

TITLE 12
FLOOD CONTROL

Subject	Chapter
Flood Damage Prevention	1

CHAPTER 1

FLOOD DAMAGE PREVENTION

SECTION:

- 12-1- 1: Statement Of Purpose Generally
- 12-1- 2: Definitions
- 12-1- 3: General Provisions
- 12-1- 4: Designation Of The Administrator
- 12-1- 5: Duties And Responsibilities Of The Administrator
- 12-1- 6: Permit Procedures
- 12-1- 7: Appeal Procedure
- 12-1- 8: Variance Procedure
- 12-1- 9: General Standards
- 12-1-10: Specific Standards
- 12-1-11: Floodways
- 12-1-12: Penalty

12-1-1: **STATEMENT OF PURPOSE GENERALLY:**

A. Findings Of Fact:

1. The flood hazard areas of Fruit Heights City are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare.

2. These flood losses are created by the cumulative effect of obstructions in floodplains which cause an increase in flood heights and velocities, and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, floodproofed or otherwise protected from flood damage.

B. Statement Of Purpose: It is the purpose of this chapter to promote the public health, safety, and general welfare of the residents of Fruit

Heights City, Utah, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

1. To protect human life and health;
2. To minimize expenditure of public money for costly flood control projects;
3. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
4. To minimize prolonged business interruptions;
5. To minimize damage to the public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in special flood hazard areas;
6. To help maintain a stable tax base by providing for the second use and development of special flood hazard areas so as to minimize future flood blight areas;
7. To ensure that potential buyers are notified that property is in a special flood hazard area; and
8. To ensure that those who occupy a special flood hazard area 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 in erosion or in 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 floodwaters;
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 floodwaters or which may increase flood hazards in other areas. (Ord. 2007-05, 6-19-2007)

12-1-2: **DEFINITIONS:** Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application. Any discrepancies that may arise between these definitions and other definitions contained in this title shall be resolved in favor of these definitions in interpreting and administering the provisions of this chapter.

ALLUVIAL FAN FLOODING:	Flooding occurring on the surface of an alluvial fan or similar landform which originates at the apex and is characterized by high velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths.
APEX:	A point on an alluvial fan or similar land form below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.
AREA OF SHALLOW FLOODING:	A designated AH or AO zone with a one percent (1%) or greater annual chance of flooding to an average depth of one to three feet (3') where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.
BASE FLOOD:	The flood having a one percent (1%) chance of being equaled or exceeded in any given year.
BASE FLOOD ELEVATION:	The computed elevation to which floodwater is anticipated to rise during the base flood. Base flood elevations (BFEs) are shown on flood insurance rate maps (FIRMs) and on the flood profiles.
BASEMENT:	Any area of the building having its floor subgrade (below ground level) on all sides.

- CRITICAL FEATURE:** An integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.
- DEVELOPMENT:** Any manmade 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 or storage of equipment or materials located within the special flood hazard area.
- ELEVATED BUILDING:** A. A nonbasement building which is:
1. Built, in the case of a building in zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, to have the top of the elevated floor elevated above the ground level by means of pilings, columns (posts and piers), or shear walls parallel to the floor of the water; and
 2. Adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of the base flood.
- B. In the case of zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of floodwaters.
- EXISTING CONSTRUCTION:** For the purposes of determining rates, structures for which the "start of construction" commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. "Existing construction" may also be referred to as "existing structures".

EXISTING
MANUFACTURED
HOME PARK OR
SUBDIVISION:

A manufactured home park for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) are completed before the effective date hereof.

EXPANSION TO
EXISTING
MANUFACTURED
HOME PARK OR
SUBDIVISION:

The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

FLOOD INSURANCE
RATE MAP (FIRM):

The official map on which the federal emergency management agency has delineated both special flood hazard areas and the risk premium zones applicable to the city.

FLOOD INSURANCE
STUDY:

The official report provided by the federal emergency management agency that includes flood profiles, the flood boundary-floodway map, and the water surface elevation of the base flood.

FLOOD OR
FLOODING:

A general and temporary condition of partial or complete inundation of normally dry land areas from:

- A. The overflow of inland or tidal waters;
- B. The unusual and rapid accumulation or runoff of surface waters from any source; or
- C. Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in subsection B of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

FLOOD PROTECTION SYSTEM:	Those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the area within a community subject to a "special flood hazard" and the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.
FLOODPLAIN MANAGEMENT:	The operation of an overall program of corrective and preventive measures for reducing flood damage, including, but not limited to, emergency preparedness plans, flood control works and floodplain management regulations.
FLOODPLAIN MANAGEMENT REGULATIONS:	Any state law or city ordinance, including Fruit Heights City zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances such as this floodplain ordinance, etc., which provide standards for the purpose of flood damage prevention and reduction.
FLOODPLAIN OR FLOOD PRONE AREA:	Any land area susceptible to being inundated by water from any source (see definition of "flooding").
FLOODPROOFING:	Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.
FLOODWAY:	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 one foot (1').

**FUNCTIONALLY
DEPENDENT USE:**

A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long term storage or related manufacturing facilities.

**HIGHEST ADJACENT
GRADE:**

The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

**HISTORIC
STRUCTURE:**

Any structure that is:

A. Listed individually in the National Register of Historic Places (a listing maintained by the department of interior) or preliminarily determined by the secretary of the interior as meeting the requirements for individual listing on the national register;

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; or

C. Individually listed on the state register as promulgated by the Utah division of state history.

**HYDRODYNAMIC
LOADS:**

Forces imposed on structures by floodwaters due to the impact of moving water on the upstream side of the structure, drag along its sides, and eddies or negative pressures on its downstream side.

**HYDROSTATIC
LOADS:**

Loads or pressures resulting from the static mass of water at any point of floodwater contact with a structure. They are equal in all directions and always act perpendicular to the surface on which they are applied.

LEVEE:	A manmade structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.
LEVEE SYSTEM:	A flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.
LOWEST FLOOR:	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 nonelevation design requirements of this chapter.
MANUFACTURED HOME:	A structure, 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. The term "manufactured home" does not include a "recreational vehicle".
MANUFACTURED HOME PARK OR SUBDIVISION:	A parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.
MEAN SEA LEVEL:	For purposes of the national flood insurance program, the North American Vertical Datum (NAVD) of 1988 or other datum, to which base flood elevations shown on the city's flood insurance rate map are referenced.
NEW CONSTRUCTION:	For purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of the city's initial FIRM, and includes any subsequent improvements to such structures. For floodplain

management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date hereof, and includes any subsequent improvements to such structures.

**NEW
MANUFACTURED
HOME PARK OR
SUBDIVISION:**

A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date hereof.

**RECREATIONAL
VEHICLE:**

A vehicle which is: a) built on a single chassis; b) four hundred (400) square feet or less when measured at the largest horizontal projections; 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.

**SPECIAL FLOOD
HAZARD AREA:**

The land in the floodplain subject to a one percent (1%) or greater chance of flooding in any given year.

**START OF
CONSTRUCTION:**

Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within one hundred eighty (180) days of the permit date. The actual start means the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading or filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a

basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

STRUCTURE: A walled and roofed building or manufactured home that is principally aboveground.

SUBSTANTIAL DAMAGE: Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty percent (50%) of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT: Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

A. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or

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

VARIANCE:	A grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.
VIOLATION:	Failure to comply with any of the terms and conditions of this chapter.
WATER SURFACE ELEVATION:	The height, in relation to the North American Vertical Datum (NAVD) of 1988 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas. (Ord. 2007-05, 6-19-2007)

12-1-3: GENERAL PROVISIONS:

- A. **Lands To Which This Chapter Applies:** This chapter shall apply to all special flood hazard areas within the jurisdiction of Fruit Heights City.
- B. **Basis For Establishing The Special Flood Hazard Areas:** The special flood hazard areas identified by the federal emergency management agency in a scientific and engineering report entitled "The Flood Insurance Study For The City Of Fruit Heights", dated June 18, 2007, with an accompanying flood insurance rate map (FIRM), is hereby adopted by reference and declared to be a part of this chapter. The flood insurance study and FIRM are available for inspection at the city offices, 910 S. Mountain Road, Fruit Heights, Utah 84037.
- C. **Compliance:** No structure or land shall hereafter be constructed, located, extended, converted, or altered unless the modification fully complies with the terms of this chapter and other applicable regulations.
- D. **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 ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

- E. Interpretation: In the interpretation and application of this chapter, 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.
- F. Warning And Disclaimer Of Liability: 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 be increased by manmade or natural causes. This chapter does not imply that land outside the special flood hazard areas or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of Fruit Heights City or any officer or employee thereof, or the federal emergency management agency for any flood damages that result in reliance on this chapter or any administrative decision lawfully made thereunder. (Ord. 2007-05, 6-19-2007)

12-1-4: **DESIGNATION OF THE ADMINISTRATOR:** The building official of Fruit Heights City, or his or her designee, (hereinafter referred to as the "administrator") is hereby appointed to administer and implement this chapter by granting or denying development permit applications in accordance with these provisions and performing all other duties as provided herein. (Ord. 2007-05, 6-19-2007)

12-1-5: **DUTIES AND RESPONSIBILITIES OF THE ADMINISTRATOR:** Duties of the administrator shall include, but not be limited to, the following:

- A. Permit Review:
1. Review and approve or deny all applications for floodplain development permits required by the adoption of this chapter.
 2. Review all development permits to determine that the permit requirements of this chapter have been satisfied.

3. 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.
 4. Review all development permits to determine whether proposed building sites, including the placement of manufactured homes, will be reasonably safe from flooding.
 5. Review all development permits to determine if the proposed development is located in the floodway. Except as provided in section 12-1-11 of this chapter, no development shall be permitted within a floodway.
- B. Use Of Other Base Flood Data: When base flood elevation data has not been provided in accordance with subsection 12-1-3B, "Basis For Establishing The Special Flood Hazard Areas", of this chapter, the administrator shall obtain, review, and reasonably utilize any base flood elevation 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 section 12-1-10, "Specific Standards", of this chapter.
- C. Information To Be Obtained And Maintained:
1. Obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
 2. For all new or substantially improved floodproofed structures:
 - a. Verify and record the actual elevation (in relation to mean sea level) to which the structure has been floodproofed.
 - b. Maintain the floodproofing certifications required in section 12-1-6, "Permit Procedures", of this chapter.
 3. Maintain for public inspection all records pertaining to the provisions of this chapter.
- D. Alteration Of Watercourses:
1. Notify adjacent communities, the Utah state division of water rights, and the Utah state division of water resources prior to any

alteration or relocation of a watercourse, and submit copies of such notification to the federal emergency management agency.

2. Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.

- E. Interpretation Of FIRM Boundaries: Make interpretations where needed, as to the exact location of the boundaries of the special flood hazard areas (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 section 12-1-7, "Appeal Procedure", of this chapter.
- F. Construction When No Regulatory Floodway Has Been Designated: When a regulatory floodway has not been designated, the administrator must require that no new construction, substantial improvements, or other development (including fill) shall be permitted within zones A1-30 and AE on the city's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot (1') at any point within the community.
- G. Application For Conditional FIRM Revision: The administrator shall review applications for conditional FIRM revisions in accordance with section 12-1-11, "Floodways", of this chapter. (Ord. 2007-05, 6-18-2007)

12-1-6: **PERMIT PROCEDURES:** A floodplain development permit ("permit"), shall be obtained before construction or development begins within any special flood hazard area established in subsection 12-1-3B, "Basis For Establishing The Special Flood Hazard Areas", of this chapter. Application for a permit shall be made on forms furnished by the city 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. The administrator may require certification of any of these requirements by a professional engineer or architect as he or she deems necessary.

- A. Specific Requirements: The applicant must provide the following information:

1. The elevation in relation to the mean sea level of the lowest floor (including the basement) of all new and substantially improved structures;
 2. The elevation in relation to the mean sea level to which any nonresidential structure has been floodproofed;
 3. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria of this chapter; and
 4. A description of the extent to which any watercourses will be altered or relocated as a result of the proposed development.
- B. Approval Or Denial: Approval or denial of a permit by the administrator shall be based on the provisions and intent of this chapter and the following relevant factors:
1. The danger to life and property due to flooding or erosion damage;
 2. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 3. The danger that materials may be swept onto other lands to the injury of others;
 4. The compatibility of the proposed use with existing and anticipated development;
 5. The safety of access to the property in times of flood for ordinary and emergency vehicles;
 6. The costs of providing governmental services during and after flood conditions including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas, electrical and water systems;
 7. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site;
 8. The necessity to the facility of a waterfront location, where applicable;

9. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;

10. The relationship of the proposed use to the comprehensive plan and floodplain management plan for that area; and

11. The importance of the services provided by the proposed facility to the community. (Ord. 2007-05, 6-19-2007)

12-1-7: **APPEAL PROCEDURE:**

- A. Any person adversely affected by a final decision of the administrator made in the administration or interpretation of this chapter may, within the time provided herein, appeal that decision to the city council by alleging that there is error in any such final order requirement, decision, or determination made by the administrator in the administration or interpretation of this chapter. Appeals filed hereunder shall be in writing and shall be filed with the city recorder within thirty (30) days of the decision which is appealed. The appeal shall include any required city appeal forms and shall set forth, at a minimum: the name, address and telephone number of the appellant; the decision being appealed; the grounds for appeal; and a description of the alleged error in the decision or determination of the administrator. Only decisions of the administrator applying this chapter may be appealed to the city council as provided herein. Appeals may not be used to waive or modify the terms or requirements of this chapter.
- B. After the appeal application is deemed complete, the city recorder shall schedule the matter to be heard by the city council. Prior to the appeal hearing, the city recorder shall transmit all papers constituting the record of the decision or action being appealed to the city council and the appellant. The city council shall review the record of the decision or action of the administrator and provide the appellant an opportunity to be heard regarding the appeal. In reviewing the appeal, the city council shall consider and review all relevant technical evaluations and the specific factors set forth in subsection 12-1-6B, "Approval Or Denial", of this chapter. The city council shall decide the matter in accordance with the standard of review set forth in subsection C of this section.
- C. The city council may affirm or reverse the decision of the administrator, in whole or in part, or may remand the administrative decision to the administrator. The city council is also authorized to

impose additional conditions as part of its determination of the appeal as necessary to conform with the purposes and intent of this chapter. The city council shall review the administrative decision of the administrator for correctness in determining whether there is substantial evidence in the record to support the order, decision, or determination. The appellant shall have the burden of proving that an error has been made. The city council shall issue a written decision.

- D. A record of all appeals shall be maintained by the city in accordance with the Utah government records access and management act, as amended. (Ord. 2007-05, 6-19-2007)

12-1-8: **VARIANCE PROCEDURE:**

- A. The Fruit Heights City board of adjustment is hereby designated to hear and decide whether to grant a variance upon request by an applicant.
- B. The applicant shall have the right to a hearing before the Fruit Heights City board of adjustment on the question of whether or not the request for the variance fulfills the variance requirements of this chapter. Within thirty (30) days following conclusion of said hearing, the city council shall render a decision denying the variance, granting the variance, or granting the variance with conditions.
- C. Those aggrieved by the decision of the Fruit Heights City board of adjustment may appeal such decision to the Second District Court, Davis County, Utah, as provided by law.
- D. The city shall maintain a record of all variance actions, including justification for their issuance, and report such variances issued in its annual or biennial report submitted to the administrator. The administrator shall report any variances to the federal emergency management agency upon request.
- E. In passing upon applications for a variance, the board of adjustment shall consider all technical evaluations, those specific factors established in subsection 12-1-6B, "Approval Or Denial", of this chapter, the intent and purpose of this chapter, and the following conditions:
 1. Due to the dangers caused by flooding to human life and property and the costs and hardship caused thereby, only under limited

circumstances may variances be granted in Fruit Heights City. 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 human life and public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

2. In limited instances, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half ($1/2$) acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood elevation, providing the factors of subsection 12-1-6B, "Approval Or Denial", of this chapter have been fully considered. As the lot size increases beyond the one-half ($1/2$) acre, the technical justification required for issuing the variance increases.

3. 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. 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 chapter.

4. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

5. Variances shall only be issued when a determination has been made that the variance is the minimum necessary, considering the flood hazard, to afford relief.

6. Variances issued for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use may only be granted provided the structure or other development is protected by methods that minimize

flood damage during the base flood and create no additional threats to public safety.

7. Any applicant to whom a variance is granted shall be given written notice that the issuance of a variance to construct a structure below the base flood level will result in increased risk to life and property and an increase in premium rates for flood insurance, which may be substantial and will be commensurate with the risk of construction below the base flood level. Insurance rates may amount up to as high as twenty five dollars (\$25.00) for one hundred dollars (\$100.00) of insurance coverage. This notice shall be maintained with a record of all variance actions as required in subsection D of this section.

8. All variances shall include a condition that the applicant sign an assumption of risk and waiver of liability agreement, in a form acceptable to the city, absolving Fruit Heights City of any and all liability in the event flood damage occurs to that portion of a structure for which the variance is granted. This agreement shall be recorded in the office of the Davis County recorder, shall run with the land, and shall be binding upon all future owners thereof.

- F. The Fruit Heights City board of adjustment may attach such conditions to the granting of variances as it deems necessary and which fulfill the criteria of the variance provisions of this chapter. (Ord. 2007-05, 6-19-2007)

12-1-9: **GENERAL STANDARDS:** In all special flood hazard areas the following standards are required:

A. Construction Materials And Methods:

1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

3. 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.

- B. Anchoring: All new construction and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure and capable of resisting the hydrostatic and hydrodynamic loads, including the effects of buoyancy.
- C. Utilities:
1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
 2. 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.
 3. On site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- D. Subdivision Proposals:
1. All subdivision proposals (including proposals for manufactured home parks and subdivisions) shall be consistent with the need to minimize flood damage in accordance with the purposes and intent of this chapter.
 2. All subdivision proposals (including proposals for manufactured home parks and subdivisions) shall meet the permit requirements of section 12-1-6, "Permit Procedures", of this chapter and all applicable provisions of this section and section 12-1-10, "Specific Standards", of this chapter.
 3. All subdivision proposals (including proposals for manufactured home parks and subdivisions) shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage.
 4. All subdivision proposals (including proposals for manufactured home parks and subdivisions) shall have adequate drainage provided to reduce exposure to flood hazards.
 5. Base flood elevation data shall be provided for subdivision proposals and other proposed development (including proposals for

manufactured home parks and subdivisions) which contain at least fifty (50) lots or five (5) acres (whichever is less), if not otherwise provided by subsection 12-1-3B, "Basis For Establishing The Special Flood Hazard Areas", or 12-1-5B, "Use Of Other Base Flood Data", of this chapter. (Ord. 2007-05, 6-19-2007)

12-1-10: **SPECIFIC STANDARDS:** In all special flood hazard areas where base flood elevation data has been provided as set forth in subsection 12-1-3B, "Basis For Establishing The Special Flood Hazard Areas", or 12-1-5B, "Use Of Other Base Flood Data", of this chapter, the following provisions are required:

A. Residential Construction:

1. New construction and substantial improvement of any residential structure shall have the lowest floor (including basement) elevated to or above the base flood elevation, with certification provided to the administrator by a registered professional engineer, architect, or land surveyor.

2. Require within any AO zone on the city's FIRM that all new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the city's FIRM (at least 2 feet if no depth number is specified).

3. Require adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures within zones AH and AO.

B. Nonresidential Construction:

1. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement) elevated to or above 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 elevation 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 design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this subsection. Such certifications shall be provided to the administrator and include the specific elevation (in relation to mean sea level) to which such structures are floodproofed.

2. Require within any AO zone on the city's FIRM that all new construction and substantial improvements of nonresidential structures: a) have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the city's FIRM (at least 2 feet if no depth number is specified) or b) together with attendant utility and sanitary facilities be completely floodproofed to that level to meet the floodproofing standard specified in subsections B1a and B1b of this section.

3. Require adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures within zones AH and AO.

C. Openings In Enclosures Below The Lowest Floor: For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, 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 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:

1. A minimum of two (2) openings having a total net area of not less than one square inch for every foot of enclosed area subject to flooding shall be provided;

2. The bottom of all openings shall be no higher than one foot (1') above grade; and

3. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

D. Manufactured Homes:

1. All manufactured homes to be placed within zone A 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:

a. Over the top ties be provided at each of the four (4) corners of the manufactured home, with two (2) additional ties per side at intermediate locations, with manufactured homes less than fifty feet (50') long requiring one additional tie per side;

b. Frame ties be provided at each corner of the home with five (5) additional ties per side at intermediate points, with manufactured homes less than fifty feet (50') long requiring four (4) additional ties per side;

c. All components of the anchoring system be capable of carrying a force of four thousand eight hundred (4,800) pounds; and

d. Any additions to the manufactured home be similarly anchored.

2. All manufactured homes or those to be substantially improved which are proposed to be located on sites: a) outside of a manufactured home park or subdivision, b) in a new manufactured home park or subdivision, c) in an expansion to an existing manufactured home park or subdivision, or d) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, shall meet the following requirements:

a. Within zones A1-30, AH, and AE, such manufactured homes must 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;

b. Within zones A1-30, AH and AE, such 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 subsection D2a of this section must be elevated so that either:

(1) The lowest floor of the manufactured home is at or above the base flood elevation; or

(2) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty six inches (36") in height above grade and is securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

E. Recreational Vehicles:

1. Recreational vehicles placed on sites within zones A1-30, AH, and AE must either: a) be on the site for fewer than one hundred eighty (180) consecutive days, b) be fully licensed and ready for highway use, or c) meet the permit requirements of section 12-1-6 of this chapter and the elevation and anchoring requirements for resisting wind forces of subsection D2a of this section.

2. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions. (Ord. 2007-05, 6-19-2007)

12-1-11: **FLOODWAYS:** Located within special flood hazard areas established in subsection 12-1-3B, "Basis For Establishing The Special Flood Hazard Areas", of this chapter are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, encroachments, including fill, new construction, substantial improvements and other development are prohibited unless the following requirements are met:

A. Certification by a registered professional engineer or architect is provided demonstrating through hydrologic and hydraulic analyses, performed in accordance with standard engineering practice, that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

B. All fill, new construction, and substantial improvements, or other development shall comply with all applicable flood hazard reduction

provisions of sections 12-1-9, "General Standards", and 12-1-10, "Specific Standards", of this chapter.

- C. The administrator may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided the administrator has applied for and been granted a conditional FIRM and floodway revision through FEMA, under the provisions of 44 CFR chapter 1, section 65.12, of the national flood insurance regulations. (Ord. 2007-05, 6-19-2007)

12-1-12: **PENALTY:** Any person, firm or corporation, whether as principal, agent, employee or otherwise, violating or causing or permitting the violation of any of the provisions of this chapter shall be guilty of a class B misdemeanor, and upon conviction thereof shall be punishable by a fine, or by imprisonment in the Davis County jail, or by both as provided by law. Such person, firm, or corporation shall be deemed to be guilty of a separate offense for each day during which any portion of any violation of this chapter is committed, continued, or permitted by such person, firm, or corporation, and shall be punishable as herein provided. (Ord. 2007-05, 6-19-2007)

