

**CITY OF ANN ARBOR
FLOODPLAIN MANAGEMENT OVERLAY ORDINANCE**

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SECTION 1.0 TITLE, STATUTORY AUTHORIZATION, AND PURPOSE

1.1 Title and Applicability. This chapter shall be known as the "Floodplain Management Overlay Ordinance" of the City of Ann Arbor. The provisions contained in this ordinance will apply to all land uses within Flood Hazard Areas in the City of Ann Arbor Flood Hazard Areas and will overlay underlying zoning regulations. Where this ordinance imposes greater restrictions than the underlying zoning regulations, the provisions of this ordinance shall prevail.

1.2 Statutory Authorization. The legislature of the State of Michigan has, in Michigan Compiled Laws §125.3201(3), delegated the authority to local government units to adopt regulations designed to minimize flood losses.

1.3 Purpose.

1.3.1 This ordinance regulates development in the Flood Hazard Areas of the City of Ann Arbor. 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; relief and emergency response; and impairment of the tax base. It is the purpose of this ordinance to promote the public health, safety, and general welfare by minimizing these losses and disruptions.

1.3.2 National Flood Insurance Program Compliance. This ordinance 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, so as to maintain the community's eligibility in the National Flood Insurance Program.

1.3.3 This ordinance is 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.

1.3.4 This ordinance is intended to be consistent with the Flood Mitigation Plan reviewed by the Environmental Commission, City Planning Commission, and approved by The Ann Arbor City Council in March of 2007. For more information, find the plan at: http://www.a2gov.org/departments/planning-development/planning/Documents/North%20Main/Flood%20Mitigation%20Plan_FINAL_March_07.pdf

SECTION 2.0 ESTABLISHMENT OF OVERLAY DISTRICT AND GENERAL PROVISIONS

2.1. General Application of the Floodplain Management Overlay Ordinance. The Floodplain Management Overlay Ordinance applies to an applicant seeking site plan approval or a building permit for areas within the Floodplain Overlay District. The provisions and restrictions of this ordinance shall be considered to apply in addition to the underlying zoning districts.

2.2. Lands to Which the Floodplain Management Overlay Ordinance Applies. The Floodplain Management Overlay Ordinance shall apply all Flood Hazard Areas within the City of Ann Arbor with the addition of a 50-foot buffer. This area comprises the Floodplain Overlay District and is divided into a Floodway Zone and Flood Fringe Zone.

2.2.1 Floodway Zone. The Floodway Zone includes those areas designated as floodway on the Flood Insurance Rate Map adopted in Section 2.3.

2.2.2 Flood Fringe Zone. The Flood Fringe Zone includes those areas designated as floodway fringe on the Flood Insurance Rate Map adopted in Section 2.3, including Zones A, AE, AO, or AH but being located outside of the floodway.

2.3. 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 City of Ann Arbor zoning map and this ordinance. The attached material includes the Flood Insurance Study for Washtenaw County, Michigan, and Incorporated Areas, and the Flood Insurance Rate Map panels enumerated below, dated April 3, 2012, all prepared by the Federal Emergency Management Agency. These materials are on file with the Systems Planning Unit. The most updated Flood Insurance Rate Maps adopted by the City of Ann Arbor will be incorporated for the administration of this ordinance.

Flood Insurance Rate Maps panel number(s) of 26161C0234E, 26161C0235E, 26161C0241E, 26161C0242E, 26161C0244E, 26161C0253E, 26161C0261E, 26161C0262E, 26161C0263E, 26161C0264E, 26161C0266E, 26161C0268E, 26161C0382E, 26161C0401E, 26161C0402E, 26161C0406E.

2.4. Interpretation of Boundaries. The boundaries of the Floodway Zone and Flood Fringe Zone are determined by the scaling distances on the Flood Insurance Rate Map.

2.4.1 Where a conflict exists between the floodplain limits illustrated on the City of Ann Arbor zoning map and actual field conditions, the flood elevations shown on the Flood Insurance Study shall be the governing factor. The Floodplain Administrator shall interpret the boundary location based on the ground elevations that existed before construction on the site using the first Flood Insurance Study for Washtenaw County, Michigan.

2.4.2 Persons contesting the location of the district or zone boundaries will be given a reasonable opportunity to present their case to the Zoning Board of Appeals and to submit technical evidence.

2.5. Warning and Disclaimer of Liability: This ordinance does not imply that areas outside the Floodplain Overlay District or land uses permitted within the district will be free from flooding or flood damages. This ordinance does not create liability on the part of the City of Ann Arbor or its officers or employees for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

SECTION 3.0 USING THIS ORDINANCE

3.1. Existing Regulation in Underlying Zones. Uses otherwise permitted in underlying zones shall not be allowed unless also permitted in, and developed in accordance with, the provisions of the Floodplain Management Overlay Ordinance.

3.2. When this Ordinance Applies. If the applicant is seeking site plan approval or a building permit, and the any part of the development is within the Floodplain Overlay District, as defined in Section 2.2, then the ordinance applies and the applicant must furnish the required materials (see Section 3.3 and Section 7.2) and adhere to the relevant provisions.

3.3. Required Materials and Process. Applicants must furnish a topographic survey, as well as determine flood elevations from the Flood Insurance Study, plot actual boundaries of the floodplain on a topographic survey based on base flood elevations from Flood Insurance Study, and plot the floodway boundary based on Flood Insurance Rate Map floodway boundaries. Applicants shall also submit the required materials in Section 7.2.

3.3.1 Compliance with State Law for Watercourse Alteration. For any activities involving filling or otherwise occupying a riverine floodplain or altering the channel of any watercourse, the applicant must ensure compliance with Michigan Statute § 324.3101-134.

3.4. Determination of Zone and Applicable Standards. Using the process described in Section 3.2, the applicant determines whether the proposed development will occur in the Floodway Zone or Flood Fringe Zone. If the proposed development will occur in the Floodway Zone, the requirements of Section 4.0 apply; if the

development will occur in the Flood Fringe Zone, then the requirements of Section 5.0 apply.

3.5. Exemptions. An applicant may be exempt from this ordinance and subject only to the normal site plan approval or building permitting process where:

- 3.5.1** The project is not a new development or an expansion of existing construction, does not change the grades, and, if an expansion, the cost of the proposed activity less than 50% of the market value of the existing structure; or
- 3.5.2** The Floodplain Administrator can determine without any additional information provided by the applicant that the development is not within the floodplain given the actual elevations of the property; or
- 3.5.3** The applicant is able to demonstrate that the development is not in the floodplain based on the Flood Insurance Rate Map and actual survey elevations, after undertaking the process described in Section 3.3.

3.6 Letter of Map Amendment. An applicant may apply to FEMA for a Letter of Map Amendment if, using the process outlined in Section 3.3, the actual survey elevations demonstrate that the development is outside the floodplain, but Flood Insurance Rate Map shows the development to be within the floodplain. The applicant may be exempt if a Letter of Map Amendment is obtained and submitted to the City.

3.7 General Requirements for New Construction and Substantial Improvement. In conformity with the Michigan Building Code and Michigan Residential Code, if the proposed development is within the Flood Fringe Zone or Floodway Zone, all new construction and substantial improvements (including the placement of mobile homes) shall be:

- 3.7.1** Designed (or modified) and adequately anchored to prevent floatation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
- 3.7.2** Constructed with materials and utility equipment resistant to flood damage;
- 3.7.3** Constructed by methods and practices that minimize flood damage; and
- 3.7.4** 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.

SECTION 4.0 FLOODWAY ZONE

4.1 Prohibited Uses. The following uses and artificial obstructions are prohibited in the floodway:

- 4.1.1** Critical facilities, as defined in Section 10.8.
- 4.1.2** New or expanded residential uses.
- 4.1.3** New buildings, except in the case of redevelopment that meets the criteria in Section 4.2.
- 4.1.4** Additions that expand the building footprint of any existing structure if any portion of the structure is to remain in the floodway.
- 4.1.5** Modifications to an existing building that would increase the enclosed floor area of the building.
- 4.1.6** Creating habitable space below the base flood elevation in existing structures, such as basement conversions.
- 4.1.7** New accessory structures, garages, sheds, dumpsters, and fences.
- 4.1.8** Structures without a foundation such as: mobile homes, mobile homes, construction trailers, and temporary facilities.

- 4.1.9 Toilets, with an elevation below the flood protection elevation, connected to the sanitary sewer system.
- 4.1.10 Fill within the floodway will not be permitted unless it can be demonstrate that the change will improve the flood conveyance and floodplain function.
- 4.1.11 Principal use parking lots built at grade where the depth of flooding at the base flood event will exceed 2.0 feet.
- 4.1.12 Parking lots accessory to residential uses built at grade where the depth of flooding at the base flood event will exceed 2.0 feet.
- 4.1.13 Construction or permanent storage of an object subject to floatation or movement during flooding.
- 4.1.14 Storage of toxic, flammable, hazardous, or explosive materials.
- 4.1.15 New solid or hazardous waste disposal facilities.

4.2 Permitted Uses. Subject to the standards set forth in Section 4.3, all uses not prohibited in Section 4.1 are permitted uses if otherwise allowed in the underlying zoning district and any applicable overlay district.

4.3 Standards for Floodway Permitted Uses. A permitted use is one that complies with the following criteria. The Floodplain Administrator determines whether a particular use is a permitted use.

- 4.3.1 The use shall not involve structures, fill, obstructions, or storage of materials or equipment.
- 4.3.2 The use shall not obstruct flood flows or increase flood elevations.
 - (a) The volume of space which will be occupied by the authorized fill or structure below the base flood elevation shall be compensated for and balanced by a hydraulically equivalent excavation taken from below the base flood elevation.
 - (b) Lost floodway storage must be compensated in the floodway and the applicant shall demonstrate that the change will improve the flood conveyance.
 - (c) There shall be no reduction in floodway surface area as a result of a floodway modification, unless such modification is necessary to reduce overall flooding.
 - (d) If the compensatory storage will not be placed at the location of the proposed construction, the applicant's engineer shall demonstrate through a determination of flood discharges and water surface elevations that the compensatory storage is hydraulically equivalents.

4.3.3 Standards for Redevelopment. Existing structures in the floodway may be replaced or redeveloped if the following criteria are met in addition to the other requirements of this Section.

- (a) The footprint of the redeveloped structure, within the floodway, will be a minimum of 25% smaller than the footprint of the existing structure within the floodway.
- (b) Buildings and structures with any portion located within the floodway must have the lowest floor of the entire structure elevated to the Flood Protection Elevation.
- (c) The new structure is placed on the lot in a manner that minimizes the floodway and floodplain encroachment.
- (d) A hydrologic study shows that the overall development will result in no increase in the base flood elevation, improves the flow of flood water based on improved structure placement, elevation, and site layout, and the project reduces overall flood vulnerability.

4.4 Special Exceptions: The following uses may be allowed as special exceptions following the standards and procedures set forth in Section 7.4 of this ordinance and further subject to the standards set forth in Section 4.4, if otherwise allowed in the underlying zoning district or any applicable overlay district.

- 4.4.1 Extraction and storage of sand, gravel, and other materials.
- 4.4.2 Storage yards for equipment, machinery, or materials.
- 4.4.3 Road-ready recreational vehicles meeting the exception standards in Section 6.3.
- 4.4.4 Levees or dikes designed to protect against a flood frequency event equal to or less than the 10-year flood frequency flood event.

4.5 Standards for Floodway Special Exceptions:

- 4.5.1 All Uses. A special exception shall not cause any increase in the stage of the 1% chance or base flood or cause an increase in flood damages in the reach or reaches affected. The applicant must demonstrate compliance with Section 4.3.2.
- 4.5.2 Storage of Materials and Equipment: Temporary placement of materials or equipment which would cause an increase to the stage of the 1% percent chance or base flood may only be allowed if the Flood Plain Administrator has approved a plan that assures removal of the materials from the floodway based upon the flood warning time available.
- 4.5.3 A levee, dike or floodwall constructed in the floodway shall not cause an increase to the 1% chance or base flood. The technical analysis shall assume equal conveyance or storage loss on both sides of a stream.
- 4.5.4 Floodway developments must not adversely affect the hydraulic capacity of the channel and adjoining floodplain of any tributary watercourse or drainage system.

SECTION 5.0 FLOOD FRINGE ZONE

5.1 Prohibited Uses. The following uses and artificial obstructions are prohibited in the flood fringe:

- 5.1.1 Critical facilities, as defined in Section 10.8.
- 5.1.2 New solid and hazardous waste disposal facilities.
- 5.1.3 Non-residential storage of highly toxic, flammable, hazardous, or explosive materials.
- 5.1.4 Structures without a foundation such as mobile homes, construction trailers, and temporary facilities.
- 5.1.5 Toilets, with an elevation below the Flood Protection Elevation, connected to the sanitary sewer system.
- 5.1.6 Construction or permanent storage of an object subject to floatation or movement during flooding.
- 5.1.7 Structures or fill prohibited by any other statute, regulation, or underlying zone.

5.2 Permitted Uses: Subject to the standards set forth in Section 5.3, all uses not prohibited in Section 5.1 are permitted uses if otherwise allowed in the underlying zoning district and any applicable overlay district.

5.3 Standards for Flood Fringe Permitted Uses:

- 5.3.1 Residential structures shall be elevated so that the lowest floor, as defined, is at or above the Flood Protection Elevation.
- 5.3.2 All structures, including accessory structures, shall be elevated or flood proofed so that the lowest floor, as defined, is at or above the Flood Protection Elevation.
- 5.3.3 Accessory structures such as sheds, barns, shelters, gazebos and garages shall be adequately anchored to prevent floatation or collapse and all electrical facilities shall be placed above the flood protection elevation.

- 5.3.4 The storage of any materials or equipment shall be elevated to the Flood Protection Elevation.
- 5.3.5 If a structure is elevated on fill, the finished fill elevation for structures shall be no lower than the Flood Protection Elevation and the fill shall extend at the same elevation at least 15 feet beyond the outside limits of the structure.
- 5.3.6 The use shall not obstruct flood flows or increase flood elevations.
 - (a) The volume of space which will be occupied by the authorized fill or structure below the base flood elevation shall be compensated for and balanced by a hydraulically equivalent excavation taken from below the base flood elevation.
 - (b) There shall be no reduction in floodway surface area as a result of a floodway modification, unless such modification is necessary to reduce overall flooding.
 - (c) If the compensatory storage will not be placed at the location of the proposed construction, the applicant's engineer shall demonstrate through a determination of flood discharges and water surface elevations that the compensatory storage is hydraulically equivalent.
- 5.3.7 Fill material placed in the floodplain shall be stable, compacted, well graded, pervious, generally unaffected by water and frost, devoid of trash or similar foreign matter, devoid of tree stumps or other organic material, and appropriate for the purpose of supporting the intended use and/or permanent structure.
- 5.3.8 Accessory uses such as yards, auxiliary rail track, and parking lots may be at an elevation lower than the Flood Protection Elevation. However, any facilities used by employees or the general public shall be designed with a flood warning system.
- 5.3.9 Flood fringe developments shall not adversely affect the hydraulic capacity of the channel and adjoining floodplain of any tributary watercourse or drainage system.
- 5.3.10 Mobile homes and recreational vehicles shall meet the standards of Section 6.0 of this ordinance.

SECTION 6.0 MOBILE HOMES, MOBILE HOME PARKS, AND RECREATIONAL VEHICLES.

- 6.1 **Mobile Homes:** New mobile home parks, expansions to existing mobile home parks, and new or replacement mobile home units on lots of record are prohibited in the Floodway Zone. If in the Flood Fringe Zone, and allowed in the underlying zone, these uses are subject to the requirements of Section 5.0 of this ordinance in addition to the following standards.
- 6.2 **Standards for Placement of Mobile Homes:** New and replacement mobile homes in the Flood Fringe Zone shall comply with the following standards:
 - 6.2.1 New and replacement mobile homes must be elevated in compliance with Section 5.0 of this ordinance and shall 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.
 - 6.2.2 New or replacement mobile homes in existing mobile home parks shall have adequate road access for each individual mobile home site.
- 6.3 **Recreational Vehicles:** Placement of recreational vehicles in the floodplain shall meet the exemption criteria below or be treated as new structures meeting the requirements of this ordinance.
 - 6.3.1 Recreational vehicles are exempt from the provisions of this ordinance if they are placed in any of the following areas and meet the criteria listed in Section 6.3.2:

- (a) Individual lots or parcels of record.
- (b) Existing commercial recreational vehicle parks or campgrounds.
- (c) Existing condominium-type associations.

6.3.2 Criteria for Exempt Recreational Vehicles:

- (a) The vehicle must have a current license required for highway use.
- (b) The vehicle must be highway ready, meaning on wheels or the internal jacking system, attached to the site only by quick disconnect type utilities commonly used in campgrounds and recreational vehicle parks.
- (c) No permanent structural type additions may be attached to the vehicle.
- (d) The vehicle and associated use must be permissible in any pre- existing, underlying zoning district.

6.3.3 New commercial recreational vehicle parks or campgrounds, and the expansion of any similar existing use exceeding five (5) units or dwelling sites, shall only be allowed in the Flood Fringe Zone if the recreational vehicles are placed on fill at or above the Flood Protection Elevation and adequate road access to the site is provided.

SECTION 7.0 ADMINISTRATION

7.1 Agency Designated: The City of Ann Arbor, Public Services Area, Systems Planning Unit shall assume responsibility for designating a Floodplain Administrator to oversee the implementation of this ordinance. All proposed development within the Floodplain Overlay District as defined in Section 2.2 and identified on the Flood Insurance Rate Map shall be approved by the Floodplain Administrator prior to site plan approval or issuance of building permits by the Building Official.

7.2 Development Approval. Any request for site plan approval or a building permit shall be accompanied by the following materials for review by the Floodplain Administrator:

- 7.2.1** A site plan showing all pertinent dimensions, existing or proposed buildings, structures, and significant natural features.
- 7.2.2** Location of fill or storage of materials in relation to the stream channel.
- 7.2.3** Copies of any required municipal, county, state or federal permits or approvals.
- 7.2.4** If a proposed project involves fill, a new structure, or an addition to an existing structure that displaces any part of the existing floodplain, the applicant shall obtain a permit from the Michigan Department of Environmental Quality (MDEQ) prior to approval by the City. Additionally the applicant shall obtain a Conditional Letter of Map Revision from FEMA prior to the issuance of permits by the City. For projects that receive a Conditional Letter of Map Revision, a final Letter of Map Revision is required to be obtained from FEMA and a copy provided to the City prior to the issuance of a certificate of occupancy or final permit approval.
- 7.2.5** Other relevant information requested by the Floodplain Administrator as necessary to properly evaluate the permit application.

7.3 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 a certificate of zoning compliance has been issued by the City Planner stating that the use of the building or land conforms to the requirements of this ordinance.

7.4 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 ordinance. Floodproofing measures shall be certified by a registered

professional engineer or registered architect.

7.5 Record of First Floor Elevation. The Floodplain 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 floodplain. The Floodplain Administrator shall also maintain a record of the elevation to which structures and alterations or additions to structures are floodproofed.

7.6 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 Floodplain Administrator shall notify the Chicago Regional Office of FEMA of the changes by submitting a copy of the relevant technical or scientific data.

7.7 Variances: The Zoning Board of Appeals shall have the authority to interpret this chapter and may in specific cases grant variances to these requirements providing such variance is in harmony with the general purpose and intent of the requirements. The procedural requirements for appeals under Chapter 55 shall be applicable to appeals under this chapter. In addition to the procedures of Chapter 55, when variances are requested the applicant shall show that variance request is consistent with the requirement of the National Flood Insurance Program.

7.7.1 The Zoning Board of Appeals may, upon appeal, grant a variance from the standards of this ordinance if an applicant convincingly demonstrates that:

- (a) Literal enforcement of the ordinance provisions will cause unnecessary hardship. The hardship is due to adoption of the floodplain ordinance and has unique property conditions, not common to adjacent lots or premises.
- (b) The variance is not contrary to the public interest.
- (c) The variance is consistent with the purpose of this ordinance.
- (d) The variance will not cause any increase in the base flood elevation.
- (e) The variance is the minimum relief necessary, will not cause increased risks to public safety or nuisances, will not increase costs for rescue and relief efforts, and there is good and sufficient cause.

7.7.2 A variance shall not:

- (a) Grant, extend or increase any use prohibited in the zoning district.
- (b) Be granted for a hardship based solely on an economic gain or loss.
- (c) Be granted for a hardship, which is self-created.
- (d) Damage the rights or property values of other persons in the area.
- (e) Allow actions without the amendments to Flood Insurance Rate Maps that may be required.
- (f) Allow any alteration of an historic structure, including its use, which would preclude its continued designation as an historic structure.

7.7.3 Adherence to State Floodplain Management Standards. A variance shall not allow a use that is not allowed in that zone, permit a lower degree of flood protection than the Flood Protection Elevation for the particular area, or permit standards lower than those required by state law.

7.7.4 Flood Insurance Notice. The Zoning Board of Appeals 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 base flood level increases risks to life and property. Such notification shall be maintained with a record of all variance actions.

7.7.5 Record-Keeping. The Zoning Board of Appeals shall maintain a record of all variance actions, including justification for their issuance, and shall 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.

7.8 General Considerations for Variances and Special Exceptions. The community may consider the following factors in granting variances and imposing conditions on variances and special exceptions in floodplains:

- 7.8.1** The potential danger to life and property due to increased flood heights or velocities caused by encroachments.
- 7.8.2** The danger that materials may be swept onto other lands or downstream to the injury of others.
- 7.8.3** The proposed water supply and sanitation systems, if any, and the ability of these systems to minimize the potential for disease, contamination and unsanitary conditions.
- 7.8.4** The susceptibility of any proposed use and its contents to flood damage and the effect of such damage on the individual owner.
- 7.8.5** The importance of the services to be provided by the proposed use to the community.
- 7.8.6** The requirements of the facility for a waterfront location.
- 7.8.7** The availability of viable alternative locations for the proposed use that are not subject to flooding.
- 7.8.8** The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
- 7.8.9** The relationship of the proposed use to the Comprehensive Land Use Plan and floodplain management program for the area.
- 7.8.10** The safety of access to the property in times of flood for ordinary and emergency vehicles.
- 7.8.11** The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site.

7.9 Special Exceptions: An application for a special exception permit under the provisions of this ordinance will be processed and reviewed in accordance with Chapter 55 of the City of Ann Arbor Municipal Code, and in particular Section 5:104 of that Chapter.

7.9.1 Factors Used in Administrative Review and Decision-Making. In passing upon special exception applications, the City Planning Commission shall consider all relevant factors specified in other sections of this ordinance, and those factors identified in Section 7.7.4 of this ordinance.

7.9.2 Conditions Attached to Special Exception Permits. The City Planning Commission may attach such conditions to the granting of special exception permits as it deems necessary to fulfill the purposes of this ordinance. Such conditions may include, but are not limited to, the following:

- (a)** Modification of waste treatment and water supply facilities.
- (b)** Limitations on period of use, occupancy, and operation.
- (c)** Imposition of operational controls, sureties, and deed restrictions.
- (d)** Requirements for construction of channel modifications, compensatory storage, dikes, levees, and other protective measures.
- (e)** Floodproofing measures, in accordance with the Michigan Building Code and this ordinance. The applicant shall submit a plan or document certified by a registered professional engineer or architect showing that the floodproofing

measures are consistent with the Flood Protection Elevation and associated flood factors for the particular area.

- 7.9.3 Submittal of Hearing Notices to the MDEQ.** The Systems Planning Unit shall submit hearing notices for proposed special exceptions to the MDEQ 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 MDEQ area hydrologist.
- 7.9.4 Submittal of Final Decisions to the MDEQ.** A copy of all decisions granting special exceptions shall be forwarded to the MDEQ within ten days of such action. The notice may be sent by electronic mail or U.S. Mail to the respective MDEQ area hydrologist.

SECTION 8.0 NONCONFORMITIES

8.1 Continuance of Nonconformities. A use, structure, or occupancy of land which was lawful before the passage or amendment of this ordinance but which is not in conformity with the provisions of this ordinance may be continued subject to the following conditions. Historic structures, as defined by this ordinance, are subject to the provisions of Sections 8.1.1 – 8.1.7 of this ordinance.

- 8.1.1** A nonconforming use, structure, or occupancy must not be expanded, changed, enlarged, or altered in a way that increases its nonconformity. Expansion or enlargement of uses, structures or occupancies within the Floodway District is prohibited.
- 8.1.2** 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 must be protected to the Flood Protection Elevation in accordance with any of the elevation on fill or floodproofing techniques allowable in the Michigan Building Code, except as further restricted in 8.1.3 and 8.1.7 below.
- 8.1.3** The cost of all structural alterations or additions to any nonconforming structure over the life of the structure may not exceed 50 percent of the market value of the structure unless the conditions of this Section are satisfied. The cost of all structural alterations and additions shall include all costs such as construction materials and a reasonable cost placed on all manpower or labor. If the cost of all previous and proposed alterations and additions exceeds 50 percent of the market value of the structure, then the structure must meet the standards of Section 4.0 or 5.0 of this ordinance for new structures depending upon whether the structure is in the Floodway Zone or Flood Fringe Zone, respectively.
- 8.1.4** 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 ordinance. The Assessor shall notify the Floodplain Administrator in writing of instances of nonconformities that have been discontinued for a period of more than one year.
- 8.1.5** If any nonconformity is substantially damaged, as defined in Section 10.32 of this ordinance, it may not be reconstructed except in conformity with the provisions of this ordinance. The applicable provisions for establishing new uses or new structures in Sections 4.0 or 5.0 will apply depending upon whether the use or structure is in the Floodway or Flood Fringe, respectively.
- 8.1.6** If any nonconforming use or structure experiences a repetitive loss, as defined in Section 10.29 of this ordinance, it must not be reconstructed except in conformity with the provisions of this ordinance.
- 8.1.7** Any substantial improvement, as defined in Section 10.33 of this ordinance, to a nonconforming structure requires that the existing structure and any additions must meet the requirements of Section 4.0 or 5.0 of this ordinance for new structures, depending upon whether the structure is in the Floodway Zone or Flood Fringe Zone, respectively.

SECTION 9.0 PENALTIES AND ENFORCEMENT

- 9.1** Whenever the performance of any act is required or prohibited by the provisions of this chapter, a failure to comply with such provisions shall constitute a violation of this chapter. The Building Official may issue a stop work order on the remaining portion of construction or may refuse the issuance of building permits or certificates of occupancy. The Building Official may also cause such work, as necessary for compliance with this chapter, to be performed and the expense of work performed shall become a debt to the City from the landowner and may be collected as a single lot assessment under Section 1:292 of the City Code, or in any other manner in which an indebtedness due the City may be collected. Additional enforcement provisions are included in Chapter 100 of this Code and the Michigan Building Code and Michigan Residential Code.
- 9.2 Penalty.** A violation of this chapter is a municipal civil infraction subject to a civil fine of no more than \$2,500.00 and no less than \$1000.00 per day plus costs plus equitable relief as may be ordered by the court, including but not necessarily limited to ordering the person to restore the area or areas affected by the violation to their condition as existing immediately prior to the violation. Each day and each violation constitutes a separate violation.
- 9.3 Other Lawful Action.** Nothing in this ordinance restricts the City of Ann Arbor 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 Floodplain 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.

SECTION 10.0 DEFINITIONS

Definitions: Unless specifically defined below, words or phrases used in this ordinance shall be interpreted according to common usage and so as to give this ordinance its most reasonable application.

- 10.1** 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.
- 10.2** Applicant – the person or entity named on site plan or building permit and seeking approval under this ordinance.
- 10.3** Base Flood – the flood having a one-percent (1%) chance of being equaled or exceeded in any given year. The base flood is also known as the 100-year frequency flood event.
- 10.4** Base Flood Elevation – the elevation shown on the Flood Insurance Study that indicates the water surface elevation resulting from a flood that has a one percent chance of equaling or exceeding that level in any given year.
- 10.5** Basement – 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.
- 10.6** Building Footprint – the area on a project site used by the building structure, defined by the perimeter of the building plan.
- 10.7** Building Official – person employed by the City of Ann Arbor meeting the Building Official requirements of the Michigan Building Code.
- 10.8** Critical Facilities – as referenced in the Michigan Building Code, critical facilities are typically any facility, which is critical to the health and welfare of the population and, if flooded, would create an added dimension to the disaster. This category of buildings corresponds to Type III and Type IV buildings as defined in the ASCE 24-05.
- 10.9** Dwelling – one or more rooms with kitchen and sanitary facilities designed as a unit for human habitation.
- 10.10** 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.

- 10.11** Flood Frequency – the frequency for which it is expected that a specific flood stage or discharge may be equaled or exceeded.
- 10.12** Floodproofing – any combination of structural and non-structural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents that meets the requirements of the Michigan Building Code.
- 10.13** Floodplain – the lands within the City of Ann Arbor typically adjacent to a body of water or watercourse that are subject to inundation by the base flood.
- 10.14** Floodplain Administrator – the Stormwater and Floodplain Programs Coordinator in the Systems Planning Unit, or the official designated to administer this chapter by the Systems Planning Unit Manager.
- 10.15** Floodway – refers to the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to store and discharge the base flood without cumulatively increasing the water surface elevation more than 0.1 feet, as designated by the Michigan Department of Environmental Quality and indicated on the Flood Insurance Rate Map.
- 10.16** Flood Fringe – that portion of the floodplain outside of the floodway. Flood fringe is synonymous with the term “floodway fringe” used in the Flood Insurance Study for Washtenaw County, Michigan.
- 10.17** Flood Hazard Areas – the Floodway Zone and the Flood Fringe Zone as designated in Section 3.0.
- 10.18** Flood Insurance Rate Map – a map prepared by FEMA that depicts the flood hazard areas within a community. This map includes insurance rate zones, floodplains, floodways, and base flood elevation.
- 10.19** Flood Insurance Study – an examination, evaluation and determination of flood hazards and if appropriate, corresponding water surface elevations.
- 10.20** Flood Protection Elevation – an elevation no lower than one foot above the elevation of the 500-year flood plus any increases in flood elevation caused by encroachments on the floodplain that result from designation of a floodway. The 500-year flood elevation is the elevation shown on the Flood Insurance Study that indicates the water surface elevation resulting from the flood that has a 0.2 percent chance of equaling or exceeding that level in a given year.
- 10.21** 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.
- 10.22** Mobile Home – a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term “mobile home” does not include the term “recreational vehicle.”
- 10.23** Market Value – the market value of a structure is true cash value as shown on the official City of Ann Arbor Tax Assessor’s records. The market value of a structure does not include the value of the land, or other structures on the property.
- 10.24** 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 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.
- 10.25** Official Zoning Map – the City of Ann Arbor zoning map established in Section 5:4 in Chapter 55 of the City of Ann Arbor municipal code.
- 10.26** Principal Use or Structure – all uses or structures that are not accessory uses or structures.
- 10.27** 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.

- 10.28** 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 ordinance, the term recreational vehicle is synonymous with the term “travel trailer/travel vehicle.”
- 10.29** 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.
- 10.30** Special Exception – a specific type of structure or land use described herein that may that may be allowed but only after an in-depth review procedure and with appropriate conditions or restrictions as provided in the official zoning code or building codes and upon a finding that (a) certain conditions as detailed in the zoning ordinance exist, and (b) the structure and/or land use conform to the comprehensive land use plan if one exists and are compatible with the existing neighborhood.
- 10.31** 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, mobile homes, recreational vehicles not meeting the exemption criteria specified in Section 6.3 of this ordinance and other similar items.
- 10.32** 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 percent of the market value of the structure before the damage occurred.
- 10.33** Substantial Improvement – within a 10 year 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:
- (a)** 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.
 - (b)** 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 ordinance, “historic structure” is as defined in 44 Code of Federal Regulations, Part 59.1.