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Title 52 - Floodplain Management

TITLE 52 FLOODPLAIN MANAGEMENT ORDINANCE

ARTICLE 1. STATUTORY AUTHORIZATION, FINDING OF FACT, PURPOSE AND OBJECTIVES

1.1 Statutory Authorization

In Section 7-148(c)(7) of the General Statutes, the Legislature of the State of Connecticut delegates to local governmental units the responsibility of adopting regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the legal voters of the Town of Goshen, Connecticut, in meeting assembled do ordain as follows:

1.2 Findings of Facts

- 1.2.1 The flood hazard areas of the Town of Goshen are subject to periodic inundation which results 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.
- 1.2.2 These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, flood-proofed, or otherwise unprotected from flood damages.

1.3 Statement of Purpose

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) Restrict or prohibit 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) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (c) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;
- (d) Control filling, grading, dredging and other development which may increase erosion or flood damage; and
- (e) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

1.4 Objectives

The objectives of this ordinance are:

- (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 flood blight areas; and
- (g) To insure that potential home buyers are notified that property is in a flood hazard area.

ARTICLE 2. DEFINITIONS

- 2.1 Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.
- 2.2 (a) "Addition (to an existing building)" means any walled and roofed expansion to the perimeter of a building in which the addition is connected by a common load-bearing wall other than a fire wall. Any walled and roofed addition which is connected by a fire wall or is separated by independent perimeter load-bearing walls is new construction.
- (b) "Appeal" means a request for a review of the Goshen Building Official's interpretation of any provision of this ordinance or a request for a variance.
- (c) "Area of shallow flooding" means a designated AO or VO Zone on the Town of Goshen's Flood Insurance Rate Map (FIRM) with base flood depths from one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.
- (d) "Area(s) of special flood hazard" means a designated A, AE, AH, AO, or A99 Zone on the Town of Goshen's Flood Insurance Rate Map (FIRM) which is subject to one percent or greater chance of flooding in any given year.
- (e) "Base flood" means the flood having a one percent chance of being equaled or exceeded in any given year.
- (f) "Basement" means that portion of a building having its floor subgrade (below ground level) on all sides.
- (g) "Breakaway wall" means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or the supporting foundation system.
- (h) "Building" means any structure built for support, shelter, or enclosure for any occupancy or storage.
- (i) "Development" means any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling grading, paving, excavating, drilling operations, or permanent storage of materials.
- (j) <u>"Elevated building"</u> means a non-basement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, columns (posts and piers), shear walls, or breakaway walls.
- (k) "Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from:
 - (i) the overflow of inland or tidal water;
 - (ii) the unusual and rapid accumulation or runoff of surface waters from any source.
- (l) <u>"Flood Hazard Boundary Map (FHBM)"</u> means an official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the areas of special flood hazard have been defined as A zones.
- (m) "Flood Insurance Rate Map (FIRM)" means an official map of a community, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.
- (n) "Flood Insurance Study" is the official report by the Federal Emergency Management Agency. The report contains flood profiles and the water surface elevation of the base flood.

- (o) <u>"Floor"</u> means the top surface of an enclosed area in a building (including basement) i.e., top of slab in concrete slab construction or top of wood flooring in wood frame construction. The term does not include the floor of a garage used solely for parking of vehicles.
- (p) <u>"Functionally Dependent Facility"</u> means a facility which cannot be used for its intended purpose unless it is located in close proximity to water, such as a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, ship repair, or seafood processing facilities. The term does not include long-term storage, manufacture, sales, or service facilities.
- (q) "Highest Adjacent Grade" means the highest natural elevation of the ground surface, prior to construction, next to the proposed walls of a structure.
- (r) "Lowest Floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, useable 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.
- (s) "Manufactured Home" means a structure, transportable in one or more sections, which is built on a permanent chasis and designed to be used with or without a permanent foundation when connected to the required utilities. The term also includes park trailers, travel trailers, and similar transportable structures placed on a site for 180 consecutive days or longer and intended to be improved property.
- (t) "Manufactured Home Park or Subdivision" a parcel, or contiguous parcels, of land divided into two or more manufactured home lots for rent or sale.
- (u) "Mean Sea Level" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on the Town of Goshen's Flood Insurance Rate Map are referenced.
- (v) "National Geodetic Vertical Datum (NGVD)" as corrected in 1929 is a vertical control used as a reference for establishing varying elevations within the floodplain.
- (w) "New construction" means structures for which the "start of construction" commenced on or after the effective date of this ordinance.
- (x) "Start of Construction" (for other than new construction) includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, or improvement was within 180 days of the permit date. The actual start means the first placement of permanent construction of a structure (including a manufactured home) on a site, such as the pouring of slabs or footings, installation of piles, construction of columns, or any work beyond the stage of excavation, or placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.
- (y) "Structure" means a walled and roofed building that is principally above ground, a manufactured home, a gas or liquid storage tank, or other man-made facilities or infrastructures.
- (z) "Substantial Improvement" means any combination of repairs, reconstruction, alteration, or improvements to a structure within a one (1) year period, in which the cumulative cost equals or exceeds fifty percent of the market value of the structure. The market value of the structure should be (1) the appraised value of the structure (using the cost approach to value) prior to the start of the initial repair or improvement, or (2) in the case of damage, the value of the structure prior to the damage occurring. 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 any project for improvement of a structure required to comply with existing health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions.
- (aa) "Variance" is a grant of relief from the requirements of this ordinance which permits construction in a manner otherwise prohibited by this ordinance where specific enforcement would result in unnecessary hardship.

(bb) "Water Surface Elevation" means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, (or other datum, where specified) of floods of various magnitudes and frequencies in the floodplains or riverine areas.

ARTICLE 3. GENERAL PROVISIONS

3.1 Lands to Which this Ordinance Applies

This ordinance shall apply to all areas of special flood hazard within the jurisdiction of the Town of Goshen.

3.2 Basis for Establishing the Areas of Special Flood Hazards

The areas of special flood hazard identified by the Federal Emergency Management Agency in its Flood Insurance Rate Map, dated November 16, 1990, with other supporting data, and any revision thereto, are adopted by reference and declared to be a part of this ordinance.

3.3 Establishment of Floodplain Development Permit

A Floodplain Development Permit shall be required in conformance with the provisions of this ordinance prior to the commencement of any development activities within any area of special flood hazard.

3.4 Compliance

No structure or land shall hereafter be located, extended, converted or structurally altered without full compliance with the terms of this ordinance and other applicable regulations.

3.5 Abrogation and Greater Restrictions

This ordinance is not intended to repeal, abrogate, or impair any existing easements, convenants, or deed restrictions. However, where this ordinance and others conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

3.6 Warning and Disclaimer of 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 man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazard 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 Town of Goshen or any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

ARTICLE 4. ADMINISTRATION

4.1 <u>Designation of the Ordinance Administrator</u>

The Goshen Building Official is hereby appointed to administer and implement the provisions of this ordinance

4.2 <u>Certification</u>

Where required under this ordinance, a registered professional engineer or architect shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this ordinance. Such certification must be provided to the Goshen Building Official.

4.3 Permit Procedures

Prior to any development activities within any area of special flood hazard, application for a floodplain development permit shall be made to the Goshen Building Official on forms furnished by him or her. Such application shall be accompanied by two sets of plans drawn to scale showing, at a minimum, the property lines and location of the parcel; existing and proposed contours; existing or proposed structures, fill, storage of materials, drainage facilities and the location of the foregoing. The following information may also be required at the time of application by the Goshen Building Official:

- (a) Elevation in relation to mean sea level of the proposed lowest floor (including basement) of all structures;
- (b) Elevation in relation to mean sea level to which any non-residential structure will be flood-proofed;
- (c) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development;
- (d) Certification as to floodproofing, as required by Section 5.5(b)(ii);
- (e) Certification as to the provisions of Section 5.6 governing fully-enclosed areas below base flood elevation, if the minimum design criteria set forth in Sections 5.6(a) through and including 5.6(e) is not used;

(f) Certification as to breakaway walls. If the design criteria stated in Section 5.6(f)(i) is not utilized then the design and construction methods must be certified as set forth in Section 5.6(f)(ii).

4.4 Final As-Built Plans

Upon completion of the applicable portion of construction the permit holder shall provide the Goshen Building Official with verification of the as-built lowest floor elevation, defined as the top of the lowest floor (including basement) or, in the case of floodproofed buildings, the elevation to which the floodproofing is effective.

4.5 Compliance.

Deficiencies in the lowest floor elevations revealed in the "as built" plans required pursuant to Section 4.4 above or otherwise shall be corrected by the permit holder immediately and prior to further progressive work being permitted to proceed. Failure to submit an acceptable survey or failure to make corrections required hereby shall be cause for issuance of a stop-work order.

4.6 <u>Duties and Responsibilities of the Goshen Building Official</u>

In the administration of this ordinance, the Goshen Building Official shall perform the following duties, among others:

- (a) Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding;
- (b) Review all floodplain development permits to assure that the requirements of this ordinance have been satisfied;
- (c) Notify adjacent communities and the Department of Environmental Protection, Inland Water Resources Management Division prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency;
- (d) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished;
- (e) Obtain and record the elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures;
- (f) Obtain and record the elevation (in relation to mean sea level) to which the new or substantially improved structures have been flood-proofed, if applicable;
- (g) Obtain and maintain all certifications required under this ordinance and require that at a minimum they meet the standards of Section 4.2 hereof;
- (h) Make the necessary interpretation, where needed, as to the exact location of boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this ordinance;
- (i) Obtain, review and reasonably utilize any base flood elevation data available from a Federal, State or other source in order to administer the provisions of Sections 5.3 and 5.5, when base flood elevation data have not been provided in accordance with Section 3.2; and
- (j) Maintain all records pertaining the the provisions of this ordinance.

ARTICLE 5. PROVISIONS FOR FLOOD HAZARD REDUCTIONS

5.1 General Standards

In all areas of special flood hazard the following provisions shall apply:

- (a) New construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
- (b) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;
- (c) New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;

- (d) Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- (e) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- (f) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the system into flood water;
- (g) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding;
- (h) In any portion of a watercourse which is altered or re-located the flood carrying capacity shall be maintained;

5.2 Standards for Stream Without Established Base Flood Elevations and/or Flooding.

The Goshen Building Official shall obtain, review and reasonably utilize any base flood elevation data available for a Federal, State or other source, including data developed pursuant to Section 6.1(d) of this ordinance, as criteria for reviewing floodplain permit applications and requiring that new construction, substantial improvements, or other development in areas of special flood hazard meet the applicable standards set forth in this ordinance.

5.3 Increase in Base Flood Elevation

In A zones where base flood elevations have been determined, but before a floodway is designated, no new construction, substantial improvement, or other development (including fill) shall be permitted which will increase base flood elevations more than one (1) foot at any point along the watercourse when all anticipated development is considered cumulatively with the proposed development.

5.4 Floodway Adoption

Should data be requested and/or provided, the Town of Goshen shall adopt a regulatory floodway based on the principle that the floodway must be able to convey the waters of the base flood without increasing the water surface elevation more than one (1) foot at any point along the watercourse.

5.5 Specific Standards

In all areas of special flood hazard designated on the Flood Insurance Rate Map where base flood elevation data is available the following provisions shall apply:

- (a) New construction or substantial improvement of any residential structure shall have the lowest floor, including basement, elevated at least to the level of the base flood elevation;
- (b) New construction or substantial improvement of any commercial, industrial, or other non-residential structure shall either (i) have the lowest floor, including basement, elevated at least to the level of the base flood elevation; or (ii) may be flood-proofed in lieu of being elevated, provided that, together with all attendant utilities and sanitary facilities, the areas of the structure below the required elevation are water tight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic loads and the effect of buoyancy, and further provided that a registered professional engineer or architect shall review and/or develop structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with acceptable standards of practice for meeting the provisions of this subsection. Such certification shall be provided to the Goshen Building Official as set forth in Section 4.2; and
- (c) All manufactured homes to be placed or substantially improved shall be:
 - (i) Elevated so that the lowest floor is above the base flood elevation; and
- (ii) Placed on a permanent foundation which itself is securely anchored and to which the structure is securely anchored so that it will resist flotation, lateral movement, and hydrostatic and hydrodynamic pressures. Anchoring may include, but shall not be limited to, the use of over-the-top or frame ties to ground anchors;

5.6 Fully Enclosed Areas Below Base Flood Elevation

New construction or substantial improvements of buildings that include fully enclosed areas formed by foundation and other

exterior walls below the base flood elevation shall be designed to preclude finished living space and to allow for the automatic entry and exit of flood waters to equalize hydrostatic flood sources on exterior walls. Such areas shall be useable solely for parking of vehicles, building access, or storage. Designs for complying with this requirement must either be certified by professional engineer or architect or meet the following minimum criteria:

- (a) Provide 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;
- (b) The bottom of all openings shall be no higher than one foot above grade; and
- (c) Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions; and
- (d) Electrical, plumbing, and other utility connections are prohibited below the base flood elevation; and
- (e) Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator).
- (f) Non-supporting breakaway wall, lattice work or mesh screening may be allowed below the base flood elevation provided it is not part of the structural support of the building and is designed so as to breakaway, under abnormally high tides or wave action, without damage to the structural integrity of the building on which it is to be used and provided the following design specifications are met;
 - (i) Design safe loading resistance of each wall shall not be less than 10 nor more than 20 pounds per square foot; or
- (ii) If more than 20 pounds per square foot, a registered professional engineer or architect shall certify that the design wall collapse would result from a water load less than that which would occur during the base flood event, and the elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components during the base flood event. Maximum wind and water loading values to be used in this determination shall each have one percent (1%) chance of being equalled or exceeded in any given year (100-year mean recurrence interval).

ARTICLE 6. STANDARDS FOR SUBDIVISION PROPOSALS

- 6.1 In all special flood hazard areas the following requirements shall apply:
 - (a) All subdivision proposals shall be consistent with the need to minimize flood damage;
 - (b) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.;
 - (c) All subdivision proposals shall provide adequate drainage to reduce exposure to flood hazards; and
 - (d) Base flood elevation data shall be provided for all subdivision proposals and other proposed development (including manufactured home parks and subdivisions) which either (i) encompass five acres; or (ii) contain 50 lots, and are located in Zone A as designated on the Flood Insurance Rate Map.

ARTICLE 7. VARIANCE PROCEDURES

- 7.1 The Building Code Board of Appeals as established by the Town of Goshen shall hear and decide appeals and requests for variances from the requirements of this ordinance.
- 7.2 The Building Code Board of Appeals shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Goshen Building Official in the enforcement or administration of this ordinance.
- 7.3 Any person agrieved by the decision of the Building Code Board of Appeals or any person owning land which abuts or is within a radius of one hundred (100) feet of the land in question may appeal within 15 days after receiving written notice of such decision to the State Superior Court for the Judicial District of Litchfield, as provided in Section 8-8 of the General Statutes.

7.4 Variances may be issued as follows:

- (a) for the reconstruction, rehabilitation or restorartion of structures listed on the National Register of Historic Places or the State Inventory of Historic Places without regard to the procedures set forth in the remainder of this section, except for Sections 7.6(b) through and including 7.6(d);
- (b) for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level in conformance with Sections 7.6(b) through and including 7.6(d); and
- (c) for new construction and substantial improvement and other development necessary for the conduct of a functionally dependent use, provided the structure or other development is protected by methods that minimize flood damage, create no additional threat to public safety and meet the requirements of Sections 7.6(b) through and including 7.6(d).

7.5 Considerations For Granting Of Variance

In reviewing and deciding variance applications, the Building Code Board of Appeals shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and the following considerations:

- (a) The danger that materials may be swept onto other lands to the injury of others;
- (b) The danger to life and property due to flooding or erosion damage;
- (c) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
- (d) The importance of the services provided by the proposed facility to the community;
- (e) The necessity of the facility to waterfront location, in the case of functionally dependent facility;
- (f) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
- (g) The compatibility of the proposed use with existing and anticipated development;
- (h) The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
- (i) The safety of access to the property in times of flood for ordinary and emergency vehicles;
- (j) The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site; and;
- (k) The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

7.6 Variance Decisions

- (a) Upon consideration of the factors set forth in Section 7.5 above, and the purposes of this ordinance, the Building Code Board of Appeals may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance
- (b) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief;
- (c) Variances shall only be issued upon (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship, and (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
- (d) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation and the elevation to which the structure is to be built and stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

(e) The Goshen Building Official shall maintain the records of all appeal actions and report any variance to the Federal Emergency Management Agency upon request.

ARTICLE EIGHT EFFECTIVE DATE

8.1 This ordinance shall take effect fifteen (15) days after its publication in a newspaper having circulation in the Town of Goshen.

Adopted 11-19-1990 Published: 11-27-1990 Effective: 12-12-1990