
CHAPTER 160
FLOOD PLAIN REGULATIONS

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160.01 PURPOSE.

It is the purpose of this chapter to protect and preserve the rights, privileges and property of the City and its residents and to preserve and improve the peace, safety, health, welfare and comfort and convenience of its residents by minimizing flood losses with provisions designed to:

1. Reserve sufficient flood plain area for the conveyance of flood flows so that flood heights and velocities will not be increased substantially.
2. 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.
3. 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.
4. Protect individuals from buying lands which may not be suited for intended purposes because of flood hazard.
5. Assure that eligibility is maintained for property owners in the community to purchase flood insurance through the National Flood Insurance Program.

160.02 DEFINITIONS.

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

1. "Base flood" means the flood having one percent (1%) chance of being equaled or exceeded in any given year. (See 100-year flood.)
2. "Basement" means any enclosed area of a building which has its floor or lowest level below ground level (subgrade) on all sides. Also see "lowest floor."
3. "Development" means any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.
4. "Existing construction" means any structure for which the "start of construction" commenced before the effective date of the community's Flood Insurance Rate Map. May also be referred to as "existing structure."
5. "Existing factory-built home park or subdivision" means 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) was completed before the effective date of these flood plain management regulations.
6. "Expansion of existing factory-built home park or subdivision" means 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).
7. "Factory-built home" means any structure designed for residential use which is wholly or in substantial part made, fabricated, formed or assembled in manufacturing facilities for installation or assembly and installation on a building site. For the purpose of this chapter, factory-built homes include mobile homes, manufactured homes and modular homes and also includes "recreational vehicles" which are placed on a site for greater than 180 consecutive days and not fully licensed for and ready for highway use.
8. "Factory-built home park" means a parcel or contiguous parcels of land divided into two or more factory-built home lots for sale or lease.
9. "Flood" means a general and temporary condition of partial or complete inundation of normally dry land areas resulting from the overflow of streams or rivers or from the unusual and rapid runoff of surface waters from any source.
10. "Flood elevation" means the elevation floodwaters would reach at a particular site during the occurrence of a specific flood. For instance, the 100-year flood elevation is the elevation of floodwaters related to the occurrence of the 100-year flood.
11. "Flood Insurance Rate Map (FIRM)" means the official map prepared as part of (but published separately from) the Flood Insurance Study which delineates both the flood hazard areas and the risk premium zones applicable to the community.
12. "Flood plain" means any land area susceptible to being inundated by water as a result of a flood.
13. "Flood plain management" means an overall program of corrective and preventive measures for reducing flood damages and promoting the wise use of flood plains, including but not limited to emergency preparedness plans, flood control works, floodproofing and flood plain management regulations.
14. "Floodproofing" means any combination of structural and nonstructural additions, changes, or adjustments to structures, including utility and sanitary facilities which will reduce or eliminate flood damage to such structures.
15. "Floodway" means the channel of a river or stream and those portions of the flood plains adjoining the channel, which 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 foot.
16. "Floodway fringe" means those portions of the flood plain, other than the floodway, which can be filled, leveed, or otherwise obstructed without causing substantially higher flood levels or flow velocities.
17. "Historic structure" means any 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 requirements for individual listing in the National Register;
 - B. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered

historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

C. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or,

D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified by either (i) an approved state program as determined by the Secretary of the Interior or (ii) directly by the Secretary of the Interior in states without approved programs.

18. "Lowest floor" means 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 160.11(4)(A); and

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; and

C. Machinery and service facilities (e.g., hot water heater, furnace, electrical service) contained in the enclosed area are located at least one foot above the 100-year flood level; and

D. The enclosed area is not a "basement" as defined in this section.

In cases where the lowest enclosed area satisfies criteria A, B, C and D above, the lowest floor is the floor of the next highest enclosed area that does not satisfy the criteria above.

19. "New construction" (new buildings, factory-built home parks) means those structures or development for which the start of construction commenced on or after the effective date of the Flood Insurance Rate Map.

20. "New factory-built home park or subdivision" means 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 completed on or after the effective date of these flood plain management regulations.

21. "100-Year Flood" means a flood, the magnitude of which has a one percent (1%) chance of being equaled or exceeded in any given year or which, on the average, will be equaled or exceeded at least once every one hundred (100) years.

22. "Recreational vehicle" means a vehicle which is:

A. Built on a single chassis;

B. Four hundred (400) square feet or less when measured at the largest horizontal projection;

C. Designed to be self-propelled or permanently towable by a light duty vehicle; and

D. Designed primarily not for use as a permanent dwelling but as a temporary living quarters for recreational, camping, travel, or seasonal use.

23. "Special flood hazard area" means the land within a community subject to the "100-year flood." This land is identified as Zone A on the Flood Insurance Rate Map.

24. "Start of construction" includes substantial improvement, and means the date the development 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 either the first placement or permanent construction of a structure on a site, such as pouring of a slab or footings, the installation of pile, the construction of columns, or any work beyond the stage of excavation; or the placement of a factory-built 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 foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.

25. "Structure" means anything constructed or erected on the ground or attached to the ground, including, but not limited to, buildings, factories, sheds, cabins, factory-built homes, storage tanks and other similar uses.

26. "Substantial damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed fifty percent (50%) of the market value of the structure before the damage occurred.
27. "Substantial improvement" means 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 percent (50%) 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 comply with existing State or local health, sanitary, or safety code specifications which are solely necessary to assure safe conditions for the existing use. 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."
- B. Any addition which increases the original floor area of a building by twenty-five percent (25%) or more. All additions constructed after the effective date of the Flood Insurance Rate Map, shall be added to any proposed addition in determining whether the total increase in original floor space would exceed twenty-five percent.
28. "Variance" means a grant of relief by a community from the terms of the flood plain management regulations.
29. "Violation" means the failure of a structure or other development to be fully compliant with this chapter.

160.03 LANDS TO WHICH CHAPTER APPLIES.

The provisions of this chapter shall apply to all lands within the jurisdiction of the City shown on the Official Flood Plain Zoning Map as being within the boundaries of the Floodway, Floodway Fringe, General Flood Plain and Shallow Flooding Districts. The Flood Insurance Rate Map prepared as part of the Flood Insurance Study for the City, dated May 3, 1982, is hereby adopted by reference and declared to be the Official Flood Plain Zoning Map. The flood profiles and all explanatory material contained with the Flood Insurance Study are also declared to be a part of this chapter.

160.04 RULES FOR INTERPRETATION OF DISTRICT BOUNDARIES.

The boundaries of the zoning district areas shall be determined by scaling distances on the Official Flood Plain Zoning Map. When an interpretation is needed as to the exact location of a boundary, the Zoning Administrator shall make the necessary interpretation. The Zoning Board of Adjustment shall hear and decide appeals when it is alleged that there is an error in any requirement, decision, or determination made by the Zoning Administrator in the enforcement or administration of this chapter.

160.05 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 chapter.

160.06 ABROGATION AND GREATER RESTRICTIONS.

It is not intended by this chapter to repeal, abrogate or impair any existing easements, covenants, or deed restrictions. However, where this chapter imposes greater restrictions, the provision of this chapter shall prevail. Any ordinances inconsistent with this chapter are hereby repealed to the extent of the inconsistency only.

160.07 INTERPRETATION.

In their interpretation and application, the provisions of this chapter 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.

160.08 WARNING AND DISCLAIMER OF LIABILITY.

The standards required by this chapter are considered reasonable for regulatory purposes. This chapter does not imply that areas outside the designated Flood Plain District areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the City or any officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

160.09 ESTABLISHMENT OF ZONING DISTRICTS.

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

1. Floodway District (FW)
2. Floodway Fringe District (FF)

3. General Flood Plain District (FP)

4. Shallow Flooding District (SF).

The boundaries are as shown on the Official Flood Plain Zoning Map. Within these districts all uses not allowed as permitted uses or permissible as conditional uses are prohibited unless a variance to the terms of this chapter is granted after due consideration by the Board of Adjustment.

160.10 FLOODWAY DISTRICT - FW.

1. Permitted Uses. The following uses shall be permitted within the Floodway District to the extent they are not prohibited by any other ordinance and provided they do not include placement of structures, factory-built homes, fill or other obstruction, the storage of material 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, storage of materials or equipment, excavation or alteration of a watercourse may be permitted only upon issuance of a conditional use permit by the Board of Adjustment as provided for in Section 160.19. Such uses must also meet the applicable provisions of the Floodway 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 sands, gravel, and other materials.

E. Marinas, boat rentals, docks, piers, and wharves.

F. Utility transmission lines and underground pipelines.

G. Other uses similar in nature to uses described in subsection 1 and in this subsection which are consistent with the provisions of subsection 3 and the general spirit and purpose of this chapter.

3. Performance Standards. All Floodway District uses allowed as a permitted or conditional use shall meet the following standards:

A. No use shall be permitted in the Floodway District that would result in any increase in the 100-year flood 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.

B. All uses within the Floodway District shall:

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

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

(3) 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 of any tributary to the main stream, drainage ditch or any other facility or system.

D. Structures, buildings and sanitary and utility systems, if permitted, shall meet the applicable performance standards of the

Floodway Fringe 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 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 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.

160.11 FLOODWAY FRINGE DISTRICT - FF.

All uses within the Floodway Fringe District shall be permitted to the extent that they are not prohibited by any other ordinance and provided they meet applicable performance standards of the Floodway Fringe District. All uses must be consistent with the need to minimize flood damage and shall meet the following applicable performance standards.

1. All structures shall:

A. Be adequately anchored to prevent flotation, collapse or lateral movement of the structure.

B. Use construction materials and utility equipment that are resistant to flood damage.

C. Use construction methods and practices that will minimize flood damage.

2. Residential Buildings. All new or substantially improved residential structures shall have the lowest floor, including basement, elevated a minimum of one foot above the 100-year flood level. Construction shall be upon compacted fill which shall, at all points, be no lower than one foot above the 100-year flood 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 Board of Adjustment, 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 structures shall be provided with a means of access which will be passable by wheeled vehicles during the 100-year flood.

3. Nonresidential Buildings. All new or substantially improved non-residential buildings shall have the lowest floor (including basement) elevated a minimum of one foot above the 100-year flood 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 100-year flood; and that the structure, below the 100-year flood 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) to which any structures are floodproofed shall be maintained by the Administrator.

4. All new and substantially improved structures:

A. 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:

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

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

(3) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided 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.

B. 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.

C. 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.

5. Factory-built Homes.

A. All factory-built homes, including those placed in existing factory-built home parks or subdivisions, shall be elevated on a permanent foundation such that the lowest floor of the structure is a minimum of one foot above the 100-year flood level.

B. All factory-built homes, including those placed in existing factory-built home parks or subdivisions, shall be anchored to resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors.

6. Utility and Sanitary Systems.

A. On-site waste disposal and water supply systems shall be located or designed to avoid impairment to the system or contamination from the system during flooding.

B. All new and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system as well as the discharge of effluent into flood waters. Wastewater treatment facilities (other than on-site systems) shall be provided with a level of flood protection equal to or greater than one foot above the 100-year flood elevation.

C. New or replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system. Water supply treatment facilities (other than on-site systems) shall be provided with a level of protection equal to or greater than one foot above the 100-year flood elevation.

D. 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.

7. Storage of materials and equipment that are flammable, explosive or injurious to human, animal or plant life is prohibited unless elevated a minimum of one foot above the 100-year flood 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.

8. Flood control structural works such as levees, flood-walls, etc. shall provide, at a minimum, protection from a 100-year flood with a minimum of 3 feet 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.

9. Watercourse alterations or relocations must be designed to maintain the flood within the altered or relocated portion.

10. 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 (including the installation of public utilities) shall meet the applicable performance standards of this chapter. Subdivision proposals intended for residential use shall provide all lots with a means of access which will be passable by wheeled vehicles during the 100-year flood. Proposals for subdivisions greater than five (5) acres or fifty (50) lots (whichever is less) shall include 100-year flood elevation data for those areas located within the Flood Plain District.

11. Accessory Structures.

A. Detached garages, sheds, and similar structures accessory to a residential use are exempt from the 100-year flood elevation requirements where the following criteria are satisfied:

- (1) The structure shall not be used for human habitation.
- (2) The structure shall be designed to have low flood damage potential.
- (3) The structure shall be constructed and placed on the building site so as to offer minimum resistance to the flow of floodwaters.
- (4) The structure shall be firmly anchored to prevent flotation which may result in damage to other structures.
- (5) The structure's service facilities such as electrical and heating equipment shall be elevated or floodproofed to at least one foot

above the 100-year flood level.

B. Exemption from the 100-year flood elevation requirements for such a structure may result in increased premium rates for flood insurance coverage of the structure and its contents.

12. Recreational Vehicles.

A. Recreational vehicles are exempt from the requirements of Section 160.11(5) of this chapter regarding anchoring and elevation of factory-built homes when the following criteria are satisfied.

(1) The recreational vehicle shall be located on the site for less than 180 consecutive days, and,

(2) The recreational vehicle must 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 and is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions.

B. Recreational vehicles that are located on the site for more than 180 consecutive days and are not ready for highway use must satisfy requirements of Section 160.11(5) of this chapter regarding anchoring and elevation of factory-built homes.

13. Pipeline river and stream crossings shall be buried in the stream bed and banks, or otherwise sufficiently protected to prevent rupture due to channel degradation and meandering.

160.12 GENERAL FLOOD PLAIN DISTRICT - FP.

1. Permitted Uses. The following uses shall be permitted within the General Flood Plain District to the extent they are not prohibited by any other ordinance and provided they do not include placement of structures, factory-built homes, fill or other obstructions; 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, and 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 Board of Adjustment as provided for in Section 160.19. 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 100-year flood 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 District (Section 160.10).

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 District (Section 160.11).

160.13 SHALLOW FLOODING DISTRICT - SF.

All uses within the Shallow Flooding District shall be permitted to the extent that they are not prohibited by any other ordinance and provided they meet the applicable performance standards of the Shallow Flooding District. The performance standards for the Shallow Flooding District shall be the same as the performance standards for the Floodway Fringe District with the following exceptions:

1. In shallow flooding areas designated as an AO Zone on the Flood Insurance Rate Map, the minimum floodproofing/flood protection elevation shall be equal to the number of feet as specified on the Flood Insurance Rate Map (or a minimum of 2.0 feet if no number is specified) above the highest natural grade adjacent to the structure.

2. In shallow flooding areas designated as an AH Zone on the Flood Insurance Rate Map, the minimum floodproofing/flood protection elevation shall be equal to the elevation as specified on the Flood Insurance Rate Map.

160.14 ADMINISTRATION.

The Zoning Administrator shall administer and enforce this chapter and will herein be referred to as the Administrator. The duties and responsibilities of the Administrator include, but are not necessarily limited to, the following:

1. Review all flood plain development permit applications to assure that the provisions of this chapter will be satisfied.
2. Review all flood plain development permit applications to assure that all necessary permits have been obtained from Federal, State or local governmental agencies including approval when required from the Department of Natural Resources for flood plain construction.
3. Record and maintain a record of (i) the elevation (in relation to National Geodetic Vertical Datum) of the lowest floor (including basement) of all new or substantially improved structures or (ii) the elevation to which new or substantially improved structures have been floodproofed.
4. Notify adjacent communities and/or countries 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 Emergency Management Agency.
5. Keep a record of all permits, appeals, and such other transactions and correspondence pertaining to the administration of this chapter.
6. Submit to the Federal Insurance Administrator an annual report concerning the community's participation, utilizing the annual report form supplied by the Federal Insurance Administrator.
7. Notify the Federal Insurance Administration of any annexations or modifications to the community's boundaries.
8. Review subdivision proposals to insure such proposals are consistent with the purpose of this chapter and advise the Council of potential conflicts.

160.15 FLOOD PLAIN DEVELOPMENT PERMIT REQUIRED.

A Flood Plain Development Permit issued by the Administrator shall be secured prior to any flood plain development (any manmade 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.

160.16 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.

1. Description of the work to be covered by the permit for which application is to be made.
2. 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.
3. Indication of the use or occupancy for which the proposed work is intended.
4. Elevation of the 100-year flood.
5. Elevation (in relation to National Geodetic Vertical Datum) of the lowest floor (including basement) of buildings or of the level to which a building is to be floodproofed.
6. For buildings being improved or rebuilt, the estimated cost of improvements and market value of the building prior to the improvements.
7. Such other information as the Administrator deems reasonably necessary (e.g., drawings or a site plan) for the purpose of this chapter.

160.17 ACTION ON PERMIT APPLICATION.

The Administrator shall, within a reasonable time, make a determination as to whether the proposed flood plain development meets the applicable standards of this chapter and shall approve or disapprove the application. For disapprovals, the applicant shall be informed,

in writing, of the specific reasons therefor. The Administrator shall not issue permits for variances except as directed by the Board of Adjustment.

160.18 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 at variance with that authorized shall be deemed a violation of this chapter. 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 chapter, prior to the use or occupancy of any structure.

160.19 CONDITIONAL USES, APPEALS AND VARIANCES.

The Board of Adjustment shall hear and decide (i) applications for conditional uses upon which the Board is authorized to pass under this chapter; (ii) appeals, and (iii) requests for variances to the provisions of this chapter; and shall take any other action which is required of the Board.

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

2. Appeals. Where it is alleged there is any error in any order, requirement, decision, or determination made by an administrative official in the enforcement of this chapter, the aggrieved party may appeal such action. The notice of appeal shall be filed with the Board of Adjustment and with the official from whom the appeal is taken and shall set forth the specific reason for the appeal. The official from whom the appeal is taken shall transmit to the Board of Adjustment all the documents constituting the record upon which the action appealed from was taken.

3. Variances. The Board of Adjustment may authorize upon request in specific cases such variances from the terms of this chapter that will not be contrary to the public interest, where owing to special conditions a literal enforcement of the provisions of this chapter will result in unnecessary hardship. Variances granted must meet the following applicable standards.

A. Variances shall only be granted upon (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) 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, cause fraud on or victimization of the public or conflict with existing local codes or ordinances.

B. Variances shall not be issued within any designated floodway if any increase in flood levels during the 100-year flood would result. 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.

C. Variances shall only be granted upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

D. In cases where the variance involves a lower level of flood protection for buildings than what is ordinarily required by this chapter, the applicant shall be notified in writing over the signature of the Administrator that (i) 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 (ii) such construction increases risks to life and property.

E. All variances granted shall have the concurrence or approval of the Department of Natural Resources.

4. Hearings and Decisions of the Board of Adjustment.

A. Hearings. Upon the filing with the Board of Adjustment of an appeal, an application for a conditional use or a request for a variance, the Board shall hold a public hearing. The Board shall fix a reasonable time for the hearing and give public notice thereof, as well as due notice to parties in interest. 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.

B. Decisions. The Board shall arrive at a decision on an appeal, conditional use 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 chapter, 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 chapter and may prescribe such conditions as contained in Section 160.21.

160.20 FACTORS UPON WHICH THE DECISION TO GRANT VARIANCES IS BASED.

In passing upon applications for variances, the Board shall consider all relevant factors specified in other sections of this chapter 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 on to other land 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 service provided by the proposed facility to the City.
6. The requirements of the facility for a flood plain location.
7. The availability of alternate 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. The cost of providing governmental services during and after flood conditions, including maintenance and repair of public utilities (sewer, gas, electrical and water systems), facilities, streets and bridges.
13. Such other factors which are relevant to the purpose of this chapter.

160.21 CONDITIONS ATTACHED TO VARIANCES.

Upon consideration of the factors listed above, the Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purpose of this chapter. Such conditions may include, but not necessarily be limited to:

1. Modification of waste disposal and water supply facilities.
2. Limitation on periods of use and operation.
3. Imposition of operational controls, sureties, and deed restrictions.
4. Requirements for construction of channel modifications, 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 chapter.
5. Floodproofing measures 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 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 may include, but is not necessarily limited to the following:
 - A. Anchorage to resist floatation 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 structures to resist floatation.
 - 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.

160.22 APPEALS TO THE COURT.

Any person or persons, jointly or severally, aggrieved by any decision of the 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 illegality. Such petition shall be presented to the court within thirty days after the filing of the decision in the office of the Board.

160.23 NONCONFORMING USES.

1. A structure or the use of a structure or premises which was lawful before the passage or amendment of this chapter but which is not in conformity with the provisions of this chapter may be continued subject to the following conditions:

A. If such use is discontinued for six (6) consecutive months, any future use of the building premises shall conform to this chapter.

B. Uses or adjuncts thereof that are or become nuisances shall not be entitled to continue as nonconforming uses.

C. If any nonconforming use or structure is destroyed by any means, including flood, it shall not be reconstructed if the cost is more than fifty percent (50%) of the market value of the structure before the damage occurred, unless it is reconstructed in conformity with the provisions of this chapter.

2. Except as provided in subsection B above, any use which has been permitted as a conditional use or variance shall be considered a conforming use.

160.24 AMENDMENTS.

The regulations and standards set forth in this chapter may from time to time be amended, supplemented, changed, or repealed. No amendment, supplement, change, or modification shall be undertaken without prior approval of the Department of Natural Resources.