Section 30: F-P Floodplain Overlay District

(orig. 1-10-75; am. 2-6-84; am. 7-2-97; am. 12-17-02; am. 7-11-06; am. 4-20-10)

A. Intent and Purpose

It is the purpose of this District to promote the public health, safety, and welfare, and to minimize public and private losses due to flood conditions to specific areas by provisions designed: to protect human life and health; to minimize expenditure of public money for costly flood control projects; to minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; to minimize prolonged business interruptions; to minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets/roads and bridges located in floodplain or flood-prone areas; to help maintain a stable tax base by providing for the sound use and development in floodplain or flood-prone areas so as to minimize future flood blight areas; to ensure that potential buyers are notified that a property is in a floodplain or flood-prone area; and to ensure that those who occupy the floodplain or flood-prone areas assume responsibility for their actions. (orig. 1-10-75; am. 2-11-80; am. 5-31-88; am. 12-17-02; am. 5-27-03)

B. Statutory Authorization

The Legislature of the State of Colorado has in 30-28-111 C.R.S., or as amended, delegated the responsibility to local government units to adopt regulations designed to promote the public health, safety and general welfare of its citizenry. Therefore, the Board of County Commissioners does ordain as follows: (orig. 5-27-03)

C. General Provisions

1. Floodplain Overlay District

   The Floodplain Overlay District (District) shall overlay that portion of all land located in this District. The regulations of this District shall be construed as being supplementary to the regulations imposed on the same lands by any underlying zone district or other overlay district. When the regulations of this District conflict with any provision of the underlying zone district, the provisions of the District shall control; (orig. 7-11-07)

2. Boundaries

   The boundaries of the District were Designated through the adoption of certain floodplain and flood-prone maps by the Board of County Commissioners. The adopted maps comprise the area identified as the District. The District boundary and the floodplain maps are on file in Planning and Zoning. Changes to the floodplain maps occur from time to time making it necessary for those changes to be adopted as a part of the District. Revised floodplain or flood-prone maps may be adopted either by the Zoning Administrator or by the Board of County Commissioners, as authorized within this regulation.

3. Lands to which this District Applies

   a. The Special Flood Hazard Areas (SFHA) identified by the Federal Emergency Management Agency (FEMA) in a scientific and engineering report titled, “The Flood Insurance Study for Jefferson County, Colorado, dated June 17, 2003, with accompanying Flood Insurance Rate Maps (FIRM) and any revisions thereto are hereby adopted by reference and declared to be part of this regulations. This includes Zones A, AE, AH and AO. The following types of maps or processes that depict the SFHA are approved by the FEMA:

      (1) Flood Insurance Rate Map (FIRM) (orig. 10-13-09)

      (2) Letters of Map Revision (LOMR) (orig. 10-13-09)

      (3) Letters of Map Amendment (LOMA) (orig. 10-13-09)

      (4) Letters of Map Revision - Based on Fill (LOMR-F) (orig. 10-13-09)

   b. Areas that are located in FEMA Zone D and are within 50 feet of the thalweg of a Major Drainageway (tributary area of 130 acres or greater).

   c. Jefferson County Designated Floodplain maps. The Jefferson County Designated

Floodplain map is based FHADs and/or updated reports that have not gone through FEMA adoption process. (orig. 1-10-13)

d. Jefferson County Designated Flood-prone map. The Jefferson County Designated Flood-prone map is based on a tributary area of 320 acres or greater in the plains and 640 acres in the mountainous area and includes a 50 foot distance from both sides of the thalweg.

4. Findings of Fact

a. The areas of Jefferson County within the District are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare. (orig. 5-27-03)

b. These flood losses are caused by the cumulative effect of obstructions in areas which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately flood-proofed, elevated or otherwise protected from flood damage also contribute to the flood loss. (orig. 5-27-03)

5. Methods of Reducing Flood Losses: In order to accomplish its purposes, this District includes methods and provisions for: (orig. 5-27-03)

a. 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; (orig. 5-27-03)

b. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (orig. 5-27-03)

c. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters; (orig. 5-27-03)

d. Controlling filling, grading, dredging, and other development which may increase flood damage; and, (orig. 5-27-03)

e. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas. (orig. 5-27-03)

6. Warning and Disclaimer of Liability

The degree of flood protection required by this District is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This District does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This District shall not create liability on the part of Jefferson County, any officer or employee thereof, or FEMA for any flood damages that result from reliance on this District or any administrative decision lawfully made there under. (orig. 1-10-75; am. 2-11-80; am. 12-17-02; am. 5-27-03; am. 10-13-09)

D. Applicability

1. No building or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this District and other applicable regulations. (orig. 5-27-03)

2. Abrogation and Greater Restriction: This District is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this District and another district, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail. (orig. 5-27-03)

3. In the interpretation and application of this District, all provisions shall be: (orig. 5-27-03)

a. Considered as minimum requirements; (orig. 5-27-03)

b. Liberally construed in favor of the governing body; and, (orig. 5-27-03)

c. Deemed neither to limit nor repeal any other powers granted under State Statutes. (orig. 5-27-03)

4. A Floodplain Development Permit is not required for maintenance of existing stormwater features.

E. Administration

A Floodplain Development Permit shall be obtained before construction or development begins within any area of this District. Application for a Floodplain Development Permit shall be made in accordance with the requirements of this District. (orig. 5-27-03)

1. The Zoning Administrator or his/her appointed designee is hereby appointed to administer and implement this District by granting or denying development permit applications in accordance with its provisions. (orig. 2-11-80; am. 12-17-02; am. 5-27-03)

2. Duties and Responsibilities of the Zoning Administrator or his/her appointed designee shall include, but not be limited to: (orig. 5-31-88; am. 12-17-02; am. 5-27-03)

   a. Review all Floodplain Development Permits to determine that the permit requirements of this District have been satisfied. (orig. 5-27-03)

   b. Review all Floodplain Development Permits to determine that all necessary permits have been obtained from Federal, State, or local governmental agencies from which prior approval is required. (orig. 5-27-03)

   c. Review all Floodplain Development Permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of paragraph H. below are met. (orig. 5-27-03)

   d. Use of Best Available Information: When base flood elevation (BFE) data has not been provided, the Zoning Administrator or his/her appointed designee shall obtain, review, and reasonably utilize any BFE and floodway data available from any Federal, State, or other best available information source. When BFE data is utilized, all new construction, substantial improvements, or other development shall be administered in accordance with this Section. (orig. 5-27-03)

   e. Obtain and record all FEMA Elevation Certificates which must include actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved buildings, and whether or not the building contains a basement. (orig. 5-27-03)

   f. For all new or substantially improved floodproofed buildings, verify and record the actual elevation (in relation to mean sea level) to which the building has been floodproofed. Maintain the Floodproofing Certifications required by this Section. (orig. 5-27-03)

   g. Maintain for public inspection all records pertaining to the provisions of this District. (orig. 5-27-03)

   h. Interpret Floodplain and Flood-Prone Boundaries: Make interpretations, where needed, as to the exact location of the boundaries of the floodplain or flood-prone boundaries (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 by this Section (orig. 5-27-03)

3. Variance Procedure

   The Jefferson County Board of Adjustment shall hear and decide appeals and request for variances from the requirements of this District. Variances from the requirements of this District are subject to the provisions contained in the Board of Adjustment Section of this Zoning Resolution. (orig. 1-10-75; am. 2-11-80; am. 5-31-88; am. 12-17-02; am. 5-27-03; am. 7-11-06)

F. Procedures

If the applicant complies with all given time frames, submits a complete application and complies with all requirements of this Regulation, the estimated time to reach the Determination Phase of the process is 60 to 70 calendar days from the date of the 1st referral.

Process Steps	Processing Time Frames

Steps Prior to 1st Referral		
Formal Application/Sufficiency Review	3 calendar days	
Process from 1st Referral to Determination		
1st Referral	7 or 14 calendar days *	60-70** days to tentatively scheduled determination if time frames are met.
Forwarding 1st Referral Comments	5 calendar days	
Response 1st Referral	14 calendar days	
Submittal of Revised Documents	3 calendar days	
2nd Referral	7 calendar days	
Forwarding 2nd Referral Comments	5 calendar days	
Final Documents	10 calendar days	
Determination		
Determination	5 calendar days	

* See 1st Referral step below for a description of the required length of the 1st Referral

**If there is a concurrent application process, the longer process time of the processes will apply.

Steps Prior to 1st Referral

1. Formal Application/Sufficiency Review: The applicant shall submit 3 copies of all documents as identified in the Plans and Specifications Section for review by Staff.

   Staff shall have 3 calendar days to review this submittal.

   Staff will review the sufficiency application to determine if the submittal documents are complete. Following this review, Staff will either send the documents out on the 1st Referral or prepare a letter explaining the deficiencies in the submittal documents. If revisions to the documents are required, the applicant shall revise the documents to comply with County standards, and then resubmit the documents for the 1st Referral. The Case Manager shall have 4 calendar days to send revised documents out on referral.

2. 1st Referral: The referral agencies shall have 7 or 14 calendar days to respond in writing to the application, depending on the complexity for the proposed activity. If the referral agencies are all Jefferson County agencies, than the referral shall be 7 calendar days, however, if there are external agencies on the referral matrix, the referral period shall be 14 days. An extension of no more than 30 days may be agreed to by the applicant.

   The Case Manager will identify the tentative date for a decision to be made on the application based on the time frames of this process. This date will be set when the application is sent out on the 1st referral.

   Notification: Notification is required at the time of the 1st referral in accordance with the notification provisions located in the Administrative Provisions.

3. Forwarding 1st Referral Comments: The Case Manager shall have 5 calendar days, after the end of the referral period, to provide the applicant with a Staff response inclusive of other referral agency responses. If the Case Manager indicates that the application is in substantial conformance with all applicable regulations and that only minor revisions to the documents are required, the application may proceed directly to the final documents phase of the process. Under this circumstance, the application will be able to reach the determination phase of the process earlier than the date tentatively scheduled at the time of the 1st referral.

4. Response to 1st Referral:

   The applicant shall have 14 Calendar days to address in writing any issues identified by the Case Manager or any referral agency and resubmit revised documents for the 2nd referral. The applicant will be deemed to have consented a later determination date, than that tentatively scheduled, if the resubmittal is not received within the 14 calendar day period.

   The applicant shall have a maximum of 120 calendar days to respond to the referral comments and resubmit, or the application will be considered withdrawn. The applicant will then have to file a new application with the required fees and documents. The Director of Planning and Zoning may extend this 120 calendar day maximum response deadline for additional 120 calendar day periods if, in his/her opinion, the delay in response is for good cause.

5. Submittal of Revised Documents: The Case Manager shall have 3 calendar days to refer the revised documents and referral fees to County divisions/departments and other agencies. A

submittal package that is not complete in terms of the type and quantity of documents required will not be sent out on referral.

6. 2nd Referral: The referral agencies shall have 7 calendar days to respond in writing to the 2nd referral.

7. Forwarding 2nd Referral Comments: The Case Manager shall have 5 calendar days after the end of the referral period to provide the applicant with a Staff response inclusive of referral agency responses. The response from the Case Manager will include an opinion as to whether or not the case should proceed forward to the determination phase or if revised documents should be submitted for a subsequent referral process.

   If the applicant has not consented to a later determination date based on the time frames of this Regulation and chooses to move forward to the tentatively scheduled Determination, the applicant shall submit the final documents as requested by the Case Manager in accordance with the Final Documents phase of the process.

8. Response to 2nd Referral Comments: The applicant shall have a maximum of 120 calendar days to respond to the referral comments, or the application will be considered withdrawn. The applicant will then have to file a new application with the required fees and documents. The Director of Planning and Zoning may extend this 120 calendar day maximum response deadline for additional 120 calendar day periods if, in his/her opinion, the delay in response is for good cause.

9. Additional Changes: For the 3rd referral, and for any subsequent referrals thereafter, the Case Manager shall have 3 calendar days to refer the revised documents and referral fees to County divisions/departments and other agencies. A submittal package that is not complete in terms of the type and quantity of documents required will not be sent out on referral. (orig. 5-20-08)

   The referral agencies shall have 7 calendar days to respond in writing to the 3rd referral, and for any subsequent referrals thereafter.

   The Case Manager shall have 5 calendar days after the end of the 3rd referral, and for any subsequent referrals thereafter, to provide the applicant with a full Staff response inclusive of referral agency responses. The response from the Case Manager will include an opinion as to whether or not the case should proceed forward for Determination or if revised documents should be submitted for a subsequent referral process.

   The applicant shall have a maximum of 120 calendar days to respond to the referral comments, or the application will be considered withdrawn. The applicant will then have to file a new application with the required fees and documents. The Director of Planning and Zoning may extend this 120 calendar day maximum response deadline for additional 120 calendar day periods if, in his/her opinion, the delay in response is for good cause.

10. Final Documents: The final documents shall be comprised of the stamped and signed plans and other final documents as identified by the Case Manager.

    If the applicant has not consented to a later determination date based on the time constraints of this process, the applicant shall have 10 calendar days to address, in writing, any issues identified by the Case Manager or any referral agency and submit the final documents for the tentatively scheduled determination. The applicant will be deemed to have consented to a later determination date if the resubmittal is not received within the 10 calendar day period.

    The applicant shall have a maximum of 120 calendar days to respond to the referral comments, or the application will be considered withdrawn. The applicant will then have to file a new application with the required fees and documents. The Director of Planning and Zoning may extend this 120 calendar day maximum response deadline for additional 120 calendar day periods if, in his/her opinion, the delay in response is for good cause.

11. Determination: The Case Manager shall have 5 calendar days to review the Final Documents and shall approve, conditionally approve or deny the permit. The applicant may appeal the Case Manager's decision as described in The Board of Adjustment Section.

G. Limitations

1. Permit Limitations: The permit shall be limited to work shown on the approved plans. At any time during the plan review or in the event unforeseen conditions arise during completion of the

project; the County may require revision of the plans as necessary to ensure compliance with the performance standards.

2. Amendments: Amendments to the approved plans are subject to the same procedures as initial applications except as specifically provided for in this section. An amendment to approved plans shall comply with requirements of this Section.

H. Plans and Specifications

Application for a Floodplain Development Permit shall be made in accordance with the requirements of this District on forms furnished by the Zoning Administrator or his/her appointed designee and may include, but not limited to:

a. Three sets of the site plan which shall include all of the following: (orig. 5-27-03)

(1) A neat and legible drawing of the proposed site layout showing the required information at a scale of one (1) inch to fifty (50) feet or larger. (orig. 5-27-03)

(2) The sheet size shall be 24" by 36" with the long dimension horizontal unless the Case Manager approves an alternative format. A title block shall be located in the lower right hand margin shall include the name address and telephone number of the engineer, date of preparation and revision dates, sheet page number. (orig. 5-27-03)

(3) Topographic mapping (existing and proposed at 2 foot maximum contour intervals). (orig. 5-27-03)

(4) Location of existing and proposed buildings, utility locations, storage of materials, fences, retaining walls, drainage facilities. (orig. 5-27-03)

(5) Location of floodway, floodplain, and/or flood-prone boundaries. (orig. 5-27-03)

(6) Location of well and onsite wastewater treatment systems (if applicable). (orig. 5-27-03)

(7) Cut and fill limits and volumes. (orig. 5-27-03)

(8) Area of land disturbance.

(9) North arrow and scale. (orig. 5-27-03)

(10) Vicinity map. (orig. 5-27-03)

(11) Building and utility elevations. (orig. 5-27-03)

b. Three sets of building plans and specifications to demonstrate compliance with the applicable Performance Standards. (orig. 5-27-03)

c. The applicant shall provide all of the information and/or calculations required to demonstrate that the encroachment provisions for floodways in paragraph H. below are met. If the County does not have this information, it will have to be provided by the applicant in a required Floodplain Study. The cost of completion of the Floodplain Study shall be borne entirely by the applicant. The following Floodplain Study shall be submitted if the County does not have any available information on the floodway or if there is any proposed encroachment into the floodway. The study shall be prepared by a professional engineer, registered in the State of Colorado, and competent in open channel hydraulics. The Floodplain Study shall include: (orig. 5-27-03)

(1) Title page. (orig. 5-27-03)

(2) Table of contents. (orig. 5-27-03)

(3) Location and description of property. (orig. 5-27-03)

(4) Scope of work (nature of proposal). (orig. 5-27-03)

(5) Discussion of the proposed use in the existing floodplain and the surrounding land uses. (orig. 5-27-03)

(6) Discussion of compliance or deviation from floodplain regulations. (orig. 5-27-03)

(7) Discussion of methodology and design criteria presented. (orig. 5-27-03)

(8) Calculations supporting hydrology flow rates. (orig. 5-27-03)

(9) Calculations supporting hydraulics and floodplain, floodway limits and elevations for both existing and proposed conditions. (orig. 5-27-03)

(10) Calculations supporting mitigation proposal and demonstrating compliance with paragraph H. below. (orig. 5-27-03)

(11) Cross-sections: (2 minimum) Showing existing and proposed stream channel, stream thalweg, floodplain and floodway adjoining each side of the channel, cross-sectional area to be occupied by the building (if applicable), high water information, fill limits and elevations, building floor elevations including basements (if applicable). (orig. 5-27-03)

(12) Channel profile: showing channel thalweg, existing 100-year water surface profile, proposed 100-year water surface profile, road or street crossings if applicable. (orig. 5-27-03)

(13) Proposed development in the SFHA or Jefferson County Designated Floodplains should not increase velocities on adjacent properties. Planning and Zoning may allow the increased velocities provided it can be adequately demonstrated that the increased velocities will not adversely affect adjacent properties or structures.

(14) Construction Drawings: If the grading activity is significant enough to require a grading permit or if development is taking place within the floodway and for any new or expanded building in the floodplain. (orig. 5-27-03)

(15) Design Certification: Required for floodways, elevation or flood-proofing, construction materials, crawlspace construction and openings, utility elevations or flood-proofing, anchoring, and design of hydrostatic and hydrodynamic loads as required to certify compliance with this section. Design certification shall be in accordance with the latest Building Code and FEMA requirements. (orig. 5-27-03)

I. Post Construction Certifications

1. The following applicable post construction certifications are required no later than 30 calendar days after the non-building related development construction is complete and/or prior to final building inspection. No Certificate of Occupancy shall be issued on any new or substantially improved building within this District until the required Elevation Certificate or Floodproofing Certificate, construction certificate and as-built drawings are submitted and accepted by the Planning and Zoning Division. Non-compliance with the standards in this section will be enforced as a Zoning Violation, as specified in the Enforcement and Administrative Exceptions Section of this Zoning Resolution. The cost of completion of all required post construction certifications and as-built drawings and shall be borne entirely by the applicant.

   a. For all new or substantially improved buildings within SFHA or Jefferson County Designated Floodplains a completed Elevation Certificate or Floodproofing Certificate for Non Residential Structures shall be submitted to demonstrate compliance with this section and requirements of FEMA.

   b. For any grading within the floodplain and/or development within the floodway, as-built drawings must demonstrate that the floodway requirements in the Floodway section. below have been fulfilled and development was constructed in conformance with the approved plan.

   c. For all new or substantially improved buildings within the SFHA or Jefferson County Designated Floodplains an engineer's or architect's construction certification shall be submitted and accepted by the Planning and Zoning Division. The construction certification must certify that the anchoring, construction materials, and utility construction were constructed as specified in the approved plans. Construction certification shall be in accordance with the applicable Building Code.

   d. Once the applicable post construction documents are received by the Planning and Zoning Division, the Case Manager will conduct a site visit to verify the completed work prior to final acceptance of the Floodplain Development Permit.

2. The work associated with the permit shall be completed within two (2) years of the date of permit issuance, unless an extension has been granted by the Planning and Zoning Division. A request for an extension shall be submitted in writing no later than ten (10) calendar days prior

to the expiration of the permit. The Planning and Zoning Division may grant an extension to the permit up to an additional 180 calendar days. Only one extension shall be permitted for the completion of construction activities.

J. Performance Standards

1. Permitted Uses and Restricted Activities

   a. All land use activity except the uses specified below shall be permitted within this District to the same extent that they are permitted by an underlying zone district so long as all of the standards and requirement of this section are met. Building and lot standards, including minimum area, height and setback requirements, shall conform to those of the underlying zone district. (orig. 1-10-75; am. 2-11-80; am. 9-19-89; am. 5-27-03)

   b. No solid or extremely hazardous materials are permitted within this District. (orig. 1-10-75; am. 5-31-88; am. 5-27-03)

   c. Sufficiently hazardous materials are permitted in this District only if the materials are securely stored three feet (3) above the BFE. (orig. 5-27-03)

2. Culverts within fifty (50) feet of the thalweg of a Major Drainageway in Zone D or within the Jefferson County Designated Flood-prone area must comply with the Culvert section of the Storm Drainage Technical Design Criteria and convey a minimum of the 10-year storm event.

3. Whenever a Stream Alteration Activity is known or suspected to increase or decrease the Designated BFE in excess of 0.3 vertical feet, a LOMR showing such changes shall be obtained in order to accurately reflect the proposed changes on FEMA's regulatory floodplain map for the stream reach. A Conditional Letter of Map Revision (CLOMR) is also required if there is an increase of 0.5 feet to the BFE or there is an alteration of a watercourse.

4. When BFE data has not been provided in accordance with this section, the Floodplain Administrator shall obtain, review and reasonably utilize the BFE data and Floodway data available from a Federal, State, or other source, in order to administrator the provisions of this regulation.

5. For SFHAs and Jefferson County Designated Floodplains that do not have a defined Floodway, no new construction, substantial improvements, or other development (including cut or fill) shall be permitted, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and proposed development, will not increase the water surface elevation of the base flood more than 0.5 foot at any point within the community.

6. Anchoring

   a. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the building and be capable of resisting the hydrostatic and hydrodynamic loads. (orig. 5-31-88; am. 5-27-03)

   b. All manufactured homes must be elevated and anchored to resist flotation, collapse or lateral movement and capable of resisting the hydrostatic and hydrodynamic loads. Methods of anchoring may include, but are not limited to use of over-the-top or frame ties to ground anchors. Specific requirements include: (orig. 5-31-88; am. 5-27-03)

      (1) Over-the-top ties shall be provided at each of the four corners of the manufactured home, with two (2) additional ties per side at intermediate locations, with manufactured homes less than fifty (50) feet long requiring one (1) additional tie per side. (orig. 5-27-03)

      (2) Frame ties shall be provided at each corner of the home with five (5) additional ties per side at intermediate points, with manufactured homes less than fifty (50) feet long requiring four (4) additional ties per side. (orig. 5-27-03)

      (3) All components of the anchoring system shall be capable of carrying a force of 4,800 pounds. (orig. 5-27-03)

      (4) Any additions to the manufactured home shall be similarly anchored. (orig. 5-27-03)

7. Construction Materials and Methods

   a. All new construction including substantial improvements, non-substantial improvements, or

remodeling, any of which that occur less than two (2) feet above the BFE, shall be constructed with flood damage resistant materials and utility equipment resistant to flood damage. (orig. 5-31-88; am. 5-27-03)

b. All new construction including substantial improvements, non-substantial improvements, or remodeling, any of which that occur less than two (2) feet above the BFE, shall be constructed using methods and practices that minimize flood damage. (orig. 5-31-88; am. 5-27-03)

c. All new construction including substantial improvements, non-substantial improvements, or remodeling, any of which that occur less than two feet above the BFE, shall be constructed with electrical, heating, ventilation, plumbing, 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. (orig. 5-31-88; am. 5-27-03)

8. Utilities

a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system. (orig. 5-27-03)

b. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters. (orig. 5-27-03)

c. Onsite Wastewater Treatment Systems shall be located outside the SFHA and Jefferson County Designated Floodplains. (orig. 5-27-03)

9. Development Standards

a. Developments shall comply with all of the requirements of this Section of this Zoning Resolution, Land Development Regulation and the Jefferson County Storm Drainage Design and Technical Criteria. (orig. 5-27-03; am. 7-11-06)

b. All subdivision proposals, including the placement of manufactured home parks, shall be reasonably safe from flooding. If a subdivision or other development proposal is in a floodplain or flood-prone area, the proposal shall minimize flood damage.

c. A Performance Guarantee shall be provided per the Performance Guarantee Section in the Land Development Regulation. Projects completed in the right-of-way by either the Colorado Department of Transportation or by Jefferson County do not have to provide a performance guarantee.

d. BFE data shall be generated for subdivision proposals and other proposed development within the SFHA that include the placement of manufactured home parks or subdivisions that have greater than fifty (50) lots or include a total of five (5) acres or greater.

K. Specific Construction Standards

1. Properties with a Letter of Map Revision Based on Fill (LOMR-F)

A Floodplain Development Permit shall not be issued for the construction of a new structure or addition to an existing structure on a property that has been issued a LOMR-F, if the lowest floor elevation is less than two (2) feet above the BFE that existed prior to the placement of fill.

2. Residential Buildings

New construction and substantial improvement of any residential building shall have the lowest floor, including basement, elevated to at least two (2) feet above the BFE. (orig. 5-31-88; am. 9-19-89; am. 5-27-03)

3. Nonresidential Buildings for All Public or Private Industrial, Commercial, Recreational, and Institutional Uses

a. New construction and substantial improvement of any nonresidential building shall have the lowest floor, including basement, elevated to at least two (2) feet above the BFE; or (orig. 5-31-88; am. 9-19-89; am. 5-27-03)

b. The structure is floodproofed with the following conditions:

(1) Be floodproofed to at least two (2) feet above the BFE;

(2) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

(3) Be certified with a FEMA Floodproofing Certificate to ensure the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this paragraph.

4. Accessory Buildings and Agricultural Buildings (for example barns, detached garages, sheds)

a. Accessory Structures Requiring a Building Permit: (orig. 5-27-03)

(1) New construction and substantial improvement of nonresidential accessory buildings and agricultural buildings shall either have the lowest floor (including basement) elevated to two (2) feet above the level of the BFE; or (orig. 5-27-03)

(2) Together with attendant utility and sanitary facilities, the entire building shall: (orig. 5-27-03)

(a) Be floodproofed to at least two (2) feet above the BFE; (orig. 5-31-88; am. 5-27-03)

(b) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and (orig. 5-31-88; am. 5-27-03)

(c) Be certified with a FEMA Floodproofing Certificate to ensure the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this paragraph. (orig. 5-31-88; am. 5-27-03)

b. Accessory Structures Not Requiring a Building Permit (orig. 5-27-03)

Together with attendant utility and sanitary facilities, the entire building shall: (orig. 5-27-03)

(1) Be anchored to resist floating; (orig. 5-27-03)

(2) Be built of flood resistant materials; (orig. 5-27-03)

(3) Be documented by the applicant that the methods of construction are in accordance with the standards of practice for meeting the provisions of this paragraph. (orig. 5-27-03)

5. Openings in Enclosures Below the Lowest Floor

All new construction and substantial improvements with fully enclosed areas below the lowest floor, shall be designed to meet or exceed the following minimum criteria: (orig. 5-27-03)

a. A minimum of two openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided; (orig. 5-27-03)

b. The bottom of all openings shall be no higher than one (1) foot above grade; (orig. 5-27-03)

c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters; (orig. 5-27-03)

6. Below-Grade Residential Crawlspace Construction

New construction and substantial improvement of any below-grade crawlspace shall conform to the following requirements: (orig. 5-27-03)

a. Have the interior grade elevation, that is below BFE, no lower than two (2) feet below the lowest adjacent grade (orig. 5-27-03)

b. Have the height of the below grade crawlspace measured from the interior grade of the crawlspace to the top of the foundation wall, not exceed four (4) feet at any point (orig. 5-27-03)

c. Have an adequate drainage system that allows floodwaters to drain from the interior area of the crawlspace following a flood (orig. 5-27-03)

d. Meet the provisions of paragraph F. above (orig. 5-27-03)

7. Manufactured Homes

Manufactured homes shall be anchored in accordance with the Section and all manufactured homes or those to be substantially improved shall conform to the following requirements: (orig. 5-27-03)

a. Require that manufactured homes that are placed or substantially improved on a site be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated a minimum of two (2) feet above the BFE and is securely anchored. These requirements shall apply to the following manufactured home scenarios: (orig. 5-31-88; am. 9-19-89; am. 5-27-03)

   (1) Outside of a manufactured home park or subdivision (orig. 5-27-03)

   (2) In a new manufactured home park or subdivision (orig. 5-27-03)

   (3) In an expansion to an existing manufactured home park or subdivision, or (orig. 5-27-03)

   (4) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated a minimum of two (2) feet above the BFE and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement. (orig. 5-27-03)

b. Require that manufactured homes to be placed on sites in existing manufactured home parks or subdivisions, that are not subject to the provisions above, be elevated to comply with one of the following provisions: (orig. 5-27-03)

   (1) The lowest floor of the manufactured home is a minimum of two (2) feet above the BFE, or (orig. 5-27-03)

   (2) The manufactured home chassis is supported by reinforced piers or other equivalent foundation elements that are no less than three (3) feet in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement. (orig. 5-27-03)

8. Recreational Vehicles

All recreational vehicles placed on properties within the SFHA or Jefferson County Designated Floodplain shall:

a. Be on the property for fewer than 180 consecutive calendar days; and

b. Be licensed, operable and ready for highway use, or

c. Meet the permit requirements of section and the elevation and anchoring requirements for “manufactured homes” in the Section above.

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.

9. Critical Facilities

Critical Facilities are identified by Jefferson County Emergency Management and the Planning and Zoning Division. The following criteria are applicable to Critical Facilities:

a. New Critical Facilities shall be located outside the SFHA or Jefferson County Designated Floodplains.

b. Substantially improved or additions to an existing Critical Facilities shall be constructed with at least three (3) feet above the BFE.

c. Ingress and egress for new Critical Facilities shall, to the extent practicable, have continuous non-inundated access to a public roadway during a 100-year flood event.

10. Fencing

Fences may be permitted in the floodplain or flood-prone area depending on the type of fence. Open fences, such as split rail or three strand wire, will not obstruct flows to the same degree as a solid fence, such as privacy fences. In certain scenarios fencing, such as solid fencing

constructed perpendicular to the direction of flow, will not be permitted in the floodplain or flood-prone area.

a. A Floodplain Study is required if the floodway is not delineated.

b. Fences are not permitted in the floodway.

c. If either an open or solid fence is approximately parallel with the direction of flow and not in the floodway, it should have minimal impact to flood flow and will be permitted without a Floodplain Study. An open fence that is perpendicular with the direction of flow and not in the floodway will have a reduced impact on flood flows and will be permitted without a Floodplain Study.

d. A solid fence placed perpendicular to the direction of flow may interfere with the flow and is discouraged. A solid fence placed perpendicular to the direction of flow will require a Floodplain Study and additional mitigation measures, such as openings or breakaway devices, may be required.

e. The fence must not adversely affect drainage or create debris build-up.

f. All fence construction, including replacement fences, shall comply with this Section.

11. Specific Standards for Zone A, Zone AO, Zone AH, Zone D and Jefferson County Designated Flood-prone areas

In all SFHAs where BFE data is not available: (orig. 5-27-03)

a. All new construction and substantial improvements must either meet the specific standards outlined above., or for A or AO zones, the top of the bottom floor including basement and/or crawlspace must be elevated above the highest adjacent grade as shown below. (orig. 5-27-03)

(1) Zone AO – at least two (2) feet higher than the depth number shown on the FIRM (if no number is shown it must be at least 3 feet). (orig. 5-27-03)

(2) Zone A – For rivers, creeks, streams, brooks, gulches, draws, ditches, open channels etc. At least four (4) feet minimum above grade (this option only permitted for buildings outside of the floodway). (orig. 5-27-03)

(3) Zone A – For lakes, reservoirs or ponds, two (2) feet above the elevation determined by surveying the highest 100-year floodplain location and elevation. (orig. 5-27-03)

b. For A, AH and AO zones all new construction and substantial improvements must have adequate drainage paths around buildings to guide floodwaters around and away from proposed buildings. (orig. 5-27-03)

c. For all proposed development and construction within fifty (50) feet of the thalweg of a Major Drainageway in Zone D or Jefferson County Established Flood-prone areas: (orig. 5-27-03)

(1) A Floodplain Development Permit shall be required if the proposed development is within fifty (50) feet of the thalweg of a Major Drainageway in Zone D or a Jefferson County Designated Flood-prone area. (orig. 5-27-03)

(2) If the development is determined to be in a flood-prone area the development must meet the applicable standards. (orig. 5-27-03)

L. Floodways

The following provisions apply within the floodway: (orig. 5-27-03)

1. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless it has been demonstrated through hydrological and hydraulic analyses performed by a registered Colorado professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge. (orig. 5-27-03)

2. All new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this Section. (orig. 5-27-03)

M. Alteration of a Watercourse within the SFHA

The following provisions apply to alterations of a watercourse in the SFHA:

1. Channelization and flow diversion projects shall analyze the 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. Dependent of the complexity of the project and material to be encountered, a detailed analysis of sediment transport and overall channel stability may be required 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 an applicant 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 alteration of a watercourse shall be designed and sealed by a registered Colorado professional engineer or Certified Professional Hydrologist.
5. All activities within the SFHA shall meet all applicable Federal, State and Jefferson County floodplain requirements and regulations.
6. Within the regulatory floodway, stream alteration activities shall not be constructed unless the applicant demonstrates through a Floodplain Study, 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 unless the applicant first applies for a CLOMR and Floodway revision.
7. Maintenance shall be required for any altered or relocated portions of watercourses so that the flood-carrying capacity is not diminished.
8. Notification of adjacent local governments, Colorado Water Conservation Board, and Urban Drainage Flood Control District, if the altered portion of the watercourse is within Urban Drainage Flood Control District. (orig. 5-27-03)
9. Prior to any alteration or relocation of a watercourse, the applicant must submit evidence of such notification to FEMA. This notice must certify that the flood carrying capacity within the altered or relocated portion of the watercourse has been and will be maintained. (orig. 5-27-03)

N. Modification to the Floodplain Overlay District

1. The District may be amended through any one of the following actions: (orig. 10-13-09)
   a. Zoning Administrator Action: The Zoning Administrator may adopt revised District boundaries based on one of the following documents: (orig. 10-13-09)
      (1) A Flood Insurance Rate Map (FIRM) (orig. 10-13-09)
      (2) A Letter of Map Revision (LOMR) (orig. 10-13-09)
      (3) A Letter of Map Amendment (LOMA) (orig. 10-13-09)
      (4) A Letter of Map Revision Based on Fill (LOMR-F) (orig. 10-13-09)
      (5) Flood Hazard Area Delineation (FHAD) or Hydrologic Evaluation and Floodplain Reports: The associated maps may be adopted in accordance with the following provisions: (orig. 10-13-09)
         (a) If the study area affects an area that is currently not identified as a SFHA or a Jefferson County Designated Floodplain, the associated maps may be adopted to the existing District boundary. (orig. 10-13-09)
         (b) If the study area affects an area that is SFHA or a Jefferson County Designated Floodplain, then a separate layer to the Floodplain Overlay District may be adopted to allow the County to provide the best available information. If the FHAD or Hydrologic Evaluation and Floodplain Report are subsequently approved through FEMA or CWCB, and adopted by the County in accordance with this section, then the separate layer will be removed. (orig. 10-13-09)
      (6) Updated and/or revised GIS data used to define the Jefferson County Designated Flood-prone map. (orig. x-x-x)

The amendment of the District boundary for maps identified in numbers 2 through 4 above will only be approved by the Zoning Administrator if it is determined that the revised floodplain map has been issued based on construction that is consistent with an applicable Conditional Letter of Map Revision (CLOMR) or any County approved construction plan. In addition, the Zoning Administrator will not approve a change to the District boundary for maps identified in numbers 2 through 5 above, if it is determined that the notification of affected property owners has not been completed in accordance with the notification requirements. (orig. 10-13-09)

If the Zoning Administrator does not approve an amendment to the District boundary based on the requirements of this section, then the revised floodplain map may be taken to the Board of County Commissioners for adoption in accordance with paragraph b. below. (orig. 5-31-88; am. 12-17-02; am. 5-27-03; am. 10-13-09)

b. Board of County Commissioner Action: The Board of County Commissioners may approve changes to District boundaries by approval of a rezoning application. The rezoning application can either be specifically for the adoption of a floodplain or flood-prone map or it may be in conjunction with a rezoning application for a proposed development. (orig. 10-13-09)

(1) Adoption of revised floodplain or flood-prone map: The Board of County Commissioners may adopt revised District boundaries when presented with the following types of floodplain or flood-prone documents. (orig. 10-13-09)

(a) Documents approved by FEMA: (orig. 10-13-09)

(a-1) Flood Insurance Rate Map (FIRM) (orig. 10-13-09)

(a-2) Letter of Map Revision (LOMR) (orig. 10-13-09)

(a-3) Letter of Map Amendment (LOMA) (orig. 10-13-09)

(a-4) Letter of Map Revision Based on Fill (LOMR-F) (orig. 10-13-09)

(b) Jefferson County Designated Floodplain maps: These maps may be adopted as a separate layer to the District to allow the County to provide the most current floodplain information to its citizens and to apply appropriate floodplain regulations. If the floodplain limits of a Jefferson County Designated Floodplain map are subsequently approved through FEMA or CWCB, and adopted by the County in accordance with this section, then the separate layer will be dissolved. (orig. 10-13-09)

(c) Flood Hazard Area Delineation (FHAD) or Hydrologic Evaluation and Floodplain Reports: The associated maps may be adopted in accordance with the following provisions: (orig. 10-13-09)

(c-1) If the study area affects an area that is currently not identified as a SFHA or a Jefferson County Designated Floodplain, the associated maps may be adopted to the existing District boundary. (orig. 10-13-09)

(c-2) If the study area affects an area that is SFHA or a Jefferson County Designated Floodplain, then a separate layer to the District may be adopted to allow the County to provide the best available information. If the FHAD or Hydrologic Evaluation and Floodplain Report are subsequently approved through FEMA or CWCB, and adopted by the County in accordance with this section, then the separate layer will be removed. (orig. 10-13-09)

(2) Conditional adoption of revised floodplain limits with a rezoning application: During a rezoning process the applicant may desire to show proposed or corrected District limits, or BFEs, in order to accommodate development. Under this circumstance the Board of County Commissioners may provide conditional rezoning approval for the alteration. A Floodplain Development Permit will be required with the rezoning application. The conditions of approval shall include, but are not limited to, the conditions in the following notes that must be placed on the Official Development Plan based on the appropriate situation: (orig. 5-27-03; am. 10-13-09)

(a) The following Official Development Plan note shall be used for District changes based on proposed floodplain alterations in conjunction with any development: (orig. 5-27-03)

The Floodplain Overlay District will be modified to be consistent with the Letter of Map Revision (LOMR) that is approved by the Federal Emergency Management Agency provided all of the following conditions have been satisfied: (orig. 5-27-03)

(a-1) Submission of an approved final Floodplain Report that meets the requirements of the Zoning Resolution and Land Development Regulation (orig. 5-27-03)

(a-2) Submission of a Conditional Letter of Map Revision (CLOMR) from the Federal Emergency Management Agency to the County prior to Final Plat approval (orig. 5-27-03; am. 10-13-09)

(a-3) Submission of a Letter of Map Revision (LOMR) from the Federal Emergency Management Agency to the County prior to issuance of any building permits (orig. 5-27-03)

(a-4) Compliance with the applicable maintenance requirements of this Section (orig. 5-27-03; am. 10-13-09)