
MEMORANDUM

DATE: August 3, 2016

TO: Planning Commission (August 8 meeting)

FROM: Dan Olson, City Planner

SUBJECT: Public Hearing: Zoning Code Text Amendment (2016-07) to revise the City's Floodplain Overlay District (City Code Section 515.61)

A. BACKGROUND

In April, 2016, the Federal Emergency Management Agency (FEMA) sent a letter to Hennepin County cities requiring that all cities update their local floodplain ordinance and map by November 4, 2016. Communities that fail to adopt an update by November 4 will lose their ability to participate in the National Flood Insurance Program (NFIP) which allows residents to purchase flood insurance. City staff has discussed FEMA's request with the City Council and on July 19, 2016, the Council directed that the Planning Commission hold a public hearing on the new ordinance. Notice of the August 8 public hearing was published in the Sun Post on July 28 and mailed to property owners affected by the floodplain map changes (those gray, green, and red parcels shown on attachment D).

Attachments:

- A. Current Floodplain Overlay ordinance (City Code Section 515.16)
- B. Proposed Floodplain Overlay ordinance (City Code Section 515.16)
- C. Pond areas reviewed as part of the 2010 engineering study (central part of the city)
- D. Map showing parcels in the floodplain (central part of the city)
- E. Map showing parcels in the floodplain (entire city)

B. DRAFT ORDINANCE AND MAP

The city's floodplain ordinance and map were last updated in 2004. Attachment A is the city's current ordinance which would be deleted in its entirety and replaced with the proposed ordinance (attachment B). Periodically FEMA updates the floodplain map based on additional engineering analysis and then requests that the ordinance and map be updated to reflect this new information. FEMA has delegated responsibility to the Minnesota Department of Natural Resources (DNR) to prepare an updated model ordinance and work with the cities to adopt their respective local update. The new ordinance would not be dramatically different from the

city's existing ordinance, with most of the changes relating to more definitions of terms used in the ordinance. The following are the main subsections of the new ordinance:

- Subd. 1: Establishes the statutory authority and purpose for the ordinance
- Subd. 2: Adopts the new floodplain map; definitions of terms used in the ordinance
- Subd. 3: Establishes the three flood districts: floodway, floodway fringe, and general floodplain
- Subd. 4: Describes Permitted, Accessory, and Conditional Uses in the floodway district, and standards for construction
- Subd. 5: Describes Permitted, Accessory, and Conditional Uses in the flood fringe district, and standards for construction
- Subd. 6: Describes Permitted Uses in the general floodplain district and steps to take in determining if properties in the general floodplain are located in the floodway or flood fringe districts.
- Subd. 7: Describes subdividing property within floodplain districts, and approval of building plans
- Subd. 8: Requirements for construction of public utilities, railroads, roads and bridges within the floodplain
- Subd. 9: Requirements for constructing manufactured homes in the floodplain
- Subd. 10: Requirements for administering the issuance of permits, variances, and conditional use permits within the floodplain
- Subd. 11: Requirements for nonconformities within the floodplain
- Subd. 12: Penalties for violations of the floodplain ordinance
- Subd. 13: Describes the process to amend the floodplain map

The city may not significantly deviate from or customize the model ordinance but city staff has worked with the DNR to tailor this ordinance to Crystal as much as possible.

More significant are the changes to the FEMA floodplain map. In 2010 the city initiated a floodplain study that included detailed modeling of potential flood elevations in the Memory Pond area and a comparison to the 2004 FEMA map. The study was prompted by the city's experience with historically high precipitation rain events for which the impact on flooding was inconsistent with the flood elevations found in the 2004 floodplain map. After completing a detailed modeling analysis of the central area of the city around the Memory Lane, Brownwood, Hagermeister, and Gaulke Ponds (shown on attachment C), the study found that the flood elevation levels could be lowered slightly. After extended correspondence with both the DNR and FEMA, they agreed with the city's analysis and the lowering of the flood elevation was incorporated into the 2016 map. The changes to the map in the central area of the city, as shown on attachment D, are the only changes to the city's floodplain map. The updated map for the whole city is shown on attachment E.

On the 2004 floodplain map, 332 parcels in Crystal are shown to be within the floodplain in whole or in part. With the 2016 map update, only 261 parcels are shown to be in the floodplain. With this map update 71 parcels are being removed from the floodplain and three parcels are being added to the floodplain (see attachment D). City staff has informed owners of impacted parcels of the Planning Commission public hearing for the new floodplain ordinance and map.

Three parcels are identified as being added to the floodplain:

- 6920 42nd Avenue North (existing townhome)
- 6900 42nd Avenue North (existing townhome)
- 6700 41st Avenue North (existing single family home)

For these parcels staff has determined that a small part of the parcel would be in the floodplain but the homes would not be in the floodplain. This determination was made based on existing floodplain elevation contour data and proposed property surveys. Staff has met with all three property owners in person to inform them of this change. None expressed a desire for the city to field verify this determination or submit a Letter of Map Amendment (see below) at this time.

Federal law does not require property owners to carry flood insurance. However lenders may require flood insurance if any part of the property is within the floodplain, even if the building is not. If any property owner in the city disagrees with a lender's determination that their parcel or their home is in the floodplain, they have the option of requesting a Letter of Map Amendment (LOMA). For this process city staff would field verify the floodplain elevation for the existing parcel and home and submit this information to FEMA for their consideration. If FEMA agrees that the parcel or home is not located in the floodplain based on this more detailed information, they will issue the LOMA advising the property owner of this change.

C. REQUESTED ACTION

The Planning Commission is asked to make a recommendation to the City Council of revisions to the City's Floodplain Overlay district regulations (City Code Section 515.61)

The proposed schedule for adopting a new ordinance is as follows:

Aug. 16	Council considers first reading of ordinance and map
Sep. 6	Council considers second reading and adoption
Sep. 15	Summary of ordinance published
Oct. 15	Effective date of ordinance and map

City Council first reading of the Ordinance is anticipated on August 16, 2016.

Attachment A

City of Crystal Zoning Code

515.61
(Rev. 2012)

515.61 Floodplain Overlay

Subdivision 1. Authorization, Findings and Purpose.

- a) Statutory Authorization. The legislature of the state of Minnesota has, in Minnesota Statutes, chapters 103F and 462, delegated the responsibility to local government units to adopt regulations designed to minimize flood losses.
- b) Findings of Fact.
 - 1) The flood hazard areas of Crystal, Minnesota, are subject to periodic inundation which results in potential loss of life, loss of property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures or flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.
 - 2) Methods Used to Analyze Flood Hazards. This subsection is based upon a reasonable method of analyzing flood hazards which is consistent with the standards established by the Minnesota Department of Natural Resources.
 - 3) National Flood Insurance Program Compliance. This subsection is 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.
- c) Purpose. It is the purpose of this subsection to promote the public health, safety, and general welfare and to minimize those losses described in subdivision 1 b) 1) of this subsection.

Subd. 2. General Provisions.

- a) Lands to Which Subsection Applies. This subsection shall apply to all lands within the jurisdiction of the city of Crystal shown on the official zoning map and/or the attachments thereto as being located within the boundaries of the floodway, flood fringe, or general flood plain districts.
- b) Establishment of Official Zoning Map. The official zoning map together with all materials attached thereto is hereby adopted by reference and declared to be a part of this subsection. The attached material shall include the Flood Insurance Study, Volume 1 of 2 and Volume 2 of 2, Hennepin County, Minnesota, all jurisdictions and the Flood Insurance Rate Map panels numbered 27053C0192 E, 27053C0194 E, 27053C0203 E, 27053C0204 E, 27053C0211 E, 27053C0212 E, 27053C0213 E, and 27053C0214 E for the city of Crystal dated September 2, 2004, as developed by the Federal Emergency Management Agency. The official zoning map shall be on file and available for public review during normal business hours at Crystal City Hall, 4141 Douglas Drive North.

- c) Regulatory Flood Protection Elevation. The regulatory flood protection elevation shall be an elevation no lower than 1 foot above the elevation of the regional flood plus any increases in flood elevation caused by encroachments on the flood plain that result from designation of a floodway.
- d) Interpretation.
 - 1) In their interpretation and application, the provisions of this subsection 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.
 - 2) The boundaries of the zoning districts shall be determined by scaling distances on the official zoning map. Where interpretation is needed as to the exact location of the boundaries of the district as shown on the official zoning map, as for example where there appears to be a conflict between a mapped boundary and actual field conditions and there is a formal appeal of the decision of the zoning administrator, the board of adjustment shall make the necessary interpretation. All decisions will be based on elevations on the regional (100-year) flood profile, the ground elevations that existed on the site at the time the community adopted its initial floodplain subsection, and other available technical data. Persons contesting the location of the district boundaries shall be given a reasonable opportunity to present their case to the board of adjustment and to submit technical evidence.
- e) Abrogation and Greater Restrictions. It is not intended by this subsection to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this subsection imposes greater restrictions, the provisions of this subsection shall prevail. All other provisions inconsistent with this subsection are hereby repealed to the extent of the inconsistency only.
- f) Warning and Disclaimer of Liability. This subsection does not imply that areas outside the flood plain districts or land uses permitted within such districts will be free from flooding or flood damages. This subsection shall not create liability on the part of the city of Crystal or any officer or employee thereof for any flood damages that result from reliance on this subsection or any administrative decision lawfully made thereunder.
- g) Severability. If any section, clause, provision, or portion of this subsection is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this subsection shall not be affected thereby.

- h) Definitions. Unless specifically defined below, words or phrases used in this subsection shall be interpreted so as to give them the same meaning as they have in common usage and so as to give this subsection its most reasonable application.
- 1) Accessory Use or Structure - a use or structure on the same lot with, and of a nature customarily incidental and subordinate to, the principal use or structure.
 - 2) Basement - means any area of a structure, including crawl spaces, having its floor or base subgrade (below ground level) on all four sides, regardless of the depth of excavation below ground level.
 - 3) 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 certain conditions as detailed in the zoning ordinance exist, and that the structure and/or land use conform to the comprehensive land use plan and are compatible with the existing neighborhood.
 - 4) Equal Degree of Encroachment - a method of determining the location of floodway boundaries so that flood plain lands on both sides of a stream are capable of conveying a proportionate share of flood flows.
 - 5) Flood - 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.
 - 6) Flood Frequency - the frequency for which it is expected that a specific flood stage or discharge may be equaled or exceeded.
 - 7) Flood Fringe - that portion of the flood plain outside of the floodway. Flood fringe is synonymous with the term "floodway fringe" used in the flood insurance study.
 - 8) Flood Plain - the beds proper and the areas adjoining a wetland, lake or watercourse which have been or hereafter may be covered by the regional flood.
 - 9) Flood Proofing - a combination of structural provisions, changes, or adjustments to properties and structures subject to flooding, primarily for the reduction or elimination of flood damages.
 - 10) Floodway - the bed of a wetland or lake and the channel of a watercourse and those portions of the adjoining flood plain which are reasonably required to carry or store the regional flood discharge.

- 11) Lowest Floor - 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.
- 12) Manufactured Home - a structure, transportable in 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."
- 13) Obstruction - 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 flood plain which 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.
- 14) Principal Use or Structure - means all uses or structures that are not accessory uses or structures.
- 15) Reach - a hydraulic engineering term to describe a longitudinal segment of a stream or river influenced by a natural or man-made obstruction. In an urban area, the segment of a stream or river between 2 consecutive bridge crossings would most typically constitute a reach.
- 16) Recreational Vehicle - 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 this subsection, the term recreational vehicle shall be synonymous with the term travel trailer/travel vehicle.
- 17) Regional Flood - 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 100-year recurrence interval. Regional flood is synonymous with the term "base flood" used in a flood insurance study.
- 18) Regulatory Flood Protection Elevation - The regulatory flood protection elevation shall be an elevation no lower than 1 foot above the elevation of the regional flood plus any increases in flood elevation caused by encroachments on the flood plain that result from designation of a floodway.

- 19) Structure - 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, manufactured homes, recreational vehicles not meeting the exemption criteria specified in subdivision 9 c) 1) of this subsection and other similar items.
- 20) 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.
- 21) Substantial Improvement - 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 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 any alteration of an "historic structure," provided that the alteration will not preclude the structure's continued designation as an "historic structure." For the purpose of this subsection, "historic structure" shall be as defined in Code of Federal Regulations, Part 59.1.
- 22) Variance - means a modification of a specific permitted development standard required in an official control including this subsection to allow an alternative development standard not stated as acceptable in the official control, but only as applied to a particular property for the purpose of alleviating a hardship, practical difficulty or unique circumstance as defined and elaborated upon in a community's respective planning and zoning enabling legislation.

Subd. 3. Establishment of Zoning Districts.

a) Districts.

- 1) Floodway District. The floodway district shall include those areas designated as floodway on the flood insurance rate map adopted in subdivision 2 b).
- 2) Flood Fringe District. The flood fringe district shall include those areas designated as floodway fringe. The flood fringe district shall include those areas shown on the flood insurance rate map as adopted in subdivision 2 b) as being within Zone AE, Zone A0, or Zone AH but being located outside of the floodway.
- 3) General Flood Plain District. The general flood plain district shall include those areas designated as Zone A or Zones AE, Zone A0, or Zone AH without a floodway on the flood insurance rate map adopted in subdivision 2 b).

b) Compliance. No new structure or land shall hereafter be used and no structure shall be constructed, located, extended, converted, or structurally altered without full compliance with the terms of this subsection and other applicable regulations which apply to uses within the jurisdiction of this subsection. Within the floodway, flood fringe and general flood plain districts, all uses not listed as permitted uses or conditional uses in subdivisions 4, 5 and 6 that follow, respectively, shall be prohibited. In addition, a caution is provided here that:

- 1) New manufactured homes, replacement manufactured homes and certain travel trailers and travel vehicles are subject to the general provisions of this subsection and specifically subdivision 9.
- 2) Modifications, additions, structural alterations, normal maintenance and repair, or repair after damage to existing nonconforming structures and nonconforming uses of structures or land are regulated by the general provisions of this subsection and specifically subdivision 11.
- 3) As-built elevations for elevated or flood proofed structures must be certified by ground surveys and flood proofing techniques must be designed and certified by a registered professional engineer or architect as specified in the general provisions of this subsection and specifically as stated in subdivision 10 of this subsection.

Subd. 4. Floodway District (FW).

a) Permitted Uses.

- 1) General farming, pasture, grazing, outdoor plant nurseries, horticulture, truck farming, forestry, sod farming, and wild crop harvesting.
- 2) Industrial-commercial loading areas, parking areas, and airport landing strips.
- 3) 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, target ranges, trap and skeet ranges, hunting and fishing areas, and single or multiple purpose recreational trails.
- 4) Residential lawns, gardens, parking areas, and play areas.

b) Standards for Floodway Permitted Uses.

- 1) The use shall have a low flood damage potential.
- 2) The use shall be permissible in the underlying zoning district if one exists.
- 3) The use shall not obstruct flood flows or increase flood elevations and shall not involve structures, fill, obstructions, excavations or storage of materials or equipment.

c) Conditional Uses:

- 1) Structures accessory to the uses listed in subdivision 4 a) above.
- 2) Extraction and storage of sand, gravel, and other materials; and structures accessory thereto.
- 3) Marinas, boat rentals, docks, piers, wharves, and water control structures; and structures accessory thereto.
- 4) Railroads, streets, bridges, utility transmission lines, and pipelines; and structures accessory thereto.
- 5) Storage yards for equipment, machinery, or materials; and structures accessory thereto.

- 6) Placement of fill or construction of fences; and structures accessory thereto.
 - 7) Recreational vehicles either on individual lots of record or in existing or new subdivisions or commercial or condominium type campgrounds, subject to the exemptions and provisions of subdivision 9 c) of this subsection; and structures accessory thereto.
 - 8) Structural works for flood control such as levees, dikes and floodwalls constructed to any height where the intent is to protect individual structures and levees or dikes where the intent is to protect agricultural crops for a frequency flood event equal to or less than the 10-year frequency flood event; and structures accessory thereto.
- d) Standards for Floodway Conditional Uses.
- 1) All Uses. No structure (temporary or permanent), fill (including fill for roads and levees), deposit, obstruction, storage of materials or equipment, or other uses may be allowed as a conditional use that will cause any increase in the stage of the 100-year or regional flood or cause an increase in flood damages in the reach or reaches affected.
 - 2) All floodway conditional uses shall be subject to the procedures and standards contained in subdivision 10 d) of this subsection.
 - 3) The conditional use shall be permissible in the underlying zoning district if on exists.
 - 4) Fill.
 - i) Fill, dredge spoil, and all other similar materials deposited or stored in the flood plain shall be protected from erosion by vegetative cover, mulching, riprap or other acceptable method.
 - ii) Dredge spoil sites and sand and gravel operations shall not be allowed in the floodway unless a long-term site development plan is submitted which includes an erosion/sedimentation prevention element to the plan.
 - iii) As an alternative, and consistent with subdivision 4 d) 4) ii) above, dredge spoil disposal and sand and gravel operations may allow temporary, on-site storage of fill or other materials which would have caused an increase to the stage of the 100-year or regional flood but only after the governing body has received an appropriate plan which assures the removal of the materials from the floodway based upon the flood warning time available. The conditional use permit must be title registered with the property in the office of the county recorder.

5) Accessory Structures:

- i) Accessory structures shall not be designed for human habitation.
- ii) Accessory structures, if permitted, shall be constructed and placed on the building site so as to offer the minimum obstruction to the flow of flood waters. Whenever possible, structures shall be constructed with the longitudinal axis parallel to the direction of flood flow; and so far as practicable, structures shall be placed approximately on the same flood flow lines as those of adjoining structures.
- iii) Accessory structures shall be elevated on fill or structurally dry flood proofed in accordance with the FP-1 or FP-2 flood proofing classifications in the state building code. As an alternative, an accessory structure may be flood proofed to the FP-3 or FP-4 flood proofing classification in the state building code provided the accessory structure constitutes a minimal investment, does not exceed 500 square feet in size at its largest projection, and for a detached garage, the detached garage must be used solely for parking of vehicles and limited storage. All flood proofed accessory structures must meet the following additional standards:
 - a) The structure must be adequately anchored to prevent flotation, collapse or lateral movement of the structure and shall be designed to equalize hydrostatic flood forces on exterior walls; and
 - b) Any mechanical and utility equipment in a structure must be elevated to or above the regulatory flood protection elevation or properly flood proofed; and
 - c) To allow for the equalization of hydrostatic pressure, there must be a minimum of 2 “automatic” openings in the outside walls of the structure having a total net area of not less than 1 square inch for every square foot of enclosed area subject to flooding. There must be openings on at least 2 sides of the structure and the bottom of all openings must be no higher than 1 foot above the lowest adjacent grade to the structure. Using human intervention to open a garage door prior to flooding will not satisfy this requirement for automatic openings.

- 6) Storage of Materials and Equipment.
 - i) 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.
 - ii) Storage of other materials or equipment may be allowed if readily removable from the area within the time available after a flood warning and in accordance with a plan approved by the governing body.
- 7) Structural works for flood control that will change the course, current or cross section of protected wetlands or public waters shall be subject to the provisions of Minnesota Statutes, chapter 103G. Community-wide structural works for flood control intended to remove areas from the regulatory flood plain shall not be allowed in the floodway.
- 8) A levee, dike or floodwall constructed in the floodway shall not cause an increase to the 100-year or regional flood and the technical analysis must assume equal conveyance or storage loss on both sides of a stream.

Subd. 5. Flood Fringe District (FF).

- a) Permitted Uses: Permitted uses shall be those uses of land or structures listed as permitted uses in the underlying zoning use district. If no pre-existing, underlying zoning use districts exist, then any residential or non residential structure or use of a structure or land shall be a permitted use in the flood fringe district provided such use does not constitute a public nuisance. All permitted uses shall comply with the standards for flood fringe district permitted uses listed in subdivision 5 b) and the standards for all flood fringe uses listed in subdivision 5 e).

- b) Standards for Flood Fringe Permitted Uses.
- 1) All structures, including accessory structures, must be elevated on fill so that the lowest floor including basement floor is at or above the regulatory flood protection elevation. The finished fill elevation for structures shall be no lower than 1 foot below the regulatory flood protection elevation and the fill shall extend at such elevation at least 15 feet beyond the outside limits of the structure erected thereon.
 - 2) As an alternative to elevation on fill, accessory structures that constitute a minimal investment and that do not exceed 500 square feet at its largest projection may be internally flood proofed in accordance with subdivision 4 d) 5) iii) of this subsection.
 - 3) The cumulative placement of fill where at any one time in excess of 1,000 cubic yards of fill is located on the parcel shall be allowable only as a conditional use, unless said fill is specifically intended to elevate a structure in accordance with subdivision 5 b) 1) of this subsection.
 - 4) The storage of any materials or equipment shall be elevated on fill to the regulatory flood protection elevation.
 - 5) The provisions of subdivision 5 e) of this subsection shall apply.
- c) Conditional Uses: Any structure that is not elevated on fill or flood proofed in accordance with subdivision 5 b) 1) and 2) and/or any use of land that does not comply with the standards in subdivision 5 b) 3) and 4) shall only be allowable as a conditional use. An application for a conditional use shall be subject to the standards and criteria and evaluation procedures specified in subdivision 5 d) and e) and subdivision 10 of this subsection.

d) Standards for Flood Fringe Conditional Uses.

1) 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. These alternative methods may include the use of stilts, pilings, parallel walls, etc., or above-grade, enclosed areas such as crawl spaces or tuck under garages. 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 1 side of the structure; 2) it is designed to internally flood and is constructed with flood resistant materials; and 3) it is used solely for parking of vehicles, building access or storage. The above-noted alternative elevation methods are subject to the following additional standards:

i) Design and Certification - The structure's design and as-built condition must be certified by a registered professional engineer or architect as being in compliance with the general design standards of the state building code and, specifically, that all electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities must be at or above the regulatory flood protection elevation or be designed to prevent flood water from entering or accumulating within these components during times of flooding.

ii) Specific Standards for Above-grade, Enclosed Areas - Above-grade, fully enclosed areas such as crawl spaces or tuck under garages must be designed to internally flood and the design plans must stipulate:

a) A minimum area of openings in the walls where internal flooding is to be used as a flood proofing technique. There shall be a minimum of 2 openings on at least 2 sides of the structure and the bottom of all openings shall be no higher than 1 foot above grade. The automatic openings shall have a minimum net area of not less than 1 square inch for every square foot subject to flooding unless a registered professional engineer or architect certifies that a smaller net area would suffice. The automatic openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of flood waters without any form of human intervention; and

b) That the enclosed area will be designed of flood resistant materials in accordance with the FP-3 or FP-4 classifications in the state building code and shall be used solely for building access, parking of vehicles or storage.

- 2) Basements, as defined by subdivision 2 h) 2) of this subsection, shall be subject to the following:
 - i) Residential basement construction shall not be allowed below the regulatory flood protection elevation.
 - ii) Non-residential basements may be allowed below the regulatory flood protection elevation provided the basement is structurally dry flood proofed in accordance with subdivision 5 d) 3) of this subsection.
- 3) All areas of non residential structures including basements to be placed below the regulatory flood protection elevation shall be flood proofed in accordance with the structurally dry flood proofing classifications in the state building code. Structurally dry flood proofing must meet the FP-1 or FP-2 flood proofing classification in the state building code and this shall require making the structure watertight with the walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. Structures flood proofed to the FP-3 or FP-4 classification shall not be permitted.
- 4) When at any one time more than 1,000 cubic yards of fill or other similar material is located on a parcel for such activities as on-site storage, landscaping, sand and gravel operations, landfills, roads, dredge spoil disposal or construction of flood control works, an erosion/sedimentation control plan must be submitted unless the community is enforcing a state approved shoreland management subsection. In the absence of a state approved shoreland subsection, the plan must clearly specify methods to be used to stabilize the fill on site for a flood event at a minimum of the 100-year or regional flood event. The plan must be prepared and certified by a registered professional engineer or other qualified individual acceptable to the governing body. The plan may incorporate alternative procedures for removal of the material from the flood plain if adequate flood warning time exists.
- 5) Storage of Materials and Equipment.
 - i) 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.
 - ii) Storage of other materials or equipment may be allowed if readily removable from the area within the time available after a flood warning and in accordance with a plan approved by the governing body.
- 6) The provisions of subdivision 5 e) of this subsection shall also apply.

e) Standards for All Flood Fringe Uses:

- 1) All new principal structures must have vehicular access at or above an elevation not more than 2 feet below the regulatory flood protection elevation. If a variance to this requirement is granted, the board of adjustment must specify limitations on the period of use or occupancy of the structure for times of flooding and only after determining that adequate flood warning time and local flood emergency response procedures exist.
- 2) Commercial Uses - accessory land uses, such as yards, railroad tracks, and parking lots may be at elevations lower than the regulatory flood protection elevation. However, a permit for such facilities to be used by the employees or the general public shall not be granted in the absence of a flood warning system that provides adequate time for evacuation if the area would be inundated to a depth and velocity such that when multiplying the depth (in feet) times velocity (in feet per second) the product number exceeds 4 upon occurrence of the regional flood.
- 3) Manufacturing and Industrial Uses - measures shall be taken to minimize interference with normal plant operations especially along streams having protracted flood durations. Certain accessory land uses such as yards and parking lots may be at lower elevations subject to requirements set out in subdivision 5 e) 2) above. In considering permit applications, due consideration shall be given to needs of an industry whose business requires that it be located in flood plain areas.
- 4) Fill shall be properly compacted and the slopes shall be properly protected by the use of riprap, vegetative cover or other acceptable method. The Federal Emergency Management Agency (FEMA) has established criteria for removing the special flood hazard area designation for certain structures properly elevated on fill above the 100-year flood elevation - FEMA's requirements incorporate specific fill compaction and side slope protection standards for multi-structure or multi-lot developments. These standards should be investigated prior to the initiation of site preparation if a change of special flood hazard area designation will be requested.
- 5) Flood plain developments shall not adversely affect the hydraulic capacity of the channel and adjoining flood plain of any tributary watercourse or drainage system where a floodway or other encroachment limit has not been specified on the official zoning map.

- 6) Standards for recreational vehicles are contained in subdivision 9 c).
- 7) All manufactured homes must be securely anchored to an adequately anchored foundation system that resists flotation, collapse and lateral movement. Methods of anchoring may include, but are not to be 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.

Subd. 6. General Flood Plain District.

a) Permissible Uses.

- 1) The uses listed in subdivision 4 a) of this subsection shall be permitted uses.
- 2) All other uses shall be subject to the floodway/flood fringe evaluation criteria pursuant to subdivision 6 b) below. Subdivision 4 shall apply if the proposed use is in the floodway district and subdivision 5 shall apply if the proposed use is in the flood fringe district.

b) Procedures for Floodway and Flood Fringe Determinations Within the General Flood Plain District.

- 1) Upon receipt of an application for a permit or other approval within the general flood plain district, the applicant shall be required to furnish such of the following information as is deemed necessary by the zoning administrator for the determination of the regulatory flood protection elevation and whether the proposed use is within the floodway or flood fringe district.
 - i) A typical valley cross-section(s) showing the channel of the stream, elevation of land areas adjoining each side of the channel, cross-sectional areas to be occupied by the proposed development, and high water information.
 - ii) Plan (surface view) showing elevations or contours of the ground, pertinent structure, fill, or storage elevations, the size, location, and spatial arrangement of all proposed and existing structures on the site, and the location and elevations of streets.
 - iii) Photographs showing existing land uses, vegetation upstream and downstream, and soil types.
 - iv) Profile showing the slope of the bottom of the channel or flow line of the stream for at least 500 feet in either direction from the proposed development.

- 2) The applicant shall be responsible to submit 1 copy of the above information to a designated engineer or other expert person or agency for technical assistance in determining whether the proposed use is in the floodway or flood fringe district and to determine the regulatory flood protection elevation. Procedures consistent with Minnesota Regulations 1983, Parts 6120.5000 - 6120.6200 and 44 Code of Federal Regulations Part 65 shall be followed in this expert evaluation. The designated engineer or expert is strongly encouraged to discuss the proposed technical evaluation methodology with the respective Department of Natural Resources' Area Hydrologist prior to commencing the analysis. The designated engineer or expert shall:
 - i) Estimate the peak discharge of the regional flood.
 - ii) Calculate the water surface profile of the regional flood based upon a hydraulic analysis of the stream channel and overbank areas.
 - iii) Compute the floodway necessary to convey or store the regional flood without increasing flood stages more than 0.5 foot. A lesser stage increase than .5 foot shall be required if, as a result of the additional stage increase, increased flood damages would result. An equal degree of encroachment on both sides of the stream within the reach shall be assumed in computing floodway boundaries.
- 3) The zoning administrator shall present the technical evaluation and findings of the designated engineer or expert to the governing body. The governing body must formally accept the technical evaluation and the recommended floodway and/or flood fringe district boundary or deny the permit application. The governing body, prior to official action, may submit the application and all supporting data and analyses to the Federal Emergency Management Agency, the Department of Natural Resources or the Planning Commission for review and comment. Once the floodway and flood fringe district boundaries have been determined, the governing body shall refer the matter back to the zoning administrator who shall process the permit application consistent with the applicable provisions of subdivisions 4 and 5 of this subsection.

Subd. 7. Subdivision of Land.

- a) Review Criteria. No land shall be subdivided which is unsuitable for the reason of flooding, inadequate drainage, water supply or sewage treatment facilities. All lots within the flood plain districts shall be able to contain a building site outside of the floodway district at or above the regulatory flood protection elevation. All subdivisions shall have water and sewage treatment facilities that comply with the provisions of this subsection and have road access both to the subdivision and to the individual building sites no lower than 2 feet below the regulatory flood protection elevation. For all subdivisions in the flood plain, the floodway and flood fringe district boundaries, the regulatory flood protection elevation and the required elevation of all access roads shall be clearly labeled on all required subdivision drawings and platting documents.
- b) Floodway/Flood Fringe Determinations in the General Flood Plain District: In the general flood plain district, applicants shall provide the information required in subdivision 6 b) of this subsection to determine the 100-year flood elevation, the floodway and flood fringe district boundaries and the regulatory flood protection elevation for the subdivision site.
- c) Removal of Special Flood Hazard Area Designation: The Federal Emergency Management Agency (FEMA) has established criteria for removing the special flood hazard area designation for certain structures properly elevated on fill above the 100-year flood elevation. FEMA's requirements incorporate specific fill compaction and side slope protection standards for multi-structure or multi-lot developments. These standards should be investigated prior to the initiation of site preparation if a change of special flood hazard area designation will be requested.

Subd. 8. Public Utilities, Railroads, Roads, and Bridges.

- a) Public Utilities. All public utilities and facilities such as gas, electrical, sewer, and water supply systems to be located in the flood plain shall be flood proofed in accordance with the state building code or elevated to above the regulatory flood protection elevation.
- b) Public Transportation Facilities. Railroad tracks, roads, and bridges to be located within the flood plain shall comply with subdivisions 4 and 5 of this subsection. Elevation to the regulatory flood protection elevation shall be provided where failure or interruption of these transportation 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.

- c) On-site Sewage Treatment and Water Supply Systems: Where public utilities are not provided, on-site water supply systems must be designed to minimize or eliminate infiltration of flood waters into the systems; and 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 and they shall not be subject to impairment or contamination during times of flooding. Any sewage treatment system designed in accordance with the state's current statewide standards for on-site sewage treatment systems shall be determined to be in compliance with this section.

Subd. 9. Manufactured Homes and Recreational Vehicles.

- a) New manufactured home parks and expansions to existing manufactured home parks shall be subject to the provisions placed on subdivisions by subdivision 7 of this subsection.
- b) The placement of new or replacement manufactured homes in existing manufactured home parks or on individual lots of record that are located in flood plain districts will be treated as a new structure and may be placed only if elevated in compliance with subdivision 5 of this subsection. If vehicular road access for pre-existing manufactured home parks is not provided in accordance with subdivision 5 e) 1), then replacement manufactured homes will not be allowed until the property owner develops a flood warning emergency plan acceptable to the governing body. All manufactured homes must be securely anchored to an adequately anchored foundation system that resists flotation, collapse and lateral movement. Methods of anchoring may include, but are not to be 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.
- c) Recreational vehicles that do not meet the exemption criteria specified in subdivision 9 c) 1) below shall be subject to the provisions of this subsection and as specifically spelled out in subdivision 9 c) 3) and 4) below.
- 1) Exemption - Recreational vehicles are exempt from the provisions of this subsection if they are placed in any of the areas listed in subdivision 9 c) 2) below and meet the following criteria:
- i) Have current licenses required for highway use.
 - ii) Are highway ready meaning on wheels or the internal jacking system, are attached to the site only by quick disconnect type utilities commonly used in campgrounds and recreational vehicle parks and the recreational vehicle has no permanent structural type additions attached to it.
 - iii) The recreational vehicle and associated use must be permissible in any pre-existing, underlying zoning use district.

- 2) Areas Exempted For Placement of Recreational Vehicles.
 - i) Individual lots or parcels of record.
 - ii) Existing commercial recreational vehicle parks or campgrounds.
 - iii) Existing condominium type associations.
- 3) Recreational vehicles exempted in subdivision 9 c) 1) lose this exemption when development occurs on the parcel exceeding \$500 for a structural addition to the recreational vehicle or exceeding \$500 for an accessory structure such as a garage or storage building. The recreational vehicle and all additions and accessory structures will then be treated as a new structure and shall be subject to the elevation/flood proofing requirements and the use of land restrictions specified in subdivisions 4 and 5 of this subsection. There shall be no development or improvement on the parcel or attachment to the recreational vehicle that hinders the removal of the recreational vehicle to a flood free location should flooding occur.
- 4) New commercial recreational vehicle parks or campgrounds and new residential type subdivisions and condominium associations and the expansion of any existing similar use exceeding 5 units or dwelling sites shall be subject to the following:
 - i) Any new or replacement recreational vehicle will be allowed in the floodway or flood fringe districts provided said recreational vehicle and its contents are placed on fill above the regulatory flood protection elevation and proper elevated road access to the site exists in accordance with subdivision 5 e) 1) of this subsection. No fill placed in the floodway to meet this requirement shall increase flood stages of the 100-year or regional flood.
 - ii) All new or replacement recreational vehicles not meeting the criteria of subdivision 9 c) 4) i) above may, as an alternative, be allowed as a conditional use if in accordance with the following provisions and the provisions of subdivision 10 d) of this subsection. The applicant must submit an emergency plan for the safe evacuation of all vehicles and people during the 100-year flood. Said plan shall be prepared by a registered engineer or other qualified individual, shall demonstrate that adequate time and personnel exist to carry out the evacuation, and shall demonstrate the provisions of subdivision 9 c) 1) (i) and (ii) of this subsection will be met. All attendant sewage and water facilities for new or replacement recreational vehicles must be protected or constructed so as to not be impaired or contaminated during times of flooding in accordance with subdivision 8 c) of this subsection.

Subd. 10. Administration.

- a) Zoning Administrator. A zoning administrator or other official designated by the governing body shall administer and enforce this subsection. If the zoning administrator finds a violation of the provisions of this subsection the zoning administrator shall notify the person responsible for such violation in accordance with the procedures stated in subdivision 12 of this subsection.

- b) Permit Requirements.
 - 1) Permit Required. A permit issued by the zoning administrator in conformity with the provisions of this subsection shall be secured prior to the erection, addition, modification, rehabilitation (including normal maintenance and repair), or alteration of any building, structure, or portion thereof; prior to the use or change of use of a building, structure, or land; prior to the construction of a dam, fence, or on-site septic system; prior to the change or extension of a nonconforming use; prior to the repair of a structure that has been damaged by flood, fire, tornado, or any other source; and prior to the placement of fill, excavation of materials, or the storage of materials or equipment within the flood plain.

 - 2) Application for Permit. Application for a permit shall be made in duplicate to the zoning administrator on forms furnished by the zoning administrator and shall include the following where applicable: plans in duplicate drawn to scale, showing the nature, location, dimensions, and elevations of the lot; existing or proposed structures, fill, or storage of materials; and the location of the foregoing in relation to the stream channel.

 - 3) State and Federal Permits. Prior to granting a permit or processing an application for a conditional use permit or variance, the zoning administrator shall determine that the applicant has obtained all necessary state and federal permits.

 - 4) Certificate of Zoning Compliance for a New, Altered, or Nonconforming Use. It shall be unlawful to use, occupy, or permit the use or occupancy of any building or premises or part thereof hereafter created, erected, changed, converted, altered, or enlarged in its use or structure until a certificate of zoning compliance shall have been issued by the zoning administrator stating that the use of the building or land conforms to the requirements of this subsection.

- 5) Construction and Use to be as Provided on Applications, Plans, Permits, Variances and Certificates of Zoning Compliance. Permits, conditional use permits, or certificates of zoning compliance 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 subsection, and punishable as provided by subdivision 12 of this subsection.
- 6) Certification. The applicant shall be 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 this subsection. Flood proofing measures shall be certified by a registered professional engineer or registered architect.
- 7) Record of First Floor Elevation. The zoning administrator shall maintain a record of the elevation of the lowest floor (including basement) of all new structures and alterations or additions to existing structures in the flood plain. The zoning administrator shall also maintain a record of the elevation to which structures or alterations and additions to structures are flood proofed.
- 8) Notifications for Watercourse Alterations. The zoning administrator shall notify, in riverine situations, adjacent communities and the commissioner of the department of natural resources prior to the community authorizing any alteration or relocation of a watercourse. If the applicant has applied for a permit to work in the beds of public waters pursuant to Minnesota Statutes, chapter 103G, this shall suffice as adequate notice to the commissioner of natural resources. A copy of said notification shall also be submitted to the Chicago Regional Office of the Federal Emergency Management Agency (FEMA).
- 9) Notification to FEMA When Physical Changes Increase or Decrease the 100-year Flood Elevation. As soon as is practicable, but not later than 6 months after the date such supporting information becomes available, the zoning administrator shall notify the Chicago Regional Office of FEMA of the changes by submitting a copy of said technical or scientific data.

c) Board of Adjustment.

- 1) Rules. The board of adjustment shall adopt rules for the conduct of business and may exercise all of the powers conferred on such boards by state law.
- 2) Administrative Review. The board of adjustment shall hear and decide appeals where it is alleged there is error in any order, requirement, decision, or determination made by an administrative official in the enforcement or administration of this subsection.
- 3) Variances. The board of adjustment may authorize upon appeal in specific cases such relief or variance from the terms of this subsection as will not be contrary to the public interest and only for those circumstances such as hardship, practical difficulties or circumstances unique to the property under consideration, as provided for in the respective enabling legislation for planning and zoning for cities or counties as appropriate. In the granting of such variance, the board of adjustment shall clearly identify in writing the specific conditions that existed consistent with the criteria specified in this subsection, any other zoning regulations in the community, and in the respective enabling legislation that justified the granting of the variance. No variance shall have the effect of allowing in any district uses prohibited 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. The following additional variance criteria of the Federal Emergency Management Agency must be satisfied:
 - i) Variances shall not be issued by a community within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.
 - ii) Variances shall only be issued by a community upon a showing of good and sufficient cause; a determination that failure to grant the variance would result in exceptional hardship to the applicant; and 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 subsections.
 - iii) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

- 4) Hearings. Upon filing with the board of adjustment of an appeal from a decision of the zoning administrator, or an application for a variance, the board of adjustment shall fix a reasonable time for a hearing and give due notice to the parties in interest as specified by law. The board of adjustment shall submit by mail to the commissioner of natural resources a copy of the application for proposed variances sufficiently in advance so that the commissioner will receive at least 10 days notice of the hearing.
 - 5) Decisions. The board of adjustment shall arrive at a decision on such appeal or variance within 60 days of submittal of a complete application, in accordance with Minnesota Statutes 15.99. In passing upon an appeal, the board of adjustment may, so long as such action is in conformity with the provisions of this subsection, reverse or affirm, wholly or in part, or modify the order, requirement, decision or determination of the zoning administrator or other public official. It shall make its decision in writing setting forth the findings of fact and the reasons for its decisions. In granting a variance the board of adjustment may prescribe appropriate conditions and safeguards such as those specified in subdivision 10 d) 6), which are in conformity with the purposes of this subsection. Violations of such conditions and safeguards, when made a part of the terms under which the variance is granted, shall be deemed a violation of this subsection punishable under subdivision 12. A copy of all decisions granting variances shall be forwarded by mail to the commissioner of natural resources within 10 days of such action.
 - 6) Appeals. Appeals from any decision of the board of adjustment may be made, and as specified in this community's official controls and also by Minnesota Statutes.
 - 7) Flood Insurance Notice and Record Keeping. The zoning administrator shall 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 100-year or regional flood level increases risks to life and property. Such notification shall be maintained with a record of all variance actions. A community shall maintain a record of all variance actions, including justification for their issuance, and report such variances issued in its annual or biennial report submitted to the administrator of the national flood insurance program.
- d) Conditional Uses. The planning commission and city council shall, respectively, hear and decide applications for conditional uses permissible under this subsection. Applications shall be submitted to the zoning administrator who shall forward the application to the planning commission for a public hearing. The planning commission shall then make a recommendation to the city council for consideration.

- 1) Hearings. Upon filing with the zoning administrator an application for a conditional use permit, the zoning administrator shall submit by mail to the commissioner of natural resources a copy of the application for proposed conditional use sufficiently in advance so that the commissioner will receive at least 10 days notice of the hearing.
- 2) Decisions. The city council shall arrive at a decision on a conditional use within 60 days of submittal of a complete application, in accordance with Minnesota Statutes 15.99. In granting a conditional use permit the city council shall prescribe appropriate conditions and safeguards, in addition to those specified in subdivision 10 d) 6), which are in conformity with the purposes of this subsection. Violations of such conditions and safeguards, when made a part of the terms under which the conditional use permit is granted, shall be deemed a violation of this subsection punishable under subdivision 12. A copy of all decisions granting conditional use permits shall be forwarded by mail to the commissioner of natural resources within 10 days of such action.
- 3) Procedures to be followed by the city council in passing on conditional use permit applications within all flood plain districts.
 - i) Require the applicant to furnish such of the following information and additional information as deemed necessary by the city council for determining the suitability of the particular site for the proposed use:
 - a) Plans in triplicate drawn to scale showing the nature, location, dimensions, and elevation of the lot, existing or proposed structures, fill, storage of materials, flood proofing measures, and the relationship of the above to the location of the stream channel; and
 - b) Specifications for building construction and materials, flood proofing, filling, dredging, grading, channel improvement, storage of materials, water supply and sanitary facilities.
 - ii) Transmit 1 copy of the information described in subdivision 10 d) 3) i) to a designated engineer or other expert person or agency for technical assistance, where necessary, in evaluating the proposed project in relation to flood heights and velocities, the seriousness of flood damage to the use, the adequacy of the plans for protection, and other technical matters.
 - iii) Based upon the technical evaluation of the designated engineer or expert, the city council shall determine the specific flood hazard at the site and evaluate the suitability of the proposed use in relation to the flood hazard.

- 4) Factors upon which the decision of the city council shall be based. In passing upon conditional use applications, the city council shall consider all relevant factors specified in other sections of this subsection, and:
- i) The danger to life and property due to increased flood heights or velocities caused by encroachments.
 - ii) The danger that materials may be swept onto other lands or downstream to the injury of others or they may block bridges, culverts or other hydraulic structures.
 - iii) The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination, and unsanitary conditions.
 - iv) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
 - v) The importance of the services provided by the proposed facility to the community.
 - vi) The requirements of the facility for a waterfront location.
 - vii) The availability of alternative locations not subject to flooding for the proposed use.
 - viii) The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
 - ix) The relationship of the proposed use to the comprehensive plan and flood plain management program for the area.
 - x) The safety of access to the property in times of flood for ordinary and emergency vehicles.
 - xi) The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site.
 - xii) Such other factors which are relevant to the purposes of this subsection.

- 5) Time for Acting on Application. The city council shall arrive at a decision on a conditional use within 60 days of submittal of a complete application, in accordance with Minnesota Statutes 15.99, except where additional information is required pursuant to subdivision 10 d) 4) of this subsection, in which case the city council shall arrive at a decision within no more than 60 additional days in accordance with Minnesota Statutes 15.99.

- 6) Conditions Attached to Conditional Use Permits. Upon consideration of the factors listed above and the purpose of this subsection, the city council shall attach such conditions to the granting of conditional use permits as it deems necessary to fulfill the purposes of this subsection. Such conditions may include, but are not limited to, the following:
 - i) Modification of waste treatment and water supply facilities.
 - ii) Limitations on period of use, occupancy, and operation.
 - iii) Imposition of operational controls, sureties, and deed restrictions.
 - iv) Requirements for construction of channel modifications, compensatory storage, dikes, levees, and other protective measures.
 - v) Flood proofing measures, in accordance with the state building code and this subsection. The applicant shall submit a plan or document certified by a registered professional engineer or architect that the flood proofing measures are consistent with the regulatory flood protection elevation and associated flood factors for the particular area.

Subd. 11. Nonconforming Uses.

- a) A structure or the use of a structure or premises which was lawful before the passage or amendment of this subsection but which is not in conformity with the provisions of this subsection may be continued subject to the following conditions. Historic structures, as defined in subdivision 2 h) 31) of this subsection, shall be subject to the provisions of subdivision 11 a) 1) through 5) of this subsection.
- 1) No such use shall be expanded, changed, enlarged, or altered in a way that increases its nonconformity.
 - 2) Any structural alteration or addition to a nonconforming structure or nonconforming use which would result in increasing the flood damage potential of that structure or use shall be protected to the regulatory flood protection elevation in accordance with any of the elevation on fill or flood proofing techniques (i.e., FP-1 thru FP-4 floodproofing classifications) allowable in the state building code, except as further restricted in subdivision 11 a) 3) and 6) below.
 - 3) The cost of any structural alterations or additions to any nonconforming structure over the life of the structure shall not exceed 50% of the market value of the structure unless the conditions of this section are satisfied. The cost of all structural alterations and additions constructed since the adoption of the community's initial flood plain controls must be calculated into today's current cost which will include all costs such as construction materials and a reasonable cost placed on all manpower or labor. If the current cost of all previous and proposed alterations and additions exceeds 50% of the current market value of the structure, then the structure must meet the standards of subdivision 4 or 5 of this subsection for new structures depending upon whether the structure is in the floodway or flood fringe district, respectively.
 - 4) If any nonconforming use is discontinued for 12 consecutive months, any future use of the building premises shall conform to this subsection. The assessor shall notify the zoning administrator in writing of instances of nonconforming uses that have been discontinued for a period of 12 months.
 - 5) If any nonconforming use or structure is substantially damaged, as defined in subdivision 2 h) 30) of this subsection, it shall not be reconstructed except in conformity with the provisions of this subsection. The applicable provisions for establishing new uses or new structures in subdivisions 4, 5 or 6 will apply depending upon whether the use or structure is in the floodway, flood fringe or general flood plain district, respectively.

- 6) If a substantial improvement occurs, as defined in subdivision 2 h) 31) of this subsection, from any combination of a building addition to the outside dimensions of the existing building or a rehabilitation, reconstruction, alteration, or other improvement to the inside dimensions of an existing nonconforming building, then the building addition, as required by subdivision 11 a) 2) above, and the existing nonconforming building must meet the requirements of subdivision 4 or 5 of this subsection for new structures, depending upon whether the structure is in the floodway or flood fringe district, respectively.

Subd. 12. Penalties for Violation.

- a) Violation of the provisions of this subsection 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) shall constitute a misdemeanor and shall be punishable as defined by law.
- b) Nothing herein contained shall prevent the city of Crystal from taking such other lawful action as is necessary to prevent or remedy any violation. Such actions may include but are not limited to:
 - 1) In responding to a suspected subsection violation, the zoning administrator and local government 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 community must act in good faith to enforce these official controls and to correct subsection violations to the extent possible so as not to jeopardize its eligibility in the national flood insurance program.
 - 2) When a subsection violation is either discovered by or brought to the attention of the zoning administrator, the zoning administrator shall immediately investigate the situation and document the nature and extent of the violation of the official control. As soon as is reasonably possible, this information will be submitted to the appropriate department of natural resources' and federal emergency management agency regional office along with the community's plan of action to correct the violation to the degree possible.

- 3) The zoning administrator shall notify the suspected party of the requirements of this subsection and all other official controls and the nature and extent of the suspected violation of these controls. If the structure and/or use is under construction or development, the zoning administrator may order the construction or development immediately halted until a proper permit or approval is granted by the community. If the construction or development is already completed, then the zoning administrator may either: (1) issue an order identifying the corrective actions that must be made within a specified time period to bring the use or structure into compliance with the official controls; or (2) notify the responsible party to apply for an after-the-fact permit or development approval within a specified period of time not to exceed 30 days.
- 4) If the responsible party does not appropriately respond to the zoning administrator within the specified period of time, each additional day that lapses shall constitute an additional violation of this subsection and shall be prosecuted accordingly. The zoning administrator shall also upon the lapse of the specified response period notify the landowner to restore the land to the condition which existed prior to the violation of this subsection.

Subd. 13. Amendments. The flood plain designation on the official zoning map shall not be removed from flood plain 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 flood plain. Special exceptions to this rule may be permitted by the commissioner of natural resources if he determines that, through other measures, lands are adequately protected for the intended use. All amendments to this subsection, including amendments to the official zoning map, must be submitted to and approved by the commissioner of natural resources prior to adoption. Changes in the official zoning map must meet the Federal Emergency Management Agency's (FEMA) Technical Conditions and Criteria and must receive prior FEMA approval before adoption. The commissioner of natural resources must be given 10-days written notice of all hearings to consider an amendment to this subsection and said notice shall include a draft of the subsection amendment or technical study under consideration.

Attachment B

CITY OF CRYSTAL

ORDINANCE #2016-____

AN ORDINANCE AMENDING SECTION 515.61 OF THE CRYSTAL CITY CODE REGARDING FLOODPLAIN REGULATIONS

The City of Crystal ordains:

ARTICLE I. Chapter IV, Section 515.61 is deleted in its entirety and replaced with the following new floodplain overlay material:

515.61

Floodplain Overlay

Subdivision 1. Statutory Authorization, Findings of Fact and Purpose.

- a) Statutory Authorization. The legislature of the State of Minnesota has, in Minnesota Statutes, Chapter 103F and Chapter 462 delegated the responsibility to local government units to adopt regulations designed to minimize flood losses.
- b) Purpose.
 - 1) This subsection regulates development in the flood hazard areas of the City. These flood hazard areas are subject to periodic inundation, which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base. It is the purpose of this subsection to promote the public health, safety, and general welfare by minimizing these losses and disruptions.
 - 2) National Flood Insurance Program Compliance. This subsection is 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.
 - 3) This ordinance is also intended to preserve the natural characteristics and functions of watercourses and floodplains in order to moderate flood and stormwater impacts, improve water quality, reduce soil erosion, protect aquatic and riparian habitat, provide recreational opportunities, provide aesthetic benefits and enhance community and economic development.

Subd. 2. General Provisions.

- a) How to Use This Subsection. This subsection adopts the floodplain maps applicable to the City and includes three floodplain districts: Floodway, Flood Fringe, and General Floodplain (collectively, “Flood Districts”).
 - 1) Where Floodway and Flood Fringe districts are delineated on the floodplain maps, the standards in Subdivisions 4 or 5 will apply, depending on the location of a property.
 - 2) Locations where Floodway and Flood Fringe districts are not delineated on the floodplain maps are considered to fall within the General Floodplain district. Within the General Floodplain district, the Floodway District standards in Subdivision 4 apply unless the floodway boundary is determined, according to the process outlined in Subdivision 6. Once the floodway boundary is determined, the Flood Fringe District standards in Subdivision 5 may apply outside the floodway.
- b) Lands to Which this Subsection Applies. This subsection applies to all lands within the jurisdiction of the City shown on the city’s zoning map and/or the attachments to the map as being located within the boundaries of the Flood Districts.
 - 1) 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 this subsection. In case of a conflict, the more restrictive standards will apply.
- c) Incorporation of Maps by Reference. The following maps together with all attached material are hereby adopted by reference and declared to be a part of the zoning map of Crystal, Minnesota and this subsection. The attached material includes the Flood Insurance Study for Hennepin County, Minnesota, and Incorporated Areas, dated November 4, 2016 and the Flood Insurance Rate Map panels enumerated below, dated November 4, 2016, all prepared by the Federal Emergency Management Agency. These materials are on file at Crystal City Hall.

Effective Flood Insurance Rate Map panels:

27053C0192F	27053C0203F	27053C0211F	27053C0213F
27053C0194F	27053C0204F	27053C0212F	27053C0214F

- d) Regulatory Flood Protection Elevation. The regulatory flood protection elevation (RFPE) is an elevation no lower than one 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.

- e) Interpretation. The boundaries of the Flood Districts are determined by scaling distances on the Flood Insurance Rate Map.
 - 1) Where a conflict exists between the floodplain limits illustrated on the City’s zoning map and actual field conditions, the flood elevations shall be the governing factor. The Zoning Administrator must interpret the boundary location based on the ground elevations that existed on the site on the date of the first National Flood Insurance Program map showing the area within the regulatory floodplain, and other available technical data.
 - 2) Persons contesting the location of the district boundaries will be given a reasonable opportunity to present their case to the Board of Appeals and Adjustments and to submit technical evidence.
- f) Warning and Disclaimer of Liability. This subsection does not imply that areas outside the floodplain districts or land uses permitted within such districts will be free from flooding or flood damages. This subsection does not create liability on the part of the City or its officers or employees for any flood damages that result from reliance on this subsection or any administrative decision lawfully made hereunder.
- g) Definitions. Unless specifically defined below, words or phrases used in this subsection must be interpreted according to common usage and so as to give this subsection its most reasonable application.
 - 1) *Base Flood Elevation.* The elevation of the “regional flood.” The term “base flood elevation” is used in the flood insurance survey.
 - 2) *Basement.* An area of a building, including crawl spaces, having its floor or base subgrade (below ground level) on all four sides, regardless of the depth of excavation below ground level.
 - 3) *City.* The City of Crystal and all territory lying within its boundaries over which it has jurisdiction.
 - 4) *Conditional Use.* A specific type of 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:
 - i) Certain conditions as detailed in the zoning ordinance exist.

- ii) The land use conforms to the comprehensive land use plan and is compatible with the existing neighborhood.
- 5) *Critical Facilities.* Facilities necessary to a community's public health and safety, those that store or produce highly volatile, toxic or water-reactive materials, and those that house occupants that may be insufficiently mobile to avoid loss of life or injury. Examples of critical facilities include 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.
- 6) *Development.* Any manmade change to improved or unimproved real estate, including buildings or other structures, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.
- 7) *Equal Degree of Encroachment.* 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.
- 8) *Farm Fence.* A fence as defined by Minn. Statutes, section 344.02, Subd. 1(a)-(d). An open type fence of posts and wire is not considered to be a structure under this subsection. Fences that have the potential to obstruct flood flows, such as chain link fences and rigid walls, are regulated as structures under this subsection.
- 9) *Flood.* 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.
- 10) *Flood Frequency.* The frequency for which it is expected that a specific flood stage or discharge may be equaled or exceeded.
- 11) *Flood Fringe.* The portion of the Special Flood Hazard Area (one percent annual chance flood) located outside of the floodway. Flood fringe is synonymous with the term "floodway fringe" used in the Flood Insurance Study for Hennepin County, Minnesota.
- 12) *Flood Prone Area.* Any land susceptible to being inundated by water from any source (see "Flood").
- 13) *Floodplain.* The beds proper and the areas adjoining a wetland, lake or watercourse which have been or hereafter may be covered by the regional flood.
- 14) *Floodproofing.* A combination of structural provisions, changes, or adjustments to properties and structures subject to flooding, primarily for the reduction or elimination of flood damages.

- 15) *Floodway*. The bed of a wetland or lake and the channel of a watercourse and those portions of the adjoining floodplain which are reasonably required to carry or store the regional flood discharge.
- 16) *Lowest Floor*. 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 building in violation of the applicable non-elevation design requirements of 44 Code of Federal Regulations, Part 60.3.
- 17) *Manufactured Home*. Manufactured home has the meaning given in Minnesota Statutes, section 327.31. The term "manufactured home" does not include the term "recreational vehicle."
- 18) *New Construction*. Structures, including additions and improvements, and placement of manufactured homes, for which the start of construction commenced on or after the effective date of this subsection.
- 19) *Obstruction*. Any, wall, embankment, 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 which 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.
- 20) *One Hundred Year Floodplain*. Lands inundated by the "Regional Flood" (see definition).
- 21) *Reach*. A hydraulic engineering term to describe a longitudinal segment of a stream or river influenced by a natural or man-made obstruction. In an urban area, the segment of a stream or river between two consecutive bridge crossings would most typically constitute a reach.
- 22) *Recreational Vehicle*. Recreational vehicle has the meaning given in Minnesota Statutes, section 168.002. For the purposes of this subsection, the term recreational vehicle is synonymous with the term "travel trailer/travel vehicle."
- 23) *Regional Flood*. 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 1% chance or 100-year recurrence interval. Regional flood is synonymous with the term "base flood" used in a flood insurance study.
- 24) *Regulatory Flood Protection Elevation (RFPE)*. An elevation not less than one 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.

- 25) *Repetitive Loss.* Flood related damages sustained by a structure on two 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.
- 26) *Special Flood Hazard Area.* A term used for flood insurance purposes synonymous with “One Hundred Year Floodplain.”
- 27) *Start of Construction.* Start of construction includes substantial improvement, and means 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 building. 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.
- 28) *Substantial Damage.* 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 percent of the market value of the structure before the damage occurred.
- 29) *Substantial Improvement.* 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 percent 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:
 - i) 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.

- ii) 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 this subsection, “historic structure” is as defined in 44 Code of Federal Regulations, Part 59.1.
- h) Annexations. The Flood Insurance Rate Map panels adopted by reference into Subdivision 2 above may include floodplain areas that lie outside of the corporate boundaries of the City at the time of adoption of this subsection. If any of these floodplain land areas are annexed into the City after the date of adoption of this subsection, the newly annexed floodplain lands will be subject to the provisions of this subsection immediately upon the date of annexation.
- i) Detachments. The Flood Insurance Rate Map panels adopted by reference into Subdivision 2 above will include floodplain areas that lie inside the corporate boundaries of municipalities at the time of adoption of this subsection. If any of these floodplain land areas are detached from a municipality and come under the jurisdiction of the City after the date of adoption of this subsection, the newly detached floodplain lands will be subject to the provisions of this subsection immediately upon the date of detachment.

Subd. 3. Establishment of Flood Districts

- a) Flood Districts.
 - 1) Floodway District. The Floodway District includes those areas within Zones AE that have a floodway delineated as shown on the Flood Insurance Rate Map adopted in Subdivision 2. For lakes, wetlands and other basins within Zones AE that do not have a floodway delineated, the Floodway District also includes those areas that are at or below the ordinary high water level as defined in Minnesota Statutes, section 103G.005, subdivision 14.
 - 2) Flood Fringe District. The Flood Fringe District includes areas within Zones AE that have a floodway delineated on the Flood Insurance Rate Map adopted in Subdivision 2, but are located outside of the floodway. For lakes, wetlands and other basins within Zones AE that do not have a floodway delineated, the Flood Fringe District also includes those areas below the 1% annual chance (100-year) flood elevation but above the ordinary high water level as defined in Minnesota Statutes, section 103G.005, subdivision 14.
 - 3) General Floodplain District. The General Floodplain District includes those areas within Zones A or AE that do not have a delineated floodway as shown on the Flood Insurance Rate Map adopted in Subdivision 2.
- b) Applicability. Within the Flood Districts established in this subsection, the use, size, type and location of development must comply with the terms of this subsection and other applicable regulations. In no cases shall floodplain development adversely affect the efficiency or unduly restrict the capacity of the

channels or floodways of any tributaries to the main stream, drainage ditches, or any other drainage facilities or systems. All uses not listed as permitted uses or conditional uses in Subdivisions 4.0, 5.0 and 6.0 are prohibited. In addition, critical facilities, as defined in Subdivision 2, are prohibited in all Flood Districts.

Subd. 4. Floodway District (FW).

a) Permitted Uses. The following uses, subject to the standards set forth in subsection b), below, are permitted uses if otherwise allowed in the underlying zoning district or any applicable overlay district:

- 1) General farming, pasture, grazing, outdoor plant nurseries, horticulture, truck farming, forestry, sod farming, and wild crop harvesting.
- 2) Industrial-commercial loading areas, parking areas, and airport landing strips.
- 3) 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.
- 4) Residential lawns, gardens, parking areas, and play areas.
- 5) Railroads, streets, bridges, utility transmission lines and pipelines, provided that the Department of Natural Resources' Area Hydrologist is notified at least ten days prior to issuance of any permit.

b) Standards for Floodway Permitted Uses.

- 1) The use must have a low flood damage potential.
- 2) The use must not obstruct flood flows or cause any increase in flood elevations and must not involve structures, obstructions, or storage of materials or equipment.
- 3) 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 upon occurrence of the regional (1% chance) flood.

c) Conditional Uses. The following uses may be allowed as conditional uses following the standards and procedures set forth in Subdivision 10 (d) of this subsection and further subject to the standards set forth in subsection d), below, if otherwise allowed in the underlying zoning district or any applicable overlay district.

- 1) Structures accessory to the uses listed in Subd. 4 (a), 1 to 3, above, and the uses listed in Subdivision 4 (c), 2 to 3, of this subsection.
 - 2) Extraction and storage of sand, gravel, and other materials.
 - 3) Marinas, boat rentals, docks, piers, wharves, and water control structures.
 - 4) Storage yards for equipment, machinery, or materials.
 - 5) Placement of fill or construction of fences that obstruct flood flows. Farm fences, as defined in Subdivision 2, are permitted uses.
 - 6) Levees or dikes intended to protect agricultural crops for a frequency flood event equal to or less than the 10-year frequency flood event.
- d) Standards for Floodway Conditional Uses.
- 1) All Uses. A conditional use must not cause any increase in the stage of the 1% chance or regional flood or cause an increase in flood damages in the reach or reaches affected.
 - 2) Fill; Storage of Materials and Equipment.
 - i) 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.
 - ii) 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.
 - iii) Temporary placement of fill, other materials, or equipment which would cause an increase to the stage of the 1% percent chance or regional flood may only be allowed if the City Council has approved a plan that assures removal of the materials from the floodway based upon the flood warning time available.
 - 3) Accessory Structures. Accessory structures, as identified in Subdivision 4 (c) (1), may be permitted, provided that:
 - i) buildings are not intended for human habitation.
 - ii) structures will have a low flood damage potential.

- iii) structures will be constructed and placed so as to offer a minimal obstruction to the flow of flood waters.
- iv) Service utilities, such as electrical and heating equipment, within these buildings must be elevated to or above the regulatory flood protection elevation or properly floodproofed.
- v) Buildings must be elevated on fill or structurally dry floodproofed in accordance with the FP1 or FP2 floodproofing classifications in the State Building Code. All floodproofed buildings must be adequately anchored to prevent flotation, collapse or lateral movement and designed to equalize hydrostatic flood forces on exterior walls.
- vi) As an alternative, an accessory building may be internally/wet floodproofed to the FP3 or FP4 floodproofing classifications in the State Building Code, provided the accessory building constitutes a minimal investment and does not exceed 576 square feet in size. Designs for meeting this requirement must either be certified by a registered professional engineer or meet or exceed the following criteria:
 - a) To allow for the equalization of hydrostatic pressure, there must be a minimum of two “automatic” openings in the outside walls of the building, with a total net area of not less than one square inch for every square foot of enclosed area subject to flooding; and
 - b) There must be openings on at least two sides of the building and the bottom of all openings must be no higher than one foot above the lowest adjacent grade to the building. Using human intervention to open a garage door prior to flooding will not satisfy this requirement for automatic openings.
- 4) 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 Minnesota Statutes, section 103G.245.
- 5) A levee, dike or floodwall constructed in the floodway must not cause an increase to the 1% chance or regional flood. The technical analysis must assume equal conveyance or storage loss on both sides of a stream.
- 6) Floodway developments must not adversely affect the hydraulic capacity of the channel and adjoining floodplain of any tributary watercourse or drainage system.

Subd. 5 Flood Fringe District (FF).

- a) Permitted Uses. Permitted uses are those uses of land allowed in the underlying zoning district(s) that comply with the standards in Subdivision 5 (b).

b) Standards for Flood Fringe Permitted Uses.

- 1) All buildings, including accessory buildings, 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 buildings must be no lower than one 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 building.
- 2) Accessory Buildings. As an alternative to the fill requirements of Subdivision 5 (b) (1), buildings accessory to the uses identified in Subdivision 5 (a) may be permitted to be internally/wet floodproofed to the FP3 or FP4 floodproofing classifications in the State Building Code, provided that:
 - i) the accessory building constitutes a minimal investment, does not exceed 576 square feet in size, and is only used for parking and storage.
 - ii) All portions of floodproofed accessory buildings below the Regulatory Flood Protection Elevation must be: (i) adequately anchored to prevent flotation, collapse or lateral movement and designed to equalize hydrostatic flood forces on exterior walls, (ii) be constructed with materials resistant to flood damage, and (iii) must have all service utilities be water-tight or elevated to above the regulatory flood protection elevation.
 - iii) Designs for meeting this requirement must either be certified by a registered professional engineer or meet or exceed the following criteria:
 - (a) To allow for the equalization of hydrostatic pressure, there must be a minimum of two “automatic” openings in the outside walls of the building, with a total net area of not less than one square inch for every square foot of enclosed area subject to flooding; and
 - (b) There must be openings on at least two sides of the building and the bottom of all openings must be no higher than one foot above the lowest adjacent grade to the building. Using human intervention to open a garage door prior to flooding will not satisfy this requirement for automatic openings.
- 3) 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 building in accordance with Subdivision 5 (b) (1), or if allowed as a conditional use under Subdivision 5 (c) (3) below.

- 4) The storage of any materials or equipment must be elevated on fill to the regulatory flood protection elevation.
 - 5) All service utilities, including ductwork, must be elevated or water-tight to prevent infiltration of floodwaters.
 - 6) 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.
 - 7) All fill must be properly compacted and the slopes must be properly protected by the use of riprap, vegetative cover or other acceptable method.
 - 8) All new principal buildings must have vehicular access at or above an elevation not more than two feet below the regulatory flood protection elevation, or must have a flood warning /emergency evacuation plan acceptable to the City.
 - 9) 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 upon occurrence of the regional (1% chance) flood.
 - 10) Interference with normal manufacturing/industrial plant operations must be minimized, especially along streams having protracted flood durations. In considering permit applications, due consideration must be given to the needs of industries with operations that require a floodplain location.
 - 11) Manufactured homes and recreational vehicles must meet the standards of Subdivision 9 of this subsection.
- c) Conditional Uses. The following uses and activities may be allowed as conditional uses, if allowed in the underlying zoning district (s) or any applicable overlay district, following the procedures in Subdivision 10 (d) of this subsection.
- 1) Any structure that is not elevated on fill or floodproofed in accordance with Subdivision 5 (b) (1) and (2) of this subsection.
 - 2) Storage of any material or equipment below the regulatory flood protection elevation.
 - 3) The cumulative placement of more than 1,000 cubic yards of fill when the fill is not being used to elevate a building in accordance with Subdivision 5 (b) (1) of this subsection.

d) Standards for Flood Fringe Conditional Uses.

- 1) The standards listed in Subdivision 5 (b) (4) through 5 (b) (10) apply to all conditional uses.
- 2) Basements, as defined by Subdivision 2 of this subsection, are subject to the following:
 - i) Residential basement construction is not allowed below the regulatory flood protection elevation.
 - ii) Non-residential basements may be allowed below the regulatory flood protection elevation provided the basement is structurally dry floodproofed in accordance with Subdivision 5 (d) (3) of this subsection.
- 3) All areas of nonresidential buildings, including basements, to be placed below the regulatory flood protection elevation must be floodproofed in accordance with the structurally dry floodproofing classifications in the State Building Code. Structurally dry floodproofing must meet the FP1 or FP2 floodproofing classification in the State Building Code, which requires making the building 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.
- 4) 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 building to the regulatory flood protection elevation) must comply with an approved erosion/sedimentation control plan.
 - i) 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 (1% chance) flood event.
 - ii) The plan must be prepared and certified by a registered professional engineer or other qualified individual acceptable to the City.
 - iii) The plan may incorporate alternative procedures for removal of the material from the floodplain if adequate flood warning time exists.
- 5) Storage of materials and equipment below the regulatory flood protection elevation must comply with an approved emergency plan providing for removal of such materials within the time available after a flood warning.

Subd. 6. General Floodplain District (GF).

a) Permitted Uses.

- 1) The uses listed in Subdivision 4 (a) of this subsection, Floodway District Permitted Uses, are permitted uses.
- 2) All other uses are subject to the floodway/flood fringe evaluation criteria specified in Subdivision 6 (b) below. Subdivision 4 applies if the proposed use is determined to be in the Floodway District. Subdivision 5 applies if the proposed use is determined to be in the Flood Fringe District.

b) Procedures for Floodway and Flood Fringe Determinations.

- 1) Upon receipt of an application for a permit or other approval within the General Floodplain District, the Zoning Administrator must obtain, review and reasonably utilize any regional flood elevation and floodway data available from a federal, state, or other source.
- 2) If regional flood elevation and floodway data are not readily available, the applicant must furnish additional information, as needed, to determine the regulatory flood protection elevation and whether the proposed use would fall within the Floodway or Flood Fringe District. Information must be consistent with accepted hydrological and hydraulic engineering standards and the standards in Subdivision 6 (b) (3) below.
- 3) The determination of floodway and flood fringe must include the following components, as applicable:
 - i) Estimate the peak discharge of the regional (1% chance) flood.
 - ii) Calculate the water surface profile of the regional flood based upon a hydraulic analysis of the stream channel and overbank areas.
 - iii) 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 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.
- 4) 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 a designated engineer or other expert person or agency, including the Department of Natural Resources. Based on this assessment, the Zoning Administrator may approve or deny the application.

- 5) 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 Subdivisions 4 and 5 of this subsection.

Subd. 7. Land Development Standards

- a) In General. Recognizing that flood prone areas may exist outside of the designated floodplain districts, the requirements of this section apply to all land within the City.
- b) Subdivisions. No land may be subdivided which 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 this subsection.
 - 1) 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.
 - 2) All subdivisions must have road access both to the subdivision and to the individual building sites no lower than two 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 (1% chance) 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.
 - 3) For all subdivisions in the floodplain, the Floodway 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.
 - 4) In the General Floodplain District, applicants must provide the information required in Subdivision 6 (b) of this subsection to determine the regional flood elevation, the Floodway and Flood Fringe District boundaries and the regulatory flood protection elevation for the subdivision site.
 - 5) If a subdivision proposal or other proposed new development is in a flood prone area, any such proposal must be reviewed to assure that:
 - i) All such proposals are consistent with the need to minimize flood damage within the flood prone area.

- ii) All public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage.
 - iii) Adequate drainage is provided to reduce exposure of flood hazard.
- c) Building Sites. If a proposed building site is in a flood prone area, all new construction and substantial improvements (including the placement of manufactured homes) must be:
 - 1) Designed (or modified) and adequately anchored to prevent floatation, collapse, or lateral movement of the building resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
 - 2) Constructed with materials and utility equipment resistant to flood damage.
 - 3) Constructed by methods and practices that minimize flood damage.
 - 4) 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.

Subd. 8. Public Utilities, Railroads, Roads, and Bridges.

- a) Public Utilities. All public utilities and facilities such as gas, electrical, sewer, and water supply systems to be located in the floodplain must be floodproofed in accordance with the State Building Code or elevated to the regulatory flood protection elevation.
- b) Public Transportation Facilities. Railroad tracks, roads, and bridges to be located within the floodplain must comply with Subdivisions 4 and 5 of this subsection. 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.
- c) On-site Water Supply. Where public utilities are not provided 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.

Subd. 9. Manufactured Homes, Manufactured Home Parks, and Recreational Vehicles.

- a) Manufactured Homes. New manufactured home parks and expansions to existing manufactured home parks are prohibited in any floodplain district. For existing manufactured home parks or lots of record, the following requirements apply:
- 1) Placement or replacement of manufactured home units is prohibited in the Floodway District.
 - 2) If allowed in the Flood Fringe District, placement or replacement of manufactured home units is subject to the requirements of Subdivision 5 of this subsection and the following standards.
 - i) New and replacement manufactured homes must be elevated in compliance with Subdivision 5 of this subsection and must be securely anchored to an adequately anchored foundation 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.
 - ii) New or replacement manufactured homes in existing manufactured home parks must meet the vehicular access requirements for subdivisions in Subdivision 7 (b) (2).

Subd. 10. Administration.

- a) Zoning Administrator. A Zoning Administrator or other official designated by the City must administer and enforce this subsection.
- b) Permit Requirements.
- 1) Permit Required. A permit must be obtained from the Zoning Administrator prior to conducting the following activities:
 - i) 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 this subsection.
 - ii) The use or change of use of a building, structure, or land.
 - iii) The construction of a dam, fence, or on-site septic system, although a permit is not required for a farm fence as defined in this subsection.

- iv) The change or extension of a nonconforming use.
 - v) The repair of a structure that has been damaged by flood, fire, tornado, or any other source.
 - vi) The placement of fill, excavation of materials, or the storage of materials or equipment within the floodplain.
 - vii) Relocation or alteration of a watercourse (including new or replacement culverts and bridges), unless a public waters work permit has been applied for.
 - viii) Any other type of “development” as defined in this subsection.
- 2) Application for Permit. 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:
- i) A site plan showing all pertinent dimensions, existing or proposed buildings, structures, and significant natural features having an influence on the permit.
 - ii) Location of fill or storage of materials in relation to the stream channel.
 - iii) Copies of any required municipal, county, state or federal permits or approvals.
 - iv) Other relevant information requested by the Zoning Administrator as necessary to properly evaluate the permit application.
- 3) Certificate of Zoning Compliance for a New, Altered, or Nonconforming Use. No building, land or structure may be occupied or used in any manner until approval has been issued by the Zoning Administrator stating that the use of the building or land conforms to the requirements of this subsection.
- 4) Certification. 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 this subsection. Floodproofing measures must be certified by a registered professional engineer or registered architect.
- 5) Record of First Floor Elevation. The Zoning Administrator must maintain a record of the elevation of the lowest floor (including basement) of all new buildings and alterations or additions to existing structures in the floodplain. The Zoning Administrator must also maintain a record of the elevation to which structures and alterations or additions to structures are floodproofed.

- 6) Notifications for Watercourse Alterations. Before authorizing any alteration or relocation of a stream, the Zoning Administrator must notify adjacent communities. If the applicant has applied for a permit to work in public waters pursuant to Minnesota Statutes, section 103G.245, this will suffice as adequate notice. A copy of the notification must also be submitted to the Chicago Regional Office of the Federal Emergency Management Agency (FEMA).
 - 7) Notification to FEMA When Physical Changes Increase or Decrease Base Flood Elevations. As soon as is practicable, but not later than six 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.
- c) Variances.
- 1) Variance Applications. An application for a variance to the provisions of this subsection will be processed and reviewed in accordance with applicable state statutes and subsection 515.05 of this Code.
 - 2) Adherence to State Floodplain Management Standards. 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.
 - 3) Additional Variance Criteria. The following additional variance criteria of the Federal Emergency Management Agency must be satisfied:
 - i) Variances must not be issued within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.
 - ii) Variances may only be issued 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.
 - iii) Variances may only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
 - 4) Flood Insurance Notice. 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.

- 5) General Considerations. The City Council may consider the following factors in granting or denying variances and imposing conditions on variances and conditional uses in floodplains:
 - i) The potential danger to life and property due to increased flood heights or velocities caused by encroachments.
 - ii) The danger that materials may be swept onto other lands or downstream to the injury of others.
 - iii) 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.
 - (iv) The susceptibility of any proposed use and its contents to flood damage and the effect of such damage on the individual owner.
 - (v) The importance of the services to be provided by the proposed use to the community.
 - (vi) The requirements of the facility for a waterfront location.
 - (vii) The availability of viable alternative locations for the proposed use that are not subject to flooding.
 - (viii) The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
 - (ix) The relationship of the proposed use to the Comprehensive Land Use Plan and flood plain management program for the area.
 - (x) The safety of access to the property in times of flood for ordinary and emergency vehicles.
 - (xi) The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site.
- 6) Submittal of Hearing Notices to the Department of Natural Resources (DNR). 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.

- 7) Submittal of Final Decisions to the DNR. 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.
 - 8) Record-Keeping. 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 Federal Emergency Management Agency.
- d) Conditional Uses.
- 1) Administrative Review. An application for a conditional use permit under the provisions of this subsection will be processed and reviewed in accordance with Section(s) 515.05 of the zoning code.
 - 2) Factors Used in Decision-Making. In passing upon conditional use applications, the City Council must consider all relevant factors specified in other sections of this subsection, and those factors identified in Subdivision 10 (c) (5) subsection.
 - 3) Conditions Attached to Conditional Use Permits. The City Council may attach such conditions to the granting of conditional use permits as it deems necessary to fulfill the purposes of this subsection. Such conditions may include, but are not limited to, the following:
 - i) Modification of waste treatment and water supply facilities.
 - ii) Limitations on period of use, occupancy, and operation.
 - iii) Imposition of operational controls, sureties, and deed restrictions.
 - iv) Requirements for construction of channel modifications, compensatory storage, dikes, levees, and other protective measures.
 - v) Floodproofing measures, in accordance with the State Building Code and this subsection. The applicant must submit a plan or document certified by a registered professional engineer or architect that the floodproofing measures are consistent with the regulatory flood protection elevation and associated flood factors for the particular area.
 - 4) Submittal of Hearing Notices to the Department of Natural Resources (DNR). 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.

- 5) Submittal of Final Decisions to the DNR. 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.

Subd. 11. Nonconformities.

- a) Continuance of Nonconformities. A use, structure, or occupancy of land which was lawful before the passage or amendment of this subsection but which is not in conformity with the provisions of this subsection may be continued subject to the following conditions, except that historic structures, as defined in Subdivision 2 of this subsection, are exempt from Subdivision 11 (a) (7) of this subsection.
 - 1) 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 Subdivision 11 (a) (2) below. Expansion or enlargement of uses, structures or occupancies within the Floodway District is prohibited.
 - 2) 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 Subdivision 11 (a) (3) and Subdivision 11 (a) (7) below.
 - 3) If the cost of all previous and proposed alterations and additions exceeds 50 percent of the market value of any nonconforming structure, that shall be considered substantial improvement, and the entire structure must meet the standards of Subdivision 4 and 5 of this subsection for new structures, depending upon whether the structure is in the Floodway or Flood Fringe District, respectively. The cost of all structural alterations and additions must include all costs such as construction materials and a reasonable cost placed on all manpower or labor.
 - 4) If any nonconforming use, or any use of a nonconforming structure, is discontinued for more than one year, any future use of the premises must conform to this subsection. If the county assessor becomes aware of nonconformities that have been discontinued for a period of more than one year, they will let the city know of these instances in writing.
 - 5) If any nonconformity is substantially damaged, as defined in Subdivision 2 of this subsection, it may not be reconstructed except in conformity with the provisions of this subsection. The applicable provisions for establishing new

uses or new structures in Subdivisions 4 or 5 will apply depending upon whether the use or structure is in the Floodway or Flood Fringe, respectively.

- 6) If any nonconforming use or structure experiences a repetitive loss, as defined in Subdivision 2 of this subsection, it must not be reconstructed except in conformity with the provisions of this subsection.
- 7) Any substantial improvement, as defined in Subdivision 2 of this subsection, to a nonconforming structure requires that the existing structure and any additions must meet the requirements of Subdivision 4 or 5 of this subsection for new structures, depending upon whether the structure is in the Floodway or Flood Fringe District.

Subd. 12. Penalties and Enforcement.

- a) Violation Constitutes a Misdemeanor. Violation of the provisions of this subsection 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) constitute a misdemeanor and will be punishable as defined by law.
- b) Other Lawful Action. Nothing in this subsection 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 this ordinance and will be prosecuted accordingly.
- c) Enforcement. Violations of the provisions of this ordinance will be investigated and resolved in accordance with the provisions of Section 515.01 of the zoning code. In responding to a suspected ordinance violation, the Zoning Administrator and City Council 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.

Subd. 13. Amendments.

- a) Floodplain Designation; Restrictions on Removal. The floodplain designation on the city's 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 Commissioner of the Department of Natural Resources (DNR) if the Commissioner determines that, through other measures, lands are adequately protected for the intended use.

- b) Amendments Require DNR Approval. All amendments to this subsection must be submitted to and approved by the Commissioner of the Department of Natural Resources (DNR) prior to adoption. The Commissioner must approve the amendment prior to community approval.

- c) Map Revisions Require Ordinance Amendments. The floodplain district regulations must be amended to incorporate any revisions by the Federal Emergency Management Agency to the floodplain maps adopted in Subdivision 2 of this subsection.

ARTICLE II. This ordinance is effective upon adoption and 30 days after publication.

First Reading: _____, 2016
Second Reading: _____, 2016
Council Adoption: _____, 2016
Publication:
Effective Date:

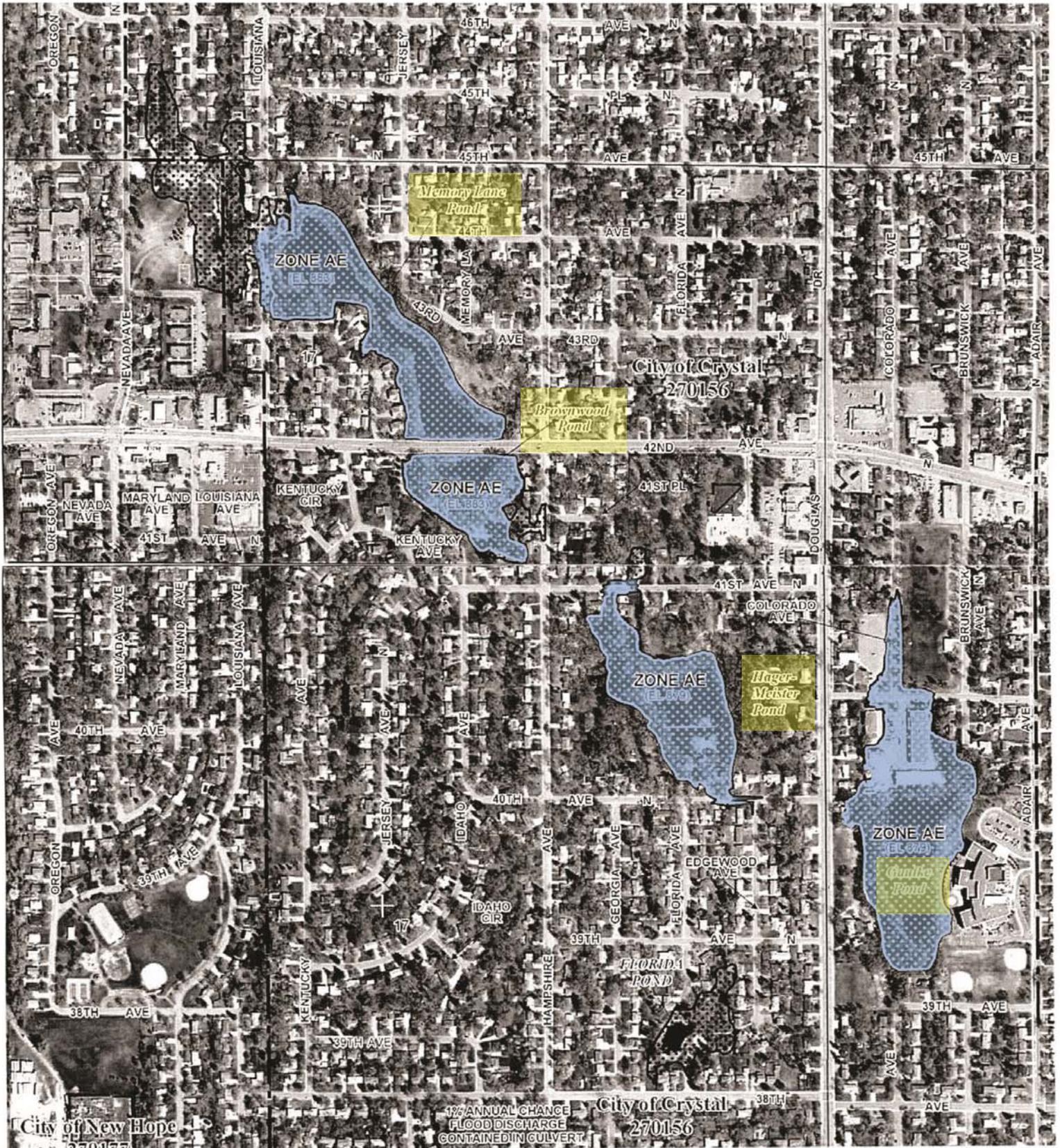
BY THE CITY COUNCIL

Jim Adams, Mayor

ATTEST:

Christina Serres, City Clerk

Attachment C



Proposed 100 Year Floodplain: Change in Parcel Status

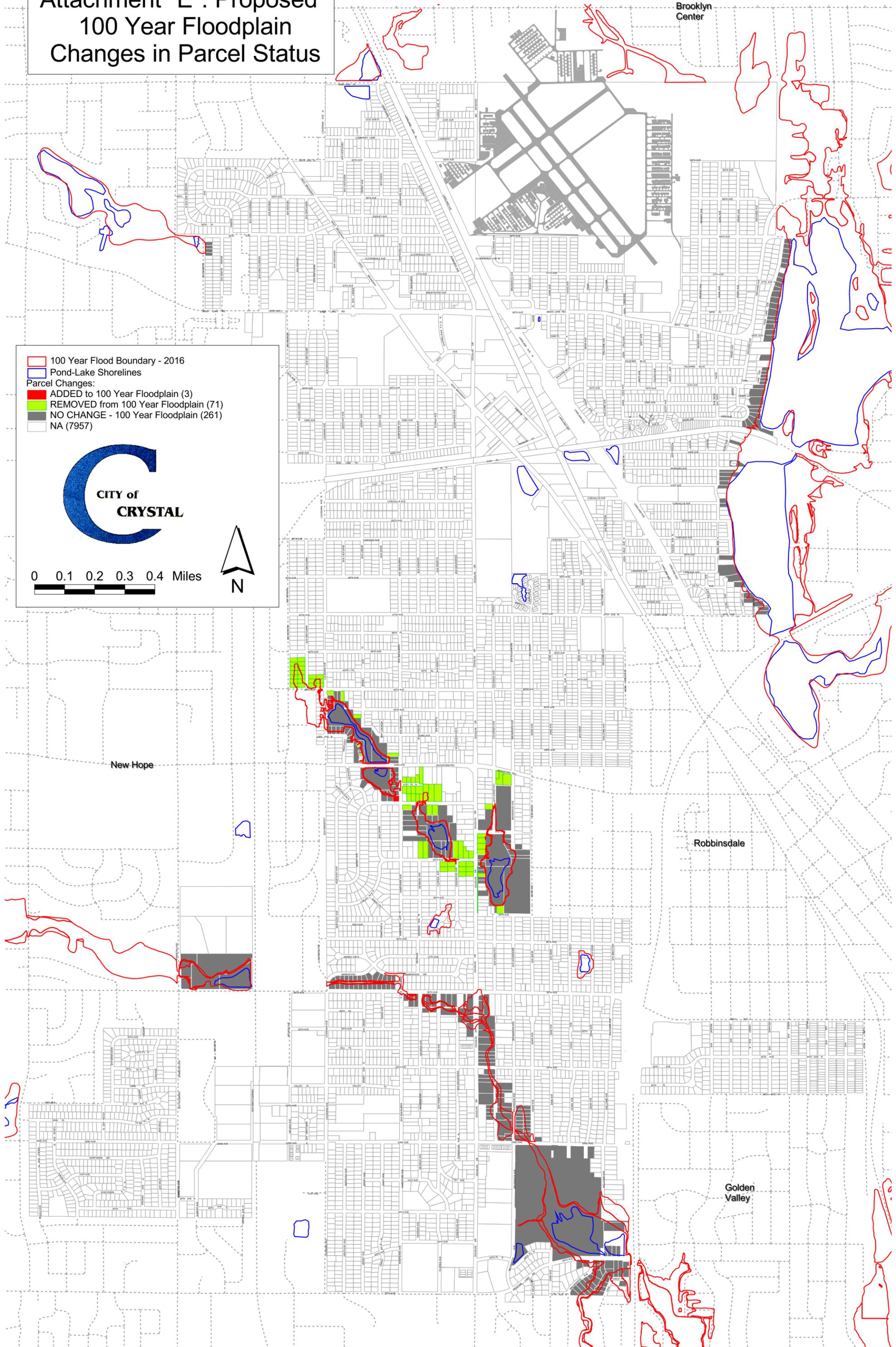


Attachment "E": Proposed 100 Year Floodplain Changes in Parcel Status

- ▭ 100 Year Flood Boundary - 2016
- ▭ Pond-Lake Shorelines
- Parcel Changes:
- ▭ ADDED to 100 Year Floodplain (3)
- ▭ REMOVED from 100 Year Floodplain (71)
- ▭ NO CHANGE - 100 Year Floodplain (261)
- ▭ NA (7957)



0 0.1 0.2 0.3 0.4 Miles



Brooklyn Center

New Hope

Robbinsdale

Golden Valley