

CHAPTER 5

FLOOD HAZARD AREAS**SECTION:**

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10-5-1: INTENT:

- A. It is the purpose of this Chapter to significantly reduce hazards to persons and damage to property as a result of flood conditions in Thomas Township, and to comply with the provisions and requirements of the National Flood Insurance Program, as constituted in accord with the National Flood Insurance Act of 1968, and subsequent enactments and rules and regulations promulgated in furtherance of this program by the Federal Emergency Management Agency, as published in the Federal Register, Vol. 41, No. 207, Tuesday, October 26, 1976, and redesignated at 44 FR 31177, May 31, 1979.
- B. Further, the objectives of this Chapter include:
 - 1. The protection of human life, health and property from the dangerous and damaging effects of flood conditions;
 - 2. The minimization of public expenditures for flood control projects, rescue and relief efforts in the aftermath of flooding, repair of flood damaged public facilities and utilities, and the redevelopment of flood damaged homes, neighborhoods, commercial and industrial areas;

3. The prevention of private and public economic loss and social disruption as a result of flood conditions;
4. The maintenance of stable development patterns not subject to the blighting influence of flood damage;
5. To ensure that the public has access to information indicating the location of land areas subject to periodic flooding; and
6. To preserve the ability of flood plains to carry and discharge a base flood.
(Ord. 97-Z-03, 11-3-1997, eff. 12-12-1997)

10-5-2: SUPPLEMENTARY DEFINITIONS: For the purpose of this Chapter, words and terms shall be defined as in subsections 10-1-7A and B hereof except the following:

AREA OF SPECIAL FLOOD HAZARD:	Is the land in the flood plain within a community subject to a one percent (1%) or greater chance of flooding in any given year, or within A, A-1 through A-30 Zones as shown on the Flood Insurance Rate Map.
BASE FLOOD:	Means the flood having a one percent (1%) chance of being equalled or exceeded in any given year.
DEVELOPMENT:	Means any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.
FLOOD HAZARD AREA:	Means land which on the basis of available flood plain information is subject to a one percent (1%) or greater chance of flooding in any given area.
FLOOD INSURANCE RATE MAP (FIRM):	Means an official map of a community on which the Federal Insurance Administration has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

FLOOD INSURANCE STUDY:	Is the official report provided by the Federal Emergency Management Agency (FEMA). The report contains flood profiles, as well as the Flood Hazard Boundary-Floodway Map and the water surface elevation of the base flood.
FLOOD OR FLOODING:	Means a general and temporary condition of partial or complete inundation of normally dry land areas from: A. The overflow of inland or tidal waters. B. The unusual and rapid accumulation or runoff or surface waters from any source.
FLOOD PLAIN:	Means any land area susceptible to being inundated by water from any source (see definition of Flood).
FLOODWAY:	Means the channel of a river or other water-course and the adjacent land areas designated in the Flood Insurance Study which must be reserved in order to discharge the base flood.
HARMFUL INCREASE:	Means an unnaturally high stage on a river, stream or lake which causes or may cause damage to property, threat to life, personal injury or damage to land or water resources.
MANUFACTURED HOME:	Means a structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. It does not include recreational vehicles or travel trailers.
NEW CONSTRUCTION:	Means structures for which the "start of construction" commenced on or after the effective date of this Ordinance.

STRUCTURE:	Means a walled and roofed building that is principally above ground, gas or liquid storage facility, as well as a mobile home.
SUBSTANTIAL IMPROVEMENT:	Means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure either, before the improvement or repair is started or if the structure has been damaged and is being restored, before the damage occurred. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either any project for improvement of a structure to comply with existing State or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions, or any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

(Ord. 97-Z-03, 11-3-1997, eff. 12-12-1997)

10-5-3: DELINEATION OF THE FLOOD HAZARD OVERLAY ZONE:

- A. Overlay Zone Delineated: The flood hazard area zone shall overlay existing zoning districts delineated on the Official Thomas Township Zoning Map. The boundaries of the flood hazard area zone shall coincide with the boundaries of the areas indicated as within the limits of the 100-year flood in the report entitled "The Flood Insurance Study Saginaw County Unit", dated October 16, 1997, with accompanying Flood Insurance Rate Maps and Flood Boundary and Floodway Maps. Within the flood hazard area zone a regulatory floodway shall be designated. The boundaries of the regulatory floodway shall coincide with the floodway boundaries indicated on the flood boundary and floodway map. The study and accompanying maps are

adopted by reference, appended, and declared to be a part of this Ordinance. The term "flood hazard area" as used in this Ordinance shall mean the flood hazard area zone and the term "floodway" shall mean the designated regulatory floodway.

- B. Disputes: Where there are disputes as to the location of a flood hazard area zone boundary, the Zoning Board of Appeals shall resolve the dispute in accord with Section 10-5-12 hereof.
- C. Compliance With Provisions; Conflicts: In addition to other requirements of this Ordinance applicable to development in the underlying zoning district, compliance with the requirements of this Chapter shall be necessary for all development occurring within the flood hazard area zone. Conflicts between the requirements of this Chapter and other requirements of this Ordinance or any ordinance shall be resolved in favor of this Chapter except where the conflicting requirement is more stringent and would further the objectives of this Chapter. In such cases the more stringent requirement shall be applied. (Ord. 97-Z-03, 11-3-1997, eff. 12-12-1997)

10-5-4: DEVELOPMENT GENERALLY PROHIBITED WITHOUT PERMIT: Development including the erection of structures and placement of manufactured homes, within a flood hazard area shall not occur without compliance with the following standards:

- A. Compliance With Flood Control Regulations: The requirements of this Chapter shall be met.
- B. Compliance With Zoning Regulations: The requirements of the underlying zoning districts and applicable general provisions of this Ordinance shall be met.
- C. Development Permits: All necessary development permits shall have been issued by appropriate local, State and Federal authorities, including a flood plain permit, approval, or letter of no authority from the Michigan Department of Natural Resources under authority of Act 245, Public Acts of 1929, as amended by Act 167, Public Acts of 1968. Where a development permit cannot be issued prior to the issuance of evidence of Zoning Ordinance compliance, a letter from the issuing agency indicating intent to issue contingent only upon proof of zoning compliance shall be acceptable. (Ord. 97-Z-03, 11-3-1997, eff. 12-12-1997)

10-5-5: GENERAL STANDARDS FOR FLOOD HAZARD REDUCTION:

- A. New Construction: All new construction and substantial improvements within a flood hazard area, including the placement of prefabricated buildings and mobile homes, shall:
 - 1. Be designed and anchored to prevent flotation, collapse or lateral movement of the structure;
 - 2. Be constructed with materials and utility equipment resistant to flood damage; and
 - 3. Be constructed by methods and practices that minimize flood damage.
- B. Water Supply: All new and replacement water supply systems shall minimize or eliminate infiltration of flood waters into the systems.
- C. Sewage Systems: All new and replacement sanitary sewage systems shall minimize or eliminate infiltration of flood waters into the systems and discharges from systems into flood waters. On-site waste disposal systems shall be located to avoid impairment to the system or contamination from the system during flooding.
- D. Utilities: All public utilities and facilities shall be designed, constructed and located to minimize or eliminate flood damage.
- E. Drainage: Adequate drainage shall be provided to reduce exposure to flood hazards.
- F. Compliance With Provisions: The Zoning Administrator or his representative shall review development proposals to determine compliance with the standards in this Section.
- G. Land Divisions: Land shall not be divided in a manner creating parcels or lots which cannot be used in conformance with the requirements of this Chapter.
- H. Altered Watercourses: The flood-carrying capacity of any altered or relocated watercourse not subject to State or Federal regulations designed to insure flood-carrying capacity shall be maintained.
- I. Utilization Of Information: Available flood hazard data from Federal, State or other sources shall be reasonably utilized in meeting the standards of this

Section. Data furnished by the Federal Insurance Administration shall take precedence over data from other sources. (Ord. 97-Z-03, 11-3-1997, eff. 12-12-1997)

10-5-6: SPECIFIC BASE FLOOD ELEVATION STANDARDS:

- A. Standards Enumerated: On the basis of the most recent available base flood elevation data the following standards shall apply in the flood hazard area zone:
1. All new construction and substantial improvements of residential structures shall have the lowest floor, including basement, elevated to or above the base flood level.
 2. All new construction and substantial improvements of nonresidential structures shall have either:
 - a. The lowest floor, including basement, elevated to or above the base flood level; or
 - b. Be constructed such that below base flood level, together with attendant utility and sanitary facilities, the structure is watertight with walls substantially impermeable to the passage of water and with structural components that have the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall certify that the standards of this paragraph are satisfied and that the floodproofing methods employed are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with a base flood in the location of the structure. Such certification shall be submitted as provided in subsection 10-5-8B1 hereof and shall indicate the elevation to which the structure is floodproofed.
- B. Base Flood Elevation Data: The most recent base flood elevation data received from the Federal Emergency Management Agency shall take precedence over data from other sources. (Ord. 97-Z-03, 11-3-1997, eff. 12-12-1997)

10-5-7: MANUFACTURED HOME PARK STANDARDS IN REGULATORY FLOOD PLAIN:

- A. Anchoring: All manufactured homes shall be anchored to resist flotation,

collapse, or lateral movement by providing over-the-top and frame ties in accord with the following specifications:

1. Over-the-top ties shall be provided at each of the four (4) corners of the manufactured home, with two (2) additional ties per side at intermediate locations, except that on manufactured homes less than fifty feet (50') in length one tie per side shall be required.

2. Frame ties shall be provided at each corner of the home with five (5) additional ties per side at intermediate points, except that on manufactured homes less than fifty feet (50') in length four (4) ties per side shall be required.

3. All components of the anchoring system shall be capable of carrying a force of four thousand eight hundred (4,800) pounds.

4. All additions to a manufactured home shall be similarly anchored.

B. Evacuation Plan: An evacuation plan indicating alternate vehicular access and escape routes for manufactured home parks shall be filed with the Zoning Administrator and the Saginaw County Emergency Management Office.

C. Manufactured Homes In Zones A1-30: Manufactured homes within Zones A1-30 on the Flood Insurance Rate Map shall be located in accord with the following standards:

1. All manufactured homes shall be placed on stands or lots which are elevated on compacted fill or on pilings so that the lowest floor of the mobile home will be at or above the base flood level.

2. Adequate surface drainage away from all structures and access for a manufactured home hauler shall be provided.

3. In the instance of elevation on pilings, lots shall be large enough to permit steps; piling foundations shall be placed in stable soil no more than ten feet (10') apart; and reinforcement shall be provided for piers more than six feet (6') above ground level.

4. In manufactured home parks which exist at the time this subsection is adopted, where repair, reconstruction or improvement of streets, utilities and pads equals or exceeds fifty percent (50%) of the value of the streets,

utilities and pads before the repair, the standards in subsection C1, C2 and C3 hereof shall be complied with. (Ord. 97-Z-03, 11-3-1997, eff. 12-12-1997)

10-5-8: FLOODWAY PROTECTION STANDARDS:

- A. **Restricted Developments:** New construction, substantial improvements and all other development, including fill, shall be prohibited within zones numbered A1-30 on the FIRM, except where it is demonstrated to the Zoning Administrator that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not harmfully increase the water surface elevation of a base flood. In determining whether a harmful increase will occur, compliance with Public Act 245 of 1929, as amended by Public Act 167 of 1968, shall be required, provided that the allowable increase shall not exceed one foot (1'). The provisions of this Section shall not apply within the regulatory floodway. The provisions of subsection B hereof shall be applied to land situated within the regulatory floodway.
- B. **Development Standards In The Regulatory Floodway:** All development occurring within the regulatory floodway shall comply with the following standards:
 - 1. Encroachments, including fill, new construction, substantial improvements and other development shall be prohibited. Exception to this prohibition shall only be made upon certification by a registered professional engineer or the Department of Natural Resources that the development proposed will not result in any increases in flood levels during a base flood discharge, and compliance with Act 245, Public Acts of 1929, as amended by Act 167, Public Acts of 1968.
 - 2. The placement of manufactured homes shall be prohibited except in manufactured home parks which exist at the time this Chapter is adopted.
 - 3. Development which is permitted in the regulatory floodway shall meet the requirements of Sections 10-5-4 to 10-5-7 hereof.
- C. **Use Restrictions:** The uses of land permitted in an underlying zoning district shall not be construed as being permitted within the regulatory floodway, except upon compliance with the provisions on this Section. (Ord. 97-Z-03, 11-3-1997, eff. 12-12-1997)

10-5-9: FLOOD PLAIN MANAGEMENT ADMINISTRATIVE DUTIES:

- A. General Duties Of Zoning Administrator: With regard to the National Flood Insurance Program, and the regulation of development within the flood hazard area zone as prescribed in this Chapter the duties of the Zoning Administrator shall include, but are not limited to:
1. Notification to adjacent communities and the Department of Natural Resources of the proposed alteration or relocation of any watercourse, and the submission of such notifications to the Federal Insurance Administration.
 2. Verification and recording of the actual elevation in relation to mean sea level of the lowest floor, including basement, of all new or substantially improved structures constructed within the flood hazard area and in the case of floodproofed structures, the elevation to which the structure was floodproofed.
 3. Recording of all certificates of floodproofing and written notification to all applicants to whom variances are granted in a flood hazard area zone indicating the terms of the variance, the increased danger to life and property, and that the cost of flood insurance will increase commensurate with the increased flood risk and may reach amounts in excess of twenty five dollars (\$25.00) for one hundred dollars (\$100.00) of insurance coverage per year. A record of all variance notifications and variance actions shall be maintained together with the justification for each variance.
- B. Maps And Records: All records and maps pertaining to the National Flood Insurance Program shall be maintained in the office of the Zoning Administrator and shall be open for public inspection.
- C. Use Of Flood Hazard Data: It shall be the responsibility of the zoning administrator to obtain and utilize the best available flood hazard data for purposes of administering this Ordinance in the absence of data from the Flood Insurance Administration. (Ord. 97-Z-03, 11-3-1997, eff. 12-12-1997)

10-5-10: FLOOD HAZARD AREA APPLICATION INFORMATION: In addition to the information required with an application for a special use permit or any other type of development permission required under the Zoning Ordinance, the following information shall be submitted as a part of an application for permission to commence any type of development within a flood hazard area zone:

- A. The elevation in relation to mean sea level of the floor, including basement, of all structures;

- B. Where floodproofing will be employed, the elevation in relation to mean sea level to which a structure will be floodproofed;
- C. Where floodproofing will be employed, a certificate from a registered professional engineer or architect that the floodproofing criteria of this Ordinance will be met;
- D. Where it can be determined that development is proposed within Zones A1-30 on the FIRM or the regulatory floodway, a certification as required by this Ordinance;
- E. A description of the extent to which any watercourse will be altered or relocated as a result of proposed development;
- F. Proof of development permission from appropriate local, State and Federal agencies as required by subsection 10-5-4C hereof, including a flood plain permit approval, or letter of no authority from the Michigan Department of Natural Resources under authority of Act 245, Public Acts of 1929, as amended by Act 167, Public Acts of 1968.
- G. Base flood elevation data where the proposed development is subject to Public Act 288 of 1967 or greater than five (5) acres in size; and
- H. Additional information which may be reasonably necessary to determine compliance with the provisions of this Ordinance. (Ord. 97-Z-03, 11-3-1997, eff. 12-12-1997)

10-5-11: FLOOD HAZARD AREA ZONE VARIANCES:

- A. Standards For Variance: Variances from the provisions of this Chapter shall only be granted by the Zoning Board of Appeals upon a determination of compliance with the general standards for variances contained in this Ordinance and each of the following specific standards:
 - 1. A variance shall not be granted within a regulatory floodway where the result would be any increase in flood levels during a base flood discharge, except upon certification by a registered professional engineer or the Department of Natural Resources that the cumulative effect of the proposed development will not harmfully increase the water surface elevation of a base flood. In determining whether a harmful increase will occur, compliance with Public Act 245 of 1929, as amended by Public Act 167 of

1968, shall be required, provided that the allowable increase, including the increase used as the design standard for delineating the floodway shall not exceed one foot (1').

2. A variance shall be granted only upon:

- a. A showing of good and sufficient cause;
- b. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and
- c. A determination that the granting of a variance will not result in flood heights in excess of those permitted by this Ordinance, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing laws or ordinances.

3. A variance granted shall be the minimum necessary, considering the flood hazard, to afford relief to the applicant.

- B. Conditions Of Variance: The Zoning Board of Appeals may attach conditions to the granting of a variance to insure compliance with the standards contained in this Ordinance.
- C. Historic Structures: Variances may be granted for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the Michigan Historic Markers listing of historic sites or any other State register of historic places without regard to the requirements of this Section governing variances in flood hazard areas. (Ord. 97-Z-03, 11-3-1997, eff. 12-12-1997)

10-5-12: MAPPING DISPUTES:

- A. Boundary Location Disputes: Where disputes arise as to the location of the flood hazard area boundary or the limits of the floodway, the Zoning Board of Appeals shall resolve the dispute and establish the boundary location. In all cases, the decision of the Zoning Board of Appeals shall be based upon the most current flood plain studies issued by the Federal Emergency Management Agency. Where Federal Insurance Administration information is not available, the best available flood plain information shall be utilized.
- B. Mapping Errors: Where a dispute involves an allegation that the boundary is incorrect as mapped and Federal Insurance Administration flood plain

studies are being questioned, the Zoning Board of Appeals shall modify the boundary of the flood hazard area or the floodway only upon receipt of an official letter of map amendment issued by the Federal Emergency Management Agency.

- C. Technical Evidence: All parties to a map dispute may submit technical evidence to the Zoning Board of Appeals. (Ord. 97-Z-03, 11-3-1997, eff. 12-12-1997)

10-5-13: DISCLAIMER OF LIABILITY: The degree of flood protection required by this Ordinance is considered reasonable for regulatory purposes and is based upon engineering and scientific methods of study. Larger floods may occur on rare occasions. Flood heights may be increased by manmade or natural causes, such as ice jams and bridge openings restricted by debris. Approval of the use of land under this Chapter shall not be considered a guarantee or warranty of safety from flood damage. This Ordinance does not imply that areas outside the flood hazard area will be free from flood damage. This Ordinance does not create liability on the part of Thomas Township or any officer or employee thereof for any flood damages that result from reliance on this Ordinance or any administrative decision lawfully made thereunder. (Ord. 97-Z-03, 11-3-1997, eff. 12-12-1997)

