

Chapter 17.26: Flood Hazard (FH) Combining Zoning District

§17.26.010. Purpose

- A. The flood hazard areas of the City are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.
- B. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately flood proofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

§17.26.020. Methods of Reducing Flood Losses

In order to accomplish its purposes, this chapter includes methods and provisions for:

- A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in increased erosion or in flood heights or velocities;
- B. Requiring the uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural flood plains, stream channels and natural protective barriers, which help accommodate or channel flood waters;
- D. Controlling, filling, grading, dredging, and other development which may increase flood damage; and
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

§17.26.030. Definitions

In conformance with the requirements of the Federal Emergency Management Agency (FEMA), definitions are set forth in §17.62.590 through 17.62.750, which expressly apply to the provisions of this chapter. Unless specifically defined in this section, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have as defined first, in this title, and second, as defined in common usage, and to give this chapter its most reasonable application.

§17.26.040. Lands to Which This Chapter Applies

This chapter shall apply to all areas of special flood hazards within the jurisdiction of the City.

§17.26.050. Basis for Establishing the Areas of Special Flood Hazard

The areas of special flood hazard identified by the Federal Emergency Management Agency in the scientific and engineering report entitled "The Flood Insurance Study for the City of Logan," dated march 30, 1983, with an accompanying Flood Insurance Rate Map is adopted by reference and declared to be a part of this chapter.

§17.26.060. Compliance

No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with terms of this chapter and other applicable regulations.

§17.26.070. Abrogation and Greater Restrictions

This chapter is not intended to repeal, abrogate, or impair any existing easement, covenants, or deed restrictions. However, where this chapter and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

§17.26.080. Interpretation

In the interpretation and application of this chapter, all provisions shall be:

- A. Considered as minimum requirements;
- B. Liberally construed in favor of the governing body;
- C. Deemed neither to limit nor repeal any other powers granted under state statutes;
- D. Warning and disclaimer of liability;
- E. The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may increase by manmade 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 Emergency Management Agency, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

§17.26.090. Establishment of Development Permit

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in §17.112.070(B). Application for a development permit shall be made on forms furnished by the City Engineer 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;

- A. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;
- B. Elevation in relation to mean sea level to which any structure has been flood proofed;
- C. Certification by a registered professional engineer or architect that the flood proofing methods for any nonresidential structure meet the flood proofing criteria in §17.19.140(B); and
- D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

§17.26.100. City Engineer – Appointment

The City Engineer is appointed to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions.

§17.26.110. City Engineer – Duties

Duties of the City Engineer shall include, but not limited to:

- A. Permit Review
 1. The City Engineer shall review all development permits to determine that the permit requirements of this chapter have been satisfied;
 2. Review all development permits to determine that all necessary permits have been obtained from agencies from which prior approval is required;

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3. Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that encroachment provisions of §17.19.150(A) are met.
- B. Use of Other Base Flood Data
- When base flood elevation data has not been provided in accordance with §17.19.070(B), the City Engineer shall obtain, review and reasonably utilize any base flood elevation data available from a federal, state or other source, in order to administer §17.19.140(A) and (B).
- C. Information to be Obtained and Maintained
1. Obtain from builder's/owner's engineer and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new substantially improved structures;
 2. For all new or substantially improved flood proofed structures:
 - a. Verify and record the actual elevation as provided (in relation to mean sea level),
 - b. Maintain the flood proofing certifications required in §17.19.080(C);
 3. Maintain for public inspection all records pertaining to the provisions of this chapter.
- D. Alteration of Watercourses
1. Notify adjacent communities, and the State Office of Emergency Management prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
 2. Require that maintenance is provided within the altered or relocated portion of the watercourse so that the flood-carrying capacity is not diminished.
- E. Interpretation of FIRM Boundaries
- Make interpretations, where needed, as to the 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 §17.19.110.

§17.26.120. Variances – Procedure in Relation to the FH Combining District

- A. Application for a Hearing
- The Board of Adjustment shall hear and decide appeals and requests for variance from the requirements of this chapter. It shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the City Engineer or any administrative officer in the enforcement or administration of this chapter. Any aggrieved party who has participated in the administrative process required within this chapter may have standing to appeal. The procedures shall be as defined for the Board of Adjustment in Chapter 17.53.
- B. Findings
- In addition to the requirements for variances established in Chapter 17.53, the board shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter, and shall substantiate the following findings:
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 individual owner;
 4. The importance of the services provided by the proposed facility to the community;
 5. The necessity to the facility of a waterfront location, where applicable;

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6. The availability of alternative locations, for the proposed use which are not subject to flooding or erosion damage;
 7. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
 8. The safety of access to the property in times of flood for ordinary and emergency vehicles;
 9. 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
 10. 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.
- C. Conditions
Upon consideration of the above factors and the purpose of this chapter, the Board of Adjustment may attach conditions to the granting of variances as it deems necessary to further the purposes of the chapter.
- D. General Standards and Considerations
1. 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 level, providing the provisions of this chapter have been fully considered.
 2. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.
 3. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
 4. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
 5. 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 as defined in Chapter 17.53 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, or conflict with existing local laws or ordinances.
- E. Certificate of Approval
Any applicant to whom a 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.

§17.26.130. Provisions for Flood Hazard Reduction

In all flood hazard zoning districts the following standards are required:

- A. Anchoring.
- B. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.
- C. All manufactured homes to be placed in zone “A” shall be anchored to resist flotation, collapse, or lateral movement by providing over-the-top and frame ties to ground anchors. Specific requirements shall be that:

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1. Over-the-top ties be provided at each of the four corners of the manufactured home with two additional ties per side at intermediate locations, with manufactured homes less than fifty feet long requiring one additional tie per side;
2. Frame ties be provided at each corner of the home with five additional ties per side at intermediate points, with manufactured homes less than fifty feet long requiring four additional ties per side;
3. All components of the anchoring system be capable of carrying a force of four thousand eight hundred feet;
4. Any additions to the manufactured home be similarly anchored; and
5. The manufactured home shall be elevated above the base flood level and anchored to the elevated foundation.

§17.26.140. 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. For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are subject to flooding 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 shall either be certified by registered professional engineer or architect or shall meet or exceed the following minimum criteria: a minimum of two openings having a total net area of not less than one square inch or every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of flood waters.
- D. Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- E. Utilities.
 1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
 2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and
 3. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

§17.26.150. 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.
- D. Base flood elevation data shall be provided by subdivider for subdivision proposals and other proposed development which contain at least fifty lots or five acres (whichever is less).

§17.26.160. Specific Standards

In all areas of special flood hazard where base flood elevation data has been provided as set forth in §17.19.070(B) or 17.19.100(B), the following provisions are required:

A. Residential Construction

New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above the base flood elevation.

B. Nonresidential Construction

New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall 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:

1. Be flood proofed so that below the base flood level the structure is watertight with wall substantially impermeable to the passage of water;
2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
3. 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 §17.19.100(C)(1).

C. Manufactured Homes

Manufactured homes shall be anchored in accordance with §17.19.130(A)(2).

1. For new manufactured home parks and manufactured home subdivisions; for expansions to existing manufactured home parks and manufactured home subdivisions where the repair, reconstruction or improvements of the streets, utilities and pads equals or exceeds fifty percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement has commenced; and for manufactured homes not placed in a manufactured home park or manufactured home subdivision require that:
 - a. Stands or lots are elevated on compacted fill or on pilings so that the lowest floor of the manufactured home will be at or above the base flood level;
 - b. Adequate surface drainage and access for hauler are provided; and
 - c. In the instance of elevation on pilings, that:
 1. Lots are large enough to permit steps,
 2. Piling foundations are placed in stable soil not more than ten feet apart as designed by P.E., and
 3. Reinforcement is provided for pilings more than six feet above the ground level.
 - d. No manufactured home shall be placed in floodway, except in an existing manufactured home park or existing manufactured home subdivision.

§17.26.170. Floodways

Located within areas of special flood hazard established in §17.19.070(B) are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

- A. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood level during the occurrence of the base flood discharge;
- B. If subsection A of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this chapter.