

15-08-04 **Flood Plain Overlay District**

**A. Findings**

1. Flood hazard areas of Sandy City are subject to periodic inundation which may result in loss of life and property, health hazards, disruptions 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.
2. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazard 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 flood loss.

**B. Purpose of Flood Plain Overlay District.** It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private loss due to flood conditions to specific areas by provisions designed to:

1. Protect human life and health;
2. Minimize expenditure of public money for 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, and 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 so as to minimize future flood blight areas;
7. Ensure that potential buyers are notified that property is in an area of special flood hazard; and
8. Ensure that those who occupy the areas of special flood hazards assume responsibility for their actions.

**C. Methods of Reducing Flood Losses.** In order to accomplish its purposes, this chapter includes methods and provisions for:

1. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases of erosion, flood heights or velocities;
2. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
3. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;

4. Controlling filling, grading, dredging, and other development which may increase flood damage; and
  5. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.
- D. **Lands To Which This Ordinance Applies.** This chapter shall apply to all areas of special flood hazards within the jurisdiction of Sandy City, Utah.
- E. **Basis For Establishing The Areas Of Special Flood Hazard.** The areas of special flood hazard are those identified by the Federal Emergency Management Agency in a scientific and engineering report entitled "Flood Insurance Study, Salt Lake County, Utah, Unincorporated Areas," September 30, 1994, with accompanying Flood Insurance Rate Maps, Flood Boundary-Floodway Maps and any revision thereto are hereby adopted by reference and declared to be a part of this ordinance. The Flood Insurance Study is on file at Sandy City Hall, 10000 Centennial Parkway, Sandy City, Utah, 84070. When base flood elevation data has not been provided, the Community Development Director shall obtain, review, and reasonably utilize any base flood elevation data available from a Federal, State, or other source, in order to administer this chapter.
- F. **Compliance.** No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this ordinance and other applicable regulations.
- G. **Abrogation And Greater Restrictions.** This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.
- H. **Interpretation.** In the interpretation and application of this ordinance, all provisions shall be:
1. Considered as minimum requirements;
  2. Liberally construed in favor of the governing body; and
  3. Deemed neither to limit nor repeal any other powers granted under State statutes.
- I. **Warning And Disclaimer Of Liability.** The degree of flood protection required by this ordinance 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 be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of Sandy City, any officer or employee thereof, or the Federal Emergency Management Agency for any flood damages that result from the reliance on this ordinance or any administrative decision lawfully made thereunder.
- J. **Relationship Of Floodplain Regulations To Zones.** The flood plain hazard regulations of this chapter shall be supplemental to, and not in lieu of, the applicable zoning provisions of the zone in which the land is located. Property located within said "areas of special flood hazard" shall be developed only in conformance with the provisions set forth herein. In cases of conflict between such zone classifications and the Floodplain Hazard Regulations, the most restrictive provisions shall govern. Permitted and conditional uses permitted in the "areas of special flood hazard" shall be developed only in conformance with the provisions set forth herein. All uses involving development as defined herein shall further meet the supplemental conditions and standards set forth in this chapter.

- K. **Special Flood Hazard Area Approval.** A conditional use permit shall be obtained before construction or development begins within an area of special flood hazard. Prior to issuance of a conditional use permit, the Planning Commission shall ensure that requirements of this chapter are met.

Application for such approval shall be made on forms furnished by the Community Development Department 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 basement) of all structures;
2. Elevation in relation to mean sea level to which any structure has been floodproofed;
3. Certification by a registered professional engineer or architect that the floodproofing methods for any non-residential structure meet the floodproofing criteria in this Section, and,
4. Description of the extent to which any water course will be altered or relocated as a result of proposed development.

- L. **Responsibility Of The Community Development Director.** The Sandy City Community Development Director shall be responsible to:

1. Review Applications

- a. Review all applications to determine if the proposed development is located in the Floodway. If located in the Floodway, assure that the encroachment provisions of this Section are met.
- b. Review all applications to determine that the requirements of this ordinance have been satisfied.
- c. Review all applications to determine that all necessary permits have been obtained from Federal, State, or local governmental agencies from which prior approval is required.
- d. When base flood elevation data has not been provided in accordance with the Section entitled BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD, the Community Development Director shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source as criteria for requiring that new construction, substantial improvements, or other development in Zone A are administered in accordance with this Code.

2. Maintain Information File

- a. Obtain and record the actual elevation provided by the developer (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
- b. For all new or substantially improved floodproofed structures:
  1. Verify and record the actual elevation provided by the Developer (in relation to mean sea level) to which the structure has been floodproofed, and
  2. Maintain the floodproofing certifications required in by this Chapter.
- c. Maintain for public inspection all records pertaining to the provisions of this ordinance.

3. Verify Alteration of Watercourses - Verify that:

- a. A permit has been obtained from the Salt Lake County Division of Flood Control and Water Quality for any alteration of a watercourse identified as a Flood Control Facility in Title VII, Section 7-2-5, of the Ordinances of Salt Lake County or succeeding provision.
- b. A permit has been obtained from the State Engineer for alteration of a natural stream channel.
- c. Maintenance is provided for within the altered or relocated portion of said watercourse so the flood-carrying capacity is not diminished. County-wide facilities are maintained by Salt Lake County Flood Control Services, City facilities are maintained by Sandy City.
- d. Notification has been made to cities adjacent to the watercourse and to the State of Utah, Division of Comprehensive Emergency Management, prior to any alteration or relocation of a watercourse and evidence of such notification has been submitted to the Federal Emergency Management Agency.

M. **Interpretation of FIRM Boundaries.** The Community Development Department Director shall make interpretations, where needed, as to the exact location of the boundaries of the areas of special flood hazard (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 sub-section (N), below..

N. **Appeals**

1. The Board of Adjustment as established by the Development Code of Sandy City shall hear and decide all appeals and requests for variances from the requirements of this chapter as provided in Chapter 15-01. The following conditions shall be considered in addition to those provisions :
  - a. The danger that materials may be swept into other lands to the injury of others;
  - b. The danger to life and property due to flooding or erosion damage;
  - c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
  - d. The importance of the services provided by the proposed facility to the community;
  - e. The necessity to the facility of a waterfront location, where applicable;
  - f. The availability of alternative locations, for the proposed use which are not subject to flooding or erosion damage;
  - g. The compatibility of the proposed use with the existing and anticipated development;
  - h. The relationship of the proposed use to the general plan and floodplain management program for that area;
  - i. The safety of access to the property in times of flood for ordinary and emergency vehicles;
  - j. 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,
  - k. The costs of providing governmental services during and after flood conditions including

maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets, and bridges.

2. Conditions for Variances
    - a. 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 items (1-11) in Sub-Section (N)(1) above have been fully considered. As the lot size increases beyond the one-half acre, the technical justifications required for issuing the variance increases.
    - b. 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.
    - c. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
    - d. Variances shall only be issued upon a determination that the variance is the minimum necessary considering the flood hazard, to afford relief.
    - e. Variances shall only be issued upon:
      1. A showing of good and sufficient cause;
      2. A determination that failure to grant the variance would result in exceptional and undue hardship to the applicant; and
      3. 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 this Section, or conflict with existing local laws or ordinances.
  3. 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 1 (one) foot above 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.
  4. Sandy City shall maintain the records of all appeal actions and the Board of Adjustment and report any variances to the Federal Emergency Management Agency upon request.
- O. **Floodways.** Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:
1. Encroachments, including fill, new construction, substantial improvements, and other developments are prohibited unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

2. All new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this Section.
- P. **Development Standards within Flood Plain Overlay District.** In addition to the general development standards found elsewhere in this Code, in all areas of special flood hazards, the following standards are required:
1. Anchoring
    - a. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure and capable of resisting the hydrostatic and hydrodynamic loads.
    - b. All manufactured homes must be elevated and anchored to resist flotation, collapse or lateral movement and capable of resisting the hydrostatic and hydrodynamic loads. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces. Specific requirements may be:
      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 50 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 50 feet long requiring four additional ties per side;
      3. All components of the anchoring system be capable of carrying a force of 4,800 pounds; and,
      4. Any additions to the manufactured home be similarly anchored.
  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 shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
  3. Utilities
    - a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
    - b. 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

- c. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during the flooding.
4. Subdivision Proposals
    1. All subdivision proposals shall be consistent with the need to minimize flood damage;
    2. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;
    3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and
    4. Base flood elevation data shall be provided for subdivision proposals and other proposed development.
  5. Residential Construction. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to a minimum of 1 (one) foot above the base flood elevation.
  6. Non-residential Construction. New construction and substantial improvement of any commercial, industrial or other non-residential structure shall either have the lowest floor, including basement, elevated to a minimum of 1 (one) above the base flood elevation; or, together with attendant utility and sanitary facilities, shall:
    - a. Be floodproofed so that below 1 (one) foot above the base flood level the structure is watertight with walls substantially impermeable to the passage of water.
    - a. Have structural components capable of resisting hydrostatic and hydrodynamic loads and affects of buoyance; and
    - b. Be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications shall be provided to the Community Development Director.
  7. Openings in Enclosures Below the Lowest Floor. 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 floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:
    - e. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;
    - f. The bottom of all openings shall be no higher than one foot above grade;
    - g. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

8. Manufactured Homes

- a. Manufactured homes shall be anchored in accordance with this Section.
  - b. All manufactured homes or those to be substantially improved shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the base flood elevation and is securely anchored to an adequately anchored foundation system.
  - c. All manufactured homes or those to be substantially improved shall conform to the following requirements:
    1. Require that manufactured homes that are placed or substantially improved on a site (i) outside of a manufactured home park or subdivision, (ii) in a new manufactured home park or subdivision, (iii) in an expansion to an existing manufactured home park or subdivision, or (iv) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.
    2. Require that manufactured homes to be placed or substantially improved on sites in existing manufactured home parks or subdivisions that are not subject to the provisions in (A) above be elevated so that either (i) the lowest floor of the manufactured home is at or above the base flood elevation, or (ii) the manufactured home chassis is supported by reinforced piers or other foundation elements that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
9. Recreational Vehicles. Require that recreational vehicles either (i) be on site for fewer than 180 consecutive days, (ii) be fully licensed and ready for highway use, or (iii) meet the permit requirements and elevation and anchoring requirements for resisting wind forces.

**Q. Jordan River Floodplain - Special Regulations**

1. Adoption of Printed Volume. Pursuant to the authority granted to the City by the laws of the State of Utah, the City hereby adopted by reference the provisions contained in an ordinance adopted and printed by Salt Lake County. The said ordinance is entitled Chapter 17.10 and was adopted by the Salt Lake County Commission on July 20, 1994 and is entitled "Jordan River Flood Channel Management Ordinance." Three copies of the said printed ordinance are on file with the Sandy City Recorder for information and inspection by the public.
2. Amendments To Printed Ordinance. The following amendments are hereby adopted with regard to the printed ordinance as set forth in Sub-Section (Q), above:
  - a. The provisions of Section 17.10.070.A are hereby amended to read as follows:

"In addition to all required Sandy City permits, licenses and approvals, before construction or development begins within any area of the Jordan River flood channel established by section 17.10.030, approval must be obtained from, and a special permit issued by, the county

engineering division. Application for such approval and permit shall be made on forms finished by the engineering division and shall include, but not be limited to:"

- b. The provisions of Section 17.10.080 are hereby amended to read as follows:

"Any applicant requesting approval for construction or development within any area of the Jordan River flood channel shall submit to the county engineering division and the Sandy City Engineer six copies of the following studies and reports:"

- 3. Additional Regulations. In addition to those requirements specifically outlined in Chapter 17.10 of the Salt Lake County Code, the following requirements shall be completed prior to development:
  - a. The Jordan River Basin has been identified and mapped by Salt Lake County as having a "High Liquefaction Potential". Because of this special characteristic of this area, a site specific natural hazards study for residential subdivisions, multi-family residential structures, industrial and commercial buildings must be completed and accepted by the Sandy City Engineer before approval for required permits, licenses and other approvals is issued. The study shall address the soil conditions of the property to be developed, the natural hazards that exist, and proposed mitigation measures to mitigate, if possible, the natural hazards. If the natural hazard cannot be mitigated in a satisfactory manner, no approval shall be given by the Sandy City Engineer.
  - b. All development shall comply with the recommendations as made by the "Jordan River District and Parkway Development Study", completed by Bingham Engineering and accepted by Sandy City in February 1995. Three copies of the said study are on file with the Sandy City Recorder for information and inspection by the public.