

**SECTION 3-350 FLOODPLAIN OVERLAY ZONE DISTRICT** (*orig. 01/04/05*) (*am 01/07/14*)

- A. Applicability.** The provisions and regulations of this section shall apply to all lands within the unincorporated area of Eagle County which are located within the Floodplain Overlay (FO) zone district. If a structure, lot, or other parcel of land lies partly within the FO zone district, the part of such structure, lot, or parcel lying within the district shall meet all requirements for the FO zone district.
- B. Liability.** The degree of flood protection intended to be provided by this section has been determined to be reasonable for regulatory purposes and is based on engineering and scientific methods of study. Floods of greater magnitude may occur and flood heights may be increased by man-made or natural causes, such as ice jams and bridge or culvert openings restricted by debris. This zone district does not imply that the areas outside floodplain zone district or land uses permitted within such areas will be free from flooding or flood damages or that compliance with these regulations will prevent any or all damages from flooding. Nor shall this article create a liability on the part of, or a cause of action against, the County of Eagle or any officer or employee thereof for any flood damages that may result from reliance on this article or any administrative decision. This ordinance and the various parts thereof are hereby declared to be severable. Should any section of this ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any portion thereof other than the section so declared to be unconstitutional or invalid.
- C. Designation of Floodplain Administrator.** The Board of County Commissioners hereby designates the County Engineer or his/her designee as the Floodplain Administrator to assist in the implementation and administration of the FO zone district regulations. Duties of the Floodplain Administrator shall include the following:
- 1. Set Fees.** Receive completed applications and set the fees associated therewith.
  - 2. Review Applications.** Review all permit applications to determine whether the requirements of the FO zone district have been satisfied and all necessary permits have been obtained from local, state, or federal agencies from which prior approval is required by law, including Section 404 of the Federal Water Pollution Control Act.
  - 3. Set Base Flood Elevation (BFE).** . When Base Flood Elevation data has not been provided in accordance with section 3-350 D, the Floodplain Administrator shall obtain, review and reasonably utilize any Base Flood Elevation data and Floodway data available from a Federal, State, or other source.
  - 4. Maintain Lowest Floor Elevation Records.** Obtain and maintain the actual elevation records and certificates of the lowest floor, including the basement, of all new or substantially improved structures, and, if the structure has been flood proofed, the elevation to which the structure was flood proofed; and certification by a Colorado Licensed Professional Engineer or Architect that the flood proofing methods for any non-residential structure meet the flood proofing criteria.
  - 5. Maintain All Records.** Maintain for public inspection all records pertaining to the provisions of the FO zone district including records of permits granted and records of all variance actions with justification for their issuance. Variances issued shall be reported on an annual basis to FEMA.

6. **Notify Communities and Agencies.** Notify adjacent communities, potentially impacted communities and property owners, and the Colorado Water Conservation Board prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the FEMA.
7. **Determine if Development is in Floodway or Flood Fringe.** Determine whether the site for a proposed development is located in a floodway, the flood fringe, or outside the floodplain pursuant to section 3-350 H of the FO zone district.
8. **Approve Floodplain Development Permits.** Review all permit applications which involve a use or structure enumerated in sections 3-350 F, 3-350 G and 3-350 H of the FO zone district and based thereon, either approve the application and grant a permit, or deny the application pursuant to section 3-350 N.
9. **Administer FO Zone Districts.** Carry out other administrative duties in the implementation and administration of the FO zone district regulations as the Board of County Commissioners may from time to time delegate to the Floodplain Administrator.
10. **Interpret Maps.** Make interpretations where needed, as to the exact location of the boundaries of the FO zone district where there appears to be a conflict between a mapped boundary and actual field conditions based upon an engineering study by the applicant.
11. **Make Recommendations to the Zoning Board of Adjustment.** Review and transmit recommendations to the Zoning Board of Adjustment regarding requested variances and appeals pursuant to Section 5-260.
12. **Make Recommendations on Amendments to the FO Zone District.** Review floodplain reports approved by the Colorado Water Conservation Board and make recommendations to the Planning Commission and Board of County Commissioners regarding necessary amendments or additions to the FO zone district.
13. **Development Inspections.** Inspect all development at appropriate times during the period of construction to ensure compliance with all provisions of this ordinance, including proper elevation of the structure.
14. **Approve Certain Development that increase the Base Flood Elevation.** Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program regulations, the Floodplain Administrator may approve certain development in Zones A1-30, AE, AH, as shown on the FIRM which increases the water surface elevation of the base flood by more than one-half foot or zero feet for the Roaring Fork River, provided that an application is made for a conditional FIRM revision through FEMA (Conditional Letter of Map Revision), all conditions and requirements for such revisions are fulfilled as established under the provisions of Section 65.12 and receives FEMA approval.
15. **Flood Carrying Capacity.** Ensure that the flood carrying capacity within any altered or relocated portion of any watercourse is maintained.

**D. Official Floodplain Maps.** The FO zone district is comprised of the Special Flood Hazard Area (or SFHA, formerly referred to as the “100 year floodplain”) of the rivers and creeks in unincorporated Eagle County. *(am 11/13/07)*

- 1. Designation of Official Maps.** The following reports designate the location and boundaries of the FO zone district:
  - a.** A report entitled “Flood Insurance Study, Eagle County, Colorado and Incorporated Areas,” (FIS) effective December 4, 2007, as prepared by FEMA, Flood Insurance Study Number “08037CV000A” which contains detailed flood hazard information for the Roaring Fork River, The Eagle River, Brush Creek, and Gore Creek and its tributaries. *(am 11/13/07)*
  - b.** Flood Insurance Rate Maps prepared by FEMA for Eagle County, last revised December 4, 2007. *(am 11/13/07)*
  - c.** Floodplain Information Report of the Roaring Fork and Frying Pan Rivers, Eagle County, Colorado, prepared by Wright-McLaughlin Engineers and dated February, 1978.
  - d.** United States Department of the Interior, Geological Survey Maps of Flood-Prone areas for the Basalt Quadrangle, Edwards Quadrangle, Eagle Quadrangle, Gypsum Quadrangle, Minturn Quadrangle, and Wolcott Quadrangle dated 1974.
  - e.** Gore Creek Floodplain Information, Vail, Eagle County, Colorado, prepared by Hydro-Triad, Ltd., and dated June, 1975.
  - f.** Flood Information Report, Roaring Fork River, Town of Basalt, Eagle and Pitkin Counties, Prepared by Matrix Design Group dated November 14, 2001.
  - g.** Flood Information Report, Eagle and Colorado River, Eagle County, Colorado prepared by Matrix Design Group dated August 22, 2003.
  - h.** Digital FIRM (DFIRM) mapping available from FEMA’s Map Service Center <http://msc.fema.gov> *(orig. 11/13/07)*
  - i.** Any further floodplain studies that have been approved by the Board of County Commissioners with the prior concurrence of the Colorado Water Conservation Board.
- 2. Adoption of Floodplain Maps.** Maps officially adopted by the Board of County Commissioners as a part of the FO zone district may be amended in accordance with the procedures prescribed in Section 5-230, Amendments to the Text of These Land Use Regulations or the Official Zone Change Map.
- 3. Public Inspection of Maps.** The Eagle County Engineering Department shall keep copies of the reports cited in Section 3-350 D.1 on file and open to public inspection.
- 4. Interpretation of Official Maps.** Where interpretation is needed as to the exact location of the boundaries of the FO zone district, the Floodplain Administrator shall make the

necessary interpretation by referring, as necessary, to the engineering study upon which the maps and elevations are based, to the professional engineers who prepared the study, to the Colorado Water Conservation Board, and/or the Federal Emergency Management Agency. The base flood elevations, as shown on the flood profiles and in the floodway tables of the Eagle County Flood Insurance Study as prepared by the Federal Emergency Management Agency, shall be the governing factor in determining accurate boundaries.

**E. Division of the Floodplain Overlay Zone District.** The FO zone district within the unincorporated territory of the County of Eagle subject to these regulations is hereby divided into the following areas.

- 1. Flood-prone area.** The flood-prone area means an approximate area encompassing the area in and adjacent to a stream or other watercourse, which is subject to flooding as the result of a base flood, the water surface elevations of which have not been determined by detailed engineering study. Such area is equivalent to the “Special Flood Hazard Area (SFHA)” designated as any of the “Zone A’s” on Flood Insurance Rate Maps (FIRM) or DFIRM and to “Flood-prone Areas” on U.S. Geological Survey Flood-prone Area Maps. *(am 11/13/07)*
- 2. Floodway.** The floodway means the high hazard area and encompasses an area which includes the channel of a stream or other watercourse and any adjacent floodplain areas which are reasonably required to carry and discharge the floodwaters of a base flood and which must be kept free of development so the base flood can be carried without an increase in flood height. If the floodway is not identified, it is considered to be identical to the floodplain. Specifically, a floodway is defined as the stream channel plus any adjacent floodplain areas that must be kept free of development so the base flood can pass with no more than a 0.5 foot increase in the water surface elevation or the energy grade line, providing hazardous velocities are not produced for all rivers except the Roaring Fork River. The floodway for the Roaring Fork River is defined as the stream channel plus any adjacent floodplain areas that must be kept free of development so the base flood can pass with no increase in the water surface elevation or the energy grade line. However, for all rivers, in no instance shall the floodway-flood fringe boundary be closer than twenty-five (25) feet to the natural streambank.
- 3. Flood Fringe.** The flood fringe means the area, encompassing that area between the outer boundary of the floodway and the outer limit of the “Special Flood Hazard Area (SFHA)”. *(am 11/13/07)*
- 4. Areas of Shallow Flooding (AO/AH Zones).** Located within the Special Flood Hazard Area established in the FO zone district, are areas designated as shallow flooding. These areas have special flood hazards associated with base flood depths of 1 to 3 feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and where velocity flow may be evident.

Areas of Shallow Flooding may also be subject to the above listed divisions of the Floodplain Overlay Zone District. Areas of Shallow Flooding are characterized by ponding or sheet flow; therefore, the following additional provisions apply:

- a. Residential Construction.** All new construction and Substantial Improvements of residential structures must have the lowest floor (including basement), electrical, heating, ventilation, plumbing, and air conditioning equipment and other service

facilities (including ductwork), elevated above the highest adjacent grade at least one foot above the depth number specified in feet on the community's FIRM (at least three feet if no depth number is specified). Upon completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a Colorado Licensed Professional Engineer, Architect, or land surveyor. Such certification shall be submitted to the Floodplain Administrator.

- b. Nonresidential Construction.** With the exception of Critical Facilities, outlined in section 3-350 M, all new construction and Substantial Improvements of non-residential structures, must have the lowest floor (including basement), electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities (including ductwork), elevated above the highest adjacent grade at least one foot above the depth number specified in feet on the community's FIRM (at least three feet if no depth number is specified), or together with attendant utility and sanitary facilities, be designed so that the structure is watertight to at least one foot above the base flood level with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads of effects of buoyancy. Upon completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a Colorado Licensed Professional Engineer, Architect, or land surveyor. Such certification shall be submitted to the Floodplain Administrator that the standards of this Section, as proposed in section 3-350 N, are satisfied.

Within Zones AH or AO, adequate drainage paths around structures on slopes are required to guide flood waters around and away from proposed structures.

**F. Regulations of Flood-Prone Areas.** The provisions of this section shall apply to each Flood-Prone area as identified on the official map or maps listed in Section 3-350 D.

- 1. Floodplain Development Permit Required.** No person shall engage in development of any kind, whether a conforming or nonconforming use or structure, within a Flood-Prone area without first obtaining a floodplain development permit.
- 2. Prohibited Uses.** No development on or over any portion of a Flood-Prone area shall be permitted which alone, or cumulatively with other such activities, would cause or result in any of the following:
  - a.** The storage or processing of materials that in time of flooding are buoyant, flammable, explosive, or otherwise potentially injurious to human, animal or plant life.
  - b.** The disposal of garbage or other solid waste materials.
  - c.** The potential of substantial solid debris or refuse being carried downstream by floodwaters.
  - d.** The increase in the level or likelihood of flooding on the property or on any other properties that may be impacted by the development.
- 3. Allowed Uses.** The following uses shall be allowed within a Flood-Prone area:

- a. Agricultural uses such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, truck farming, forestry, and sod farming.
    - b. Private and public recreational uses, such as golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, target ranges, shooting preserves, trap and skeet ranges, hunting and fishing areas, fish hatcheries, and hiking, biking and equestrian trails, except that structures accessory to such uses shall not be located in a Flood-Prone area.
  4. **The Flood Hazard's Specific Extent Has Not Yet Been Determined.** The specific extent of the flood hazard has not yet been determined in a flood-prone area. The boundaries of the flood-prone area are based on physical factors indicating flow and direction of water, historical flood experience, or other readily available data.
  5. **Determine if in Floodway or Flood Fringe.** The flood hazard is of such significance that before any proposed development, other than those uses enumerated in subsection 3, of this section 3-350 F, may be permitted in any portion of such area, public health, safety and welfare require that a determination shall be made as to whether the site of the proposed development or activity is located within a floodway or flood fringe. The Floodplain Administrator shall make such determination promptly and as may be appropriate and practical. Any application for a permit to conduct development in a Flood-Prone area shall not be considered complete or be accepted unless and until it is accompanied by the results of studies necessary to determine whether the proposed development is located in a floodway or flood fringe.
  6. **Technical Criteria.** These floodplain studies shall meet the technical criteria established by the Colorado Water Conservation Board and the Federal Emergency Management Agency for the review and designation of floodplain delineation studies.
  7. **Notice of Floodway or Flood Fringe Determination.** Upon receipt of the completed study and a determination by the Floodplain Administrator that such study is true and accurate; the Floodplain Administrator shall inform the applicant in writing whether the site of the proposed development or activity lies within any of the following:
    - a. The floodway, in which case further processing of the application shall be governed by section 3-350 H, and the applicable provisions of this Section.
    - b. The flood fringe, in which case further processing of the application shall be governed by section 3-350 G, and the applicable provisions of this Section.
    - c. None of the above, in which case none of the provisions of the FO zone district shall have any further applicability to such application.
- G. Regulations for the Flood Fringe.** The provisions of this section shall apply to each flood fringe area as identified in one of the official FO zone district maps.

1. **Floodplain Development Permit.** No person shall engage in development of any kind, whether a conforming or nonconforming use or structure, within a flood fringe without first obtaining a floodplain development permit.
2. **Stream Setbacks.** When applicable, a floodplain development permit will only be issued if a variance from the Zoning Board of Adjustments pursuant to Section 5-260 or variation from the stream setbacks approved as part of Planned Unit Development pursuant to Section 5-240 has been obtained.
3. **Prohibited Uses.** No development or uses on or over any portion of the flood fringe shall be permitted which alone, or cumulatively with other such development or uses, would cause or result in any of the following:
  - a. The storage or processing of materials that in time of flooding are buoyant, flammable, explosive, or otherwise potentially injurious to human, animal, or plant life.
  - b. The disposal of garbage or other solid or liquid waste materials.
  - c. The potential of substantial solid debris or waste being carried downstream by floodwaters.
  - d. The construction or improvement of a structure, whether fixed or mobile, such that any external wall shall be not less than fifteen (15) feet from the stream side of the flood fringe.
  - e. The lowest floor, including the basement, of any such building or structure shall be not less than one (1) foot above the maximum base flood elevation. The lowest adjacent grade surrounding the structure shall be filled to at least the base flood elevation, compacted with slopes and protected by vegetated cover.
  - f. The lowest interior grade, including crawl spaces, shall not be lower than the base flood elevation.
4. **Allowed Uses.** The following uses shall be allowed within the flood fringe:
  - a. **All Structures.** The following subsection is applicable to all structures and uses provided that:
    - (1) All new construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
    - (2) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;
    - (3) All new construction or substantial improvements shall be constructed with materials resistant to flood damage;

- (4) All new construction or 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;
- (5) All manufactured homes shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. 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.
- (6) All new and replacement potable and non-potable water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system utilizing best management practices (BMPs), unless specific components of these systems require infiltration, such as supply intake structures;
- (7) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system utilizing best management practices (BMPs) and discharge from the systems into flood waters; and,
- (8) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

**b. Residential Structures.** In addition to the requirements set forth in 3-350 G 4 a above, residential structures and uses are allowed provided that they meet the following additional requirements:

- (1) Any residential structure, , whether fixed or mobile, designed for human occupancy or the storage of property, shall be constructed, located or improved so that any external wall shall be not less than fifteen (15) feet from the stream side of the flood fringe.
- (2) The lowest floor, including the basement, including all electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities (including ductwork), of any such building or structure shall be not less than one (1) foot above the maximum base flood elevation. The lowest adjacent grade surrounding the structure shall be filled to at least the base flood elevation, compacted with slopes and protected by vegetated cover.
- (3) The lowest interior grade, including crawl spaces, shall not be lower than the lowest adjacent grade.
- (4) Upon completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a Colorado Licensed



Professional Engineer, Architect, or Land Surveyor. Such certification shall be submitted to the Floodplain Administrator.

- c. Nonresidential Structures or Uses.** Nonresidential structures or uses are allowed provided that:
- (1)** With the exception of Critical facilities, outlined in section 3-350 M, any nonresidential structure shall be constructed, located or improved so that any external wall shall be not less than fifteen (15) feet from the stream side of the flood fringe.
  - (2)** Any nonresidential structure shall either have the lowest floor, including electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities (including ductwork), including the basement, not less than one (1) foot above the BFE; or together with attendant utility and sanitary facilities shall be flood proofed so that below the computed BFE the structure is water tight with walls substantially impermeable to the passage of water; have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and be certified by an engineer or architect licensed in the State of Colorado that the standards of this subsection are satisfied. Any nonresidential structure shall be constructed by methods and practices that minimize flood damage, and shall be constructed with materials resistant to flood damage. Such certifications shall be submitted to the Floodplain Administrator or its designated representative and provide that where a non-residential structure is intended to be made watertight below the one (1) foot above the BFE, (i) a Colorado Licensed Professional Engineer or architect shall develop and/or review structural design, specifications, and plans for the construction and shall certify that the design and methods of construction are in accordance with current technical criteria, and (ii) a record of such certificate which includes the specific elevation (in relation to the appropriate datum) that the structures are flood proofed. Such certification shall be maintained by the Floodplain Administrator All flood proofing shall meet the current technical criteria set by the Colorado Water Conservation Board and the Federal Emergency Management Agency. Such certifications shall be provided to the Floodplain Administrator.
  - (3)** In the event that floodwaters in the flood fringe can be expected to attain a velocity greater than three (3) feet per second (at any point where the proposed development is to occur), additional flood proofing shall be required sufficient to withstand such greater water velocity.
  - (4)** Nonresidential uses including:
    - (a)** Agricultural uses such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, truck farming, forestry, and sod farming.

- (b) Private and public recreational uses, such as golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, trap and skeet ranges, hunting and fishing areas, fish hatcheries, hiking, biking and equestrian trails.
  - (c) Open area residential uses such as lawns, gardens, parking areas, and play areas.
  - (d) Uses accessory to open space or uses for which a permit is required under the FO zone district.
  - (e) Railroads, streets, roads, bridges, utility lines and facilities, and structures for irrigation, drainage or flood control.
- d. **Enclosures.** New construction and substantial improvements, with 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 Colorado Licensed Professional Engineer or Architect or meet or exceed the following minimum criteria:

- (1) 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.
  - (2) The bottom of all openings shall be no higher than one foot above grade.
  - (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.
- e. **Manufactured Homes.** All manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM on sites (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 manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home, electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities (including ductwork), are elevated to one foot above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

All manufactured homes placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A1-30, AH and AE on the

community's FIRM that are not subject to the provisions of the above paragraph, shall be elevated so that either:

- (1) The lowest floor of the manufactured home, electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities (including ductwork), are one foot 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 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

**H. Regulations for the Floodway.** The provisions of this section shall apply to each floodway as identified on the official FO zone district maps.

1. **Floodplain Development Permit.** No person shall engage in development of any kind, whether a conforming or nonconforming use or structure, within the floodway without first obtaining a floodplain development permit.
2. **Prohibited Uses.** Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potential, no development, encroachment, use, or alteration in, on, or over any part of the floodway shall be permitted which alone or cumulatively with other such uses would cause or result in:
  - a. The occupation of permanent or temporary structures.
  - b. The development or use of overnight campgrounds and travel trailer parks.
  - c. The storing or processing of materials that are buoyant, flammable, explosive, or otherwise potentially injurious to human, animal or plant life.
  - d. Solid waste disposal sites and central collection sewage treatment facilities.
  - e. The potential of solid debris (including, but not limited to garages, storage sheds, decks, fences, etc.) or waste (including, but not limited to septic systems, etc.) being carried downstream.
  - f. An encroachment that would adversely affect the efficiency and capacity of the floodway or change the direction of flow or cause any increase in the base flood elevation or so as to cause foreseeable damage to others, wherever located.
  - g. An encroachment, including fill, new construction, substantial improvements and other development unless certification by a Colorado Licensed Professional Engineer is provided demonstrating that encroachments shall not result in any increase in flood levels or velocities during the occurrence of the base flood

discharge. The analysis shall be in accordance with standard engineering practice and a No-Rise Certification shall be submitted to the Floodplain Administrator.

3. **Allowed Uses.** The following uses shall be permitted within the floodway to the extent that are not prohibited in a particular area by any underlying zoning district and only if they do not adversely affect the efficiency of the floodway, change the direction of flow or increase the BFE.
  - a. Agricultural uses such as general farming, grazing of livestock and horses, sod farming and wild crop harvesting.
  - b. Uses accessory to residential uses including but not limited to lawns, open areas, gardens, driveways and play areas.
  - c. Recreational uses not requiring permanent or temporary structures designed for human habitation.
  - d. Road and highway structures and attached utilities.
  - e. Stream restoration projects, such as fish habitat enhancements, bank stabilization, and wetland and riparian improvement projects.
  - f. Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Regulations, any of the allowed uses that encroach may be permitted within the adopted regulatory floodway that would result in an increase in Base Flood Elevations, provided that the applicant first applies for a CLOMR and floodway revision through FEMA.
  - g. Buried utilities.
  - h. Domestic and municipal intake structures.
  - i. Whitewater and recreation parks.

**I. Mobile Home Parks and Recreational Vehicle Parks.** The provisions of this section shall apply to all mobile home parks and recreational vehicle parks currently in the FO zone district, or proposed to be in the FO zone district.

1. **Anchors.** Use of existing mobile homes within the floodway, the flood fringe or a flood-prone area may be continued as a nonconforming use provided, however, that any mobile home located within the floodway, the flood fringe and/or a flood-prone area shall be anchored to resist flotation, collapse or lateral movement in the event of flooding by providing over-the-top and frame ties to ground anchors. Specific requirements shall be as follows:
  - a. **Over-the-top Ties.** 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 (50) feet long requiring one additional tie per side.

- b. **Frame Ties.** Frame ties be provided at each corner of the home with five additional ties per side at intermediate points, with homes less than fifty (50) feet long requiring four additional ties per side.
  - c. **Components.** All components of the anchoring system be capable of carrying a force of 4,800 pounds.
  - d. **Additions.** Any additions to the home be similarly anchored.
- 2. **New Mobile Homes in the Floodplain.** Development of new mobile home parks, the expansion of any existing mobile home parks, the placement of any mobile homes outside a mobile home park within the floodway, flood fringe or a flood-prone area shall be prohibited.
- 3. **Lowest Floor Above the BFE.** All new mobile homes or those to be substantially improved shall be elevated on a permanent foundation such that the lowest floor of the mobile home is one foot above the BFE.
- 4. **Recreational Vehicles.** Recreational vehicles that meet the following conditions may be located in the flood fringe:
  - a. The recreational vehicle is located on the site for fewer than one hundred eighty (180) consecutive days.
  - b. The recreational vehicle is fully licensed and ready for highway use. 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.
  - c. Meet the permit requirements of section 3-350 N, and the elevation and anchoring requirements for "manufactured homes" in section 3-350 G 4 e.
- J. **Alteration of a Watercourse.** For all proposed developments that alter a watercourse within a Special Flood Hazard Area, the following standards apply:
  - 1. Channelization and flow diversion projects shall appropriately consider issues of sediment transport, erosion, deposition, and channel migration and properly mitigate potential problems through the project as well as upstream and downstream of any improvement activity. A detailed analysis of sediment transport and overall channel stability should be considered, when appropriate, to assist in determining the most appropriate design.
  - 2. Channelization and flow diversion projects shall evaluate the residual 100-year floodplain.
  - 3. Any channelization or other stream alteration activity proposed by a project proponent must be evaluated for its impact on the regulatory floodplain and be in compliance with all applicable Federal, State and local floodplain rules, regulations and ordinances.
  - 4. Any stream alteration activity shall be designed and sealed by a Colorado Licensed Professional Engineer or Certified Professional Hydrologist.

5. All activities within the regulatory floodplain shall meet all applicable Federal, State and FO zone district floodplain requirements and regulations.
  6. Within the Regulatory Floodway, stream alteration activities shall not be constructed unless the project proponent demonstrates through a Floodway analysis and report, sealed by a Colorado Licensed Professional Engineer, that there is not more than a 0.00-foot rise in the proposed conditions compared to existing conditions Floodway resulting from the project, otherwise known as a No-Rise Certification, unless the community first applies for a CLOMR and Floodway revision in accordance with section 3-350 H.
  7. Maintenance shall be required for any altered or relocated portions of watercourses so that the flood-carrying capacity is not diminished.
- K. Properties Removed from the Floodplain by Fill.** A Floodplain Development Permit shall not be issued for the construction of a new structure or addition to an existing structure on a property removed from the floodplain by the issuance of a FEMA Letter of Map Revision Based on Fill (LOMR-F), unless such new structure or addition complies with the following:
1. **Residential Construction.** The lowest floor (including basement), electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities (including ductwork), must be elevated to one foot above the Base Flood Elevation that existed prior to the placement of fill.
  2. **Nonresidential Construction.** The lowest floor (including basement), electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities (including ductwork), must be elevated to one foot above the Base Flood Elevation that existed prior to the placement of fill, or together with attendant utility and sanitary facilities be designed so that the structure or addition is watertight to at least one foot above the base flood level that existed prior to the placement of fill with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads of effects of buoyancy.
- L. Subdivision Proposals.** All subdivision proposals including the placement of manufactured home parks and subdivisions shall be reasonably safe from flooding. If a subdivision or other development proposal is in a flood-prone area, the proposal shall minimize flood damage.
1. All proposals for the development of subdivisions including the placement of manufactured home parks and subdivisions shall meet Floodplain Development Permit requirements of section 3-350 N.
  2. Base Flood Elevation data shall be generated for subdivision proposals and other proposed development including the placement of manufactured home parks and subdivisions which is greater than 50 lots or 5 acres, whichever is lesser, if not otherwise provided pursuant to section 3-350 C or section 3-350 D 1.
  3. All subdivision proposals including the placement of manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.
  4. All subdivision proposals including the placement of 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.

**M. Critical Facilities.** A Critical Facility is a structure or related infrastructure, but not the land on which it is situated, as specified in Section 3-350 M 1, that if flooded may result in significant hazards to public health and safety or interrupt essential services and operations for the community at any time before, during and after a flood.

**1. Classification of Critical Facilities.** It is the responsibility of the local government having jurisdiction to identify and confirm that specific structures in their community meet the following criteria:

Critical Facilities are classified under the following categories: (a) Essential Services; (b) Hazardous Materials; (c) At-risk Populations; and (d) Vital to Restoring Normal Services.

- a.** Essential services facilities include public safety, emergency response, emergency medical, designated emergency shelters, communications, public utility plant facilities, and transportation lifelines.

These facilities consist of:

- (1)** Public safety (police stations, fire and rescue stations, emergency vehicle and equipment storage, and, emergency operation centers);
- (2)** Emergency medical (hospitals, ambulance service centers, urgent care centers having emergency treatment functions, and non-ambulatory surgical structures but excluding clinics, doctor's offices, and non-urgent care medical structures that do not provide these functions);
- (3)** Designated emergency shelters;
- (4)** Communications (main hubs for telephone, broadcasting equipment for cable systems, satellite dish systems, cellular systems, television, radio, and other emergency warning systems, but excluding towers, poles, lines, cables, and conduits);
- (5)** Public utility plant facilities for generation and distribution ( hubs, treatment plants, municipal wells, substations and pumping stations for water, power and gas, but not including towers, poles, power lines, buried pipelines, transmission lines, distribution lines, and service lines); and
- (6)** Air Transportation lifelines (airports (municipal and larger), helicopter pads and structures serving emergency functions, and associated infrastructure (aviation control towers, air traffic control centers, and emergency equipment aircraft hangars).

Specific exemptions to this category include wastewater treatment plants (WWTP) and appurtenant facilities, non-potable water treatment and distribution systems, and hydroelectric power generating plants and related appurtenances.

Public utility plant facilities may be exempted if it can be demonstrated to the satisfaction of the local government having jurisdiction that the facility is an element of a redundant system for which service will not be interrupted during a flood. At a minimum, it shall be demonstrated that redundant facilities are

available (either owned by the same utility or available through an intergovernmental agreement or other contract) and connected, the alternative facilities are either located outside of the 100-year floodplain or are compliant with the provisions of this article, and an operations plan is in effect that states how redundant systems will provide service to the affected area in the event of a flood. Evidence of ongoing redundancy shall be provided to the local government having jurisdiction on an as-needed basis upon request.

- b.** Hazardous materials facilities include facilities that produce or store highly volatile, flammable, explosive, toxic and/or water-reactive materials.

These facilities may include:

- (1)** Chemical and pharmaceutical plants (chemical plant, pharmaceutical manufacturing);
- (2)** Laboratories containing highly volatile, flammable, explosive, toxic and/or water-reactive materials;
- (3)** Refineries;
- (4)** Hazardous waste storage and disposal sites; and
- (5)** Above ground gasoline or propane storage or sales centers.

Facilities shall be determined to be Critical Facilities if they produce or store materials in excess of threshold limits. If the owner of a facility is required by the

Occupational Safety and Health Administration (OSHA) to keep a Material Safety Data Sheet (MSDS) on file for any chemicals stored or used in the work place, AND the chemical(s) is stored in quantities equal to or greater than the Threshold Planning Quantity (TPQ) for that chemical, then that facility shall be considered to be a Critical Facility. The TPQ for these chemicals is: either 500 pounds or the TPQ listed (whichever is lower) for the 356 chemicals listed under 40 C.F.R. § 302 (2010), also known as Extremely Hazardous Substances (EHS); or 10,000 pounds for any other chemical. This threshold is consistent with the requirements for reportable chemicals established by the Colorado Department of Health and Environment. OSHA requirements for MSDS can be found in 29 C.F.R. § 1910 (2010). The Environmental Protection Agency (EPA) regulation “Designation, Reportable Quantities, and Notification,” 40 C.F.R. § 302 (2010) and OSHA regulation “Occupational Safety and Health Standards,” 29 C.F.R. § 1910 (2010) are incorporated herein by reference and include the regulations in existence at the time of the promulgation this ordinance, but exclude later amendments to or editions of the regulations

Specific exemptions to this category include:

- (6)** Finished consumer products within retail centers and households containing hazardous materials intended for household use, and agricultural products intended for agricultural use.



- (7) Buildings and other structures containing hazardous materials for which it can be demonstrated to the satisfaction of the local authority having jurisdiction by hazard assessment and certification by a qualified professional (as determined by the local jurisdiction having land use authority) that a release of the subject hazardous material does not pose a major threat to the public.
- (8) Pharmaceutical sales, use, storage, and distribution centers that do not manufacture pharmaceutical products.

These exemptions shall not apply to buildings or other structures that also function as Critical Facilities under another category outlined in this section.

- c. At-risk population facilities include medical care, congregate care, and schools.

These facilities consist of:

- (1) Elder care (nursing homes);
- (2) Congregate care serving 12 or more individuals (day care and assisted living);
- (3) Public and private schools (pre-schools, K-12 schools), before-school and after-school care serving 12 or more children);

- d. Facilities vital to restoring normal services including government operations.

These facilities consist of:

- (1) Essential government operations (public records, courts, jails, building permitting and inspection services, community administration and management, maintenance and equipment centers);
- (2) Essential structures for public colleges and universities (dormitories, offices, and classrooms only).

These facilities may be exempted if it is demonstrated to the local government having jurisdiction that the facility is an element of a redundant system for which service will not be interrupted during a flood. At a minimum, it shall be demonstrated that redundant facilities are available (either owned by the same entity or available through an intergovernmental agreement or other contract), the alternative facilities are either located outside of the 100-year floodplain or are compliant with this ordinance, and an operations plan is in effect that states how redundant facilities will provide service to the affected area in the event of a flood. Evidence of ongoing redundancy shall be provided to the local government having jurisdiction on an as-needed basis upon request.

- 2. **Protection for Critical Facilities.** All new and substantially improved Critical Facilities and new additions to Critical Facilities located within the Special Flood Hazard Area shall be regulated to a higher standard than structures not determined to be Critical Facilities. For the purposes of this section, protection shall include one of the following:

- a. Location outside the Special Flood Hazard Area; or
    - b. Elevation of the lowest floor or floodproofing of the structure, together with attendant utility and sanitary facilities, to at least two feet above the Base Flood Elevation.
  3. **Ingress and Egress for New Critical Facilities.** New Critical Facilities shall, when practicable as determined by the local government having jurisdiction, have continuous non-inundated access (ingress and egress for evacuation and emergency services) during a 100-year flood event.
- N. **Floodplain Development Permit.** A floodplain development permit shall be obtained from the Floodplain Administrator before the start of construction or development within the FO zone district.
  1. **Contents of Floodplain Development Permits.** Applications for floodplain development permits are to be submitted to the Floodplain Administrator and shall include the following information as applicable:
    - a. **Application Form.** A completed application form with all necessary information completed.
    - b. **Site Plan.** A plan at a scale of 1"=200' or as approved by the Floodplain Administrator, stamped by an engineer licensed in the State of Colorado, which includes:
      - (1) The site location.
      - (2) A legal description of parcel.
      - (3) Base flood limits and water surface elevations in relation to mean sea level.
      - (4) Floodway limits.
      - (5) Channel of watercourse.
      - (6) Existing and proposed contours or elevations at no more than 2' intervals, in relation to mean sea level.
      - (7) Existing and proposed structures, with the lowest floor elevations (including basements and garages) of each structure.
      - (8) Proposed elevations in relation to mean sea level to which structures will be flood proofed (if applicable).
      - (9) Location and elevations in relation to mean sea level of existing streets, water supply, and sanitation facilities.

- (10) Limits and total land area of all existing and proposed impervious surfaces, including structures.
  - (11) Existing water supply ditches, irrigation ditches and laterals.
  - (12) All maps shall comply with the National Map Accuracy Standards.
- c. **Channel Cross-Section.** A typical cross-section showing:
- (1) The channel of the watercourse.
  - (2) Limits of floodplain adjoining each side of channel.
  - (3) Cross-section area to be occupied by the proposed development.
  - (4) Existing and proposed base flood elevations.
- d. **Construction Specifications.** Specifications for construction and materials of buildings, flood proofing, filling, dredging, grading, channel improvements, storage of materials, water supply, and sanitation facilities as applicable.
- (1) **Floodproofing Certificate.** If applicable, a certificate from a Colorado Licensed Professional Engineer or Architect that the nonresidential floodproofed structure shall meet the floodproofing criteria of Section 3-350 G 4 b.
- e. **Alteration of Water Course.** Description of the extent to which any water course will be altered or relocated as a result of the proposed development.
- f. **Floodway Floodplain Development Requirements.** If development is proposed in a floodway then a floodway analysis by a Colorado Licensed Professional Engineer must be completed using methodology acceptable to the Federal Emergency Management Agency and Colorado Water Conservation Board and must meet the following guidelines:
- (1) If a detailed hydraulic floodway analysis has not been performed, the responsibility for determining the floodway boundary rests with the floodplain development permit applicant. The need for a detailed hydraulic floodway analysis shall be the decision of the Floodplain Administrator.
  - (2) The Floodplain Administrator may require that the detailed hydraulic floodway analysis be based on the identical hydraulic model which was used to develop the engineering study currently adopted by the Board of County Commissioners, if available. The applicant should obtain, through the Floodplain Administrator, a copy of the input data representing the computer model used for the effective flood hazard study if available.

- (3)** The model must then be updated to existing hydraulic conditions to determine what increase in the 100 year water surface elevation levels have already been achieved by development since the floodplain was established.

  - (a)** Alternate floodway configurations may then be analyzed based on methods as outlined in the current U.S. Army Corps of Engineers HEC-RAS Water Surface Profiles Users Manual and submitted to the Floodplain Administrator for review and approval.
  - (b)** Approval will be based on demonstration that the cumulative effects of the proposed development, plus the effects of development since the original flood hazard area was established, does not cause a rise in the base flood elevation.
  - (c)** At the Floodplain Administrator's discretion, where a regulatory floodway has been designated, it may not be necessary to determine the cumulative effects of existing development.
- (4)** Floodway boundary configurations will be examined and approved by the Floodplain Administrator. The following specific information, for the stream reach 1000 feet upstream and 1000 feet downstream from the proposed encroachment, must be submitted:

  - (a)** A copy of the printout for the hydraulic computer model representing the base flood profile run for conditions existing at the time the currently effective floodplain was developed. The printout must include the full input and output listing.
  - (b)** A copy of the printout from the hydraulic computer model representing the floodway run for the proposed floodway configuration and including developments and other hydraulic changes within the floodplain since the currently effective floodplain was established. The printout must include the full input and output listing with all input changes from the original model highlighted.
  - (c)** A copy of the floodway data table representing data for the proposed floodway configuration.
  - (d)** A copy of the currently effective official engineering study showing the existing floodplain and the proposed floodway configuration.
  - (e)** Certification from a Colorado Licensed Professional Engineer that the proposed floodway configuration, in combination with current floodplain hydraulic conditions, meets FEMA and CWCB requirements when evaluated against flood elevations established when the original floodplain study was completed.

(f) Electronic copies of all aforementioned data and model input files of this section shall be submitted on a suitable medium. (*am 11/13/07*)

g. **Report.** An engineering report addressing those standards set forth in this section, signed and sealed by a Colorado Licensed Professional Engineer.

## 2. Standards for Permit Review.

a. **Completeness.** No later than (10) days following receipt of a completed application for a floodplain development permit, the Floodplain Administrator shall:

(1) Determine and set a fee in an amount necessary to cover the costs incurred in the review and approval or disapproval of the permit application, including all hearings, copying, mailings, publications, labor, overhead, consultants, experts, and attorneys that the county deems necessary, and shall notify the applicant in writing of the amount of the fee. Until the fee is paid to the Floodplain Administrator, the application for the floodplain development permit shall not be further processed.

(a) **Floodplain Development Permit (Minor Fee).** For Floodplain Development Permits that are entirely within the flood fringe only, are for a single structure or of a simple nature, and do not require a detailed hydraulic analysis, the minor permit fee shall apply.

(b) **Floodplain Development Permit (Major Fee).** For all other Floodplain Development Permits, the major permit fee shall apply.

(2) Determine if the application is complete. If the application is not complete the Floodplain Administrator shall in writing notify the applicant of the deficiency of the application. Until the information is submitted to the Floodplain Administrator, the application for the floodplain development permit shall not be further processed.

(3) The amount of the fee may be increased at any time if it is determined by the Floodplain Administrator that the fee is not sufficient to cover all costs associated with the floodplain development permit.

b. **Review of Application.** Once the application is complete and the fee is paid, the Floodplain Administrator shall within thirty (30) days either:

(1) Approve the application and grant a permit if the proposed development complies with these regulations. The Floodplain Administrator may attach such permit conditions as deemed necessary in furthering the purpose of the FO zone district.

- (2) Deny the application if the proposed development does not comply with the regulations of the FO zone district. The decision of the Floodplain Administrator shall state, in writing, reasons for the decision and shall be given to the applicant.

**c. Factors determining permit issuance.** Approval or denial of a Floodplain Development Permit by the Floodplain Administrator shall be based on all of the provisions of this ordinance 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 flood waters 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 for that area.

**d. Permit Issued Only for Allowed Use.** A floodplain development permit shall not be issued unless the proposed development complies with the standards and uses allowed in the FO zone district and will not otherwise violate the purposes and intent of these Floodplain Regulations.

**e. Determination of Flood Hazard.** In reviewing an application for a floodplain development permit, the Floodplain Administrator shall determine the specific flood hazard at the site and shall evaluate the suitability of the proposed use in relation to the flood hazard.

- f. Other Permits and Approvals.** The floodplain development permit applicant must obtain all other necessary permits and approvals from which approval is required by local, Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.
  - g. Issuance of Permit.** If the Floodplain Administrator determines that the application for a floodplain development permit meets the purposes and requirements of this Section, the floodplain development permit shall be issued, with the attachment of any conditions as deemed necessary to further the purposes of this Section. Such conditions may include, but are not limited to, specifications for modification of waste disposal methods and facilities, landscaping, periods of operation, operational controls, sureties, deed restriction, and adequate flood proofing.
  - h. Maintain Records.** All floodplain development permits will be maintained and copies will be stored for future referral.
- 3. Building Permit.** The Chief Building Official shall not issue any permit for, nor shall the Planning Director allow any use involving any building, structure, or other development within the FO zone district unless a floodplain development permit has been granted for the development.
  - 4. Permit Expiration.** A floodplain development permit shall expire two years after the date of issuance if the permittee has not commenced construction under the permit.
  - 5. Waiver of Submission Requirements.** The Floodplain Administrator may waive any part but not all of the submission requirements imposed by the FO zone district upon petition by the applicant that a portion of the submission requirements is inapplicable to the development for which the permit is sought, and/or full compliance with the submission requirements would be unreasonable burdensome for the applicant and that the proposed development will have an insubstantial impact on the surrounding area. Such a waiver may be granted, after due consideration by the Floodplain Administrator, upon written determination that the information to be submitted is sufficient for the Floodplain Administrator to arrive at a permit decision in full compliance with the law and these Floodplain Regulations and that the proposed development will have an insubstantial impact on the surrounding area.
  - 6. Notice to Purchaser or Lessee.** In addition to the provisions set forth in the Administrative Regulations, in the event that a permit issued under these Floodplain Regulations allows a structure to be located in a floodplain, the terms of the permit shall require notice that the structure is being located in a floodplain and must be disclosed to the purchaser or lessee in the purchase contract, deed or lease.
  - 7. Permit Conditions.** The Floodplain Administrator may attach such conditions to granting of a permit for proposed development in the floodway, the flood fringe or a flood-prone area, as he deems necessary in furthering the purposes of these Floodplain Regulations. Such conditions may include, but not be limited to, specifications for modifying waste disposal and water supply facilities, landscaping, deed restrictions, or adequate flood proofing.

- O. Floodplain Variances.** The provisions of this section shall apply to requests for variances from the requirements of the flood overlay zone district. For the purpose of this section, the Zoning Board of Variance shall be served as the Appeal Board.
1. The Appeal Board shall hear and render judgment on requests for variances from the requirements of this ordinance.
  2. The Appeal Board shall hear and render judgment on an appeal only when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this ordinance.
  3. Any person or persons aggrieved by the decision of the Appeal Board may appeal such decision in the courts of competent jurisdiction.
  4. The Floodplain Administrator shall maintain a record of all actions involving an appeal and shall report variances to the Federal Emergency Management Agency upon request.
  6. 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 relevant factors in Section 3-350 K have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
  7. Upon consideration of the factors noted above and the intent of this ordinance, the Appeal Board may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this ordinance as stated in Section 3-350 K.
  8. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
  9. 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.
  10. Prerequisites for granting variances:
    - a. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
    - b. Variances shall only be issued upon:
      - (1) Showing a good and sufficient cause;
      - (2) A determination that failure to grant the variance would result in exceptional 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, or conflict with existing local laws or ordinances.

- (4) A determination that the granting of a variance is necessary to avoid a direct conflict with the terms and conditions of any state or federal permit, provided, that, any requirement in this Floodplain Overlay Zone District Section that is more stringent than a state or federal permit term or condition, than the Floodplain Overlay Zone District Section shall take precedence.

- c. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with the 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.

11. Variances may be issued for new construction and substantial improvements and for other development necessary for the conduct of a Functionally Dependent Improvement provided that:

- a. The criteria outlined in section 3-350 O are met, and
- b. The structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.