

## CHAPTER 9

### FLOOD PLAIN ZONING REGULATIONS

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#### Sec. 9.1. STATUTORY AUTHORIZATION, FINDINGS OF FACT, AND PURPOSE.

(1) Statutory Authorization. The legislature of the State of Iowa has, in Chapter 414 Code of Iowa, delegated the responsibility to cities to enact zoning regulations to secure safety from flood and to promote health and the general welfare.

(2) Findings of Fact.

(a) The flood hazard areas of Ames are subject to periodic inundation which can result 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 health, safety, and general welfare of the community.

(b) These flood losses, hazards and related adverse effects are caused by (i) the occupancy of flood hazard areas by uses vulnerable to flood damages which create hazardous conditions as a result of being inadequately elevated or otherwise protected from flood, and (ii) the cumulative effect of flood plain construction on flood flows, which causes increases in flood heights and flood water velocities.

(c) This ordinance relies upon engineering methodology for analyzing flood hazards which is consistent with the standards established by the Department of Natural Resources. This methodology consists of a series of interrelated steps including:

(i) Determination of flood magnitudes and the corresponding flood frequencies by statistical and engineering calculations which permits a consideration of such flood factors as expected frequency of occurrence, area inundated, and depth of inundation.

(ii) Calculation of water surface profiles based upon a hydraulic engineering analysis of the capability of the stream channel and overbank areas to convey flood flows.

(iii) Computation and delineation of a floodway, an area which must be reserved (with no additional obstructions) for conveyance of flood flows so that flood heights and velocities will not be substantially increased by future encroachment on the flood plain.

(3) Purpose. It is the purpose of this ordinance to promote the public health, safety, and general welfare by minimizing those flood losses described in Section 9.1(2) with provisions designed to:

(a) Reserve sufficient flood plain area for the conveyance of flood flows so that flood heights and velocities will not be increased by greater than one (1) foot.

(b) Restrict or prohibit uses which are dangerous to health, safety or property in times of flood or which cause excessive increases in flood heights or velocities.

(c) Require that uses vulnerable to floods, including public utilities which serve such uses, be protected against flood damage at the time of initial construction or substantial improvement.

(d) Protect individuals from buying lands which are unsuited for intended purposes because of flood hazard.

(e) Assure that eligibility to purchase flood insurance through the National Flood Insurance Program is maintained for property owners in the community.

#### Sec. 9.2. GENERAL PROVISIONS.

(1) Lands to Which Ordinance Applies. This ordinance shall apply to all lands within the jurisdiction of the City of Ames, Iowa, shown on the Official Flood Plain Zoning Map to be within the "Special Flood Hazard Areas Subject to Inundation by the 1% Annual Chance Flood".

(2) **Establishment of Official Flood Plain Zoning Map.** The Story County, Iowa and Incorporated Areas Flood Insurance Rate Map (FIRM), City of Ames Panels 135, 140, 141, 142, 143, 144, 155, 161, 162, 163, 164, 168, 170, 256, 257, 276, and 277 dated February 20, 2008, prepared as part of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Flood Insurance Study dated February 20, 2008, and Digital FIRM equivalents are hereby adopted by reference and declared to be the Official Flood Plain Zoning Map.

(3) **Rules for Interpretation of District Boundaries.** The boundaries of the zoning district shall be determined by scaling distances on the Official Flood Plain Zoning Map. Where interpretation is needed as to the exact location of the boundaries of the district as shown on the Official Zoning Map, the Flood Plain Administrator shall make the necessary interpretation, provided however, that the Flood Plain Administrator may require the owner to provide a topographic survey of the land to assist in that interpretation. The person contesting the location of the district boundary shall be given a reasonable opportunity to present his or her case and submit technical evidence.

(4) **Compliance.** No structure or land shall hereafter be used and no structure shall be located, extended, converted or structurally altered without full compliance with the terms of this chapter and other applicable regulations which apply to uses within the jurisdiction of this ordinance.

(5) **Abrogation and Greater Restrictions.** It is not intended by this ordinance to repeal, abrogate or impair any existing easements, covenants, or deed restrictions. However, where this ordinance imposes greater restrictions, the provisions of this ordinance shall prevail. All other ordinances inconsistent with this ordinance are hereby repealed to the extent of the inconsistency only.

(6) **Interpretation.** In their interpretation and application, the provisions of this ordinance shall be held to be minimum requirements and shall be liberally construed in favor of the governing body and shall not be deemed a limitation or repeal of any other powers granted by State statutes.

(7) **Warning and Disclaimer of Liability.** The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Larger floods may occur on rare occasions. Flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This ordinance does not imply that areas outside the flood plain districts or land uses permitted within such districts will be free from flooding or flood damages. This ordinance shall not create liability on the part of the City of Ames, Iowa, or any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

(8) **Severability.** If any section, clause, provision or portion of this ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this ordinance shall not be affected thereby.

### **Sec. 9.3. ESTABLISHMENT OF ZONING OVERLAY DISTRICTS.**

The flood plain areas within the jurisdiction of this ordinance are hereby divided into the following zoning overlay districts:

(1) **Floodway Overlay District -** The Floodway Overlay District includes the areas shown as “Floodway Areas in Zone AE” on the Official Flood Plain Zoning Map

(2) **Floodway Fringe Overlay District -** The Floodway Fringe Overlay District includes the areas shown as “Zone AE excluding the Floodway Areas in Zone AE” on the Official Flood Plain Zoning Map.

(3) **General Flood Plain Overlay District –** The General Flood Plain Overlay District includes the areas shown as “Zone A” on the Official Flood Plain Zoning Map

Within these districts, all uses not allowed as Permitted Uses or authorized as Conditional Uses are prohibited unless a use variance to the terms of this ordinance is granted after due consideration by the Zoning Board of Adjustment.

### **Sec. 9.4. FLOODWAY OVERLAY DISTRICT.**

(1) **Permitted Uses.** The following uses shall be permitted within the Floodway Overlay District to the extent they are not prohibited by any other ordinance or underlying zoning district regulation, and provided they do not include placement of structures, factory-built homes, fill or other obstruction, the storage of materials or equipment, excavation, or alteration of a watercourse:

(a) **Agricultural uses** such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, truck farming, forestry, sod farming, and wild crop harvesting.

(b) **Industrial-commercial uses** such as loading areas, parking areas, airport landing strips.

(c) 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, game farms, fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, hiking and horseback riding trails.

(d) Residential uses such as lawns, gardens, parking areas and play areas.

(e) Such other open-space uses similar in nature to the above uses.

(2) Conditional Uses. The following uses which involve structures (temporary or permanent), fill, or storage of materials or equipment may be permitted only upon issuance of a Conditional Use Permit by the Zoning Board of Adjustment as provided for in Sec. 9.7. Such uses must also meet the applicable provisions of the Floodway Overlay District Performance Standards.

(a) Uses or structures accessory to open-space uses.

(b) Circuses, carnivals, and similar transient amusement enterprises.

(c) Drive-in theaters, new and used car lots, roadside stands, signs, and billboards.

(d) Extraction of sand, gravel, and other materials.

(e) Marinas, boat rentals, docks, piers, wharves.

(f) Utility transmission lines, underground pipelines.

(g) Other uses similar in nature to uses described as permitted uses or listed conditional uses, which are consistent with the performance standards of Subsection (3) below and the general spirit and purpose of this ordinance.

(3) Performance Standards. All Floodway Overlay District uses allowed as a Permitted or Conditional Use shall meet the following standards:

(a) No use shall be permitted in the Floodway Overlay District that would result in any increase in the base flood elevation level. Consideration of the effects of any development on flood levels shall be based upon the assumption that an equal degree of development would be allowed for similarly situated lands. Evidence required will be a hydraulic study performed by a registered professional engineer for the area of drainage involved.

(b) All uses within the Floodway Overlay District shall:

(i) Be consistent with the need to minimize flood damage.

(ii) Use construction methods and practices that will minimize and resist flood damage.

(iii) Use construction materials and utility equipment that are resistant to flood damage.

(c) No use shall affect the capacity or conveyance of the channel or floodway or any tributary to the main stream, drainage ditch, or any other drainage facility or system.

(d) Structures, buildings and sanitary and utility systems, if permitted, shall meet the applicable performance standards of the Floodway Fringe Overlay District and shall be constructed or aligned to present the minimum possible resistance to flood flows.

(e) Buildings, if permitted, shall have a low flood damage potential and shall not be for human habitation.

(f) Storage of materials or equipment that are buoyant, flammable, explosive or injurious to human, animal or plant life is prohibited. Storage of other material may be allowed if readily removable from the Floodway Overlay District within the time available after flood warning.

(g) Watercourse alterations or relocations (channel changes and modifications) must be designed to maintain the flood carrying capacity within the altered or relocated portion. In addition, such alterations or relocations must be approved by the Department of Natural Resources.

(h) Any fill allowed in the floodway must be shown to have some public beneficial purpose and shall be limited to the minimum amount necessary.

(i) Pipeline river or stream crossings shall be buried in the streambed and banks or otherwise sufficiently protected to prevent rupture due to channel degradation and meandering or due to the action of flood flows.

(j) It shall be the responsibility of adjacent property owners to maintain the location and carrying capacity of the floodway adjacent to their property.

#### **Sec. 9.5. FLOODWAY FRINGE OVERLAY DISTRICT.**

(1) Permitted Uses. All uses within the Floodway Fringe Overlay District shall be permitted to the extent that they are not prohibited by any other ordinance or underlying zoning district and provided they meet applicable performance standards of the Floodway Fringe Overlay District.

(2) Performance Standards. All uses must be consistent with the need to minimize flood damage and shall meet the following applicable performance standards.

(a) All structures shall

(i) be adequately anchored to prevent flotation, collapse or lateral movement of the structure,

(ii) be constructed with materials and utility equipment resistant to flood damage, and

(iii) be constructed by methods and practices that minimize flood damage.

(b) Residential buildings. All new or substantially improved residential structures shall have the lowest floor, including basements, elevated a minimum of three (3) feet above the base flood elevation level. Construction shall be upon compacted fill which shall, at all points, be no lower than three (3) feet above the base flood elevation level and extend at such elevation at least 18 feet beyond the limits of any structure erected thereon. Alternate methods of elevating (such as piers) may be allowed, subject to favorable consideration by the Zoning Board of Adjustment and issuance of a Conditional Use Permit, where existing topography, street grades, or other factors preclude elevating by fill. In such cases, the methods used must be adequate to support the structure as well as withstand the various forces and hazards associated with flooding. All new residential buildings shall be provided with a means of access which will be passable by wheeled vehicles during the base flood elevation.

(c) Non-residential buildings. All new and substantially improved non-residential buildings shall have the lowest floor (including basement) elevated a minimum of three (3) feet above the base flood elevation level, or together with attendant utility and sanitary systems, be floodproofed to such a level. When floodproofing is utilized, a professional engineer registered in the State of Iowa shall certify that the floodproofing methods used are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood elevation level, and that the structure, below the base flood elevation level, is watertight with walls substantially impermeable to the passage of water. A record of the certification indicating the specific elevation (in relation to National Geodetic Vertical Datum NGVD29) to which any structures are floodproofed shall be maintained by the Flood Plain Administrator.

(d) Factory-built homes:

(i) Factory-built homes including those placed in existing factory-built home parks or subdivisions shall be anchored to resist flotation, collapse, or lateral movement.

(ii) Factory-built homes including those placed in existing factory-built home parks or subdivisions shall be elevated such that the permanent foundation of the structure is a minimum of three (3) feet above the base flood elevation.

(e) Utility and Sanitary Systems

(i) All new and replacement sanitary sewage systems shall be designed to minimize and eliminate infiltration of flood waters into the system as well as the discharge of effluent into flood waters. Wastewater treatment facilities shall be provided with a level of flood protection equal to or greater than three (3) feet above the base flood elevation.

(ii) On-site waste disposal systems shall be located or designed to avoid impairment to the system or contamination from the system during flooding.

(iii) New or replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system. Water supply treatment facilities shall be provided with a level of protection equal to or greater than three (3) feet above the base flood elevation.

(iv) Utilities such as gas or electrical systems shall be located and constructed to minimize or eliminate flood damage to the system and the risk associated with such flood damaged or impaired systems.

(f) Storage of materials and equipment that are flammable, explosive or injurious to human, animal or plant life is prohibited unless elevated a minimum of three (3) feet above the base flood elevation level. Other material and equipment must either be similarly elevated or (i) not be subject to major flood damage and be anchored to prevent movement due to flood waters or (ii) be readily removable from the area within the time available after flood warning.

(g) Flood control structural works such as levees and flood walls, shall provide, at a minimum, protection from a base flood elevation with a minimum of 3 ft. of design freeboard and shall provide for adequate interior drainage. In addition, structural flood control works shall be approved by the Department of Natural Resources.

(h) No use shall affect the capacity or conveyance of the channel or floodway of any tributary to the main stream, drainage ditch, or other drainage facility or system. In addition, the Department of Natural Resources

must approve any alteration or relocation of any stream.

(i) Subdivisions (including factory-built home parks and subdivisions) shall be consistent with the need to minimize flood damages and shall have adequate drainage provided to reduce exposure to flood damage. Development associated with subdivision proposals shall meet the applicable performance standards. Subdivision proposals intended for residential development shall provide all lots with a means of vehicular access that will remain dry during occurrence of the base flood. Proposed subdivision plats greater than five (5) acres or fifty (50) lots (whichever is fewer) shall include base flood elevation data for those areas located within the Floodway, Floodway Fringe, or General Floodway Overlay Districts on the preliminary plat and final plat.

(j) The exemption of detached garages, sheds, and similar structures from the current requirements for elevation may result in increased premium rates for insurance coverage of the structure and contents, however, said detached garages, sheds, and similar accessory type structures are exempt from the current requirements for elevation when:

(i) The structure shall not be used for human habitation.  
(ii) The structure shall be designed to have low flood damage potential.  
(iii) The structure shall be constructed and placed on the building site so as to offer minimum resistance to the flow of floodwaters.

(iv) The structure shall be firmly anchored to prevent flotation which may result in damage to other structures.

(v) The structure's service facilities such as electrical and heating equipment shall be elevated or floodproofed to at least three (3) feet above the base flood elevation level.

(k) For all new and substantially improved structures:

(i) Fully enclosed areas below the "lowest floor" (not including basements) that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or meet or exceed the following minimum criteria:

a. 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.  
b. The bottom of all openings shall be no higher than one foot above grade.  
c. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters. Such areas shall be used solely for parking of vehicles, building access, and low damage potential storage.

(ii) New and substantially improved structures must 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.

(iii) New and substantially improved structures must 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.

(l) Recreational vehicles placed on sites within the Floodway Fringe Overlay District shall:

(i) Be on the site for fewer than 180 consecutive days and  
(ii) Be 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 disconnect type utilities and security devices, and has no permanent attached additions. Recreational vehicles that are located on the site for more than 180 consecutive days or are not ready for highway use must satisfy requirements of Section 9.5(d) of this Ordinance regarding anchoring and elevation of factory-built homes.

#### **Sec. 9.6. GENERAL FLOOD PLAIN OVERLAY DISTRICT (FP).**

(1) Permitted Uses. The following uses shall be permitted within the General Flood Plain Overlay District to the extent they are not prohibited by any other ordinance or underlying zoning district and provided they do not include placement of structures, factory built homes, fill or other obstruction; the storage of materials or equipment; excavation; or alteration of a watercourse.

(a) Agricultural uses such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, truck farming, forestry, sod farming, and wild crop harvesting.

(b) Industrial-commercial uses such as loading areas, parking areas, airport landing strips.

(c) Private and public recreation uses such as golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, hiking and horseback riding trails.

(d) Residential uses such as lawns, gardens, parking areas, and play areas.

(2) Conditional Uses. Any use which involves placement of structures, factory-built homes, fill or other obstructions; the storage of materials or equipment; excavation; or alteration of a watercourse may be allowed only upon issuance of a Conditional Use Permit by the Zoning Board of Adjustment as provided for in Section 9.7(3). All such uses shall be reviewed by the Department of Natural Resources to determine (i) whether the land involved is either wholly or partly within the floodway or floodway fringe and (ii) the base flood elevation level. The applicant shall be responsible for providing the Department of Natural Resources with sufficient technical information to make the determination.

(3) Performance Standards.

(a) All conditional uses, or portions thereof, to be located in the floodway as determined by the Department of Natural Resources shall meet the applicable provisions and standards of the Floodway Overlay District.

(b) All conditional uses, or portions thereof, to be located in the floodway fringe as determined by the Department of Natural Resources shall meet the applicable standards of the Floodway Fringe Overlay District.

### **Sec. 9.7. ADMINISTRATION.**

(1) Appointment, Duties and Responsibilities of Flood Plain Administrator

(a) The Flood Plain Administrator (the Administrator) shall be the Director of the Department of Planning and Housing or his/her designee and shall administer and enforce this chapter and will herein be referred to as the Administrator.

(b) Duties and responsibilities of the Administrator shall include, but not necessarily be limited to, the following:

(i) Review all flood plain development permit applications to insure that the provisions of this chapter will be satisfied.

(ii) Review all flood plain development permit applications to insure that all necessary permits have been obtained from Federal, state or local governmental agencies.

(iii) Record and maintain a record of:  
a. the elevation (in relation to National Geodetic Vertical Datum NGVD29) of the lowest habitable floor of all new or substantially improved buildings or  
b. the elevation to which new or substantially improved structures have been floodproofed.

(iv) Notify adjacent communities and/or counties and the Department of Natural Resources prior to any proposed alteration or relocation of a watercourse and submit evidence of such notifications to the Federal Insurance Administrator.

(v) Keep a record of all permits, appeals, variances and such other transactions and correspondence pertaining to the administration of this ordinance.

(vi) Submit to the Federal Insurance Administrator any required report concerning the community's participation in the National Flood Insurance Program.

(vii) Notify the Federal Insurance Administration of any annexations or modifications to the community's boundaries.

(viii) Review subdivision proposals to insure such proposals are consistent with the purpose of this ordinance and advise the City Council of potential conflicts.

(2) Flood Plain Development Permit.

(a) Permit Required. A Flood Plain Development Permit issued by the Administrator shall be secured prior to initiation of any flood plain development. Development means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, filling, grading, paving, excavation or drilling operations, including the placement of factory-built homes.

(b) Application for Permit. Application for a Flood Plain Development Permit shall be made on forms supplied by the Administrator and shall include the following information:

(i) Description of the work to be covered by the permit for which application is to be made.

- (ii) Description of the land on which the proposed work is to be done (i.e., lot, block, tract, street address, or similar description) that will readily identify and locate the work to be done.
- (iii) Identification of the use or occupancy for which the proposed work is intended.
- (iv) The base flood elevation (BFE).
- (v) Elevation (in relation to National Geodetic Vertical Datum NGVD29) of the lowest floor (including basement) of buildings or of the level to which a building is to be floodproofed.
- (vi) For buildings being improved or rebuilt, the estimated cost of improvements and market value of the building prior to the improvements.
- (vii) Such other information as the Administrator deems reasonably necessary for the purpose of this ordinance.

(c) Action for Permit Application. The Administrator shall, within a reasonable time, make a determination as to whether the proposed flood plain development meets the applicable provisions and standards of this ordinance and shall approve or disapprove the application. For disapprovals, the applicant shall be informed, in writing, of the specific reasons therefore. The Administrator shall not issue permits for Conditional Uses or Variances except as directed by the Zoning Board of Adjustment.

(d) Construction and Use to be as Provided in Application and Plans. Flood Plain Development Permits issued on the basis of approved plans and applications authorize only the use, arrangement, and construction set forth in such approved plans and applications and no other use, arrangement or construction. Any use, arrangement or construction other than that which is authorized shall be deemed a violation of this Ordinance and shall be punishable as provided in Section 9.9.

(e) The applicant shall be required to submit certification by a professional engineer or land surveyor, as appropriate, registered in the State of Iowa, that the finished fill, building floor elevations, floodproofing, or other flood protection measures were accomplished in compliance with the provisions of this Ordinance, prior to the use or occupancy of any structure.

(3) Conditional Uses, Appeals, and Variances.

(a) Appointment and Duties of Zoning Board of Adjustment. The Zoning Board of Adjustment shall hear and decide this Ordinance;

- (i) Requests for Conditional Uses upon which the Board is authorized to pass under this Ordinance;
- (ii) Appeals, and
- (iii) Requests for Variances to the provisions of this Ordinance; and
- (iv) All other actions which are required of the Board.

(b) Conditional Uses. Requests for Conditional Uses shall be submitted to the Administrator, who shall forward such to the Zoning Board of Adjustment for consideration. Such requests shall include information ordinarily submitted with applications as well as any additional information deemed necessary by the Zoning Board of Adjustment.

(c) Appeals. Where it is alleged there is any error in any order, requirement, decision, or determination made by Administrator in the enforcement of this Ordinance, the aggrieved party may appeal such action. Applications for Appeals shall be submitted to the Administrator, who shall forward such to the Zoning Board of Adjustment for consideration. Such applications shall include information ordinarily submitted with applications as well as any additional information deemed necessary by the Zoning Board of Adjustment. The notice of appeal shall be submitted to the Administrator and shall set forth the specific reason for the appeal. The Administrator shall transmit to the Zoning Board of Adjustment all the papers constituting the record upon which the action appealed from was taken.

(d) Variances. Requests for Variances shall be submitted to the Administrator who shall forward such to the Zoning Board of Adjustment. Such requests shall include information ordinarily submitted with applications as well as any additional information deemed necessary by the Zoning Board of Adjustment. The Zoning Board of Adjustment may authorize upon request in specific cases such variances from the terms of this ordinance as will not be contrary to the public interest, where owing to special conditions a strict enforcement of the provisions of this ordinance will result in unnecessary hardship. Variances granted must meet the following applicable standards:

- (i) No variance shall be granted for any development within the Floodway Overlay District which would result in any increase in the base flood elevation. Consideration of the effects of any development on flood levels shall be based upon the assumption that an equal degree of development would be allowed for similarly situated lands.

(ii) Variances shall only be granted upon (a) a showing of good and sufficient cause, (b) a determination that failure to grant the variance would result in an unnecessary hardship to the applicant, and (c) a determination that the granting of the variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense; create nuisances, or cause fraud on or victimization of the public.

(iii) Variance shall only be granted upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(iv) In cases where the variance involves a lower level of flood protection for buildings than what is ordinarily required by this Ordinance, the applicant shall be notified in writing over the signature of the Administrator that (a) the issuance of a variance will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage, and (b) such construction increases risks to life and property.

(v) All variances granted shall have the concurrence or approval of the Department of Natural Resources.

(e) Hearings and Decisions of the Zoning Board of Adjustment.

(i) Hearings. Upon the filing with the Zoning Board of Adjustment of a request for a Conditional Use, an Appeal, or a request for a Variance, the Board shall hold a public hearing. The Board shall fix a reasonable time and publish notice of the hearing. At the hearing, any party may appear in person or by agent or attorney and present written or oral evidence. The Board may require the appellant or applicant to provide such information as is reasonably deemed necessary and may request the technical assistance and/or evaluation of a professional engineer or other expert person or agency, including the Department of Natural Resources.

(ii) Decisions. The Board shall arrive at a decision on a Conditional Use, Appeal, or Variance within a reasonable time. In passing upon an Appeal, the Board may, so long as such action is in conformity with the provisions of this ordinance, reverse or affirm, wholly or in part, or modify the order, requirement, decision, or determination appealed from, and it shall make its decision, in writing, setting forth the findings of fact and the reasons for its decision. In granting a Conditional Use or Variance the Board shall consider such factors as contained in this section and all other relevant sections of this ordinance and may prescribe such conditions as described below.

a. Factors Upon Which the Decision of the Board Shall be Based. In passing upon requests for Conditional Uses or Variances, the Zoning Board shall consider all relevant factors specified in other sections of this ordinance and:

1. The danger to life and property due to increased flood heights or velocities caused by encroachments.
2. The danger that materials may be swept onto other lands or downstream to the injury of others.
3. The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions.
4. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
5. The importance of the services provided by the proposed facility to the community.
6. The requirements of the facility for a flood plain location.
7. The availability of alternative locations not subject to flooding for the proposed use.
8. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
9. The relationship of the proposed use to the comprehensive plan and flood plain management program for the area.
10. The safety of access to the property in times of flood for ordinary and emergency vehicles.
11. The expected heights, velocity, duration, rate of rise and sediment transport of the flood water expected at the site.
12. Such other factors which are relevant to the purpose of this ordinance.

b. Conditions attached to Conditional Uses or Variances. Upon consideration

of the factors listed above, the Board may attach such conditions to the granting of Conditional Uses or Variances as it deems necessary to further the purpose of this ordinance. Such conditions may include, but are not limited to:

1. Modification of waste disposal and water supply facilities.
2. Limitation on period of use and operation.
3. Imposition of operational controls, sureties, and deed restrictions.
4. Requirements for construction of channel modification, dikes,

levees, and other protective measures, provided such are approved by the Department of Natural Resources and are deemed the only practical alternative to achieving the purpose of this ordinance.

5. Floodproofing measures. Floodproofing measures shall be designed consistent with the flood protection elevation for the particular area, flood velocities, durations, rate of rise, hydrostatic and hydrodynamic forces, and other factors associated with the regulatory flood. The Zoning Board of Adjustment shall require that the applicant submit a plan or document certified by a registered professional engineer that the floodproofing measures are consistent with the regulatory flood protection elevation and associated flood factors for the particular area. Such floodproofing measures may include, but are not necessarily limited to the following:

- a) Anchorage to resist flotation and lateral movement.
- b) Installation of watertight doors, bulkheads, and shutters, or similar methods of construction.
- c) Reinforcement of walls to resist water pressure.
- d) Use of paints, membranes, or mortars to reduce seepage

of water through walls.

- e) Addition of mass or weight to structures to resist

flotation.

- f) Installation of pumps to lower water levels in structures.
- g) Construction of water supply and waste treatment

systems so as to prevent the entrance of flood waters.

- h) Pumping facilities or comparable practices for

subsurface drainage systems for building to relieve external foundation wall and basement flood pressures.

- i) Construction to resist rupture or collapse caused by

water pressure or floating debris.

- j) Installation of valves or controls on sanitary and storm

drains which will permit the drains to be closed to prevent backup of sewage and storm waters into the buildings or structures.

- k) Location of all electrical equipment, circuits and installed electrical appliances in a manner which will assure they are not subject to flooding.

c. Appeals to the Court. Any person or persons, jointly or severally, aggrieved by any decision of the Zoning Board of Adjustment may present to a court of record a petition, duly verified, setting forth that such decision is illegal, in whole or in part, specifying the grounds of the illegality. Such petition shall be presented to the court within thirty days after the filing of the decision in the office of the Zoning Board.

#### **Sec. 9.8. NONCONFORMING USES.**

(1) In the Floodway Overlay District. When located in the Floodway Overlay District, a structure, or the use of a structure, or the use of land, which was lawful before July 16, 2004, but is not in conformity with the provisions of this ordinance, may be continued subject to the following conditions:

(a) No use shall be expanded or enlarged to cover more lot area, or changed to another use, unless that use is a permitted use.

(b) If any nonconforming use or structure incurs substantial damage of any origin or by any means, including floods, it shall not be reconstructed except in conformity with the provisions of this ordinance.

(c) If any nonconforming use or structure incurs damage, but not to the extent of substantial damage, from any origin or by any means, it may be restored to the condition in which it existed as a nonconforming use or structure prior to damage.

(d) Any nonconforming structure damaged by any origin to the extent that the cost of restoring the structure to its before damage condition would be less than fifty (50) percent of the market value of the structure before the damage occurred, may be rebuilt provided such rebuilding does not increase the intensity of use, as determined

by the number of dwelling units (for residences) or floor area or ground coverage (for nonresidential uses), does not increase the nonconformity, complies with all other legal requirements, and is completed within 18 months from the time of damage.

(e) If a nonconforming use is discontinued for twelve (12) consecutive months, any future use of the buildings or premises shall conform to this ordinance.

(2) In the Floodway Fringe Overlay District. When located in the Floodway Fringe Overlay District, a structure, use of a structure or the use of land which was lawful before July 16, 2004, but is not in conformity with the provisions of this ordinance, may be continued subject to the following conditions:

(a) If any nonconforming use or structure incurs substantial damage of any origin or by any means, including floods, it shall not be reconstructed except in conformity with the provisions of this ordinance.

(b) If any nonconforming use or structure incurs damage, but not to the extent of substantial damage, of any origin or by any means, it may be restored to the condition in which it existed as a nonconforming use or structure prior to damage.

(c) Any nonconforming structure damaged by any origin to the extent that the cost of restoring the structure to its before damage condition would be less than fifty (50) percent of the market value of the structure before the damage occurred may be rebuilt provided such rebuilding does not increase the intensity of use, as determined by the number of dwelling units (for residences) or floor area or ground coverage (for nonresidential uses), does not increase the nonconformity, complies with all other legal requirements, and is completed within 18 months from the time of damage. If the cumulative value of improvements and work to the structure exceed the extent of 50% or more of the market value of the structure before the damage occurred, the lowest floor must be elevated to three (3) feet above the base flood elevation, or if the structure is a nonresidential structure, the lowest floor may be floodproofed in accordance with the requirements of Section 9.5(2) of this ordinance.

(d) If a nonconforming use is discontinued for twelve (12) consecutive months, any future use of the buildings or premises shall conform to this ordinance.

(3) In the General Flood Plain Overlay District. When located in the General Flood Plain Fringe Overlay District, a structure, use of a structure or the use of land which was lawful before July 16, 2004, but is not in conformity with the provisions of this ordinance, may be continued subject to the following conditions:

(a) No use shall be expanded or enlarged to cover more lot area, or changed to another use, unless that use is a permitted use.

(b) If any nonconforming use or structure incurs substantial damage of any origin or by any means, including floods, it shall not be reconstructed except in conformity with the provisions of this ordinance.

(c) If any nonconforming use or structure incurs damage, but not to the extent of substantial damage, from any origin or by any means, it may be restored to the condition in which it existed as a nonconforming use or structure prior to damage.

(d) Any nonconforming structure damaged by any origin to the extent that the cost of restoring the structure to its before damage condition would be less than fifty (50) percent of the market value of the structure before the damage occurred, may be rebuilt provided such rebuilding does not increase the intensity of use, as determined by the number of dwelling units (for residences) or floor area or ground coverage (for nonresidential uses), does not increase the nonconformity, complies with all other legal requirements, and is completed within 18 months from the time of damage.

(e) If a nonconforming use is discontinued for twelve (12) consecutive months, any future use of the buildings or premises shall conform to this ordinance.

#### **Sec. 9.9. PENALTIES FOR OFFENSES PERTAINING TO FLOOD PLAIN ZONING.**

A violation of any provision of Chapter 9, Flood Plain Zoning Regulations, shall be a municipal infraction punishable by a penalty of \$500 for a person's first violation thereof, and a penalty of \$750 for each repeat violation.

#### **Sec. 9.10. AMENDMENTS.**

The regulations, restrictions and boundaries set forth in this ordinance may from time to time be amended, supplemented, changed, or repealed as provided in Sections 414.4, 414.5, and 414.21, Code of Iowa, 1987 as amended. No amendment, supplement, change, or modification to this ordinance shall be undertaken without prior approval from the Department of Natural Resources.

### **Sec. 9.11. DEFINITIONS.**

Unless specifically defined below, words or phrases in this chapter shall be interpreted so as to give the meaning they have in common usage and to give this chapter its most reasonable application.

- (1) Base Flood. A flood having a one percent chance of being equaled or exceeded in any given year for a given area.
- (2) Base Flood Elevation (BFE). The height to which the base flood is estimated to rise.
- (3) Basement. Any area of the building having its floor subgrade (below ground level) on all sides.
- (4) Development. Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.
- (5) Existing Construction. Structures for which the "start of construction" commenced before January 28, 1980 (the effective date of the first flood plain management regulations adopted by the City of Ames). "Existing construction" may also be referred to as "existing structures".
- (6) Existing Factory-built Home Park or Subdivision. A factory-built home park or subdivision for which the construction of facilities for servicing the lots on which the factory-built homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is complete before January 28, 1980 (the effective date of the first flood plain management regulations adopted by the City of Ames).
- (7) Expansion of Existing Factory-built Home Park or Subdivision. The preparation of additional sites by the construction of facilities for servicing the lots on which the factory-built homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).
- (8) Factory-Built Home. A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities.
- (9) Factory-built Home Park or Subdivision. A parcel (or continuous parcels) of land divided into two or more factory-built home lots for rent or sale.
- (10) Flood or Flooding. A general and temporary condition of partial or complete inundation of normally dry land areas from: (a) the overflow of inland or tidal waters; (b) the usual and rapid accumulation of runoff of surface waters from any source.
- (11) Floodway. The channel of a river or stream and those portions of the flood plain adjoining the channel that are reasonably required to carry and discharge flood waters or flood flows so that confinement of flood flows to the floodway area will not cumulatively increase the water surface elevation of the base flood by more than one (1) foot.
- (12) Floodway Fringe. That area of the floodplain, outside the floodway, that has a one percent chance of flood occurrence in any one year.
- (13) Flood Insurance Rate Map (FIRM). An official map published as part of the Flood Insurance Study that delineates both the flood hazard boundaries and the risk premium zones applicable to the community.
- (14) Flood Insurance Study. The official report provided by the Federal Emergency Management Agency. The report contains flood profiles, as well as the Flood Boundary-Floodway Map and the water surface elevation of the base flood.
- (15) Flood plain. Any land area susceptible to being inundated by water from any source (see definition of flood).
- (16) Floodproofing. A combination of structural provisions, changes, or adjustment to properties and structures subject to flooding primarily for the reduction or elimination of flood damages to properties, water and sanitary facilities, structures, and contents of buildings in a flood hazard area.
- (17) Freeboard. A factor of safety usually expressed in feet above a flood level for purposes of floodplain management. Freeboard tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, clogged bridge openings, and the hydrological effect of urbanization of the water shed.
- (18) General Flood Plain. Area of the special flood hazard area for which the delineation of floodway and floodway fringe has not been determined.
- (19) Historic Structure. A structure that is: (a) Listed individually in the National Register of Historic Places, maintained by the Department of Interior, or preliminarily determined by the Secretary of the Interior as meeting the requirement for individual listing on the National Register; (b) Certified or preliminarily determined by the Secretary

of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as registered historic district; (c) Individually listed on a state inventory of historic places or landmarks; (d) Individually listed on a local inventory of historic places or landmarks; or (e) Identified as contributing or compatible within a local historic district.

(20) **Lowest Floor.** The floor of the lowest enclosed area in a building including a basement except when all the following criteria are met: (a) The enclosed area is designed to flood to equalize hydrostatic pressure during floods with walls or openings that satisfy the provisions of Section V B4(a) of this Ordinance; (b) The enclosed area is unfinished (not carpeted, drywalled, etc.) and used solely for low damage potential uses such as building access, parking or storage; (c) Machinery and service facilities (e.g., hot water heater, furnace, electrical service) contained in the enclosed area are located at least one (1) foot above the 100-year flood level; and (d) The enclosed area is not a "basement" as defined in this section.

(21) **New Construction.** For flood plain management purposes, "new construction" means structures for which the start of construction commenced on or after January 28, 1980 (the effective date of the flood plain management regulation adopted by the City of Ames) and includes any subsequent improvements to such structure.

(22) **Overlay District.** A zoning district in which additional requirements act in conjunction with a base zoning district and/or other overlay districts.

(23) **Recreational Vehicle.** A vehicle which is (a) build on a chassis; (b) 400 square feet or less when measured at the largest horizontal projections; (c) designed to be self propelled or towable; and (d) designed primarily as temporary quarters for recreational, camping travel or seasonal use and not for use as a permanent dwelling.

(24) **Special Flood Hazard Area.** The land in the flood plain within a community subject to one percent or greater chance of flooding in any given year.

(25) **Start of Construction.** The date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundation or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not the alteration affects the external dimensions of the building.

(26) **Structure.** Anything constructed or erected on the ground or attached to the ground including, but without limiting the generality of the foregoing: buildings, factories, sheds, cabins, mobile homes, manufactured homes, other similar items, and walled and roofed buildings, including gas or liquid storage tanks that are principally above ground.

(27) **Substantial Damage.** Damage of any origin sustained by a structure whereby the cost of restoring the structure to its condition before the damage occurred would equal or exceed 50 percent of the market value of the structure before the damage occurred.

(28) **Substantial Improvement.** Any improvement to a structure which satisfies either of the following criteria: (a) Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure either (i) before the "start of construction" of the improvement, or (ii) if the structure has been "substantially damaged" and is being restored, before the damage occurred. The term does not, however, include any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions. The term also does not include any alteration of an "historic structure", provided the alteration will not preclude the structure's designation as an "historic structure"; or (b) Any addition which increases the original floor area of a building by 25 percent or more. All additions constructed after the effective date of the flood plain management regulations adopted by the community shall be added to any proposed addition in determining whether the total increase in original floor space would exceed 25 percent.

(29) **Variance.** A grant of relief by a community from the terms of the flood plain management regulations.

(30) **Violation.** The failure of a structure or other development to be fully compliant with the community's flood plain management regulations.