FLOODPLAIN MANAGEMENT ORDINANCE

CHARTER TOWNSHIP OF SANDSTONE, JACKSON COUNTY, MICHIGAN

Ordinance # 50-2011 Effective Date: 4-11-11

THE TOWNSHIP OF SANDSTONE HEREBY ORDAINS:

SECTION 1: GENERAL

Section 1.1 Purpose and Objectives

It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

A. To protect human life and health;

B. To minimize expenditure of public money for costly flood control projects;

C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

D. To minimize prolonged business interruptions;

E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains.;

F. To help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize future flood blight areas; and

G. To ensure that potential home buyers are notified that property is in a flood area.

H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

Section 1.2 Definitions

The following words, terms and phrases, when used in this ordinance, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

APPEAL means a request for a review of the township building official's interpretation of any provision of this ordinance or a request for a variance.

AREA OF SPECIAL FLOOD HAZARD means the land in the floodplain within the township subject to a one percent or greater chance of flooding in a given year.

BASE FLOOD means the flood having a one percent chance of being equaled 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, paving, excavation or drilling operations located within the area of special flood hazard.

FLOOD or **FLOODING** means a general and temporary condition of partial or complete inundation of normally dry land areas from:

(1) The overflow of inland or tidal waters; and/or

(2) The unusual and rapid accumulation or runoff of surface waters from any source.

FLOOD INSURANCE RATE MAP (FIRM) means the official map on which the Federal Emergency Management Agency has delineated the areas of special flood hazards applicable to the township and which is adopted in Section 2.2.

FLOOD INSURANCE STUDY means the official report in which the Federal Emergency Management Agency has provided flood profiles, as well as the flood insurance rate maps and the water surface elevation of the base flood.

FLOODWAY means the channel of a river or other watercourse and the adjacent land areas designated in the flood insurance study which must be reserved in order to discharge the base flood.

MANUFACTURED HOME means 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 connected to the required facilities. For floodplain management purposes the term "manufactured home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. For insurance purposes the term "manufactured home" does not include park trailers, travel trailers and other similar vehicles.

MANUFACTURED HOME PARK OR DIVISION means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

RECREATIONAL VEHICLE. A vehicle that is built on a single chassis, 400 square feet ($37.16m^2$) or less when measured at the largest horizontal projection, designed to be self-propelled or permanently towable by a light-duty truck, and designed primarily not for use as a permanent dwelling but as temporary living quarters for recreation, camping, travel or seasonal use. A 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-type utilities and security devices and has no permanently attached additions.

STATE OF CONSTRUCTION includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within 180 days of the permit date. The actual start date means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the constriction of columns, or any work beyond the stage of excavation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets, and/or walkways; nor does it include excavation for a basement, footings, or foundations or the erection of temporary forms.

STRUCTURE means all or any part of a walled and roofed building, a manufactured home, stockade or similar fence, prefabricated swimming pool, or a gas or liquid storage tank.

SUBSTANTIAL IMPROVEMENT means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

(1) Before the improvement or repair is started, or

(2) If the structure has been damaged and is being restored, before the damage occurred.

For purposes of this definition, the term "substantial improvement" is considered to occur when the first alternation 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 "substantial improvement" does not, however, include either:

(1) 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

(2) Any alteration of a structure listed on the National Register of Historic Places or a state inventory of historic places.

VARIANCE means a grant of relief from the requirements of this ordinance which permits construction in a manner that would otherwise be prohibited by this ordinance.

ZONING BOARD OF APPEALS means the board of zoning appeals for the township.

Section 1.3 Authority

This ordinance is enacted in accordance with the National Flood Insurance Act of 1968 as amended, and regulations promulgated thereunder, and subsequent enactments and rules and regulations promulgated in furtherance of such program by the United States Department of Housing and Urban Development, and the Federal Emergency Management Agency, and pursuant to state statue authorizing the township to adopt ordinances regulating public health, safety, and general welfare of persons and property.

Section 1.4 Findings of Fact

A. The areas of special flood hazards, described in this ordinance, in the township are subject to periodic inundation which can result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

B. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

Section 1.5 Scope of Ordinance

A. This ordinance shall not repeal, abrogate, annul, or in any way impair or interfere with existing provisions of other laws, ordinances or regulations, or with private

restrictions placed upon property by deed, covenant, or other private agreements, or with restrictive covenants running with the land to which the township is a party.

B. Where this ordinance imposes a greater restriction upon land than is imposed or required by such existing provision of any other ordinance of this township, the provisions of this ordinance shall control.

Section 1.6 Administration

The provisions of this ordinance shall be administered by the township building official in accordance with the National Flood Insurance Act of 1968, the rules and regulations promulgated thereunder, and this ordinance.

Section 1.7 Fees

The schedule of fees for the review of proposed development plans and issuance of development permits hereunder shall be as set from time to time by resolution of the township board.

Section 1.8 Liability

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the township, any officer or employee thereof, or the Federal Emergency Management Agency, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

Section 1.9 Methods of Reducing Flood Losses

In order to accomplish its purposes, this ordinance includes methods and provisions, as also outlined by the Michigan Building Code, Construction Code and Residential Code, for:

A. Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;

D. Controlling filling, grading, dredging, and other development which may increase flood damage; and

E. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

SECTION 2: FLOOD HAZARD ZONES

Section 2.1 Lands to which this Ordinance Applies

This ordinance shall apply to all areas of special flood hazards within the jurisdiction of the township.

Section 2.2 Designation of Regulated Flood Prone Hazard Areas

The Federal Emergency Management Agency (FEMA) Flood Insurance Study (FIS) entitled "Jackson County, Michigan (All Jurisdictions)" and dated May 3, 2010 and the Flood Insurance Rate Map(s) (FIRMS) panel numbers 26075C, 0175D, 0180D, 0190D, and 0301D dated May 3, 2010 are adopted by reference for the purposes of administration of this ordinance, the Michigan Construction Code, and declared to be a part of Section 1612.3 of the Michigan Building Code, and to provide the content of the "Flood Hazards" section of Table R301.2(1) of the Michigan Residential Code. Any amendments to the map or any study or map created which supersedes the aforementioned map are incorporated as part of this ordinance. Such map is on file at the township hall.

Section 2.3 Interpretation and Application of this Section

In the interpretation and application of this section to special flood hazard areas, all provisions shall be:

A. Considered as minimum requirements;

B. Liberally construed in favor of the governing body; and

C. Deemed neither to limit nor repeal any other powers granted under state statutes.

SECTION 3: ADMINISTRATION

Section 3.1 Development Permit Required

A. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 2.2. Application for a development permit shall be made on forms furnished by the township building official and shall include, but not limited to: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing.

B. Specifically, the following information is required:

(1) Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;

(2) Elevation in relation to mean sea level to which any structure has been floodproofed;

(3) Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 4.2; and

(4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

Section 3.2 Duties and Responsibilities of the Building Official

The duties of the Building Official shall include, but not be limited to:

A. Review of all applications for development permits to determine that the permit requirements of this section have been satisfied.

B. Review of all applications for development permits to determine that all necessary permits have been obtained from those federal, state or local governmental agencies from which prior approval is required.

C. Review of all applications for development permits to determine if the proposed development adversely affects the flood-carrying capacity of the area of special flood hazard. For the purposes of this section, the term "adversely affects" means decreasing the flood-carrying capacity of the area of special flood hazard of damaging adjacent properties because of rises in flood stages attributed to physical changes of the channel and the adjacent overbank areas.

(1) If it is determined that there is no adverse effect, than the permit shall be granted consistent with the provisions of this section.

(2) If it is determined that there is an adverse effect, then flood damage mitigation measures shall be made a condition of the permit.

D. When base flood elevation data has not been provided in accordance with section 2.2, basis for establishing special flood hazard areas, the building official shall obtain, review and reasonably utilize any base flood elevation data available from a federal, state or other source, in order to administer section 4.2, specific standards for flood hazard reduction.

E. Obtain and record the actual elevation, in relation to mean sea level, of the bottom of the lowest structural member of the lowest floor, including basement, of all new or substantially improved structures, and whether or not the structure contains a basement.

F. For all new or substantially improved floodproofed structures:

(1) Obtain and record the actual elevation, in relation to mean sea level, to which the structure has been floodproofed; and

(2) Maintain the floodproofing certifications required in section 4.2.

G. Maintain for public inspection all records pertaining to the provisions of this section.

H. Notify adjacent communities and the Michigan Department of Environmental Quality prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency, and require that maintenance is provided within the altered or relocated portion of such watercourse so that the flood-carrying capacity is not diminished.

I. Make interpretation where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions).

SECTION 4: FLOOD HAZARD REDUCTION

Section 4.1 General Standards

In all areas of special flood hazards, the following standards are required:

A. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure;

B. All recreational vehicles are prohibited in flood hazard areas for more than 180 consecutive days.

C. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;

D. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage;

E. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;

F. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters;

G. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding;

H. All subdivision proposals shall be consistent with the need to minimize flood damage;

I. All subdivision proposals shall ~~be~~ have public utilities and facilities such as sewer, gas, electrical, heating, ventilation, plumbing, air-conditioning equipment, water systems designed, located and constructed as to prevent water from entering or accumulating within the components during conditions of flooding;

J. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage;

K. Base flood elevation data shall be provided for development proposals;

L. Any proposed development shall be analyzed to determine effects on the flood-carrying capacity of the area of special flood hazard as set forth in section 2.2;

M. For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

(1) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided; and

(2) The bottom of all openings shall be no higher than one foot above ground. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters;

N. Any proposed development shall be analyzed to determine effects on the flood-carrying capacity of the area of special flood hazard as set forth in section 2.2.

Section 4.2 Specific Standards

In all areas of special flood hazards where base flood elevation data has been provided , the following standards are required:

A. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above the base flood elevation;

B. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement elevated to or above the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

(1) Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;

(2) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

(3) Be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications shall be provided to the building official as set forth in section 3.2.

C. Except as provided in subsection D. below, whenever any portion of the area of special flood hazard is authorized for use, the volume of space occupied by the authorized fill or structure below the base flood elevation shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from

below the base flood elevation. All such excavations shall be constructed to drain freely to the watercourse.

D. A compensating excavation shall not be required to offset placement of fill in the area of special flood hazard until the total volume of the area of special flood hazard occupied by all fill or structures is placed on any lot or parcel after the effective date of the amending ordinance adding this provision exceeds an aggregated total of 300 cubic yards. The permit holder shall provide a certification of the volume of fill placed in the area of special flood hazard.

SECTION 5: FLOODWAY PROTECTION

Section 5.1 Standards

A. 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 Part 31 of Public Act No. 451 of 1994 (MCL 324.3101 et seq., MSA 13A.3101 et seq.).

(2) Manufactured homes must meet the same standards as conventional housing or other development.

(3) Development which is permitted in the regulatory floodway shall meet the requirements of sections 3 and 4 of this ordinance.

B. 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 of this section.

SECTION 6: APPEALS AND VARIANCES

Section 6.1 Construction Board of Appeals to Hear and Decide Appeals

A. Variances from the provisions of this ordinance shall only be granted by the construction board of appeals, as established under the State of Michigan Building Code, 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 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 Part 31 of Public Act No. 451 of 1994 (MCL 324.3101 et seq., MSA 13A.3101 et seq.).

(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) The variance granted shall be the minimum necessary, considering the flood hazard, to afford relief to the applicant.

B. The township construction board of appeals may attach conditions to the granting of a variance to ensure compliance with the standards contained in this ordinance.

C. 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.

D. The building official shall maintain the records at the Township offices of all appeal actions including technical information and report any variances to the Federal Emergency Management Agency upon request. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

E. Those aggrieved by the decision of the construction board of appeals may appeal such decision to the circuit court for the county.

Community: Charter Township of Sandstone Date Passed: 4-11-11

Officer Name: Keith Acken Title: Supervisor
Signature: K Acken Date: 4-11-11

Witness Name: Priscilla Stuart Title: Clerk
Signature: Priscilla Stuart Date: 4-11-11