Subd. 6. Flood Plain Overlay Regulations

A. <u>Statutory Authorization and Purpose</u>.

The legislature of the State of Minnesota has, in Minn. Stat. Chapter 103F and Chapter 462, delegated the responsibility to local government units to adopt regulations designed to minimize flood losses. Further, these regulations are adopted to comply with the rules and regulations of the National Flood Insurance Program codified as 44 Code of Federal Regulations Parts 59 -78, as amended, so as to maintain the community's eligibility in the National Flood Insurance Program.

The purpose of these regulations is to promote public health, safety, and general welfare by preserving the natural characteristics and functions of watercourses and floodplains in order to moderate flood and storm water impacts, minimize losses and disruptions caused by flooding, improve water quality, reduce soil erosion, protect aquatic and riparian habitat, provide recreational opportunities, provide aesthetic benefits and enhance community and economic development.

- B. <u>Definitions</u>. For purposes of this Subd. 6, the following definitions shall control:
 - "Accessory use or structure" means a use or structure on the same lot with, and of a nature customarily incidental and subordinate to, the principal use or structure.
 - "Base flood" means a flood having a one percent (1%) chance of being equaled or exceeded in any given year.
 - "Base flood elevation" means the elevation of the "regional flood." The term "base flood elevation" is used in the flood insurance survey.
 - "Basement" means any area of a structure, including crawl spaces, having its floor or base subgrade (below ground level) on all four (4) sides, regardless of the depth of excavation below ground level.
 - "Conditional use" means a specific type of structure or land use listed in the official control that may be allowed but only after an in-depth review procedure and with appropriate conditions or restrictions as provided in the official zoning controls or building codes and upon a finding that:
 - (1) Certain conditions as detailed in the zoning ordinance exist, and
 - (2) The structure and/or land use conform to the comprehensive land use plan and are compatible with the existing neighborhood.

"Critical facilities" means facilities necessary to a community's public health and safety, facilities that store or produce highly volatile, toxic or water-reactive materials, and facilities that house occupants that may be insufficiently mobile to avoid loss of life or injury. Examples of critical facilities include hospitals, correctional facilities, schools, daycare facilities, nursing homes, fire and police stations, wastewater treatment facilities, public electric utilities, water plants, fuel storage facilities, and waste handling and storage facilities.

"Development" means any manmade change to improved or unimproved real estate, including buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

"DNR" means the Minnesota Department of Natural Resources.

"Equal degree of encroachment" means a method of determining the location of floodway boundaries so that floodplain lands on both sides of a stream are capable of conveying a proportionate share of flood flows.

"Farm fence" means a fence as defined by Minn. Stat. §344.02, Subd. 1(a)-(d). An open type fence of posts and wire is not considered to be a structure under these regulations. Fences that have the potential to obstruct flood flows, such as chain link fences and rigid walls, are regulated as structures under these regulations.

"FEMA" means the Federal Emergency Management Agency.

"Flood" means a temporary increase in the flow or stage of a stream or in the stage of a wetland or lake that results in the inundation of normally dry areas.

"Flood frequency" means the frequency for which it is expected that a specific flood stage or discharge may be equaled or exceeded.

"Flood fringe" means the portion of the special flood hazard area located outside of the floodway. Flood fringe is synonymous with the phrase "floodway fringe" used in the Flood Insurance Study for Carver County, Minnesota.

"Flood Insurance Rate Map" or "FIRM" means an official map on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map ("DFIRM").

"Flood maps for the City" mean the Flood Insurance Study for Carver County, Minnesota, and Incorporated Areas, dated effective December 21, 2018, the FIRM panels dated effective December 21, 2018, as listed in Section 900.06, C.2 below, and the Letter of Map Revision, dated August 31, 2018, all prepared by FEMA, which maps are on file in the City Clerk's office.

"Flood prone area" means any land susceptible to being inundated by water from any source.

"Floodplain" means the beds proper and the areas adjoining a wetland, lake or watercourse which have been or hereafter may be covered by the regional flood.

"Floodproofing" means a combination of structural provisions, changes, or adjustments to properties and structures subject to flooding, primarily for the reduction or elimination of flood damages.

"Floodway" means the bed of a wetland or lake and the channel of a watercourse and those portions of the adjoining floodplain that are reasonably required to carry or store the regional flood discharge.

"Lowest floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, used solely for parking of vehicles, building access, or storage in an area other than a basement area, is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of 44 Code of Federal Regulations, Part 60.3, as amended.

"Manufactured home" means a structure, transportable in one (1) or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include the term "recreational vehicle."

"New construction" means structures, including additions and improvements, and placement of manufactured homes, for which the start of construction commenced on or after the effective date of these regulations.

"Obstruction" means any dam, wall, wharf, embankment, levee, dike, pile, abutment, projection, excavation, channel modification, culvert, building, wire, fence, stockpile, refuse, fill, structure, or matter in, along, across, or projecting into any channel, watercourse, or regulatory floodplain that may impede, retard, or change the direction of the flow of water, either in itself or by catching or collecting debris carried by such water.

"One-hundred-year floodplain" means lands inundated by the regional flood.

"Principal use or structure" means any use or structure that is not an accessory use or structure.

"Reach" means a longitudinal segment of a stream or river influenced by a natural or manmade obstruction. In an urban area, the segment of a stream or river between two (2) consecutive bridge crossings would most typically constitute a reach.

"Recreational vehicle" means a vehicle that is built on a single chassis, is 400 square feet or less when measured at the largest horizontal projection, is designed to be self-propelled or permanently towable by a light duty truck, and is designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use. For the purposes of these regulations, the term recreational vehicle is synonymous with the term "travel trailer/travel vehicle."

"Regional flood" means a flood which is representative of large floods known to have occurred generally in Minnesota and reasonably characteristic of what can be expected to occur on an average frequency in the magnitude of the one percent (1%) chance or 100-year recurrence interval. Regional flood is synonymous with the term "base flood" used in a flood insurance study.

"Regulations" mean Section 900.06, Subd. 6, of the Waconia City Code.

"Regulatory flood protection elevation" or "RFPE" means an elevation not less than one (1) foot above the elevation of the regional flood plus any increases in flood elevation caused by encroachments on the floodplain that result from designation of a floodway.

"Repetitive loss" means damages sustained by a structure on two (2) separate occasions during a ten-year period for which the cost of repairs at the time of each such flood event on the average equals or exceeds 25% of the market value of the structure before the damage occurred.

"Special flood hazard area" means a "one hundred year floodplain," as such phrase is used for flood insurance purposes.

"Start of Construction" means, for any substantial improvement, the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement that occurred before the permit's expiration date. The actual start is either 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, foundations, or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

"Structure" means anything constructed or erected on the ground or attached to the ground or on-site utilities, including, but not limited to, buildings, factories, sheds, detached garages, cabins, decks manufactured homes, recreational vehicles not considered travel ready as detailed in Section J.2.b of these regulations and other similar items.

"Substantial damage" means damage of any origin sustained by a structure where the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.

"Substantial improvement" means, within any consecutive 365-day period, any reconstruction, rehabilitation (including normal maintenance and repair), repair after damage, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the "start of construction" of the improvement. This term includes structures that have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:

- (1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or
- (2) Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure." For the purpose of these regulations, "historic structure" is as defined in 44 Code of Federal Regulations, Part 59.1.

"Zoning Administrator" means the zoning administrator appointed by the City Council.

Unless specifically defined above, words or phrases used in these regulations must be interpreted according to common usage so as to give these regulations their most reasonable application.

C. General Provisions.

- 1. Application. These regulations apply to all lands within the jurisdiction of the City that lie within the boundaries of the floodway, flood fringe and general floodplain districts. The boundaries of these districts are determined by scaling distances on the FIRM, or as modified in accordance with Section D.2 of these regulations. The floodway, flood fringe and general floodplain districts are overlay districts that are superimposed on all existing zoning districts. The standards imposed in the overlay districts are in addition to any other requirements in these regulations and other provisions of the Waconia City Code. In case of a conflict in these regulations, the more restrictive standards will apply. Where a conflict exists between the floodplain limits illustrated on the flood maps for the City and actual field conditions, the flood elevations shall be the governing factor in locating the regulatory floodplain limits. Persons contesting the location of the district boundaries will be given a reasonable opportunity to present their case to the City's Board of Adjustment and to submit technical evidence.
- 2. <u>Incorporation of Maps by Reference</u>. The following flood maps for the City (together with all attached material) are adopted by reference and declared to be a part of the City's zoning map and these regulations:

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- 3. <u>Abrogation and Greater Restrictions</u>. These regulations do not repeal, abrogate, or impair any existing easements, covenants, or other private agreements. However, where these regulations impose greater restrictions, the provisions of these regulations prevail. All other portions of the Waconia City Code that are inconsistent with these regulations are hereby repealed to the extent of the inconsistency only.
- 4. <u>Warning and Disclaimer of Liability</u>. These regulations do not imply that areas outside the floodplain districts or land uses permitted within such districts will be free from flooding or flood damages. These regulations do not create liability on the part of City, its elected officials or employees for any flood damages that result from reliance on these regulations or any administrative decision lawfully made hereunder.
- 5. <u>Severability</u>. If any section, clause, provision, or portion of these regulations is adjudged unconstitutional or invalid by a court of law, the remainder of these regulations shall not be affected and shall remain in full force.

6. <u>Annexations</u>. The flood maps for the City may include floodplain areas that lie outside of the corporate boundaries of the City at the time of adoption of these regulations. If any of these floodplain land areas are annexed into the City after the date of adoption of these regulations, the newly annexed floodplain lands will be subject to the provisions of these regulations immediately upon the date of annexation.

D. <u>Establishment of Floodplain Districts</u>.

1. Districts.

- a. <u>Floodway District</u>. The "floodway district" includes those areas within Zones A delineated within floodway areas as shown on the flood maps for the City, which are located in the floodway based on the floodway and flood fringe delineation methods outlined in Section H.2 of these regulations. For lakes, wetlands and other basins, the floodway district also includes those areas that are at or below the ordinary high-water level as defined in Minn. Stat. §103G.005, Subd. 14.
- b. Flood Fringe District. The "flood fringe district" includes areas within Zones A on the flood maps for the City, which are located in the flood fringe based on the floodway and flood fringe delineation methods outlined in Section H.2 of these regulations. For lakes, wetlands and other basins, the flood fringe district also includes areas mapped in Zones A or AE, which are below the one percent (1%) annual chance (100 year) flood elevation but above the ordinary high-water level as defined in Minn. Stat. §103G.005, Subd. 14.
- c. <u>General Floodplain District</u>. The "general floodplain district" includes those areas within Zone A as shown on the flood maps for the City.
- 2. <u>Applicability</u>. Where floodway and flood fringe districts are delineated on the flood maps for the City, the standards in Sections F or G of these regulations will apply, depending on the location of a property. Any watercourses identified as Zone A on the flood maps for the City are considered to fall within the general floodplain district. Within the general floodplain district, the floodway district standards in Section F of these regulations apply unless the floodway boundary is determined, according to the process outlined in Section H.2 of these regulations. Areas in and adjoining lakes, wetlands and other basins shall be designated as either floodway district or flood fringe district based on the procedures described in Sections D.1.a or D.1.b of these regulations.

E. <u>Requirements for all Floodplain Districts</u>.

- 1. <u>Permit Required</u>. A permit must be obtained from the Zoning Administrator to verify if a development meets all applicable standards outlined in these regulations prior to conducting the following activities:
 - a. The erection, addition, modification, rehabilitation, or alteration of any building, structure, or portion thereof. Normal maintenance and repair also

- requires a permit if such work, separately or in conjunction with other planned work, constitutes a substantial improvement as defined in these regulations.
- b. The construction of a dam, on-site septic system, or any fence not meeting the definition of a farm fence.
- c. The change or extension of a nonconforming use.
- d. The repair of a structure that has been damaged by flood, fire, tornado, or any other source.
- e. The placement of fill, excavation of materials, or the storage of materials or equipment within the floodplain.
- f. Relocation or alteration of a watercourse (including new or replacement culverts and bridges), unless a public waters work permit has been obtained.
- g. Any other type of development.
- 2. <u>Minimum Development Standards</u>. All new construction and substantial improvements must be:
 - a. Designed (or modified) and adequately anchored to prevent floatation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
 - b. Constructed with materials and utility equipment resistant to flood damage;
 - c. Constructed by methods and practices that minimize flood damage; and
 - d. Constructed with electrical, heating, ventilation, ductwork, 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.
- 3. <u>Flood Capacity</u>. Floodplain developments must not adversely affect the hydraulic capacity of the channel and adjoining floodplain of any tributary watercourse or drainage system.
- 4. <u>Storage of Dangerous Materials</u>. The storage or processing of materials that are, in time of flooding, flammable, explosive, or potentially injurious to human, animal, or plant life is prohibited.
- 5. <u>Elevation of Critical Facilities</u>. Critical facilities shall be located so that the lowest floor is not less than two (2) feet above the regional flood elevation, or the 500-year flood elevation, whichever is higher.

F. Floodway District.

1. <u>Permitted Uses</u>. The following uses, subject to the standards set forth in Section F.2 of these regulations, are permitted uses if otherwise allowed in the underlying zoning district or any applicable overlay district:

- a. General farming, pasture, grazing, farm fences, outdoor plant nurseries, horticulture, forestry, sod farming, and wild crop harvesting.
- b. Industrial-commercial loading areas, parking areas, and airport landing strips.
- c. Open space uses, including but not limited to private and public 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, hunting and fishing areas, and single or multiple purpose recreational trails.
- d. Residential yards, lawns, gardens, parking areas, and play areas.
- e. Railroads, streets, bridges, utility transmission lines and pipelines, provided the DNR's Area Hydrologist is notified at least ten days prior to issuance of any permit.

2. <u>Standards for Floodway Permitted Uses</u>.

- a. The use must have a low flood damage potential.
- b. The use must not involve structures or obstruct flood flows. The use must not cause any increase in flood damages, nor any increase in flood elevations in areas where a floodway has been established, as certified by a registered professional engineer.
- c. Any facility that will be used by employees or the general public must be designed with a flood warning system that provides adequate time for evacuation if the area is inundated to a depth and velocity such that the depth (in feet) multiplied by the velocity (in feet per second) would exceed a product of four (4) upon occurrence of the regional flood.
- 3. <u>Conditional Uses</u>. The following uses may be allowed as conditional uses following the standards and procedures set forth in Section L.4 of these regulations and further subject to the standards set forth in Section F.4 of these regulations, if otherwise allowed in the underlying zoning district.
 - a. Structures accessory to primary uses listed in Sections F.1.a, F.1.b or F.1.c above and primary uses listed in Sections F.3.b and F.3.c below.
 - b. Grading, extraction, fill and storage of soil, sand, gravel, and other materials.
 - c. Marinas, boat rentals, permanent docks, piers, wharves, water control structures, and navigational facilities.
 - d. Storage yards for equipment, machinery, or materials.
 - e. Fences that have the potential to obstruct flood flows.
 - f. Levees or dikes intended to protect agricultural crops for a frequency flood event equal to or less than the 10-year frequency flood event.

4. <u>Standards for Floodway Conditional Uses.</u>

- a. A conditional use must not cause any increase in flood damages, nor any increase in flood elevations in areas where a floodway has been established, as certified by a registered professional engineer.
- b. Fill; Storage of Materials and Equipment.
 - 1. Fill, dredge spoil, and other similar materials deposited or stored in the floodplain must be protected from erosion by vegetative cover, mulching, riprap or other acceptable method. Permanent sand and gravel operations and similar uses must be covered by a long-term site development plan.
 - 2. Temporary placement of fill, other materials, or equipment which would cause an increase to the stage of the one (1) regional flood may only be allowed if the City has approved a plan that assures removal of the materials from the floodway based upon the flood warning time available.
- c. <u>Accessory Structures</u>. Accessory structures, as identified in Section F.3.a of these regulations, may be permitted, provided that:
 - 1. Structures are not intended for human habitation;
 - 2. Structures will have a low flood damage potential;
 - 3. Structures will be constructed and placed so as to offer a minimal obstruction to the flow of flood waters;
 - 4. Structures must be elevated on fill or structurally dry floodproofed and watertight to the regulatory flood protection elevation. Certifications consistent with Section L.2.b of these regulations shall be required.
 - 5. As an alternative, an accessory structure may be floodproofed in a way to accommodate internal flooding. To allow for the equalization of hydrostatic pressure, there shall be a minimum of two (2) openings on at least two (2) sides of the structure and the bottom of all openings shall be no higher than one (1) foot above grade. The openings shall have a minimum net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding, have a net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding, and shall allow automatic entry and exit of floodwaters without human intervention. A floodproofing certification consistent with Section L.2.b of these regulations shall be required.
- d. <u>Structural Works</u>. Structural works for flood control that will change the course, current or cross-section of protected wetlands or public waters are subject to the provisions of Minn. Stat. §103G.245.

e. <u>Levees, Dikes and Floodwalls</u>. A levee, dike or floodwall constructed in the floodway must not cause an increase to the chance of a regional flood occurring. The technical analysis must assume equal conveyance or storage loss on both sides of a stream.

G. Flood Fringe District.

- 1. <u>Permitted Uses</u>. Permitted uses are those uses of land or structures allowed in the underlying zoning district(s) that comply with the standards in Sections G.2 of these regulations. If no pre-existing, underlying zoning districts exist, then any residential or nonresidential structure or use of a structure or land is a permitted use provided it does not constitute a public nuisance.
- 2. <u>Standards for Flood Fringe Permitted Uses</u>.
 - a. <u>All Structures</u>. All structures, including accessory structures, must be elevated on fill so that the lowest floor, as defined, is at or above the regulatory flood protection elevation. The finished fill elevation for structures must be no lower than one (1) foot below the regulatory flood protection elevation and the fill must extend at the same elevation at least 15 feet beyond the outside limits of the structure. Elevations must be certified by a registered professional engineer, land surveyor or other qualified person designated by the community.
 - b. <u>Accessory Structures</u>. As an alternative to the fill requirements of Section G.2.a of the regulations, structures accessory to the uses identified in Section G.1 may be designed to accommodate the inundation of floodwaters, meeting the following provisions, as appropriate:
 - 1. The accessory structure constitutes a minimal investment and satisfy the development requirements in Section E.2 of these regulations.
 - 2. Any enclosed accessory structure shall not exceed 576 square feet in size, and only be used for parking and storage. Any such structure shall be designed and certified by a registered professional engineer, or be designed in accordance with the following floodproofing standards:
 - a. To allow for the equalization of hydrostatic pressure, there shall be a minimum of two (2) openings on at least two (2) sides of the structure and the bottom of all openings shall be no higher than one (1) foot above grade. The openings shall have a minimum net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding, have a net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding, and shall allow automatic entry and exit of floodwaters without human intervention.

- c. <u>Fill</u>. The cumulative placement of fill or similar material on a parcel must not exceed 1,000 cubic yards, unless the fill is specifically intended to elevate a structure in accordance with Section G.2.a of these regulations, or if allowed as a conditional use under Section G.3.c below.
- d. <u>Utilities</u>. All service utilities, including ductwork, must be elevated or water-tight to prevent infiltration of floodwaters.
- e. <u>Compaction</u>. All fill must be properly compacted and the slopes must be properly protected by the use of riprap, vegetative cover or other acceptable method.
- f. <u>Vehicular Access</u>. All new principal structures must have vehicular access at or above an elevation not more than two (2) feet below the regulatory flood protection elevation, or must have a flood warning /emergency evacuation plan acceptable to the City.
- g. <u>Accessory Uses</u>. Accessory uses such as yards, railroad tracks, and parking lots may be at an elevation lower than the regulatory flood protection elevation. However, any facilities used by employees or the general public must be designed with a flood warning system that provides adequate time for evacuation if the area is inundated to a depth and velocity such that the depth (in feet) multiplied by the velocity (in feet per second) would exceed a product of four (4) upon occurrence of the regional flood.
- h. <u>Manufactured Homes and Recreational Vehicles</u>. Manufactured homes and recreational vehicles must meet the standards of Section K of these regulations.
- 3. <u>Conditional Uses</u>. The following uses may be allowed as conditional uses following the standards and procedures set forth in Section L.4 of these regulations and further subject to the standards set forth in Section G.4 if otherwise allowed in the underlying zoning district(s).
 - a. <u>Residential Basements</u>. The placement of floodproofed nonresidential basements below the regulatory flood protection elevation. Residential basements, are not allowed below the regulatory flood protection elevation.
 - b. <u>Fill</u>. The cumulative placement of more than 1,000 cubic yards of fill when the fill is not being used to elevate a structure in accordance with Section G.2.a of these regulations.
 - c. Other Methods. The use of methods other than fill to elevate structures above the regulatory flood protection elevation. This includes the use of: stilts, pilings, filled stem walls, or above-grade, internally flooded enclosed areas such as crawl spaces or tuck under garages, meeting the standards in Section G.4.d.
- 4. Standards for Flood Fringe Conditional Uses.

- a. The standards for permitted uses in the flood fringe, listed in Sections G.2.d through G.2.h of these regulations, apply to all conditional uses.
- b. All areas of nonresidential structures, including basements, to be placed below the regulatory flood protection elevation must be structurally dry floodproofed, which requires making the structure watertight with the walls substantially impermeable to the passage of water and with structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. A floodproofing certification consistent with Section L.2.b of these regulations shall be required.
- c. The placement of more than 1,000 cubic yards of fill or other similar material on a parcel (other than for the purpose of elevating a structure to the regulatory flood protection elevation) must comply with an approved erosion/sedimentation control plan.
 - 1. The plan must clearly specify methods to be used to stabilize the fill on site for a flood event at a minimum of the regional flood event.
 - 2. The plan must be prepared and certified by a registered professional engineer or other qualified individual acceptable to the City.
 - 3. The plan may incorporate alternative procedures for removal of the material from the floodplain if adequate flood warning time exists.
- d. Alternative elevation methods other than the use of fill may be utilized to elevate a structure's lowest floor above the regulatory flood protection elevation. The base or floor of an enclosed area shall be considered above-grade and not a structure's basement or lowest floor if: 1) the enclosed area is above-grade on at least one (1) side of the structure; 2) it is designed to internally flood; and 3) it is used solely for parking of vehicles, building access or storage. These alternative elevation methods are subject to the following additional standards:
 - 1. Above-grade, fully enclosed areas such as crawl spaces or tuck under garages must be designed to internally flood and include a minimum of two (2) openings on at least two (2) sides of the structure. The bottom of all openings shall be no higher than one (1) foot above grade, and have a minimum net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding unless a registered professional engineer or architect certifies that a smaller net area would suffice.
 - 2. Floodproofing certifications consistent with Section L.2.b of these regulations shall be required. The structure shall be subject to a deed-restricted nonconversion agreement with the issuance of any permit.

H. <u>General Floodplain District</u>.

- 1. <u>Permitted Uses</u>. The uses listed in Section F.1 of these regulations, floodway district permitted uses, are permitted uses. All other uses are subject to the floodway/flood fringe evaluation criteria specified in Section H.2 of these regulations. Section F applies if the proposed use is determined to be in the floodway district. Section F applies if the proposed use is determined to be in the flood fringe district.
- 2. <u>Procedures for Determining Floodway Boundaries and Regional Flood Elevations.</u>
 - a. <u>Detailed Study</u>. Developments greater than 50 lots or five (5) acres, or as requested by the zoning administrator, shall be subject to a detailed study to determine the regulatory flood protection elevation and the limits of the floodway district. The determination of the floodway and flood fringe must be consistent with accepted hydrological and hydraulic engineering standards, and must include the following components, as applicable:
 - 1. Estimate the peak discharge of the regional flood.
 - 2. Calculate the water surface profile of the regional flood based upon a hydraulic analysis of the stream channel and overbank areas.
 - 3. Compute the floodway necessary to convey or store the regional flood without increasing flood stages more than one-half (0.5) foot. A lesser stage increase than one-half (0.5) foot is required if, as a result of the stage increase, increased flood damages would result. An equal degree of encroachment on both sides of the stream within the reach must be assumed in computing floodway boundaries, unless development or geographic features warrant other analysis, as approved by the DNR.
 - b. <u>Alternative Methods</u>. Provided no detailed study is available, an applicant must identify a base flood elevation, at minimum, to determine the boundaries of the special flood hazard area. The applicant shall obtain and utilize best available data to determine the regional flood elevation and floodway boundaries from a state, federal, or other source. If no such data exists, the applicant may determine the base flood elevation and floodway limits through other accepted engineering practices. Any such method shall assume a one-half (0.5) foot stage increase to accommodate for future floodway determination.
 - c. <u>Assessment</u>. The Zoning Administrator will review the submitted information and assess the technical evaluation and the recommended floodway and/or flood fringe district boundary. The assessment must include the cumulative effects of previous floodway encroachments. The Zoning Administrator may seek technical assistance from an engineer or other expert person or agency, including the DNR. Based on this assessment, the Zoning Administrator may approve or deny the application.

d. <u>Issuance</u>. Once the floodway and flood fringe district boundaries have been determined, the Zoning Administrator must process the permit application consistent with the applicable provisions of Sections F and G of these regulations.

I. Subdivision Standards.

- 1. <u>Subdivisions</u>. No land may be subdivided that is unsuitable for reasons of flooding or inadequate drainage, water supply or sewage treatment facilities. Manufactured home parks and recreational vehicle parks or campgrounds are considered subdivisions under these regulations.
 - a. All lots within the floodplain districts must be able to contain a building site outside of the floodway district at or above the regulatory flood protection elevation
 - b. All subdivisions must have road access both to the subdivision and to the individual building sites no lower than two (2) feet below the regulatory flood protection elevation, unless a flood warning emergency plan for the safe evacuation of all vehicles and people during the regional flood has been approved by the City. The plan must be prepared by a registered engineer or other qualified individual and must demonstrate that adequate time and personnel exist to carry out the evacuation.
 - c. For all subdivisions in the floodplain, the floodway district and flood fringe district boundaries, the regulatory flood protection elevation and the required elevation of all access roads must be clearly labeled on all required subdivision drawings and platting documents.
 - d. In the general floodplain district, applicants must provide the information required in Section H.2 of these regulations to determine the regional flood elevation, the floodway and flood fringe district boundaries and the regulatory flood protection elevation for the subdivision site.
 - e. Subdivision proposals must be reviewed to assure that:
 - 1. All such proposals are consistent with the need to minimize flood damage within the flood prone area,
 - 2. All public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and
 - 3. Adequate drainage is provided to reduce exposure of flood hazard.

J. <u>Utilities, Railroads, Roads, and Bridges</u>.

1. <u>Public Utilities</u>. All public utilities and facilities such as gas, electrical, sewer, and water supply systems located in the floodplain must be floodproofed in accordance with the State Building Code or elevated to the regulatory flood protection elevation.

- 2. <u>Public Transportation Facilities</u>. Railroad tracks, roads, and bridges to be located within the floodplain must comply with Sections F and G of these regulations. These transportation facilities must be elevated to the regulatory flood protection elevation where failure or interruption of these facilities would result in danger to the public health or safety or where such facilities are essential to the orderly functioning of the area. Minor or auxiliary roads or railroads may be constructed at a lower elevation where failure or interruption of transportation services would not endanger the public health or safety.
- 3. On-site Water Supply and Sewage Treatment Systems. Where public utilities are not provided: 1) on-site water supply systems must be designed to minimize or eliminate infiltration of flood waters into the systems and are subject to the provisions in Minnesota Rules, Chapter 4725.4350, as amended; and 2) new or replacement on-site sewage treatment systems must be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters, they must not be subject to impairment or contamination during times of flooding, and are subject to the provisions in Minnesota Rules, Chapter 7080.2270, as amended.

K. Manufactured Homes and Recreational Vehicles.

- 1. <u>Manufactured Homes</u>. Manufactured homes and manufactured home parks are subject to applicable standards for each floodplain district. In addition:
 - a. New and replacement manufactured homes must be elevated in compliance with Section G of these regulations and must be securely anchored to a system that resists flotation, collapse and lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state or local anchoring requirements for resisting wind forces.
 - b. New manufactured home parks and expansions to existing manufactured home parks must meet the appropriate standards for subdivisions in Section 8 of these regulations. New or replacement manufactured homes in existing manufactured home parks must meet the vehicular access requirements for subdivisions in Section I.1.b of these regulations.
- 2. <u>Recreational Vehicles</u>. New recreational vehicle parks or campgrounds and expansions to existing recreational vehicle parks or campgrounds are prohibited in any floodplain district. Recreational vehicles placed in existing recreational vehicle parks, campgrounds or lots of record in the floodplain must either:
 - a. Meet the requirements for manufactured homes in Section K.1 of these regulations, or
 - b. Be travel ready, meeting the following criteria:
 - 1. The vehicle must have a current license required for highway use.
 - 2. The vehicle must be highway ready, meaning on wheels or the internal jacking system, attached to the site only by quick disconnect

- type utilities commonly used in campgrounds and recreational vehicle parks.
- 3. No permanent structural type additions may be attached to the vehicle.
- 4. Accessory structures may be permitted in the flood fringe district, provided that they constitute a minimal investment, do not hinder the removal of the vehicle should flooding occur, and meet the standards outlined in Sections E.2 and G2.b of these regulations.

L. <u>Administration</u>.

- 1. <u>Duties</u>. The Zoning Administrator shall administer and enforce these regulations.
- 2. Permit Application Requirements.
 - a. <u>Application for Permit</u>. Permit applications must be submitted to the Zoning Administrator on forms provided by the Zoning Administrator. The permit application must include the following as applicable:
 - 1. A site plan showing all pertinent dimensions, existing or proposed buildings, structures, and significant natural features having an influence on the permit.
 - 2. Location of fill or storage of materials in relation to the stream channel.
 - 3. Copies of any required municipal, county, state or federal permits or approvals.
 - 4. Other relevant information requested by the Zoning Administrator as necessary to properly evaluate the permit application.
 - b. <u>Certification</u>. The applicant is required to submit certification by a registered professional engineer, registered architect, or registered land surveyor that the finished fill and building elevations were accomplished in compliance with the provisions of these regulations. Floodproofing measures must be certified by a registered professional engineer or registered architect as complaint with applicable floodproofing standards in in the State Building Code. Accessory structures designed in accordance with Section G.2.b of these regulations are exempt from certification, provided sufficient assurances are documented. Any development in established floodways must not cause any increase in flood elevations or damages, as certified by a registered professional engineer.
 - c. <u>Certificate of Zoning Compliance for a New, Altered, or Nonconforming Use.</u> No building, land or structure may be occupied or used in any manner until a certificate of zoning compliance has been issued by the Zoning Administrator stating that the use of the building or land conforms to the requirements of these regulations.

- d. <u>Recordkeeping of Certifications and As-Built Documentation</u>. The Zoning Administrator must maintain records documenting:
 - 1. All certifications referenced in Section L.2.b of these regulations as applicable; and
 - 2. Elevations complying with Section G.2.a of these regulations. The Zoning Administrator must also maintain a record of the elevation to which structures and alterations to structures are constructed or floodproofed.
- e. <u>Notifications for Watercourse Alterations</u>. Before authorizing any alteration or relocation of a river or stream, the Zoning Administrator must notify adjacent communities. If the applicant has applied for a permit to work in public waters pursuant to Minn. Stat. §103G.245, this will suffice as adequate notice. A copy of the notification must also be submitted to the Chicago Regional Office of FEMA.
- f. Notification to FEMA When Physical Changes Increase or Decrease Base Flood Elevations. As soon as is practicable, but not later than six (6) months after the date such supporting information becomes available, the Zoning Administrator must notify the Chicago Regional Office of FEMA of the changes by submitting a copy of the relevant technical or scientific data.

3. Variances.

- a. <u>Variance Applications</u>. An application for a variance to the provisions of these regulations will be processed and reviewed in accordance with applicable Minnesota Statutes and Section 900.12 of the Waconia City Code.
- b. <u>Adherence to State Floodplain Management Standards</u>. A variance must not allow a use that is not allowed in that district, permit a lower degree of flood protection than the regulatory flood protection elevation for the particular area, or permit standards lower than those required by state law.
- c. <u>Additional Variance Criteria</u>. The following additional variance criteria of FEMA must be satisfied:
 - 1. Variances must not be issued by a community within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.
 - 2. Variances may only be issued by a community 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 a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances

- 3. Variances may only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief
- d. <u>Flood Insurance Notice</u>. The Zoning Administrator must notify the applicant for a variance that: 1) The issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage; and 2) Such construction below the base or regional flood level increases risks to life and property. Such notification must be maintained with a record of all variance actions.
- e. <u>General Considerations</u>. The community may consider the following factors in granting variances and imposing conditions on variances and conditional uses in floodplains:
 - 1. The potential 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, if any, and the ability of these systems to minimize the potential for disease, contamination and unsanitary conditions;
 - 4. The susceptibility of any proposed use and its contents to flood damage and the effect of such damage on the individual owner;
 - 5. The importance of the services to be provided by the proposed use to the community;
 - 6. The requirements of the facility for a waterfront location;
 - 7. The availability of viable alternative locations for the proposed use that are not subject to flooding;
 - 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 City's Comprehensive Land Use 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 waters expected at the site.
- f. <u>Submittal of Hearing Notices to the DNR</u>. The Zoning Administrator must submit hearing notices for proposed variances to the DNR sufficiently in advance to provide at least ten days' notice of the hearing. The notice may

- be sent by electronic mail or U.S. Mail to the respective DNR area hydrologist.
- g. <u>Submittal of Final Decisions to the DNR</u>. A copy of all decisions granting variances must be forwarded to the DNR within ten days of such action. The notice may be sent by electronic mail or U.S. Mail to the respective DNR area hydrologist.
- h. <u>Record-Keeping</u>. The Zoning Administrator must maintain a record of all variance actions, including justification for their issuance, and must report such variances in an annual or biennial report to the Administrator of the National Flood Insurance Program, when requested by the FEMA.

4. Conditional Uses.

- a. <u>Administrative Review</u>. An application for a conditional use permit under the provisions of these regulations will be processed and reviewed in accordance with Section(s) 900.11 and 900.12 of the Waconia City Code.
- b. <u>Factors Used in Decision-Making</u>. In passing upon conditional use applications, the City must consider all relevant factors specified in other sections of these regulations, and those factors identified in Section L.3.e of these regulations.
- c. <u>Conditions Attached to Conditional Use Permits</u>. In addition to the standards identified in Sections F.4 and G.4 of these regulations, the City may attach such conditions to the granting of conditional use permits as it deems necessary to fulfill the purposes of these regulations. Such conditions may include, but are not limited to, the following:
 - 1. Limitations on period of use, occupancy, and operation.
 - 2. Imposition of operational controls, sureties, and deed restrictions.
 - 3. Requirements for construction of channel modifications, compensatory storage, dikes, levees, and other protective measures.
- d. <u>Submittal of Hearing Notices to the DNR</u>. The Zoning Administrator must submit hearing notices for proposed conditional uses to the DNR sufficiently in advance to provide at least ten days' notice of the hearing. The notice may be sent by electronic mail or U.S. Mail to the respective DNR area hydrologist.
- e. <u>Submittal of Final Decisions to the DNR</u>. A copy of all decisions granting conditional uses must be forwarded to the DNR within ten days of such action. The notice may be sent by electronic mail or U.S. Mail to the respective DNR area hydrologist.

M. Nonconformities.

1. <u>Continuance of Nonconformities</u>. A use, structure, or occupancy of land which was lawful before the passage or amendment of these regulations, but which is not in

conformity with the provisions of these regulations, may be continued subject to the following conditions:

- a. A nonconforming use, structure, or occupancy must not be expanded, changed, enlarged, or altered in a way that increases its flood damage potential or degree of obstruction to flood flows except as provided in M.1.b below. Expansion or enlargement of uses, structures or occupancies within the floodway district is prohibited.
- b. Any addition or structural alteration to a nonconforming structure or nonconforming use that would result in increasing its flood damage potential must be protected to the regulatory flood protection elevation in accordance with any of the elevation on fill or floodproofing techniques (i.e., FP1 thru FP4 floodproofing classifications) allowable in the State Building Code, except as further restricted in Section M.1.d below.
- c. If any nonconforming use, or any use of a nonconforming structure, is discontinued for more than one (1) year, any future use of the premises must conform to these regulations.
- d. If any structure experiences a substantial improvement as defined in these regulations, then the entire structure must meet the standards of Sections F or G of these regulations for new structures, depending upon whether the structure is in the floodway or flood fringe district, respectively. If the current proposal, including maintenance and repair during the previous 365 days, plus the costs of any previous alterations and additions since the first FIRM exceeds 50% of the market value of any nonconforming structure, the entire structure must meet the standards of Sections F or G of these regulations.
- e. If any nonconformity is substantially damaged, as defined in these regulations, it may not be reconstructed except in conformity with the provisions of these regulations. The applicable provisions for establishing new uses or new structures in Sections F or G of these regulations will apply depending upon whether the use or structure is in the floodway or flood fringe district, respectively.
- f. If any nonconforming use or structure experiences a repetitive loss it must not be reconstructed except in conformity with the provisions of these regulations.

N. Violations and Penalties.

1. <u>Violation Constitutes a Misdemeanor</u>. Violation of the provisions of these regulations or failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with grants of variances or conditional uses) constitutes a misdemeanor and will be punishable as defined by law.

- 2. Other Lawful Action. Nothing in these regulations restricts the City from taking such other lawful action as is necessary to prevent or remedy any violation. If the responsible party does not appropriately respond to the Zoning Administrator within the specified period of time, each additional day that lapses will constitute an additional violation of these regulations and will be prosecuted accordingly.
- 3. <u>Enforcement</u>. Violations of the provisions of these regulations will be investigated and resolved in accordance with the provisions of Section 900.12 of the Waconia City Code. In responding to a suspected ordinance violation, the Zoning Administrator and City may utilize the full array of enforcement actions available to it including but not limited to prosecution and fines, injunctions, after-the-fact permits, orders for corrective measures or a request to the National Flood Insurance Program for denial of flood insurance availability to the guilty party. The City must act in good faith to enforce these official controls and to correct ordinance violations to the extent possible so as not to jeopardize its eligibility in the National Flood Insurance Program.

O. Amendments.

- 1. <u>Floodplain Designation Restrictions on Removal</u>. The floodplain designation on the City's Official Zoning Map must not be removed from floodplain areas unless it can be shown that the designation is in error or that the area has been filled to or above the elevation of the regulatory flood protection elevation and is contiguous to lands outside the floodplain. Special exceptions to this rule may be permitted by the DNR if it is determined that, through other measures, lands are adequately protected for the intended use.
- 2. <u>Amendments Require DNR Approval</u>. All amendments to these regulations must be submitted to and approved by the DNR prior to adoption.
- 3. <u>Map Revisions Require Ordinance Amendments</u>. The floodplain district regulations must be amended to incorporate any revisions by FEMA to the flood maps for the City.