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after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

(6) Upon consideration of the factors listed above, and the purposes of this ordinance, the City of Carlisle Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

(7) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(8) Conditions for Variances:

- (a) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief; and in the instance of a historical building, a determination that the variance is the minimum necessary so as not to destroy the historic character and design of the building;
- (b) 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.
- (c) 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 building 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.
- (d) The City of Carlisle Zoning Administrator shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency upon request.

ARTICLE 5. PROVISIONS FOR FLOOD HAZARD REDUCTION.

SECTION A. GENERAL STANDARDS.

In all areas of special flood hazard the following provisions are required:

- (1) New construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure;
- (2) Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces.
- (3) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;
- (4) New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;
- (5) 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.
- (6) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- (7) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;

- (8) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination; from them during flooding; and,
- (9) Any alteration, repair, reconstruction or improvements to a building which is not in compliance with the provisions of this ordinance, shall meet the requirements of "new construction" as contained in this ordinance.
- (10) Any alteration, repair, reconstruction or improvements to a building which is not in compliance with the provisions of this ordinance, shall be undertaken if said non-conformity is not furthered, extended, or replaced.

SECTION B. SPECIFIC STANDARDS.

In all areas of special flood hazard where base flood elevation data have been provided, as set forth in Article 3, Section B, or Article 4, Section C(9), the following provisions are required:

- (1) **Residential Construction.** New construction or substantial improvement of any residential building (or manufactured home) shall have the lowest floor, including basement elevated one (1) foot above the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of flood waters shall be provided in accordance with standards of Article 5, Section B(3).
- (2) **Non-Residential Construction.** New construction or substantial improvement of any commercial, industrial, or non-residential building (or manufactured home) shall have the lowest floor, including basement, elevated one (1) foot above the base flood elevation. Buildings located in all A-Zones may be flood-proofed in lieu of being elevated, provided that all areas of the building below the required elevation are water tight with walls substantially impermeable to the passage of water, and use structural components having the capability resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the official as set forth in Article 4, Section C(7).
- (3) **Elevated Buildings.** New construction or substantial improvements of elevated 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 designed to allow for the entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls.
 - (a) Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:
 - (i) 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;
 - (ii) The bottom of all openings shall be no higher than one foot above grade; and,
 - (iii) Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both direction.
 - (b) 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); and,
 - (c) The interior portion of such enclosed area shall not be partitioned or finished into separate rooms.
- (4) **Standards for Manufactured Homes and Recreational Vehicles.**
 - (a) All manufactured homes placed or substantially improved

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Council to enforce

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to Hinkle Contracting at a price of \$31.95 per foot.

*Council agreed, upon a motion made by councilperson Ronnie Clark, to donate \$50 to the Rotary Club for road in question is on private property and the building itself was under jurisdiction of the Nicholas County Fiscal Court.

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- (i) outside of a manufactured home park or subdivision.
 - (ii) in a new manufactured home park or subdivision.
 - (iii) in an expansion to an existing manufactured home park or subdivision, or (iv) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, must meet all the requirements for new construction, including elevation and anchoring;
 - (b) All manufactured homes placed or substantially improved in an existing manufactured home park or subdivision must be elevated so that:
 - (i) the lowest floor of the manufactured home is elevated to or above the level of the base flood elevation, or
 - (ii) the manufactured home chassis is supported by reinforced piers or other foundation elements of at least an equivalent strength, of no less than 36 inches in height above grade.
 - (iii) the manufactured home must be securely anchored to the adequately anchored foundation system to resist flotation, collapse and lateral movement.
 - (iv) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, any manufactured home placed or substantially improved must meet the standards of Article 5, Section B(4)(b)(i) and (ii).
 - (c) All recreational vehicles placed on sites must either:
 - (i) be on the site for fewer than 180 consecutive days,
 - (ii) be fully licensed and ready for highway use, or
 - (iii) meet the permit requirements for new construction, including anchoring and elevation requirements for "manufactured homes".

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.
 - (5) **Floodways.** Located within areas of special flood hazard established in Article 3, Section B, are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and has erosion potential, the following provisions shall apply:
 - (a) Prohibit encroachments, including fill, new construction, substantial improvements and other developments unless certification (with supporting technical data) by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during occurrence of base flood discharge;
 - (b) If Article 5, Section B(4)(a) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article 5.
- SECTION C. STANDARDS FOR STREAMS WITHOUT ESTABLISHED BASE FLOOD ELEVATION AND/OR FLOODWAYS.**
- Located within the areas of special flood hazard established in Article 3, Section B, where streams exist but where no base flood data has been provided or where base flood data has been provided within floodways, the following provisions apply:

*by executive order, both ends of an alleyway running between Tureman and Eastern Avenue. Hughes appointed Spud Mar. 1991 to a 3-year term on the Tax Advisory Board.

*Council acted on a request by Carlisle resident Rusty Lawrence to post stop signs on

*Council abandoned the idea of re-instituting a former ordinance requiring business licenses to transient businesses.

- (1) No encroachments, including fill material or structures shall be located within areas of special flood hazard, unless certification by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one foot at any point within the community. The engineering certification should be supported by technical data that conforms to standard hydraulic engineering principles.
- (2) New construction or substantial improvements of buildings shall be elevated or flood-proofed to elevations established in accordance with Article 4, Section C(9).

SECTION D. STANDARDS FOR SUBDIVISION PROPOSALS.

- (1) All subdivision proposals shall be consistent with the need to minimize flood damage;
- (2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;
- (3) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards; and,
- (4) Base flood elevation data shall be provided for subdivision proposals and other proposed development (including manufactured home parks and subdivisions) which is greater than the lesser of fifty lots or five acres.

SECTION E. STANDARDS FOR AREAS OF SHALLOW FLOODING (AO ZONES).

Located within the areas of special flood hazard established in Article 3, Section B, are areas designed as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one to three feet (1'-3') where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate; therefore, the following provisions apply:

- (1) All new construction and substantial improvements or residential structures shall have the lowest floor, including basement, elevated above the highest adjacent grade, at least as high as the depth number specified in feet on the City of Carlisle's FIRM. If no depth number is specified, the lowest floor, including basement, shall be elevated at least two (2) feet above the highest adjacent grade.
- (2) All new construction and substantial improvements of non-residential structures shall:
 - (a) have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet on the City of Carlisle's FIRM. If no depth number is specified, the lowest floor, including basement, shall be elevated at least two (2) feet above the highest adjacent grade, or
 - (b) together with attendant utilities and sanitary facilities be completely flood-proofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

SECTION 3. This Ordinance shall take effect upon its passage, approval, and publication as required by law.

FIRST READING: APRIL 13, 1992
ENACTED: May 11, 1992
ATTEST: *Franklin M. Hughes, Mayor*
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