to mean sea level) of the lowest habitable floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement. The development shall be responsible for obtaining all elevations;
- b. For all new or substantially improved flood-proofed structures:
- i. Verify and record the actual elevation (in relation to mean sea level),
- ii. Maintain the floodproofing certifications required in Section 15.30.050, and
- c. Maintain for public inspection all records pertaining to the provisions of this chapter.
- 3. Interpretation of FIRM Boundaries. Make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in subsection D of this section.
- D. Appeal Board.
- 1. The planning and zoning commission as established by the city Charter shall hear and decide appeals and requests for variances from the requirements of this chapter.
- 2. The planning and zoning commission shall hear and decide appeals when it is alleged there is an error in any requirement, decision or administration of this chapter.

- 3. Those aggrieved by the decision of the planning and zoning commission, or any taxpayer, may appeal such decision to the city council.
- 4. In passing upon such applications, the planning and zoning commission shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter, 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 availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
- f. The compatibility of the proposed use with existing and anticipated development;
- g. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
- h. The safety of access to the property in times of flood for ordinary and emergency vehicles;
- i. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and
- j. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.
- 5. 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 base flood level, providing the items set out in subsection (D) (4) of this section have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
- 6. Upon the consideration of factors of subsection D, of this section and purposes of this chapter, the planning and zoning commission may attach such conditions to the granting of variances as it deems necessary to further the purpose of this chapter.
- 7. The building official shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.
- E. Conditions for Variances.
- 1. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- 2. Variances shall only be issued 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, cause fraud on or victimization of the public as identified in subsection D of this section, or conflict with existing local laws or ordinances.
- 3. Any applicant to whom variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. (Ord. 00-025 § 6 (part))

15.30.050 Standards.

- A. General Standards.
- 1. Anchoring.
- a. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.
- b. All mobile homes shall be anchored to resist flotation, collapse, or lateral movement by providing over-thetop and frame ties to ground anchors. Specific requirements shall be that:
- i. Over-the-top ties be provided at each of the four corners of the mobile home, with two additional ties per side at intermediate locations, with mobile homes less than fifty feet long requiring one additional per side;
- ii. Frame ties be provided at each corner of the home with five additional ties per side at intermediate points, with mobile homes less than fifty feet long requiring four additional ties per side;
- iii. All components of the anchoring system be capable of carrying a force of four thousand eight hundred pounds; and
- iv. Any additions to the mobile home be similarly anchored.
- c. An alternative method of anchoring may involve a system designed to withstand a wind force of ninety miles per hour or greater. Certification must be provided to the city building official that this standard has been met.
- 2. Construction Materials and Methods.
- a. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- b. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
- c. All new construction and substantial improvements within B zones in/or adjacent to Alpine Woods and Nordic Subdivisions shall have the lowest floor, including basement, elevated to at least twelve inches above the highest adjacent grade of the building site.
- i. Where there are hazardous velocities, consideration shall be given to mitigating the effects of the velocities through proper techniques and measures.
- 3. Utilities.
- a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;

- b. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters; and
- c. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- 4. Subdivision Proposals.
- a. All subdivision proposals shall be consistent with the need to minimize flood damage;
- b. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;
- c. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and
- d. Base flood elevation data shall be provided for subdivision proposals and other proposed development which contain at least fifty lots or five acres (whichever is less).
- 5. Review of Building Permits. Where elevation is not available, applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgement and includes use of historical data, high water marks, photographs of the past flooding, etc., where available.
- B. Specific Standards. In areas of special flood hazards where base flood elevation data has been provided as set forth in subsection B of Section <u>15.30.030</u>, the following provisions are required:
- 1. Encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway that would result in any increase in flood levels within the community during the occurrence of the base flood discharge shall be prohibited.
- 2. Residential Construction. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above base flood elevation.
- 3. Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or nonresidential structure either have the lowest floor, including basement, elevated to the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall:
- a. Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
- b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
- c. Be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications shall be provided to the official as set forth in Sections <u>15.30.040</u> (A)(3)(a) and (b).
- 4. Mobile Homes.
- a. The placement of any mobile homes, except in an existing mobile home park or mobile home subdivision, within the adopted regulatory floodway shall be prohibited.
- b. Mobile homes shall be anchored in accordance with subsection (A)(1)(a)(iv) of this section.

- c. For new mobile home parks and mobile home subdivisions, for expansions to existing mobile home parks and mobile home subdivisions; for existing mobile home parks and mobile home subdivisions where the repair, reconstruction or improvement has commenced; and for mobile homes not placed in a mobile home park or mobile home subdivision, require that:
- i. Stands or lots are elevated on compacted fill or on pilings so that the lowest floor of the mobile home will be at or above the base flood level;
- ii. Adequate surface drainage and access for a hauler are provided; and
- iii. In the instance of elevation on pilings, that:
- (A) Lots are large enough to permit steps,
- (B) Piling foundations are placed in stable soil no more than ten feet apart, and
- (C) Reinforcement is provided for pilings more than six feet above the ground level. (Ord. 00-025 § 6 (part))

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