

BODY – LEGISTAR 35030

DRAFTER'S ANALYSIS: This routine amendment of the Chapter 28 zoning code floodplain provisions is required by the Wisconsin Department of Natural Resources (DNR) and the Federal Emergency Management Agency (FEMA) to update the Flood Insurance Rate Maps (FIRMs) and Flood Insurance Study (FIS) and Flood Storage District (FSD) maps produced by FEMA and the DNR. With the updating of these maps, the City remains eligible to participate in the national flood insurance program that is available to some property owners in the city with structures in the floodplain area. In addition to the adoption of the new floodplain maps referenced above, this amendment also makes minor text amendments to Chapter 28 to maintain consistency with Wisconsin's model floodplain ordinance.

The Common Council of the City of Madison do hereby ordain as follows:

1. Subsection (3) entitled "Floodplain Maps" of Section 28.022 entitled "Incorporation of Zoning District Maps" of the Madison General Ordinances is amended to read as follows:

"(3) Floodplain Maps.

(a) Incorporation of Floodplain Maps. The location and boundaries of the Floodway, Flood Fringe, and General Floodplain Districts are hereby established as shown on ~~the Flood Boundary and Floodway Maps and the Flood Insurance Rate Maps,~~ both dated as being effective on January 2, 2009, and prepared by the Federal Insurance Administration of the U. S. Federal Emergency Management Agency, together with other supplemental maps, including the revised Flood Insurance Rate Maps, provided by the Federal Emergency Management Agency, and shown on map panels: ~~55025C0242G, 55025C0243G, 55025C0244G, 55025C0261G, 55025C0262G, 55025C0263G, 55025C0264G, 55025C0266G, 55025C0267G, 55025C0268G, 55025C0269G, 55025C0288G, 55025C0379G, 55025C0383G, 55025C0389G, 55025C0390G, 55025C0393G, 55025C0394G, 55025C0401G, 55025C0402G, 55025C0403G, 55025C0404G, 55025C0406G, 55025C0407G, 55025C0408G, 55025C0409G, 55025C0413G, 55025C0416G, 55025C0417G, 55025C0418G, 55025C0419G, 55025C0426G, 55025C0427G, 55025C0428G, 55025C0429G, 55025C0431G, 55025C0432G, 55025C0433G, 55025C0434G, 55025C0436G, 55025C0437G, 55025C0438G, 55025C0439G, 55025C0441G, 55025C0442G, 55025C0443G, 55025C0444G, 55025C0451G, 55025C0453G, 55025C0465G, 55025C0557G, 55025C0576G.~~

Effective 01/02/2009:

55025C0267G, 55025C0379G, 55025C0383G, 55025C0389G, 55025C0390G, 55025C0393G, 55025C0394G, 55025C0401G, 55025C0403G, 55025C0404G, 55025C0407G, 55025C0408G, 55025C0409G, 55025C0413G, 55025C0416G, 55025C0417G, 55025C0418G, 55025C0419G, 55025C0428G, 55025C0433G, 55025C0436G, 55025C0437G, 55025C0438G, 55025C0439G, 55025C0441G, 55025C0442G, 55025C0443G, 55025C0444G, 55025C0451G, 55025C0453G, 55025C0465G,

Effective 09/17/2014:

55025C0242H, 55025C0243H, 55025C0244H, 55025C0261H, 55025C0262H, 55025C0263H, 55025C0264H, 55025C0266H, 55025C0268H, 55025C0269H, 55025C0288H, 55025C0426H, 55025C0427H, 55025C0429H, 55025C0431H, 55025C0432H, 55025C0434H, 55025C0443H, 55025C0444H, 55025C0451H,

55025C0453H, 55025C0461H, 55025C0463H

- (b) The above-mentioned maps with all information shown thereon, together with the accompanying Federal Insurance Administration's Flood Insurance Study for the City of Madison, Wisconsin, Numbers 55025CV001BC and 55025CV002B55025CV002C, and effective September 17, 2014, in which are indicated floodway data and flood profiles, and all amendments thereto to such floodplain maps shall be as much a part of this ordinance as if fully set forth and described herein.
- ~~(c)~~ Maps based on other studies, including Dane County Flood Storage Maps prepared and approved by the Department of Natural Resources, Panel numbers 3, 18, 19, and 20, effective September 17, 2014.
- (ed) Any change to the base flood elevations (BFE) or any changes to the boundaries of the floodplain or floodway in the Flood Insurance Study (FIS) or on the Flood Insurance Rate Map (FIRM) must be reviewed and approved by the Department of Natural Resources and the Federal Emergency Management Agency (FEMA) through the Letter of Map Change process before it is effective. No changes to regional elevations (FRE) on non-FEMA maps shall be effective until approved by the Department of Natural Resources. If more than one map or revision is referenced, the most restrictive information shall apply."

2. Subsection (4) entitled "Locating Floodplain Boundaries" of Section 28.022 entitled "Incorporation of Zoning District Maps" of the Madison General Ordinances is amended to read as follows:

- "(4) Locating Floodplain Boundaries.
Discrepancies between boundaries on the official floodplain zoning map and actual field conditions shall be resolved by the Zoning Administrator using the criteria in ~~paragraphs~~ subdivisions (a) or (b) below. If a significant difference exists, the map shall be amended using the procedures established for zoning map amendments in Sec. 28.182. The Zoning Administrator can rely on a boundary derived from a profile elevation to grant or deny a land use permit, whether or not a map amendment is required. The Zoning Administrator is responsible for documenting actual pre-development field conditions and the basis upon which the district boundary was determined and for initiating any map amendments required under this section. Disputes between the Zoning Administrator and an applicant over the location of the district boundary line shall be settled according to the appeals procedure in Sec. 28.205(5) of this ordinance and the criteria in (a) and (b) below. Where the flood profiles are based on established base flood elevations from a FIRM, FEMA must approve any map amendment or revision amended using the procedures established for zoning map amendments in Sec. 28.182.
- (a) Where flood profiles exist, the map scale and the profile elevations shall determine the district boundary line. Where a discrepancy exists between the map and actual field conditions, the regional or base flood elevations shall govern. The Zoning Administrator has authority to grant or deny a land use permit on the basis of a district boundary derived from the regional flood elevations, whether or not a map amendment is required.
 - (b) Where flood profiles do not exist, the location of the district boundary line shall be determined by the map scale, ~~visual on-site inspection and any available information provided by the Wisconsin Department of Natural Resources.~~ Where there is a significant difference between the map and actual field conditions, the map shall be amended. Where a map amendment has been approved by the City, the Wisconsin Department of Natural Resources, and the Federal Emergency Management Agency, the Zoning Administrator shall have the authority to grant or deny a land use permit."

3. Section 28.121 entitled "Floodplain Overlay Districts" of the Madison General Ordinances is amended to read as follows:

"28.121 FLOODPLAIN OVERLAY DISTRICTS.

- (1) Statement of Purpose.
Pursuant to Wis. Stat. § 62.23(7), this ordinance is intended to regulate floodplain development to:
 - (a) Protect life, health, and property.
 - (b) Minimize expenditures of public funds for flood control projects.
 - (c) Minimize rescue and relief efforts undertaken at the expense of the taxpayers.
 - (d) Minimize business interruptions and other economic disruptions.
 - (e) Minimize damages to public facilities in the floodplains.
 - (f) Minimize the occurrence of future flood blight areas in the floodplain.
 - (g) Discourage the victimization of unwary land and homebuyers.
 - (h) Prevent increases in flood heights that could increase flood damage and result in conflicts between property owners; and
 - (i) Discourage development in the floodplain if there is any practicable alternative to locate the activity, use, or structure outside the floodplain.
- (2) Areas to be Regulated.
This Subchapter regulates all areas that could be covered by the regional flood or base flood as shown on the Flood Insurance Rate Map (FIRM) or other maps approved by DNR. Base flood elevations are derived from the flood profiles in the Flood Insurance Study (FIS) and are shown as AE, A1-30, and AH Zones on the FIRM. Other regulatory zones are displayed as A and AO zones. Regional Flood Elevations (RFE) may be derived from other studies. If more than one map or revision is referenced, the most restrictive information shall apply.
- (3) Establishment of Floodplain Zoning Districts.
The regional floodplain area is divided into four (4) districts as follows:
 - (a) The F1 Floodway District (FW) is the channel of a river or stream and those portions of the floodplain adjoining the channel required to carry the regional floodwaters and are contained within AE zones as shown on the FIRM.
 - (b) The F2 Flood Fringe District (FF) is that portion ~~of the floodplain~~ between the regional flood limits and the floodway and displayed as AE zones on the FIRM.
 - (c) The F3 General Floodplain District (GFP) consists of those areas that ~~have been or~~ may be covered by floodwater during the regional flood.
 - (d) The F4 Flood Storage District (FSD) is that area of the floodplain where storage of floodwaters is calculated to reduce the regional flood discharge.
- (4) Floodplain Maps.
See Sec. 28.022(3), Zoning Districts and Maps, for listing of floodplain maps and determination of floodplain boundaries.
- (5) Removal of Lands From Floodplain.
Compliance with the provisions of this ordinance shall not be grounds for removing land from the floodplain unless it is filled at least two (2) feet above the regional or base flood elevation; the fill is contiguous to land outside the floodplain, and the map is amended using the procedures established for zoning map amendments in Sec. 28.182.
- (6) Warning and Disclaimer of Liability.
The flood protection standards in this ordinance are based on engineering experience and scientific research. Larger floods may occur or the flood height may be increased by man-made or natural causes. This ordinance does not imply or guarantee that non-floodplain areas or permitted floodplain use areas will be free from flooding and flood damages. Nor does this ordinance create

liability on the part of, or a cause of action against, the City of Madison or any officer or employee thereof for any flood damage that may result from reliance on this ordinance.

(7) General Development Standards.

- (a) No development shall be allowed in floodplain areas which will:
1. Obstruct flow, defined as development that blocks the conveyance of floodwaters by itself or with other development, ~~increasing causing any increase in the regional flood height;~~ or
 2. ~~Cause any increase in the regional flood height due to floodplain storage area lost, which exceeds 0.00 foot.~~
- (b) Obstructions or increases greater than 0.00 foot may only be permitted if amendments are made to this ordinance, the official floodplain zoning maps, floodway lines, and water surface profiles.
- (c) The Zoning Administrator shall deny permits where it is determined that the proposed development will obstruct flow or cause any increase in the regional flood heights greater than 0.00 foot based on the adopted Flood Insurance Rate Map or other adopted map, unless amendments are made to this ordinance, the official floodplain zoning maps, floodway lines and water surface profiles using the procedures established for zoning map amendments in Sec. 28.182.
- (d) All proposed building sites in subdivisions or new developments in flood prone areas shall be reasonably free from flooding. If a proposed building site is in a flood prone area, all new construction and substantial improvements shall be designed ~~or modified and adequately~~ anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads; be constructed with ~~materials flood-resistant to flood damage materials;~~ be constructed by ~~methods and practices that~~ to minimize flood damages; and ~~be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities~~ to ensure that utility and mechanical is designed and/or located so as to prevent water from entering or accumulating within the components ~~equipment~~ during conditions of flooding. Subdivisions and all new development shall be reviewed for compliance with the above standards. All proposals (including manufactured home parks) shall include regional flood elevation and floodway data.

(8) Watercourse Alterations.

No land use permit to alter or relocate a watercourse in a mapped floodplain shall be issued until the Zoning Administrator has notified in writing all adjacent municipalities, the Southern District Office of the DNR and the appropriate office of FEMA and required the applicant to secure all necessary state and federal permits. The standards of sub. (7) must be met and the flood-carrying capacity of any altered or relocated watercourse shall be maintained. As soon as practicable, but not later than six months after the date of the watercourse alteration or relocation, the Zoning Administrator shall notify FEMA of the changes by submitting appropriate technical or scientific data in accordance with the National Floodplain Insurance Program guidelines that shall be used to revise the Flood Insurance Rate Map, risk premium rates, and floodplain management regulations as required and pursuant to Sec. 28.182, the City shall apply for a Letter of Map Revision (LOMR) from FEMA. Any such alterations must be reviewed and approved by FEMA and the DNR through the LOMC process.

(9) Development Under Wis. Stat. chs. 30 and 31.

Development which requires a permit from the Department of Natural Resources, under Wis. Stat. chs. 30 and 31, such as docks, piers, wharves, bridges, culverts, dams and navigational aids, may be allowed provided the necessary local permits are obtained and necessary amendments are made to the official

~~floodway lines, water surface profiles, base flood elevations established in a flood insurance study, other data from an adopted flood insurance boundary map, floodplain zoning maps, and/or floodplain zoning ordinance are made according to Sec. 28.182.~~

(10) Nonconforming Uses.

The existing lawful use of a structure or its accessory use that is not in conformity with the provisions of this ordinance may continue subject to the conditions set forth in Sec. 28.126(2).

(11) Compliance Required.

Unless specifically exempted by law, all cities, villages, towns and counties are required to comply with this ordinance and obtain all necessary permits. State agencies are required to comply if Wis. Stat. § 13.48(13) applies. The construction, reconstruction, maintenance and repair of state highways and bridges by the Wisconsin Department of Transportation is exempt when Wis. Stat. § 30.2022 applies.

(12) Floodproofing.

(a) To withstand flood velocities, forces, and other factors associated with the regional flood, floodproofing measures shall be designed that will protect the structure or development to the flood protection elevation and such measures shall either be certified by a registered professional engineer or architect, or meet or exceed the following standards:

1. A minimum of two (2) openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
2. The bottom of all openings shall be no higher than one foot above grade; and
3. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(b) All flood-proofing measures shall be designed to:

1. Withstand floor pressures, depths, velocities, uplift and impact forces and other regional flood factors.
2. Protect structures to the flood protection elevation.
3. Anchor structures to foundations to resist flotation and lateral movement; and
4. ~~Insure that structural walls and floors are watertight to the flood protection elevation, and the interior remains completely dry during flooding without human intervention~~ Minimize or eliminate infiltration of flood waters; and
5. Minimize or eliminate discharges into flood waters.

(c) Flood-proofing measures may include the following:

1. Installation of watertight doors, bulkheads and shutters.
2. Reinforcement of walls and floors to resist rupture or collapse caused by water pressure or floating debris.
3. Use of paints, membranes or mortars to reduce seepage of water through walls.
4. Addition of mass or weight to structures to prevent flotation.
5. Placement of essential utilities above the flood protection elevation.
6. Installation of pumping facilities and/or subsurface drainage systems to relieve foundation wall and basement floor pressures and to lower water levels in structures.
7. Construction of water supply wells and waste treatment systems to prevent the entry of flood waters.
8. Installation of cutoff valves on sewer lines or the elimination of gravity basement drains.

- (13) Public or Private Campgrounds.
Public or private campgrounds shall have low flood damage potential and shall meet the following provisions:
- (a) The campground is approved by the Department of Health ~~and Family Services~~;
 - (b) A land use permit for the campground is issued by the zoning administrator;
 - (c) ~~The character of the river system and the elevation of the campground is~~ elevation in relation to the river system is such that a seventy-two (72) hour warning of an impending flood can be given to all campground occupants;
 - (d) There is an adequate flood warning procedure for the campground that offers the minimum notice required under this section to all persons in the campground. This procedure shall include a written agreement between the campground owner, the municipal emergency government coordinator and the chief law enforcement official which specifies the flood elevation at which evacuation shall occur, personnel responsible for monitoring flood elevations, types of warning systems to be used and the procedures for notifying at-risk parties, and the methods and personnel responsible for conducting the evacuation;
 - (e) This agreement shall be for no more than one (1) calendar year, at which time the agreement shall be reviewed and updated ~~—by the officials identified in sub. d to remain in compliance with all applicable regulations, including those of the state~~ Department of Health and family sServices and all other applicable regulations;
 - (f) Only camping units that are fully licensed, if required, and ready for highway use are allowed;
 - (g) The camping units ~~may~~shall not occupy any site in the campground for more than one hundred-eighty (180) consecutive days, at which time the camping unit must be removed from the floodplain for a minimum of twenty-four (24) hours;
 - (h) All camping units that remain on site for more than thirty (30) days shall be issued a limited authorization by the campground operator, a written copy of which is kept on file at the campground. Such authorization shall allow placement of a camping unit for a period not to exceed one hundred-eighty (180) days and shall ensure compliance with all the provisions of this section;
 - (i) The municipality shall monitor the limited authorizations issued by the campground operator to assure compliance with the terms of this section;
 - (j) All camping units that remain in place for more than one hundred-eighty (180) consecutive days must meet the applicable requirements in either ~~sub. c. or d.~~ Secs. 28.122, 28.123 or 28.124 for the floodplain district in which the structure is located;
 - (k) The campground shall have signs clearly posted at all entrances warning of the flood hazard and the procedures for evacuation when a flood warning is issued, ~~and~~;
 - (l) All service facilities, including but not limited to refuse collection, electrical service, ~~natural~~ gas lines, propane tanks, sewage systems and wells shall be properly anchored and placed at or floodproofed to the flood protection elevation.
- (14) Application Requirements for Permits and Zoning Certificates.
- (a) Site Development Plan. Within the Floodplain Districts, all permit applications shall include a site development plan drawn to scale and containing the following information:

1. Name and address of the applicant, property owner, and contractor.
2. Legal description, proposed use, and whether the development is new construction or a modification.
3. Location, dimensions, area and elevation of the lot.
4. Location of the ordinary high-water mark of any abutting navigable waterways.
5. Location of any structures with distances measured from the lot lines and center line of all abutting streets highways.
6. Location of any existing or proposed on-site sewage systems or private water supply systems.
7. Location and elevation of existing or future access roads.
8. Location of floodplain and floodway limits on the property as determined from the official floodplain zoning maps.
9. The elevation of the lowest floor of proposed buildings and any fill using North American Vertical Datum (NAVD).
10. Data sufficient to determine the regional flood elevation in NAVD at the location of the development and to determine whether or not the requirements of the Floodway District or the Flood Fringe District apply.
11. Data sufficient to determine if the proposed development will cause either an obstruction to flow or an increase in regional flood height or discharge according to Sec. 28.121(7). This may include any of the information noted in Sec. 28.122(3).

(b) ~~Data Required Hydraulic and Hydrologic Studies to Analyze Developments.~~ The applicant shall provide all survey data and computations required to show the effects of the project on flood heights, velocities, and floodplain storage, for all subdivisions or new developments exceeding five (5) acres in area or where the estimated cost exceeds one hundred twenty-five thousand dollars (\$125,000). The estimated costs of the proposal shall include all structural development, landscaping, access and road development, utilities, and other pertinent items, but need not include land costs. The applicant shall provide: All hydraulic and hydrologic studies shall be completed under the direct supervision of a professional engineer registered in the State. The study contractor shall be responsible for the technical adequacy of the study. All studies shall be reviewed and approved by the Department.

1. ~~An analysis of the effect of the development on the regional flood profile, velocity of flow and floodplain storage capacity.~~
2. ~~A map showing location and details of vehicular access to lands outside the floodplain; and~~
3. ~~A surface drainage plan showing how flood damage will be minimized.~~

1. Zone A Floodplains.

a. Hydrology.

- i. The appropriate method shall be based on the standards in Wis. Admin. Code ch. NR 116.07(3), *Hydrologic Analysis: Determination of Regional Flood Discharge.*

b. Hydraulic Modeling.

The regional flood elevation shall be based on the standards in Wis. Admin. Code ch. NR 116.07(4), *Hydraulic Analysis: Determination of Regional Flood Elevation* and the following:

- i. Determination of the required limits of the hydraulic model shall be based on detailed study

information for downstream structures (dam, bridge, culvert) to determine adequate starting WSEL for the study.

- ii. Channel sections must be surveyed.
- iii. Minimum four (4) foot contour data in the overbanks shall be used for the development of cross section overbank and floodplain mapping.
- iv. A maximum distance of five hundred (500) feet between cross sections is allowed in developed areas with additional intermediate cross sections required at transitions in channel bottom slope including a survey of the channel at each location.
- v. The most current version of HEC-RAS shall be used.
- vi. A survey of bridge and culvert openings and the top of road is required at each structure.
- vii. Additional cross sections are required at the downstream and upstream limits of the proposed development and any necessary intermediate locations based on the length of the reach if greater than five hundred (500) feet.
- viii. Standard accepted engineering practices shall be used when assigning parameters for the base model such as flow, Manning's N values, expansion and contraction coefficients or effective flow limits. The base model shall be calibrated to past flooding data such as high water marks to determine the reasonableness of the model results. If no historical data is available, adequate justification shall be provided for any parameters outside standard accepted engineering practices.
- ix. The model must extend past the upstream limit of the difference in the existing and proposed flood profiles in order to provide a tie-in to existing studies. The height difference between the proposed flood profile and the existing study profiles shall be no more than 0.00 feet.

c. Mapping.

A work map of the reach studied shall be provided, showing all cross section locations, floodway/floodplain limits based on best available topographic data, geographic limits of the proposed development and whether the proposed development is located in the floodway.

- i. If the proposed development is located outside of the floodway, then it is determined to have no impact on the regional flood elevation.
- ii. If any part of the proposed development is in the floodway, it must be added to the base model to show the difference between existing and proposed conditions. The study must ensure that all coefficients remain the same as in the existing model, unless adequate justification

based on standard accepted engineering practices is provided.

2. Zone AE Floodplains.

a. Hydrology.

If the proposed hydrology will change the existing study, the appropriate method to be used shall be based on ch. NR 116.07(3), Wis. Admin. Code, Hydrologic Analysis: Determination of Regional Flood Discharge.

b. Hydraulic Model.

The regional flood elevation shall be based on the standards in Wis. Admin. Code ch. NR 116.07(4), *Hydraulic Analysis: Determination of Regional Flood Elevation* and the following:

i. Duplicate Effective Model.

The effective model shall be reproduced to ensure correct transference of the model data and to allow integration of the revised data to provide a continuous FIS model upstream and downstream of the revised reach. If data from the effective model is available, models shall be generated that duplicate the FIS profiles and the elevations shown in the Floodway Data Table in the FIS report to within 0.1 foot.

ii. Corrected Effective Model.

The Corrected Effective Model shall not include any man-made physical changes since the effective model date, but shall import the model into the most current version of HEC-RAS for Department review.

iii. Existing (Pre-Project Conditions) Model.

The Existing Model shall be required to support conclusions about the actual impacts of the project associated with the Revised (Post-Project) Model or to establish more up-to-date models on which to base the Revised (Post-Project) Model.

iv. Revised (Post-Project Conditions) Model.

The Revised (Post-Project Conditions) Model shall incorporate the Existing Model and any proposed changes to the topography caused by the proposed development. This model shall reflect proposed conditions.

v. All changes to the Duplicate Effective Model and subsequent models must be supported by certified topographic information, bridge plans, construction plans and survey notes.

vi. Changes to the hydraulic models shall be limited to the stream reach for which the revision is being requested. Cross sections upstream and downstream of the revised reach shall be identical to those in the effective model and result in water surface elevations and top widths computed by the revised models matching those in the effective models upstream and downstream of the revised reach as required. The Effective Model shall not be truncated.

c. Mapping.

Maps and associated engineering data shall be submitted to the Department for review which meet the following conditions:

- i. Consistency between the revised hydraulic models, the revised floodplain and floodway delineations, the revised flood profiles, topographic work map, annotated FIRMs and/or Flood Boundary Floodway Maps (FBFMs), construction plans, bridge plans.
- ii. Certified topographic map of suitable scale, contour interval, and a planimetric map showing the applicable items. If a digital version of the map is available, it may be submitted in order that the FIRM may be more easily revised.
- iii. Annotated FIRM panel showing the revised 1% and 0.2% annual chance floodplains and floodway boundaries.
- iv. If an annotated FIRM and/or FBFM and digital mapping data (GIS or CADD) are used then all supporting documentation or metadata must be included with the data submission along with the Universal Transverse Mercator (UTM) projection and State Plane Coordinate System in accordance with FEMA mapping specifications.
- v. The revised floodplain boundaries shall tie into the effective floodplain boundaries.
- vi. All cross sections from the effective model shall be labeled in accordance with the effective map and a cross section lookup table shall be included to relate to the model input numbering scheme.
- vii. Both the current and proposed floodways shall be shown on the map.
- viii. The stream centerline, or profile baseline used to measure stream distances in the model shall be visible on the map.”

4. Section 28.122 entitled “F1 Floodway District” of the Madison General Ordinances is amended to read as follows:

“28.122 F1 FLOODWAY DISTRICT.

(1) Applicability.

The provisions of this section shall apply to all floodway areas on the floodplain zoning maps and to those portions of the F3 General Floodplain District determined to be in the floodway area.

(2) Permitted Uses.

The following open space uses are permitted in the F1 Floodway District:

- (a) Agricultural uses, including general farming, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, and wild crop harvesting.
- (b) Nonstructural industrial and commercial uses, including parking and loading areas and airport landing strips.
- (c) Nonstructural recreational uses, including golf course, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish

- hatcheries, shooting trap and skeet activities, hunting and fishing areas, and hiking and horseback riding trails.
- (d) Uses or structures accessory to open space uses or classified as historic structures.
 - (e) Public utilities, streets, and bridges.
 - (f) Extraction or deposition of sand, gravel or other materials.
 - (g) Functionally water-dependent uses, such as docks, piers or wharves, dams, flowage areas, culverts, navigational aids and river crossings of transmission lines, and pipelines that comply within Wis. Stats. chs. 30 and 31.
- (3) Standards for Developments in Floodway Areas.
- (a) General.
 - 1. Any development in the floodway areas shall comply with the provisions of Section 28.121(7) and have a low flood damage potential.
 - 2. Applicants shall provide the following data for the Zoning Administrator to determine the effects of the proposal according to Sec. 28.121(7)(a) and (b):
 - a. A cross-section elevation view of the proposal, perpendicular to the watercourse, indicating whether the proposed development will obstruct flow; or
 - b. An analysis calculating the effects of this proposal on regional flood height.
 - 3. The Zoning Administrator shall deny the permit application if the project will cause any increase in the flood elevations upstream or downstream more than 0.00 foot, based on the data submitted for Subparagraph 2.b. above.
 - (b) Structures. Structures accessory to permitted open space uses, classified as historical areas, or functionally dependent on a waterfront location, may be allowed by permit, providing the structures meet all of the following criteria:
 - 1. ~~The structures are n~~Not designed for human habitation and do not have a high flood damage potential and is constructed to minimize flood damage;
 - 2. ~~The structures are constructed and placed on the building site so as to increase flood heights no more than 0.00 foot and minimally obstruction to the flow of floodwaters. Structures shall be constructed with the long axis parallel to the direction of flow of floodwaters, and approximately on the same line as adjoining structures. Shall have a minimum of two openings on different walls having a total net area not less than one square inch for every square foot of enclosed area, at the bottom of all such openings being no higher than one foot above grade. The openings shall be equipped with screens, louvers, or other coverings or other devices provided they permit the automatic entry and exit of floodwaters;~~
 - 3. ~~The structures are~~ Must be properly anchored to prevent them from floating away and restricting bridge openings or other restricted sections of the stream or river to resist flotation, collapse, and lateral movement; and
 - 4. ~~The structures have all service facilities at or above the flood protection elevation~~ Mechanical and utility equipment must be elevated or flood proofed to or above the flood protection elevation.
 - (c) Public Utilities, Streets, and Bridges.

Public utilities, streets and bridges may be allowed by permit, provided that:

1. Adequate flood-proofing measures are provided to the flood protection elevation; and
2. Construction meets the standards in Sec. 28.121(7)(a) and (b).

(d) Fills or Deposition of Materials.

Fills or deposition of materials may be allowed by permit, provided that:

1. The requirements of Sec. 28.121(7)(a) and (b) are met.
2. No material is deposited in ~~the navigable channel~~ waters unless a permit has been granted by the Department of Natural Resources pursuant to Wis. Stat. ch. 30, and a permit pursuant to 33 U.S.C. 1344 has been issued, if applicable, and ~~the all~~ other requirements of this section are have been met.
3. The fill or other materials will be protected against erosion by riprap, vegetative cover, sheet piling or bulkheading sufficient to prevent erosion; and
4. The fill is not classified as a solid or hazardous material.

(4) Prohibited Uses.

All uses not listed as permitted uses in sub. (2) above are prohibited with the floodway district and in the floodway portion of the general floodplain district including the following uses:

- (a) The storage of any material that ~~are~~ is buoyant, flammable, explosive, or injurious to property, water quality, or human, animal, plant, fish or other aquatic life.
- (b) Any uses not in harmony with or which may be detrimental to uses permitted in the adjoining districts.
- (c) All private or public sewage systems, except portable latrines that are removed prior to flooding, and systems associated with public recreational areas and Wisconsin Department of Natural Resources approved campgrounds, that meet the applicable provisions of Wis. Admin. Code ch. SPS 383.
- (d) All public or private wells which are used to obtain potable water, except those for recreational areas that meet the requirements of local ordinances and Wis. Admin. Code chs. NR 811 and NR 812.
- (e) All solid and hazardous waste disposal sites.
- (f) All wastewater treatment ponds or facilities, except those permitted under Wis. Admin. Code § NR 110.15(3)(b).
- (g) All sanitary sewer or water lines except those to service existing or proposed development located outside the floodway which complies with the regulation for the floodplain area occupied.
- (h) Habitable structures, structures with high flood damage potential, or those not associated with permanent open-space uses.”

5. Section 28.123 entitled “F2 Flood Fringe District” of the Madison General Ordinances is amended to read as follows:

“28.123 F2 FLOOD FRINGE DISTRICT.

(1) Applicability.

The provisions of this section shall apply to all areas within the F2 Flood Fringe District and to those portions of the F3 General Floodplain District determined to be in the flood fringe area. The F2 Flood Fringe District shall also include the A-zones so designated on the floodplain zoning district maps and for which floodways are delineated and mapped.

(2) Permitted Uses.

The following uses are permitted in the F2 Flood Fringe District and to those portions of the F3 General Floodplain District determined to be in the flood fringe

area: Any building, structure or use otherwise allowed as permitted or conditional uses in the underlying primary zoning district, except for mobile home parks and solid waste disposal sites.

(3) Standards for Development in the Flood Fringe Areas.

All of the provisions of Sec. 28.121(7)(a) and (b) shall apply in addition to the following requirements according to the use requested. Any existing structure in the flood fringe must meet the requirements of Sec. 28.126.

(a) Residential Uses. Any structure or building used for human habitation, including a manufactured home, which is to be erected, newly-constructed, reconstructed, altered, or moved into the flood fringe area shall meet or exceed the following standards: Any existing structure in the flood fringe must meet the requirements of Sec. 28.126.

1. The elevation of the lowest floor ~~excluding the basement or crawlway,~~ shall be placed on fill at or above the flood protection elevation (which is a point two feet above the regional flood elevation) except where Subparagraph 2. below is applicable. The fill elevation shall be one foot or more above the regional flood elevation extending at least fifteen (15) feet beyond the limits of the structure. The DNR may authorize other flood-proofing measures where existing streets or sewer lines are at elevations which make compliance impractical, provided the Board of Appeals grants a variance due to dimensional restrictions.
2. The basement or crawlway floor may be placed at the regional flood elevation provided it is flood-proofed to the flood protection elevation. No permit or variance shall allow any floor, basement or crawlway below the regional flood elevation.
3. Contiguous dry land access, as a vehicle access route above regional flood elevation, shall be provided from a structure or building to land which is outside of the floodplain except as provided in sub. 4.
4. In developments where existing street or sewer line elevations make compliance with sub. 3 impractical, the municipality may permit new development and substantial improvements where ~~access roads are at or below the regional flood elevation, if:~~
 - a. The municipality has written assurance from police, fire, and emergency services that rescue and relief will be provided to the structure(s) by wheeled vehicles during a regional flood event; or
 - b. The municipality has a ~~natural disaster plan~~ DNR-approved by Wisconsin Emergency Management and the Department of Natural Resources emergency evacuation plan.

(b) Accessory Structures or Uses.

1. ~~Except as provided in Subparagraph 2, below, an a~~Accessory structures that is not connected to a principal structure shall be constructed on fill with its the lowest floor at or above the Regional Flood Elevation.
2. ~~An accessory structure that is not connected to the principal structure and which is less than six hundred (600) square feet in size and valued at less than ten thousand dollars (\$10,000) may be constructed with its lowest floor no more than two (2) feet below the regional flood elevation, provided that it is subject to flood velocities of no more than two (2) feet per second and that it meets all the provisions in Sec. 28.122(3)(b) and sub. (e) below.~~

- (c) Commercial Uses. Any commercial structure or building which is to be erected, constructed, reconstructed, altered or moved into the flood fringe area shall meet the requirements for residential uses above. Storage yards, surface parking lots and such uses may be at lower elevations, subject to the requirements of subparagraph e. below provided an adequate warning system exists to protect life and property.
- (d) Manufacturing and Industrial Uses. Any manufacturing or industrial structure or building which is to be erected, constructed, reconstructed, altered or moved into the flood fringe area shall ~~be protected to~~ shall have the lowest floor elevated to or above the flood protection elevation utilizing fill, levees, flood walls, or other flood-proofing measures or meet the floodproofing standards in Sec. 28.121(12). Subject to the requirements in subparagraph (e) below, storage yards, surface parking lots and other such uses may be placed at lower elevations if an adequate warning system exists to protect life and property.
- (e) Storage or Processing of Materials. The storage or processing of materials that are buoyant, flammable, explosive, or injurious to property, water quality or human, animal, plant, fish or aquatic life, shall be stored at or above the flood protection elevation for the particular area or flood-proofed. Adequate measures shall be taken to ensure that such materials will not enter the water body during flooding.
- (f) Public Utilities, Streets and Bridges. All utilities, streets and bridges shall be designed to be compatible with the local comprehensive floodplain development plans and:
1. When failure or interruption of public utilities, streets and bridges would result in danger to the public health or safety or where such facilities are essential to the orderly functioning of the area, construction or repair of and substantial improvements to such facilities ~~may~~ shall only be permitted if they are ~~flood-proofed to the flood protection elevation~~ designed to comply with Sec. 28.121(12).
 2. Minor roads or nonessential utilities may be constructed at lower elevations providing they withstand flood forces to the regional flood elevation.
- (g) Sewage Systems. All ~~on-site~~ sewage disposal systems shall be designed to minimize or eliminate infiltration of flood water into the system, flood-proofed pursuant to Sec. 28.121(12) to the flood protection elevation and shall meet the applicable provisions of all local ordinances and Wis. Adm. Code ch. SPS 383.
- (h) Wells. All public or private wells shall be designed to minimize or eliminate infiltration of flood water into the system, flood-proofed pursuant to Sec. 28.121(12) and shall meet the applicable provisions of Wis. Adm. Code chs. NR 811 and 812.
- (i) Solid Waste Disposal Sites. Disposal of solid or hazardous waste is prohibited in flood fringe areas.
- (j) Deposition of Materials. Any deposited material must meet all the provisions of this ordinance.
- (k) Manufactured Homes.
1. Owners or operators of all manufactured home parks and subdivisions shall provide adequate surface drainage to minimize flood damage, and prepare, secure approval and file an excavation plan, indicating vehicular access and escape routes, with local emergency management authorities.
 2. In existing manufactured home parks, all new homes, replacement homes on existing pads, and substantially improved homes shall:

- a. Have the lowest floor elevated to the flood protection elevation; and
 - b. Be anchored so they do not float, collapse or move laterally during a flood.
3. Outside of existing manufactured home parks, including manufactured home parks and all single units outside of existing parks, all new, replacement and substantially improved manufactured homes shall meet the requirements for residential uses in para. (3)(a) above.
- (l) Mobile Recreational Vehicles.
All mobile recreational vehicles that are on site for one hundred-eighty (180) consecutive days or more or are not fully licensed and ready for highway use shall meet the elevation and anchoring requirements in (k)2. and 3. above. A mobile recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick-disconnect utilities and security devices and has no permanently attached additions.”

6. Section 28.124 entitled “F3 General Floodplain District” of the Madison General Ordinances is amended to read as follows:

“28.124 F3 GENERAL FLOODPLAIN DISTRICT.

- (1) Applicability.
The F3 General Floodplain District consists of the land which has been or may be hereafter covered by flood water during the regional flood and encompasses both the F1 Floodway and F2 Flood Fringe Districts. The provisions of this district shall apply to all floodplains ~~for which flood profiles are not available or where flood profiles are available but floodways have not been delineated. Floodway and flood fringe districts shall be delineated when adequate data are available. The F3 General Floodplain district shall include all A-zones so designated on the zoning district maps and for which no floodways are delineated and mapped as A, AO or AH zones.~~
- (2) Permitted Uses.
The following uses are permitted in the F3 General Flood Plain District, provided a determination shall be made as to what portion of the floodplain is within the floodway or flood fringe as provided in Sec. 28.124(4):
- (a) Uses permitted in the F1 Floodway District are permitted in that portion determined to be within the floodway.
 - (b) Uses permitted in the F2 Flood Fringe District are permitted in that portion determined to be within the flood fringe.
- (3) Standards for Development in the General Floodplain District.
Once it is determined according to Subdivision (4) below that a proposed use is located within a floodway, the provisions of Subsection 28.122 above shall apply. Once determined that the proposed use is located within the flood fringe, the provisions of Subsection 28.123 above shall apply. The rest of this subchapter applies to either district.
- (a) In AO/AH zones the structure’s lowest floor must meet one of the conditions listed below whichever is higher:
 - 1. At or above the flood protection elevation; or
 - 2. Two (2) feet above the highest adjacent grade around the structure; or
 - 3. The depth as shown on the FIRM.
 - (b) In AO/AH zones, provide plans showing adequate drainage paths to guide floodwaters around structures.
- (4) Determining Floodway and Flood Fringe Limits.

Upon receiving an application for development within the general floodplain district, the Zoning Administrator shall:

- (a) Require the applicant to submit, at the time of application, two (2) copies of an aerial photograph, or a plan which accurately locates the proposed development with respect to the general floodplain district limits, stream channel, and existing floodplain developments, together with all pertinent information such as the nature of the proposal, legal description of the property, fill limits and elevations, building floor elevations and flood-proofing measures, and the flood zone as shown on the FIRM.
- (b) Require the applicant to furnish any of the following additional information as is deemed necessary by the DNR for evaluation of the effects of the proposal upon flood height and flood flows, regional flood elevation, and to determine the boundaries of the floodway:
 1. ~~A typical valley cross-section showing the stream channel, the floodplain adjoining each side of the channel, the cross-sectional area to be occupied by the proposed development, and all historic high-water information~~ hydrologic and hydraulic study as specified in Sec. 28.121(14)(b).
 2. Plan (surface view) showing: elevations or contours of the ground; pertinent structure, fill or storage elevations; size, location and spatial layout of all proposed and existing structures on the site; location and elevations of streets, water supply, and sanitary facilities; soil types and other pertinent information.
 3. ~~Profile showing the slope of the bottom of the channel or flow line of the stream.~~
 4. Specifications for building construction and materials, flood-proofing, filling, dredging, channel improvement, storage of materials, water supply and sanitary facilities.
- ~~(c) Transmit one copy of the information described in Paragraphs (a) and (b) above to the Southern District office along with a written request for technical assistance to establish regional flood elevations and where applicable, floodway data. Where the provisions of Sec. 28.121(14)(b) apply, the applicant shall provide all required information and computations to delineate floodway boundaries and the effects of the project on flood elevations.~~

7. Section 28.126 entitled "Nonconformities" of the Madison General Ordinances is amended to read as follows:

"28.126 NONCONFORMITIES.

- (1) General Floodplain District.
If these standards conform with Wis. Stat. § 62.23(7)(h), they shall apply to all modifications or additions to any nonconforming use or structure and to the use of any structure or premises which was lawful before the passage of this ordinance or any amendment thereto.
- (2) Conditions.
The existing lawful use of a structure or its accessory use which is not in conformity with the provisions of this ordinance may continue subject to the following conditions:
 - (a) No modifications or additions to a nonconforming use or structure shall be permitted unless they comply with this ordinance. The words "modification" and "addition" include, but are not limited to, any alteration, addition, modification, structural repair, rebuilding or replacement of any such existing use, structure or accessory structure or use.
 - (b) ~~Ordinary maintenance repairs are is not considered an extension, modification or addition; these~~ this includes painting, decorating, paneling and the replacement of doors, windows and other nonstructural

components and the maintenance, repair or replacement of existing private sewage or water supply systems or connections to public utilities. ~~Ordinary maintenance repairs do not include a~~Any costs associated with the repair of a damaged structure are not considered maintenance.

- (c) The construction of a deck that does not exceed two hundred (200) square feet and that is adjacent to the exterior wall of a principal structure is not an extension, modification or addition. The roof of the structure may extend over a portion of the deck in order to provide safe ingress and egress to the principal structure.
- (d) If a nonconforming use or the use of a nonconforming structure is discontinued for twelve (12) consecutive months, it is no longer permitted and any future use of the property, and any structure or building thereon, shall conform to the applicable requirements of this ordinance;
- (e) The City shall keep a record which lists all nonconforming uses and nonconforming structures, their present equalized assessed value, the cost of all modifications or additions which have been permitted, and the percentage of the structure's total current value those modifications represent;
- (f) No modification or addition to any nonconforming structure or any structure with a nonconforming use, which over the life of the structure would be equal to or exceed fifty percent (50%) of its present equalized assessed value, shall be allowed unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with Sec. 28.123(a)3. The costs of elevating the lowest floor of a nonconforming building or a building with a nonconforming use to the flood protection elevation are excluded from the fifty percent (50%) provisions of this paragraph;
- ~~(g) No maintenance to any nonconforming structure or any structure with a nonconforming use, the cost of which would equal or exceed fifty percent (50%) of its present equalized assessed value, shall be allowed unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with Sec. 28.123(3)(a);~~
- ~~(h) If on a per event basis the total value of the work being done under (d) and (e) equals or exceeds fifty percent (50%) of the present equalized assessed value the work shall not be permitted unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with Sec. 28.123(3)(a);~~
- (gi) Except as provided in subparagraph (hj) below, if any nonconforming structure or any structure with a nonconforming use is destroyed or is substantially damaged, it cannot be replaced, reconstructed or rebuilt unless the use and the structure meet the current ordinance requirements. A structure is considered substantially damaged if the total cost to restore the structure to its pre-damaged condition equals or exceeds fifty percent (50%) of the structure's present equalized assessed value.
- (hj) For nonconforming buildings that are substantially damaged or destroyed by a nonflood disaster, the repair or reconstruction of any such nonconforming building ~~may~~ shall be permitted in order to restore it ~~after the nonflood disaster~~ to the size and use in effect prior to the damage event, provided that the ~~nonconforming building will meet all of the~~

minimum federal code requirements under 42 USC 4001-4129, or under the regulations promulgated thereunder below are met and all required permits have been granted prior to the start of construction.

1. Residential Structures.

- a. Shall have the lowest floor, including basement, elevated to or above the base flood elevation using fill, pilings, columns, posts or perimeter walls. Perimeter walls must meet the requirements of Sec. 28.121(12)(a).
- b. Shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy and shall be constructed with methods and materials resistant to flood damage.
- c. Shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or elevated so as to prevent water from entering or accumulating within the components during conditions of flooding.
- d. In A Zones, obtain, review and utilize any flood data available from a federal, state or other source.
- e. In AO Zones, the lowest floor must meet one of the following requirements, whichever is greater:
 - i. At or above the flood protection elevation;
 - ii. Two (2) feet above the highest adjacent grade around the structure; or
 - iii. The depth as shown on the FIRM.
- f. In AO Zones, shall have adequate drainage paths around structures on slopes to guide floodwaters around and away from the structure.

2. Nonresidential Structures.

- a. Shall meet the requirements of Sec. 28.126(2)(j).
- b. Shall either have the lowest floor, including basement, elevated to or above the regional flood elevation; or, together with attendant utility and sanitary facilities, shall meet the standards in Sec. 28.121(12)(a).
- c. In AO Zones with no elevations specified, shall have the lowest floor, including basement, meet the standards in Sec. 28.124(3).

(ik) A nonconforming historic structure may be altered if the alteration will not preclude the structures continued designation as a historic structure, the alteration will comply with Sec. 28.122(3), flood resistant materials are used, and construction practices and floodproofing methods that comply with Sec. 28.121(12) are used. Repair or rehabilitation of historic structures shall be exempt from the development standards of 28.126(2)(j)1. if it is determined that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and is the minimum necessary to preserve the historic character and design of the structure.

(3) Floodway District.

- (a) Additions or modifications shall not be allowed to any nonconforming structure or any structure with a nonconforming use in a the floodway area district unless such addition or modification:
 1. Has been granted a permit or variance that meets all ordinance requirements.
 2. Meets the requirements of Section 28.126(1) and (2).

3. ~~Will~~ Shall not increase the obstruction to flood flows or regional flood height; and
 4. Any addition to the existing structure shall be floodproofed, pursuant to Sec. 28.121(12), by means other than the use of fill, to the flood protection elevation; ~~and~~
 5. If any part of the foundation below the flood protection elevation is enclosed, the following standards shall apply:
 - a. The enclosed area shall be designed by a registered architect or engineer to allow for the efficient entry and exit of the flood waters without human intervention. A minimum of two (2) openings must be provided with a minimum net area of at least one (1) square inch for every one (1) square foot of the enclosed area. The lowest part of the opening can be no more than twelve (12) inches above the adjacent grade.
 - b. The parts of the foundation located below the flood protection elevation must be constructed of flood-resistant materials.
 - c. Mechanical and utility equipment must be elevated or floodproofed to or above the flood protection elevation; and
 - d. The use must be limited to parking, building access or limited storage.
- (b) No new on-site sewage disposal system, or addition to an existing on-site sewage disposal system, except where an addition has been ordered by a government agency to correct a hazard to public health, shall be allowed in a the Floodway area District. Any replacement, repair or maintenance of an existing on-site sewage disposal system in a the Floodway area District shall meet the applicable requirements of all municipal ordinances and Wis. Admin. Code ch. SPS 383.
- (c) No new well or modification to an existing well, used to obtain potable water, shall be allowed in a the Floodway area District. Any replacement, repair or maintenance of an existing well in a the Floodway area District shall meet the applicable requirements of all municipal ordinances and Wis. Admin. Code chs. NR 811 and NR 812.
- (4) Flood Fringe District.
- (a) The provisions of Sec. 28.126(1) and (2) shall apply to all nonconforming uses and structures.
 - (b) Additions or modifications shall not be allowed to any nonconforming structure or any structure with a nonconforming use unless such addition or modification has been granted a permit or variance. In addition, the addition or modification shall ~~be placed on fill or flood-proofed to the flood protection elevation in compliance with the standards for that particular use~~ meet the requirements of in Subdivision 28.123(3) above except where Paragraph (c) below is applicable.
 - (c) Where compliance with the provisions of Paragraph (b) above would result in unnecessary hardship, and only where the structure will not be used for human habitation or be associated with a high flood damage potential, the Zoning Board of Appeals may grant a variance from those provisions of Paragraph (a) above for additions or modifications using the criteria listed below. Additions or modifications which are protected to elevations lower than the flood protection elevation may be permitted provided:
 1. No floor is allowed below the regional flood elevation for structures with residential or commercial uses.
 2. Human lives are not endangered.

3. Public facilities, such as water or sewer, ~~will~~shall not be installed.
4. Flood depths ~~will~~shall not exceed two (2) feet.
5. Flood velocities ~~will~~shall not exceed two (2) feet per second; and
6. The structure ~~will~~shall not be used for storage of materials described in Sec. 28.123(3)e.

~~(d) If neither the provisions of Paragraphs (b) nor (c) above can be met, one addition to an existing room in a nonconforming building or a building with a nonconforming use may be allowed in the flood fringe, if the addition:~~

- ~~1. Meets all other regulations and will be granted by permit or variance.~~
- ~~2. Does not exceed sixty (60) square feet in area; and~~
- ~~3. In combination with other previous modifications or additions to the building, is equal to or exceeds fifty percent (50%) of the present equalized assessed value of the building.~~

~~(ed) All new private sewage disposal systems, or addition to, replacement, repair or maintenance of a private sewage disposal system shall meet all the applicable provisions of all local ordinances and Wis. Admin. Code ch. SPS 383.~~

~~(fe) All new wells, or addition to, replacement, repair or maintenance of a well shall meet the applicable provisions of this ordinance and Wis. Admin. Code chs. NR 811 and NR 812.~~

(5) Nonconformities in Flood Storage Areas.

No modifications or additions shall be allowed to any nonconforming structure in a flood storage district unless the standards in Sec. 28.125 (1) and (2) are met.”

8. Subsection (1) entitled “Purpose” of Section 28.182 entitled “Text and Map Amendments” of the Madison General Ordinances is amended to read as follows:

“(1) Purpose.

This section allows the Common Council to amend the text of this Chapter or the zoning districts in order to promote public health, safety, and welfare throughout the City, giving due consideration to existing conditions, conservation of property values, building development providing best advantage to the City, the current use of property, and in the case of map amendments, the cost of providing municipal services to the property and uses accommodated by the map amendment.

In the case of map amendments to the floodplain zoning districts, actions that require an amendment and/or submittal of a Letter of Map Change (LOMC) shall include but not be limited to the following:

~~(a) Any change to the official floodplain zoning map, including any change in the floodway lines or boundary of any floodplain area fill or floodway encroachment that obstructs flow causing any increase in the regional flood height.~~

~~(b) Correction of discrepancies between the water surface profiles and floodplain zoning maps Any change to the floodplain boundaries and/or watercourse alterations on the FIRM.~~

~~(c) Any changes to any other officially adopted floodplain maps.~~

~~(ed) Any floodplain fill for the floodplain that will result in raising the elevation of the filled area to a height at or above the flood protection elevation and is contiguous to land lying outside the floodplain.~~

~~(e) Correction of discrepancies between the water surface profiles and floodplain maps.~~

~~(d) Any fill or floodplain encroachment that will obstruct flow, causing an increase of more than 0.00 foot in regional flood height.~~

~~(ef) Any upgrade to a floodplain zoning ordinance text required by Wis. Adm. Code § NR 116.05 or otherwise required by law or for changes by the municipality.~~

- (fg) All channel relocations and changes to maps to alter floodway lines or to remove an area from the floodway or the floodfringe that is based on a base flood elevation from a flood insurance rate map requires prior approval by FEMA.”

9. Paragraph 5. of Subdivision (a) entitled “Recommendation by the City Plan Commission” of Subsection (5) entitled “Decision” of Section 28.182 entitled “Text and Map Amendments” of the Madison General Ordinances is amended to read as follows:

“5. All map amendments that obstruct flow, or cause any increase in the regional flood height greater than 0.00 feet require flooding easements or other appropriate legal arrangement from all adversely affected property owners.”

10. Subsection (8) entitled “Decision” of Section 28.182 entitled “Text and Map Amendments” of the Madison General Ordinances is amended to read as follows:

“(8) Amendments to Floodplain Regulations or Maps.

No amendment to floodplain regulations, either text or map, shall become effective until approved by the Wisconsin Department of Natural Resources and the Federal Emergency Management Agency.”

In AE Zones with a mapped floodway, no obstructions or increases shall be permitted unless the applicant receives a Conditional Letter of Map Revision from FEMA and amendments are made to this ordinance, the official floodplain zoning maps, floodway lines and water surface profiles. Any such alterations must be reviewed and approved by FEMA and the DNR.

In A Zones increases equal to or greater than 1.0 foot may only be permitted if the applicant receives a Conditional Letter of Map Revision from FEMA and amendments are made to this ordinance, the official floodplain maps, floodway lines, and water surface profiles.”

11. Section 28.184 entitled “Variances” of the Madison General Ordinances is amended to read as follows:

“28.184 VARIANCES.

(1) Applicability and Initiation.

This section applies to any application to the Zoning Board of Appeals for a variance from the terms of this Chapter.

Any Eligible Applicant (See Sec. 28.181(2)) may file an application for a variance with the Zoning Administrator.

(2) Completeness Review.

See Sec. 28.181(4).

(3) Notice.

A variance application requires the following type of notice (see Sec. 28.181(5)):

(a) Mail. Notice of the required public hearing shall be sent at least five (5) days before the public hearing

(b) Publication.

(c) In the case of variances to the floodplain or wetland regulations, notice shall also be sent to the ~~Southern District Office~~ regional office of the Wisconsin Department of Natural Resources at least ten (10) days prior to the required hearing.

(4) Decision.

(a) The Zoning Board of Appeals shall hold a public hearing on each application.

(b) The Zoning Board of Appeals may approve, conditionally approve, or deny a variance after a public hearing. The Zoning Board of Appeals shall conduct the public hearing after it receives a complete application.

- (c) The concurring vote of a majority of quorum of the Zoning Board of Appeals is required to grant a variance.
 - (d) The decision of the Zoning Board of Appeals shall include findings of fact.
 - (e) The Zoning Board of Appeals may impose conditions on the use, development or activities subject to the variance. The Zoning Board of Appeals may require the conditions in order to comply with the standards in this section, to mitigate the effect of the variance on other property in the neighborhood, and to better carry out the general intent of this ordinance.
 - (f) ~~When a floodplain variance is granted, the Zoning Board of Appeals shall notify the applicant in writing that it may increase flood insurance premiums and risks to life and property.~~ When a floodplain variance is granted the Board shall notify the applicant in writing that it may increase risks to life and property and flood insurance premiums could increase up to twenty-five dollars (\$25) per one hundred dollars (\$100) of coverage. A copy shall be maintained with the variance record.
- (5) Approval Standards.
- (a) The Zoning Board of Appeals shall not grant a variance unless it finds that the following conditions are present:
 1. There are conditions unique to the property of the applicant that do not apply generally to other properties in the district.
 2. The variance is not contrary to the spirit, purpose, and intent of the regulations in the zoning district and is not contrary to the public interest.
 3. For a use variance, compliance with the strict letter of the ordinance will result in no reasonable use of the property.
 4. For an area variance, compliance with the strict letter of the ordinance would unreasonably prevent use of the property for a permitted purpose or would render compliance with the ordinance unnecessarily burdensome.
 5. The alleged difficulty or hardship is created by the terms of the ordinance rather than by a person who has a present interest in the property.
 6. The proposed variance shall not create substantial detriment to adjacent property.
 7. The proposed variance shall be compatible with the character of the immediate neighborhood.
 8. In the floodplain districts, the variance shall not: grant, extend or increase any use prohibited in the zoning district; be granted for a hardship based solely on an economic gain or loss; be granted for a hardship which is self-created; or damage the rights or property values of other persons in the area.
 9. In floodplain districts, the variance shall not cause any increase in the regional flood elevations or profiles, permit a lower degree of flood protection in the floodplain than the flood elevation, allow any floor, basement or crawlway below the regional flood elevation, or allow actions without the required amendments ~~not~~ have the effect of allowing or expanding a use or building which is prohibited in the zoning district.
 9. In the floodplain districts, the lot for which the variance is requested, shall be less than one-half (1/2) acre and shall be contiguous to existing structures constructed below the regional flood elevation.
 10. In floodplain districts, the variance shall not increase costs for rescue and relief efforts.

(6) Scope of Approval.

- (a) An order granting a variance is valid for one (1) year from the date of the order. During this time, the applicant must either lawfully commence the use or obtain a building permit and begin erecting or altering the building.
- (b) Where the plans have not been altered from those approved by the Zoning Board of Appeals, and the variance has expired, the Zoning Administrator may, after consulting with the Alderperson of the District, approve an extension up to twenty-four (24) months from the expiration date.”

12. Subdivisions (d) and (o) of Subsection (2) entitled “Duties” of Section 28.202 entitled “Zoning Administrator” of the Madison General Ordinances are amended to read as follows:

- “(d) Conduct inspections of buildings, structures, and use of land, including ~~substantial~~ damage assessment for floodplain structures, to determine compliance with this ordinance.”
- “(o) Maintain floodplain records, including all permits issued, inspections made, and work approved related to floodplains; documentation of certified lowest floor and regional flood elevations; floodproofing certificates; floodplain maps, and ordinances, all water surface profiles, and substantial damage assessment reports, and list of nonconforming structures and uses.”

13. Subdivision (e) of Subsection (3) entitled “Issuance of Zoning Certificates” of Section 28.202 entitled “Zoning Administrator” of the Madison General Ordinances is amended to read as follows:

- “(e) No change in use shall be made until a zoning certificate has been issued by the Zoning Administrator. Every certificate shall state that the use complies with all provisions of this ordinance. For the purposes of floodplain regulations, this certificate shall also be known as a Certificate of Compliance. When applicable in floodplain areas, the Zoning Administrator shall require a certification by a registered professional engineer, ~~or architect or land surveyor~~ that the ~~finished~~ fill, lowest floor, and flood elevations and other floodplain regulatory factors were accomplished in compliance with the provisions of this ordinance. In the floodplain areas, it shall be the responsibility of the applicant to secure all other necessary permits from all appropriate Federal and Wisconsin State agencies.”

14. Section 28.211 entitled “Definitions” of the Madison General Ordinances is amended by amending herein the following:

“AH Zone. See “Area of Shallow Flooding.”

AO Zone. See “Area of Shallow Flooding.”

Alteration. For floodplain regulations, an enhancement, upgrading or substantial change or modifications other than an addition or repair to a dwelling or to electrical, plumbing, heating, ventilating, air conditioning and other systems within a structure.

Area of Shallow Flooding. A designated AO, AH, AR/AO, AR/AH, or VO zone on a community’s Flood Insurance Rate Map (FIRM) with a one percent (1%) or greater annual chance of flooding to an average depth of one to three (1 to 3) feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flood may be evident. Such flooding is characterized by ponding or sheet flow.

Base Flood. A flood having a one percent (1%) chance of being equaled or exceeded in any given year, as published by FEMA as part of a FIS and depicted on a FIRM.

Camping Unit. Any portable device, no more than four hundred (400) square feet in area, used as a temporary shelter, including but not limited to a camping trailer, motor home, bus, van, pick-up truck, or tent or other mobile recreational vehicle that is fully licensed, if required, and ready for highway use.

Flood Insurance Rate Map (FIRM). A map of a community on which the Federal Insurance Administration has delineated both ~~special flood hazard areas~~ (the floodplain) and the risk premium zones applicable to the community. This map can only be amended by the Federal Emergency Management Agency.

Lowest Adjacent Grade. For purposes of floodplain regulations, the elevation of the lowest ground surface that touches any of the exterior walls of a building.

Lowest Floor. For purposes of floodplain regulations, the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of 44 CFR 60.3.

Maintenance. For purposes of floodplain regulations, the act or process of restoring to original soundness, including redecorating, refinishing, non structural repairs, or the replacement of existing fixtures, systems or equipment with equivalent fixtures, systems or structures.

Model, Corrected Effective. A hydraulic engineering model that corrects any errors that occur in the Duplicate Effective Model, adds any additional cross sections to the Duplicate Effective Model, or incorporates more detailed topographic information than that used in the current effective model.

Model, Duplicate Effective. A copy of the hydraulic analysis used in the effective FIS and referred to as the effective model.

Model, Effective. The hydraulic engineering model that was used to produce the current effective Flood Insurance Study.

Model, Existing (Pre-Project). A modification of the Duplicate Effective Model or Corrected Effective Model to reflect any man made modifications that have occurred within the floodplain since the date of the effective model but prior to the construction of the project for which the revision is being requested. If no modification has occurred since the date of the effective model, then this model would be identical to the Corrected Effective Model or Duplicate Effective Model.

Model, Revised (Post-Project). A modification of the Existing or Pre-Project Conditions Model, Duplicate Effective Model or Corrected Effective Model to reflect revised or post-project conditions.

Reasonably Safe from Flooding. Base flood waters will not inundate the land or damage structures to be removed from the ~~special flood hazard area~~ floodplain and that any subsurface waters related to the base flood will not damage existing or proposed buildings.

Substantial Improvement. For the purposes of floodplain regulations, any repair, reconstruction, rehabilitation, addition or improvement of a building or structure, the cost of which equals or exceeds fifty percent (50%) of the equalized assessed value of the structure before the improvement or repair is started. If the structure has sustained substantial damage, any repairs

are considered substantial improvement regardless of the work preformed. The term does not, however, include either any project for the improvement of a building required to correct existing health, sanitary or safety code violations identified by the building official and that are the minimum necessary to assure safe living conditions; or any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure."