



Text File

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Bill No: 2014-0689, Version: 1

Committee: Committee on Land Use and
Economic Development

Status: Passed Finally

Presented by Ms. Gross

Ordinance amending the Pittsburgh Code, Title Nine, Zoning Code, Article III, Section 906.02 to provide an updated Flood Plain Overlay consistent with Federal and State regulations.

Be it resolved by the Council of the City of Pittsburgh as follows:

Section 1. The Pittsburgh Code, Title Nine, Zoning Code, Article III, Chapter 906.02, FP-O, Flood Plain Overlay District, is hereby struck and amended with updated text as follows:

SEE ATTACHMENT

Section 906.02.FP-O, Flood Plain Overlay District.

906.02.A Purpose

The purpose of the FP-O, Flood Plain Overlay District is to reduce the potential for property damage and hazards to life caused by flooding. The regulations are intended to implement and ensure consistency with the Pennsylvania Flood Plain Management Act and the National Flood Insurance Program, and to reduce property damages and hazards to life caused by flooding.

906.02.B Permits Required

In order to assure compliance with all pertinent local, state and federal flood plain regulations, no development shall commence in a flood plain without the issuance of a City zoning and building permit.

906.02.C Special Definitions

The following special definitions shall apply the Flood Plain Overlay District regulations:

1. **Base flood** means a flood having a one (1) percent chance of being equaled or exceeded in any given year.
2. **Development which may endanger human life** means, in accordance with the Pennsylvania Flood Plain Management Act and regulations adopted by the Department of Community Affairs pursuant to that act; any activity requiring the production, storage, use of any amount of radioactive substances; structures or land used for the production or storage of any quantity of the following materials; or structures or land used for any activity requiring the maintenance of a supply (more than five hundred fifty (550) gallons or other comparable volume) of the following materials:
 - A. Acetone
 - B. Ammonia
 - C. Benzene

- D. Calcium carbide
- E. Carbon disulfide
- F. Celluloid
- G. Chlorine
- H. Hydrochloric acid
- I. Hydrocyanic acid
- J. Magnesium
- K. Nitric acid and oxides of nitrogen
- L. Petroleum products (gasoline, fuel oil, etc.)
- M. Phosphorus
- N. Potassium
- O. Sodium
- P. Sulphur and sulphur products
- Q. Pesticides (including insecticide, fungicides and rodenticides)
- R. Radioactive substances, insofar as such substances are not otherwise regulated.

3. **Encroachment** means any structure or activity which in any manner changes, expands or diminishes the course, current or cross section of any watercourse, floodway or body of water.
4. **Flood plain** means any land susceptible to being inundated by water from any source during the base flood, as shown on the most current flood plain maps prepared by the Federal Insurance Administration and approved by the Federal Emergency Management Agency (FEMA) for the purpose of determining the official Federal Designated Flood Plain, Floodway and Floodway Fringe. These maps are based on the most current Flood Insurance Study prepared by the Federal Emergency Management Agency; the Study being the definitive source of flood plain information, particularly in regards to base flood elevations and floodway widths.
5. **Floodway** means the channel of a river or other watercourse and adjacent land areas that shall be reserved in order to discharge the waters of the base flood; in this section, as shown on maps prepared by the Federal Insurance Administration of the Federal Emergency Management Agency. Where no floodway has been delineated within a flood plain, the floodway is established for regulatory purposes as extending fifty (50) feet landward from the top bank of a stream.
6. **Floodway fringe** means that portion of a flood plain which is not the floodway; in this section, as shown on maps prepared by the Federal Insurance Administration of the Federal Emergency Management Agency.
7. **Mobile Home** means a structure built on a permanent chassis which is transportable and is used as a permanent residence, temporary residence, office, storage space, or other use.
8. **Obstruction** means any projection, excavation, building, structure, stockpile, refuse, fill or matter in, along, across or projecting into any channel, watercourse or flood plain area which may impede, retard or change the direction of the flow of water either in itself or by catching or collecting debris carried by such water or which is placed where the flow of the water might carry the same downstream.
9. **Special hazard** means obstructions in flood plains which present a special hazard to occupants or to the public and defined in the Pennsylvania Flood Plain Management Act as: hospitals, nursing homes, jails, new mobile home park or new mobile home subdivisions or substantial additions to mobile home parks or subdivisions.
10. **Substantial improvement** means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure either before the improvement is started or, if the structure has been damaged and is being restored, before the damage occurred. This term also includes work on structures which have incurred damage amounting to more than fifty (50) percent of the structure's market value before the damage, regardless of the actual repair work performed. This term does not include:

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- A. 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
 - B. Any alteration of a structure listed on the National Register of Historic Places or the Pennsylvania Inventory of Historic Places, provided the alteration does not preclude the structure's continued designation as a historic structure by the pertinent entity.

906.02.D Effect of District Regulations

Land within the FP-O District shall be used and structures shall be constructed, altered or enlarged for uses that are allowed in the underlying zoning districts, unless specifically limited or prohibited by the FP-O District regulations of this section.

All utilities including but not limited to electric, gas, public water, sanitary sewerage, storm sewers, telephones and cable communications in flood plain areas shall be designed and constructed to prevent damage to the systems, damaged caused by the systems, and loss of service during times of flood. On-lot sewerage systems shall not be permitted in flood plain areas. Gas and oil supply systems shall incorporate provisions for the drainage of these systems in the event flood water infiltration occurs. Prior to altering or relocating any floodway in the City, the State Floodplain Management Coordinating Agency shall be notified along with any other affected municipality, the State Department of Environmental Protection, and the Federal Emergency Management Agency. All applications for zoning approval in a flood plain area subject to the City's flood plain regulations, and subdivisions involving more than fifty (50) lots or five (5) acres, shall indicate the base flood elevation as determined from the FEMA Flood Plain Maps and Flood Insurance Study. In flood plain areas where the base flood elevation has not been established, applicants for zoning approval shall be responsible for contacting pertinent state and federal agencies to provide the Zoning Administrator with the best available base flood elevation information at the time of the zoning application.

906.02.E Warning and Disclaimer

The mapped delineations of land that may be subject to flooding do not necessarily include all land that is subject to such hazards. While it is the purpose of the regulations contained in this section to afford reasonable protection against damages caused by construction on or use of hazard-prone land, neither the mapped delineations nor any regulations contained in this section shall create any liability on the part of the City, its officers or employees for damages that may occur.

906.02.F Floodway Regulations

Land within floodways shall be subject to the following regulations, which shall apply to all new uses of land including the placement of fill, all new structures, all substantial improvements of existing structures and all enlargements or additions to existing structures or uses.

906.02.F.1 Compliance with State Flood Plain Management Act

In accordance with Section 302 of the Pennsylvania Flood Plain Management Act and the regulations of the Department of Environmental Protection or its successor agency contained in Chapter 105 of Title 25 of the Code, adopted on September 16, 1990, the Pennsylvania Department of Environmental Protection or its successor agency has exclusive jurisdiction to regulate obstructions and encroachments in floodways.

- (a) No Certificate of Occupancy shall be issued by the Zoning Administrator for any obstruction or encroachment in a delineated floodway or where a floodway has not been delineated, within fifty (50) feet landward from the top of the bank of a stream in a floodplain area unless a permit has been first issued by the Department of Environmental.
- (b) When such a permit has been issued by the Department of Environmental Protection or its successor agency, the following uses are prohibited:

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- (1) Use or development of land or construction or alteration of structures that would result in any increase in flood levels during the occurrence of the base flood discharge;
- (2) Development that may endanger human life;
- (3) Special hazards; and
- (4) Mobile homes.

906.02.F.2 When No State Permits Required

If the Department of Environmental shall determine that a permit is not required for use of land or for construction or alteration of a structure in a floodway or if the Department of Environmental Protection or its successor agency shall at any time delegate all or any portion of its authority to regulate such obstruction and encroachments to the City, the following uses are prohibited:

- (a) Use or development of land or construction or alteration of structures that would result in any increase in flood levels during the occurrence of the base flood discharge;
- (b) Development that may endanger human life;
- (c) Special hazards; and
- (d) Mobile homes.

906.02.F.3 Required Analysis

The applicant shall prove either by a written submission from the Department of Environmental or via an analysis conducted by a registered professional engineer utilizing Department of Environmental Protection or its successor agency approved methods that the proposed action would not result in any increase in flood levels during the occurrence of the base flood.

906.02.F.4 Flood-Proofing

Any structure or use approved in the floodway shall comply with the requirements for flood proofing or elevation of a structure, or any enclosed space thereof, above flood level.

906.02.G Floodway Fringe Regulations

Land within an FP-O District but not within a floodway may be used and structures may be erected, altered or enlarged only for those uses listed in this section.

906.02.G.1 Uses Permitted By-Right

Uses that are permitted By-Right in the underlying zoning district shall be permitted By-Right in the floodway fringe area of an FP-O District, except for developments that may endanger human life or special hazards. All new construction and substantial improvement of existing structures shall comply with requirements for elevation of structures, and any enclosed space thereof, above flood level or flood proofing.

906.02.G.2 Conditional Uses

The following uses may be allowed in the floodway fringe area of a FP-O District after a public hearing and recommendations by the Planning Commission and after approval by City Council in accordance with the provisions of Sec. 922.06.

(a) Uses Classified as Conditional Uses in Underlying Zoning Districts

Uses which are classified as Conditional Uses in the underlying zoning district in a FP-O District, but not within a floodway, in accordance with all other provisions of this Zoning Ordinance applicable to the specific use and zoning district and provided:

- (1) The use shall not be a special hazard; development which may endanger life, or a mobile home; nor shall it in any other way constitute or contribute to increased hazards to life or dangers to the

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~~public health, safety or welfare during time of flood;~~

~~(2) Any substantial improvement or new construction shall meet all requirements for elevation above flood level or flood proofing applicable to the particular category of use and structure;~~

~~(3) In the case of new development or construction, Council shall determine that the proposed use is necessary in the proposed location and that there are no feasible alternative locations outside of the FP-O District;~~

~~(4) In the case of alterations or enlargements, which do not constitute substantial improvements, Council may require arrangement of uses, mechanical systems, and other elements within a structure, for flood proofing or both, which are reasonably related to the minimization of flood damages and danger to life during time of flood; and~~

~~(5) If feasible in relation to the use and in relation to the character of adjacent areas, public access to the riverfront should be provided in connection with any new construction or development on a riverfront site within a FP-O District.~~

~~(b) Development That May Endanger Human Life~~

~~Development that may endanger human life in a District, but not within a floodway, shall be subject to the following standards:~~

~~(1) No new construction or development classified as development which may endanger life shall be permitted in a FP-O District;~~

~~(2) Substantial improvement of a development which may endanger human life shall be elevated or flood proofed to remain completely dry up to at least one and one-half (1½) feet above the level of the base flood and designed to prevent pollution from the structure or activity during the base flood; and~~

~~(3) Improvements to structures, which do not constitute substantial improvements, shall be flood proofed to the maximum extent feasible, and Council may impose additional requirements for the storage or anchoring of dangerous substances to reduce possible hazards during time of flood.~~

~~(c) Special Hazards~~

~~Special hazards in FP-O District, but not within a floodway, in accordance with all other provisions of this Zoning Ordinance applicable to the specific use and zoning district, and provided:~~

~~(1) Council shall determine that the use is necessary in the location proposed and that no feasible alternative site exists in a location not within FP-O District;~~

~~(2) New construction, substantial improvement, enlargements or additions of a special hazard use in a FP-O District shall be located and constructed to fully protect the health and safety of the general public and occupants of the structure. All structures shall be located, constructed and maintained so that:~~

~~(i) The structure will survive inundation by waters of the base flood without any lateral movement or damage to the structure or to any of its equipment or contents;~~

~~(ii) The lowest floor elevation will be at least one and one-half (1 1/2) feet above the base flood elevation;~~

~~(iii) The occupants of the structure can remain inside for an indefinite period of time and be safely evacuated at any time during the base flood;~~

~~(iv) There is full compliance with the Building Code and other requirements for special hazard uses adopted by the City; and~~

~~(v) Any significant possibility of pollution, increased flood levels or flows, or debris endangering life and property will be prevented.~~

~~(3) Any alteration or improvement of an existing special hazard use, which does not constitute a substantial improvement, enlargement or addition, shall be flood proofed to the maximum extent feasible; and Council may impose additional requirements to insure the safety of occupants during~~

time of flood;

(4) The minimum filing requirements are met. These filing requirements shall include the following information:

- (i) A location map which will enable a person unfamiliar with the City to accurately determine the location within the City of the site or property involved;
- (ii) A topographic map based on the National Geodetic Vertical Datum of 1929, showing existing and proposed contours at intervals of two feet;
- (iii) The location of the flood plain boundary line, information and spot elevations concerning the one hundred-year flood elevation, and information concerning the flow of water (including direction and velocities);
- (iv) Complete information concerning flood depths, pressures, velocities, impact and uplift forces, and other factors associated with the one hundred-year flood;
- (v) Detailed information concerning any proposed flood proofing measures;
- (vi) Cross-section drawings for all proposed streets, drives, other accessways, and parking areas, showing all right-of-way and pavement widths;
- (vii) Profile drawings for all proposed streets, drives and vehicular accessways including existing and proposed grades;
- (viii) Plans and profiles of all proposed sanitary and storm sewer systems, water supply systems, and any other utilities and facilities;
- (ix) Certification from a registered professional engineer, architect or landscape architect that the proposed construction has been adequately designed to protect against damage from the one hundred-year flood;
- (x) A statement, certified by a registered professional engineer, architect, landscape architect or other qualified person which contains a complete and accurate description of the nature and extent of pollution that might possibly occur from the development during the course of a one hundred-year flood, including a statement concerning the effects such pollution might have on human life;
- (xi) A statement certified by a registered professional engineer, architect or landscape architect which contains a complete and accurate description of the effects the proposed development will have on 100-year flood elevations and flows;
- (xii) A statement, certified by a registered professional engineer, architect or landscape architect which contains a complete and accurate description of the kinds and amounts of any loose buoyant materials or debris that may possibly exist or be located on the site below the one hundred-year flood elevation and the effects such materials and debris may have on 100-year flood elevations and flows;
- (xiii) Any other applicable permits such as, but not limited to, a permit for any activity regulated by the Department of Environmental Resources under Section 302 of the Pennsylvania Flood Plain Management Act (any obstruction; flood control project, publicly owned or maintained; highway owned, constructed or maintained by a non-federal governmental unit; an obstruction owned or maintained by a public utility); and
- (xiv) An evacuation plan which fully explains the manner in which the site will be safely evacuated before or during the course of a 100-year flood.

(5) Hospitals, nursing homes, correctional facilities, new mobile home parks or substantial additions to mobile home parks, shall be subject to special permit requirements specified hereunder:

- (i) Within three (3) days of receipt of a Conditional Use application for a special hazard use and before consideration of such application by City Council, the Zoning Administrator shall forward

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a copy of the application, with accompanying documents to the Allegheny County Planning Commission via registered or certified mail and to the Bureau of Building Inspection for their review; and

(ii) If, after consideration by City Council, an application is approved, the Zoning Administrator shall so notify via registered or certified mail the Pennsylvania Department of Community Affairs in writing within five (5) working days after the date of City Council approval, together with the application and all documentation. A Certificate of Occupancy shall not be issued for a special hazard conditional use approved by City Council until thirty (30) days after receipt of notification by the Department of Community Affairs. If an application is disapproved by the Department of Community Affairs, the Zoning Administrator shall not issue a permit.

906.02.G.3 Special Exceptions

Uses that are allowed as Special Exceptions in the underlying zoning district shall be allowed as Special Exceptions in the floodway fringe area of an FP-O District, provided that:

- (a) The use shall not be a special hazard, development which may endanger human life, or a mobile home; nor shall it in any other way constitute or contribute to increased hazards to life or dangers to the public health, safety or welfare during time of flood;
- (b) Any substantial improvement or new construction shall meet all requirements for elevation above flood level or flood proofing applicable to the particular category of use and structure;
- (c) In the case of new development or construction, the Board shall determine that the proposed use is necessary in the proposed location and that there are no feasible alternative locations outside of the FP-O District; and
- (d) In the case of alterations or enlargements, which do not constitute substantial improvements, the Board may impose requirements for arrangement of uses, mechanical systems and other elements within a structure and/or for flood proofing which are reasonably related to the minimization of flood damages and dangers to life during time of flood.

906.02.A. Purpose

The purpose of the FP-O Flood Plain Overlay District is to reduce the potential for property damage and hazards to life caused by flooding. The regulations are intended to implement and ensure consistency with the Pennsylvania Flood Plain Management Act and the National Flood Insurance Program.

The intent of this section is to:

1. Promote the general health, welfare, and safety of the community.
2. Encourage the utilization of appropriate construction practices in order to prevent or minimize flood damage in the future.
3. Minimize danger to public health by protecting water supply and natural drainage.
4. Reduce financial burdens imposed on the community, its governmental units, and its residents, by preventing excessive development in areas subject to flooding.

5. Comply with federal and state floodplain management requirements.

906.02.B. Applicability

It shall be unlawful for any person, partnership, business or corporation to undertake, or cause to be undertaken, any construction or development anywhere within the flood plain unless zoning approval has been obtained from the Zoning Administrator and a permit has been issued by the Bureau of Building Inspection.

906.02.C Warning and Disclaimer of Liability

The degree of flood protection sought by the provisions of this section is considered reasonable for regulatory purposes and is based on accepted engineering methods of study. Larger floods may occur or flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This chapter does not imply that areas outside any identified floodplain areas, or that land uses permitted within such areas will be free from flooding or flood damages.

This section shall not create liability on the part of the City or any officer or employee thereof for any flood damages that result from reliance on this section or any administrative decision lawfully made thereunder.

906.02.D Administration

906.02.D.1 Floodplain Administrator

The Zoning Administrator is hereby appointed to administer and enforce this section. The Zoning Administrator may: (a) Fulfill the duties and responsibilities set forth in these regulations, (b) Delegate duties and responsibilities set forth in these regulations to qualified technical personnel, plan examiners, inspectors, and other employees, or (c) Enter into a written agreement or written contract with another agency or private sector entity to administer specific provisions of these regulations.

Administration of any part of these regulations by another entity shall not relieve the community of its responsibilities pursuant to the participation requirements of the National Flood Insurance Program as set forth in the Code of Federal Regulations at 44 C.F.R. Section 59.22.

906.02.D.2 Approvals Required

Approval from the Zoning Administrator shall be required before any construction or development as defined in Article IX is undertaken within the flood plain overlay. Additional permits may be required at the determination of the Zoning Administrator for items not traditionally needing a building or occupancy permit, which include, but may not be limited to parking of recreation vehicles and storage of equipment and materials.

906.02.D.3 Duties and Responsibilities of the Zoning Administrator

- (a) No approval shall be granted until it has been determined that the proposed work to be undertaken will be in conformance with the requirements of this and all other applicable codes and ordinances.
- (b) Prior to issuance of zoning approval, the Zoning Administrator shall review the application for the permit to determine if all other necessary government permits required by state and federal laws have been obtained, such as those required by the Pennsylvania Sewage Facilities Act (Act 1966-537, as amended); the Pennsylvania Dam Safety and Encroachments Act (Act 1978-325, as amended); the Pennsylvania Clean Streams Act (Act 1937-394, as amended); and the U.S. Clean Water Act, Section 404, 33, U.S.C. 1344. No zoning approval shall be issued until this determination has been made.
- (c) The Zoning Administrator shall maintain in perpetuity all records associated with the requirements of this section including, but not limited to, finished construction elevation data, permitting, inspection and enforcement.
- (d) The Zoning Administrator is the official responsible for submitting a biennial report to FEMA concerning community participation in the National Flood Insurance Program.
- (e) The responsibility, authority and means to implement the commitments of the Zoning Administrator can be delegated from the person identified. However, the ultimate responsibility lies with the Zoning Administrator.
- (f) The Zoning Administrator shall delegate the consideration of the requirements of the Building Code in accordance with Title 10 to the Building Code Official.

906.02.D.4. Application Procedures and Requirements

- (a) In addition to the information required to apply for Zoning Vouchers and Building Permits, if any proposed construction or development is located entirely or partially within any identified floodplain area, applicants shall provide all the necessary information in sufficient detail and clarity to enable the Zoning Administrator to determine that:
 - (1) all such proposals are consistent with the need to minimize flood damage and conform with the requirements of this and all other applicable codes and ordinances;
 - (2) all utilities and facilities, such as sewer, gas, electrical and water systems are located and constructed to minimize or eliminate flood damage;
 - (3) adequate drainage is provided so as to reduce exposure to flood hazards;
 - (4) structures will be anchored to prevent floatation, collapse, or lateral movement;

- (5) building materials are flood-resistant;
 - (6) appropriate practices that minimize flood damage have been used; and
 - (7) electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities have been designed and located to prevent water entry or accumulation.
- (b) Applicants shall file the following minimum information plus any other pertinent information as may be required by the Zoning Administrator to make the above determination:
- (1) A completed application form, in writing and submitted to the Zoning Administrator. The application shall contain the following:
 - (i) Name and address of applicant;
 - (ii) Name and address of owner of land on which proposed construction is to occur;
 - (iii) Name and address of contractor;
 - (iv) Site location including address;
 - (v) Listing of other permits required;
 - (vi) Brief description of proposed work and estimated cost, including a breakout of cost of proposed improvement and the market value of the building before the damage occurred where appropriate; and
 - (vii) A plan of the site showing the exact size and location of the proposed construction as well as any existing buildings or structures.
 - (2) A plan of the entire site, clearly and legibly drawn at a scale of one (1) inch being equal to one hundred (100) feet or less, showing the following:
 - (i) north arrow, scale, and date;
 - (ii) topographic contour lines;
 - (iii) the location of all existing and proposed buildings, structures, and other improvements, including the location of any existing or proposed subdivision and development;
 - (iv) the location of all existing streets, drives, and other access ways; and

- (v) the location of any existing bodies of water or watercourses, identified floodplain areas, and, if available, information pertaining to the floodway, and the flow of water including direction and velocities.
- (3) Plans of all proposed buildings, structures and other improvements, drawn at suitable scale showing the following:
- (i) the proposed lowest floor elevation of any proposed building based upon North American Vertical Datum of 1988;
 - (ii) the elevation of the base flood; and
 - (iii) supplemental information as may be necessary under the Building Code in accordance with Title 10.
- (4) The following data and documentation:
- (i) if available, information concerning flood depths, pressures, velocities, impact and uplift forces and other factors associated with a base flood; and Floodway Area (See 906.02.E.2.a) when combined with all other existing and anticipated development, will not increase the base flood elevation at any point;
 - (ii) documentation, certified by a registered professional engineer or architect, to show that the cumulative effect of any proposed development within an AE Area/District without floodway (See Section 906.02.E.2.b) when combined with all other existing and anticipated development, will not increase the base flood elevation more than one (1) foot at any point within the community;
 - (iii) a document, certified by a registered professional engineer or architect, which states that the proposed construction or development has been adequately designed to withstand the pressures, velocities, impact and uplift forces associated with the base flood. Such statement shall include a description of the type and extent of flood proofing measures which have been incorporated into the design of the structure and/or the development;
 - (iv) detailed information needed to determine compliance with Section 906.02.F.3.f, Storage, and Section 906.02.F.4, Development Which May Endanger Human Life, including:
 - A. the amount, location and purpose of any materials or substances referred to in Sections 906.02.F.3.f. and 906.02.F.4 which are intended to be used, produced, stored or otherwise maintained on site;
 - B. a description of the safeguards incorporated into the design of the proposed structure to prevent leaks or spills of the dangerous materials or substances listed in 906.02.F.4

during a base flood;

- (v) the appropriate component of the Department of Environmental Protection's Planning Module for Land Development;
- (vi) where any excavation or grading is proposed, a plan meeting the requirements of the Department of Environmental Protection, to implement and maintain erosion and sedimentation control; and
- (vii) completed Elevation Certificate based on construction drawings.

906.02.D.5 Review of Application by Others

A copy of all plans and applications for any proposed construction or development in any identified floodplain area to be considered for approval may be submitted by the Zoning Administrator to any other appropriate agencies and/or individuals (e.g. Planning Commission, etc.) for review and comment.

906.02.D.6 Changes

After approval is issued by the Zoning Administrator, no changes of any kind shall be made to the application, permit or any of the plans, specifications or other documents submitted with the application without the written consent or approval of the Zoning Administrator. Requests for any such change shall be in writing, and shall be submitted by the applicant to Zoning Administrator for consideration.

906.02.E Identification of Flood Plain Areas

906.02.E.1 Identification

The identified floodplain area shall be:

- (a) any areas of City, classified as Special Flood Hazard Areas (SFHAs) in the Flood Insurance Study (FIS) and the accompanying Flood Insurance Rate Maps (FIRMs) dated September 26, 2014 and issued by the Federal Emergency Management Agency (FEMA) or the most recent revision thereof, including all digital data developed as part of the Flood Insurance Study, and
- (b) any Community Identified Flood Hazard Areas.

The above referenced FIS and FIRMs, and any subsequent revisions and amendments are hereby adopted by City and declared to be a part of this section.

906.02.E.2 Description and Special Requirements of Identified Floodplain Areas

The identified floodplain area shall consist of the following specific areas:

- (a) The Floodway Area shall be those areas identified in the FIS and the FIRM as floodway and which represent the channel of a watercourse and the adjacent land areas that must be

reserved in order to discharge the base flood without increasing the water surface elevation by more than one (1) foot at any point. This term shall also include floodway areas which have been identified in other available studies or sources of information for those Special Flood Hazard Areas where no floodway has been identified in the FIS and FIRM.

- (i) Within any floodway area, no encroachments, including fill, new construction, substantial improvements, or other development shall be permitted unless it has been demonstrated through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.
- (ii) Within any floodway area, no new construction or development shall be allowed, unless the appropriate permit is obtained from the Department of Environmental Protection Regional Office.
- (b) The AE Area/District shall be those areas identified as an AE Zone on the FIRM included in the FIS prepared by FEMA for which base flood elevations have been provided.
 - (i) The AE Area adjacent to the floodway shall be those areas identified as an AE Zone on the FIRM included in the FIS prepared by FEMA for which base flood elevations have been provided and a floodway has been delineated.
- (c) The A Area/District shall be those areas identified as an A Zone on the FIRM included in the FIS prepared by FEMA and for which no base flood elevations have been provided. For these areas, elevation and floodway information from other Federal, State, or other acceptable sources shall be used when available. Where other acceptable information is not available, the base flood elevation shall be determined by using the elevation of a point on the boundary of the identified floodplain area which is nearest the construction site.

In lieu of the above, the municipality may require the applicant to determine the elevation with hydrologic and hydraulic engineering techniques. Hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough technical review by the municipality.

- (d) Community Identified Flood Hazard Areas shall be those areas where the City has identified local flood hazard or ponding areas, as delineated and adopted on a “Local Flood Hazard Map” using best available topographic data and locally derived information such as flood of record, historic high water marks, soils or approximate study methodologies.

906.02.E.3 Changes in Identification of Area

The Identified Floodplain Area may be revised or modified by the City where studies or information

provided by a qualified agency or person documents the need for such revision. However, prior to any such change to the Special Flood Hazard Area, approval must be obtained from FEMA. Additionally, as soon as practicable, but not later than six (6) months after the date such information becomes available, a community shall notify FEMA of the changes to the Special Flood Hazard Area by submitting technical or scientific data. See Section 906.02.F.1.b for situations where FEMA notification is required.

906.02.F Technical Provisions

906.02.F.1 General

(a) Alteration or Relocation of Watercourse

- (1) No encroachment, alteration, or improvement of any kind shall be made to any watercourse until all adjacent municipalities which may be affected by such action have been notified by the municipality, and until all required permits or approvals have first been obtained from the Department of Environmental Protection Regional Office.
 - (2) No encroachment, alteration, or improvement of any kind shall be made to any watercourse unless it can be shown that the activity will not reduce or impede the flood carrying capacity of the watercourse in any way.
 - (3) In addition, FEMA and the Pennsylvania Department of Community and Economic Development, shall be notified prior to any alteration or relocation of any watercourse.
- (b) When the following encroachments are permitted: any development that causes a rise in the base flood elevations within the floodway; any development occurring in Zones A1-30 and Zone AE without a designated floodway, which will cause a rise of more than one foot in the base flood elevation; or alteration or relocation of a stream (including but not limited to installing culverts and bridges), the Applicant shall (as per 44 CFR Part 65.12):
- (1) apply to FEMA for conditional approval of such action prior to permitting the encroachments to occur.
 - (2) Upon receipt of the Administrator's conditional approval of map change and prior to approving the proposed encroachments, the City shall provide evidence to FEMA of the adoption of floodplain management ordinances incorporating the increased base flood elevations and / or revised floodway reflecting the post- project condition.
 - (3) Upon completion of the proposed encroachments, the City shall provide as- built certifications. FEMA will initiate a final map revision upon receipt of such certifications in accordance with 44 CFR Part 67.
- (c) Any new construction, development, uses or activities allowed within any identified floodplain area shall be undertaken in strict compliance with the provisions contained in this section and any other

applicable codes, ordinances and regulations.

906.02.F.2 Elevation and Floodproofing Requirements

(a) Residential Structures

- (1) In AE Zones, any new construction or substantial improvement shall have the lowest floor (including basement) elevated up to, or above, the regulatory flood elevation as defined in Section 906.02.J.
- (2) In A Zones, where there are no Base Flood Elevations specified on the FIRM, any new construction or substantial improvement shall have the lowest floor (including basement) elevated up to, or above, the regulatory flood elevation determined in accordance with Section 906.02.E.2.b.
- (3) The design and construction standards and specifications contained in the Building Code in accordance with Title 10 and ASCE 24 shall be utilized, where they are more restrictive.

(b) Non-residential Structures

- (1) In AE Zones, any new construction or substantial improvement of a non-residential structure shall have the lowest floor (including basement) elevated up to, or above, the regulatory flood elevation, or be designed and constructed so that the space enclosed below the regulatory flood elevation:
 - (i) is floodproofed so that the structure is watertight with walls substantially impermeable to the passage of water and,
 - (ii) has structural components with the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
- (2) In A Zones, where there no Base Flood Elevations are specified on the FIRM, any new construction or substantial improvement shall have the lowest floor (including basement) elevated or completely floodproofed up to, or above, the regulatory flood elevation determined in accordance with Section 906.02.E.2.c.
- (3) Any non-residential structure, or part thereof, made watertight below the regulatory flood elevation shall be floodproofed in accordance with the WI or W2 space classification standards contained in the publication entitled "Flood- Proofing Regulations" published by the U.S. Army Corps of Engineers (June 1972, as amended March 1992) or with some other equivalent standard. All plans and specifications for such floodproofing shall be accompanied by a statement certified by a registered professional engineer or architect which states that the proposed design and methods of construction are in conformance with the above referenced

standards.

- (4) The design and construction standards and specifications contained Building Code in accordance with Title 10 and ASCE 24 shall be utilized, where they are more restrictive.

(c) Space below the lowest floor

- (1) Fully enclosed space below the lowest floor (excluding basements) which will be used solely for the parking of a vehicle, building access, or incidental storage in an area other than a basement, shall be designed and constructed to allow for the automatic entry and exit of flood waters for the purpose of equalizing hydrostatic forces on exterior walls. The term "fully enclosed space" also includes crawl spaces.
- (2) Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or meet or exceed the following minimum criteria:
- (i) a minimum of two openings having a net total area of not less than one (1) square inch for every square foot of enclosed space.
- (ii) the bottom of all openings shall be no higher than one (1) foot above grade.
- (iii) openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(d) Historic Structures

Historic structures as defined in Section 906.02.J undergoing repair or rehabilitation that would constitute a substantial improvement as defined in this section, must comply with all requirements in this section that do not preclude the structure's continued designation as a historic structure. Documentation that a specific section requirement will cause removal of the structure from the National Register of Historic Places or the State Inventory of Historic places must be obtained from the Secretary of the Interior or the State Historic Preservation Officer. Any exterior alterations to properties designated by the City as historic must be approved by the City's Historic Review Commission prior to commencement. Any exemption from Code requirements will be the minimum necessary to preserve the historic character and design of the structure.

(e) Accessory structures

Structures accessory to a principal building need not be elevated or floodproofed to remain dry, but shall comply, at a minimum, with the following requirements:

- (1) the structure shall not be designed or used for human habitation, but shall be limited to the parking of vehicles, or to the storage of tools, material, and equipment related to the principal

use or activity;

- (2) floor area shall not exceed 200 square feet;
- (3) the structure will have a low damage potential;
- (4) the structure will be located on the site so as to cause the least obstruction to the flow of flood waters;
- (5) power lines, wiring, and outlets will be elevated to the regulatory flood elevation;
- (6) permanently affixed utility equipment and appliances such as furnaces, heaters, washers, dryers, etc. are prohibited;
- (7) sanitary facilities are prohibited; and
- (8) the structure shall be adequately anchored to prevent flotation, collapse, and lateral movement and shall be designed to automatically provide for the entry and exit of floodwater for the purpose of equalizing hydrostatic forces on the walls. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or meet or exceed the following minimum criteria:
 - (i) a minimum of two openings having a net total area of not less than one (1) square inch for every square foot of enclosed space.
 - (ii) the bottom of all openings shall be no higher than one (1) foot above grade.
 - (iii) openings may be equipped with screens, louvers, etc. or other coverings or devices provided that they permit the automatic entry and exit of flood waters.

906.02.F.3 Design and Construction Standards

The following minimum standards shall apply for all construction and development proposed within any identified floodplain area:

(a) Fill

If fill is used, it shall:

- (1) extend laterally at least fifteen (15) feet beyond the building line from all points;
- (2) consist of soil or small rock materials only - Sanitary Landfills shall not be permitted;
- (3) be compacted to provide the necessary permeability and resistance to erosion, scouring, or

settling;

- (4) be no steeper than one (1) vertical to two (2) horizontal feet unless substantiated data justifying steeper slopes are submitted to, and approved by the Floodplain Administrator; and
- (5) be used to the extent to which it does not adversely affect adjacent properties.

(b) Drainage Facilities

Storm drainage facilities shall be designed to convey the flow of storm water runoff in a safe and efficient manner. The system shall ensure proper drainage along streets, and provide positive drainage away from buildings. The system shall also be designed to prevent the discharge of excess runoff onto adjacent properties.

(c) Water and Sanitary Sewer Facilities and Systems

- (1) All new or replacement water supply and sanitary sewer facilities and systems shall be located, designed and constructed to minimize or eliminate flood damages and the infiltration of flood waters.
- (2) Sanitary sewer facilities and systems shall be designed to prevent the discharge of untreated sewage into flood waters.
- (3) No part of any on-site waste disposal system shall be located within any identified floodplain area except in strict compliance with all State and local regulations for such systems. If any such system is permitted, it shall be located so as to avoid impairment to it, or contamination from it, during a flood.
- (4) The design and construction provisions of the UCC and FEMA #348, "Protecting Building Utilities From Flood Damages" and "The International Private Sewage Disposal Code" shall be utilized.

(d) Other Utilities

All other utilities such as gas lines, electrical and teleexpndtw0 phone systems shall be located, elevated (where possible) and constructed to minimize the chance of impairment during a flood.

(e) Streets

The finished elevation of all new streets shall be no more than one (1) foot below the Regulatory Flood Elevation.

(f) Storage

All materials that are buoyant, flammable, explosive, or in times of flooding, could be injurious to human, animal, or plant life, and not listed in Section 906.02.F.4, Development Which May Endanger Human Life, shall be stored at or above the Regulatory Flood Elevation or floodproofed to the maximum extent possible.

(g) Placement of Buildings and Structures

All buildings and structures shall be designed, located, and constructed so as to offer the minimum obstruction to the flow of water and shall be designed to have a minimum effect upon the flow and height of flood water.

(h) Anchoring

- (1) All buildings and structures shall be firmly anchored in accordance with accepted engineering practices to prevent flotation, collapse, or lateral movement.
- (2) All air ducts, large pipes, storage tanks, and other similar objects or components located below the regulatory flood elevation shall be securely anchored or affixed.

(i) Floors, Walls, and Ceilings

- (1) Wood flooring used at or below the Regulatory Flood Elevation shall be installed to accommodate a lateral expansion of the flooring, perpendicular to the flooring grain without causing structural damage to the building.
- (2) Plywood used at or below the regulatory flood elevation shall be of a "marine" or "water-resistant" variety.
- (3) Walls and ceilings at or below the regulatory flood elevation shall be designed and constructed of materials that are "water-resistant" and will withstand inundation.
- (4) Windows, doors, and other components at or below the regulatory flood elevation shall be made of metal or other "water-resistant" material.

(j) Paints and Adhesives

- (1) Paints and other finishes used at or below the regulatory flood elevation shall be of "marine" or "water-resistant" quality.
- (2) Adhesives used at or below the regulatory flood elevation shall be of a "marine" or "water-resistant" variety.

(3) All wooden components (doors, trim, cabinets, etc.) used at or below the regulatory flood elevation shall be finished with a "marine" or "water-resistant" paint or other finishing material.

(k) Electrical Components

(1) Electrical distribution panels shall be at least three (3) feet above the base flood elevation.

(2) Separate electrical circuits shall serve lower levels and shall be dropped from above.

(l) Equipment

Water heaters, furnaces, air conditioning and ventilating units, and other electrical, mechanical or utility equipment or apparatus shall not be located below the regulatory flood elevation.

(m) Fuel Supply Systems

All gas and oil supply systems shall be designed to prevent the infiltration of flood waters into the system and discharges from the system into flood waters. Additional provisions shall be made for the drainage of these systems in the event that flood water infiltration occurs.

(n) Building Code Coordination

The Standards and Specifications contained Title 10- Building, including adoption of the Uniform Construction Code 34 PA Code (Chapters 401-405), as amended and not limited to the following provisions shall apply to the above and other sections and sub-sections of this section, to the extent that they are more restrictive and supplement the requirements of this section.

International Building Code (IBC) 2009 or the latest edition thereof: Secs. 801, 1202, 1403, 1603, 1605, 1612, 3402, and Appendix G.

International Residential Building Code (IRC) 2009 or the latest edition thereof: Secs. R104, R105, R109, R322, Appendix E, and Appendix J.

906.02.F.4 Development Which May Endanger Human Life

(a) In accordance with the Pennsylvania Flood Plain Management Act, and the regulations adopted by the Department of Community and Economic Development as required by the Act, any new or substantially improved structure which:

(1) will be used for the production or storage of any of the following dangerous materials or substances; or,

(2) will be used for any activity requiring the maintenance of a supply of more than 550 gallons, or other comparable volume, of any of the following dangerous materials or substances on the premises; or,

(3) will involve the production, storage, or use of any amount of radioactive substances;

shall be subject to the provisions of this section, in addition to all other applicable provisions. The following list of materials and substances are considered dangerous to human life:

- Acetone
- Ammonia
- Benzene
- Calcium carbide
- Carbon disulfide
- Celluloid
- Chlorine
- Hydrochloric acid
- Hydrocyanic acid
- Magnesium
- Nitric acid and oxides of nitrogen
- Petroleum products (gasoline, fuel oil, etc.)
- Phosphorus
- Potassium
- Sodium
- Sulphur and sulphur products
- Pesticides (including insecticides, fungicides, and rodenticides)
- Radioactive substances, insofar as such substances are not otherwise regulated.

(b) Within any Floodway Area, any structure of the kind described in Subsection A., above, shall be prohibited. Where permitted within any Identified Floodplain Area, any new or substantially improved residential structure of the kind described in Section 906.02.F.4.a above, shall be elevated to remain completely dry up to at least one and one half (1 ½) feet above base flood elevation and built in accordance with Sections 906.02.F.1, 906.02.F.2, and 906.02.F.3.

(c) Where permitted within any Identified Floodplain Area, any new or substantially improved non-residential structure of the kind described in Section 906.02.F.4 above, shall be built in accordance with Sections 906.02.F.1, 906.02.F.2, and 906.02.F.3 including:

(1) elevated, or designed and constructed to remain completely dry up to at least one and one half (1 ½) feet above base flood elevation, and

(2) designed to prevent pollution from the structure or activity during the course of a base flood.

Any such structure, or part thereof, that will be built below the regulatory flood elevation shall be

designed and constructed in accordance with the standards for completely dry floodproofing contained in the publication "Flood-Proofing Regulations (U.S. Army Corps of Engineers, June 1972 as amended March 1992), or with some other equivalent watertight standard.

906.02.F.5 Special Requirements for Subdivisions and Development

All subdivision proposals and development proposals containing at least 50 lots or at least 5 acres, whichever is the lesser, in Identified Floodplain Areas where base flood elevation data are not available, shall be supported by hydrologic and hydraulic engineering analyses that determine base flood elevations and floodway information. The analyses shall be prepared by a licensed professional engineer in a format required by FEMA for a Conditional Letter of Map Revision and Letter of Map Revision. Submittal requirements and processing fees shall be the responsibility of the applicant.

906.02.F.6 Special Requirements for Manufactured Homes

- (a) Within any Floodway Area/District, manufactured homes shall be prohibited. If a variance is obtained in accordance with the criteria in Section 906.02.I, then the following provisions apply:
- (b) Where permitted within any Identified Floodplain Area, all manufactured homes, and any improvements thereto, shall be:
 - (1) placed on a permanent foundation;
 - (2) elevated so that the lowest floor of the manufactured home is at least one and one half (1 ½) feet above base flood elevation;
 - (3) anchored to resist flotation, collapse, or lateral movement; and
 - (4) have all ductwork and utilities including HVAC/heat pump elevated to the Regulatory Flood Elevation.
- (c) Installation of manufactured homes shall be done in accordance with the manufacturers' installation instructions as provided by the manufacturer. Where the applicant cannot provide the above information, the requirements of Appendix E of the 2009 "International Residential Building Code" or the "U.S. Department of Housing and Urban Development's Permanent Foundations for Manufactured Housing," 1984 Edition, draft or latest revision thereto and 34 PA Code Chapter 401-405 shall apply.
- (d) Consideration shall be given to the installation requirements of the Building Code, as prescribed in Title 10- Building, as amended where appropriate and/or applicable to units where the manufacturers' standards for anchoring cannot be provided or were not established for the proposed unit(s) installation.

906.02.F.7 Special Requirements for Recreational Vehicles

Recreational vehicles in Zones A and AE must either:

- (a) be on the site for fewer than 180 consecutive days, and
- (b) be fully licensed and ready for highway use, or
- (c) meet the permit requirements for manufactured homes in Section 906.02.F.6.

906.02.G Activities Requiring Special Permits

906.02.G.1 General

In accordance with the administrative regulations promulgated by the Department of Community and Economic Development to implement the Pennsylvania Flood Plain Management Act, the following activities shall be prohibited within any Identified Floodplain Area unless a Special Permit has been issued by the City.

- (a) The commencement of any of the following activities; or the construction, enlargement, or expansion of any structure used, or intended to be used, for any of the following activities:
 - (1) Hospitals
 - (2) Nursing homes (meaning facilities where twenty-four (24) hour staff care or supervision is provided)
 - (3) Correctional Facilities

906.02.G.2 Application Requirements for Special Permits

Applicants for Special Permits shall provide five copies of the following items:

- (a) A completed Application as prescribed by the Zoning Administrator.
- (b) A small scale map showing the vicinity in which the proposed site is located.
- (c) Detailed Site Plan of the entire site that meets the requirements of Section 922.01.D.2 A, clearly and legibly drawn at a scale of one (1) inch being equal to one hundred (100) feet or less, showing the following:
 - (1) topography based upon the North American Vertical Datum (NAVD) of 1988, showing existing and proposed contours at intervals of two (2) feet;

- (2) the location of all existing streets, drives, other access ways, and parking areas, with information concerning widths, pavement types and construction, and elevations;
 - (3) the location of any existing bodies of water or watercourses, buildings, structures and other public or private facilities, including railroad tracks and facilities, and any other natural and man-made features affecting, or affected by, the proposed activity or development;
 - (3) the location of the floodplain boundary line, information and spot elevations concerning the base flood elevation, and information concerning the flow of water including direction and velocities;
 - (4) the location of all proposed buildings, structures, utilities, and any other improvements; and
 - (5) any other information which the municipality considers necessary for adequate review of the application.
- (d) Plans of all proposed buildings, structures and other improvements, clearly and legibly drawn at suitable scale showing the following:
- (1) sufficiently detailed architectural or engineering drawings, including floor plans, sections, and exterior building elevations, as appropriate;
 - (2) for any proposed building, the elevation of the lowest floor (including basement) and, as required, the elevation of any other floor;
 - (3) complete information concerning flood depths, pressures, velocities, impact and uplift forces, and other factors associated with the base flood;
 - (4) detailed information concerning any proposed floodproofing measures;
 - (5) cross section drawings for all proposed streets, drives, other accessways, and parking areas, showing all rights-of-way and pavement widths;
 - (6) profile drawings for all proposed streets, drives, and vehicular accessways including existing and proposed grades; and
 - (7) plans and profiles of all proposed sanitary and storm sewer systems, water supply systems, and any other utilities and facilities.
- (e) The following data and documentation:
- (1) certification from a registered professional engineer, architect, or landscape architect that the proposed construction has been adequately designed to protect against damage from the base flood;

- (2) a statement, certified by a registered professional engineer, architect, landscape architect, or other qualified person which contains a complete and accurate description of the nature and extent of pollution that might possibly occur from the development during the course of a base flood, including a statement concerning the effects such pollution may have on human life;
- (3) a statement certified by a registered professional engineer, architect, or landscape architect, which contains a complete and accurate description of the effects the proposed development will have on base flood elevation and flows;
- (4) a statement, certified by a registered professional engineer, architect, or landscape architect, which contains a complete and accurate description of the kinds and amounts of any loose buoyant materials or debris that may possibly exist or be located on the site below the base flood elevation and the effects such materials and debris may have on base flood elevation and flows;
- (5) the appropriate component of the Department of Environmental Protection's "Planning Module for Land Development;"
- (6) where any excavation or grading is proposed, a plan meeting the requirements of the Department of Environmental Protection to implement and maintain erosion and sedimentation control;
- (7) any other applicable permits such as, but not limited to, a permit for any activity regulated by the Department of Environmental Protection under Section 302 of Act 1978-166; and
- (8) an evacuation plan which fully explains the manner in which the site will be safely evacuated before or during the course of a base flood.

906.02.G.3 Application Review Procedures

Upon the Zoning Administrator's receipt of an application for a Special Permit the following procedures shall apply in addition to those of Section 906.02.D:

- (a) Promptly upon determining that an application is complete, the Zoning Administrator shall schedule a public hearing before the Planning Commission and notify the applicant of the hearing date. The application shall be reviewed as a Project Development Plan as per section 922.10 except that the criteria for review shall be provisions 906.02.F of this section.
- (b) If the Planning Commission and/or City approves an application, it shall file written notification, together with the application and all pertinent information, with the Department of Community and Economic Development, by registered or certified mail, within five (5) working days after the date of approval.
- (c) Before issuing the Special Permit, the Zoning Administrator shall allow the Department of

Community and Economic Development thirty (30) days, after receipt of the notification by the Department, to review the application and decision made by Council.

- (d) If the Zoning Administrator does not receive any communication from the Department of Community and Economic Development during the thirty (30) day review period, it may issue a Special Permit to the applicant.
- (e) If the Department of Community and Economic Development should decide to disapprove an application, it shall notify the Zoning Administrator and the applicant, in writing, of the reasons for the disapproval, and the Zoning Administrator shall not issue the Special Permit.

906.02.G.4 Special Technical Requirements

- (a) In addition to the requirements of Section 906.02.F, the following minimum requirements shall also apply to any proposed development requiring a Special Permit. If there is any conflict between any of the following requirements and those in Section 906.02.F. For in any other code, ordinance, or regulation, the more restrictive provision shall apply.
- (b) No application for a Special Permit shall be approved unless it can be determined that the structure or activity will be located, constructed and maintained in a manner which will:
 - (1) Fully protect the health and safety of the general public and any occupants of the structure. At a minimum, all new structures shall be designed, located, and constructed so that:
 - (i) the structure will survive inundation by waters of the base flood without any lateral movement or damage to either the structure itself, or to any of its equipment or contents below the BFE.
 - (ii) the lowest floor (including basement) will be elevated to at least one and one half (1 ½) feet above base flood elevation.
 - (iii) the occupants of the structure can remain inside for an indefinite period of time and be safely evacuated at any time during the base flood.
 - (2) Prevent any significant possibility of pollution, increased flood levels or flows, or debris endangering life and property.
- (c) All hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently accepted technical concepts. Studies, analyses, computations, etc. shall be submitted in sufficient detail to allow a thorough technical review by the Zoning Administrator, Planning Commission, and the Department of Community and Economic Development.

906.02.H Existing Structures In Identified Floodplain Areas

906.02.H.1 Existing Structures

The provisions of this section do not require any changes or improvements to be made to lawfully existing structures. However, when an improvement is made to any existing structure, the provisions of Section 906.02.H.2 shall apply.

906.02.H.2 Improvements

The following provisions shall apply whenever any improvement is made to an existing structure located within any Identified Floodplain Area:

- (a) No expansion or enlargement of an existing structure shall be allowed within any Floodway Area/District that would cause any increase in BFE.
- (b) No expansion or enlargement of an existing structure shall be allowed within AE Area/District without floodway that would, together with all other existing and anticipated development, increase the BFE more than one (1) foot at any point.
- (c) Any modification, alteration, reconstruction, or improvement of any kind to an existing structure to an extent or amount of fifty (50) percent or more of its market value, shall constitute a substantial improvement and shall be undertaken only in full compliance with the provisions of this section .
- (d) The above activity shall also address the requirements of the Building Code, as prescribed in Title 10 - Building.

906.02.I Variances

906.02.I.1 Variance Procedures and Conditions

Requests for variances shall be considered by the Zoning Board of Adjustment in accordance with the procedures contained in Section 922.09 and the following:

- (a) No variance shall be granted for any construction, development, use, or activity within any Floodway Area/District that would cause any increase in the BFE.
- (b) No variance shall be granted for any construction, development, use, or activity within any AE Area/District without floodway that would, together with all other existing and anticipated development, increase the BFE more than one (1) foot at any point.
- (c) Except for a possible modification of the regulatory flood elevation requirement involved, no variance shall be granted for any of the other requirements pertaining specifically to development regulated by Special Permit (or Prohibited Activities) (906.02.G) or to

Development Which May Endanger Human Life (Section 906.02.F.4).

- (d) In reviewing any request for a variance, in addition to the considerations of Section 922.09.E., the Zoning Board of Adjustment shall consider, that the granting of the variance will:
- (1) neither result in an unacceptable or prohibited increase in flood heights, additional threats to public safety, or extraordinary public expense,
 - (2) nor create nuisances, cause fraud on, or victimize the public, or conflict with any other applicable state or local ordinances and regulations
- (e) Whenever a variance is granted, the Zoning Board of Adjustment shall notify the applicant in writing that:
- (1) The granting of the variance may result in increased premium rates for flood insurance.
 - (2) Such variances may increase the risks to life and property.
- (f) A complete record of all variance requests and related actions shall be maintained by the Zoning Administrator. In addition, a report of all variances granted during the year shall be included in the annual report to the FEMA.

Notwithstanding any of the above, however, all structures shall be designed and constructed so as to have the capability of resisting the one-percent (1%) annual chance flood.

906.02.J Definitions

906.02.J.1 General

Unless specifically defined below, words and phrases used in this section shall be interpreted in accordance with Section 926.

906.02.J.2 Specific Definitions

- (a) **Base flood** means a flood which has a one percent chance of being equaled or exceeded in any given year (also called the "100-year flood" or one-percent (1%) annual chance flood).
- (b) **Base flood discharge** means the volume of water resulting from a Base Flood as it passes a given location within a given time, usually expressed in cubic feet per second (cfs).
- (c) **Base flood elevation (BFE)** means the elevation shown on the Flood Insurance Rate Map (FIRM) for Zone AE that indicates the water surface elevation resulting from a flood that has a 1-percent or greater chance of being equaled or exceeded in any given year.

- (d) **Basement** means any area of the building having its floor below ground level on all sides.
- (e) **Building** means a combination of materials to form a permanent structure having walls and a roof. Included shall be all manufactured homes and trailers to be used for human habitation.
- (f) **Development** means any man-made change to improved or unimproved real estate, including but not limited to the construction, reconstruction, renovation, repair, expansion, or alteration of buildings or other structures; the placement of manufactured homes; streets, and other paving; utilities; filling, grading and excavation; mining; dredging; drilling operations; storage of equipment or materials; and the subdivision of land.
- (g) **Existing manufactured home park or subdivision** means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.
- (h) **Expansion to an existing manufactured home park or subdivision** means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).
- (i) **Flood** means a temporary inundation of normally dry land areas.
- (j) **Flood Insurance Rate Map (FIRM)** means the official map on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.
- (k) **Flood Insurance Study (FIS)** means the official report provided by the Federal Emergency Management Agency that includes flood profiles, the Flood Insurance Rate Map, the Flood Boundary and Floodway Map, and the water surface elevation of the base flood.
- (l) **Floodplain Area** means a relatively flat or low land area which is subject to partial or complete inundation from an adjoining or nearby stream, river or watercourse; and/or any area subject to the unusual and rapid accumulation of surface waters from any source.
- (m) **Floodproofing** means any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.
- (n) **Floodway** means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

- (o) **Highest Adjacent Grade** means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.
- (p) **Historic structure** means any structure that is:
- (1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
 - (2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
 - (3) Individually listed on a state inventory of historic places in states which have been approved by the Secretary of the Interior; or
 - (4) Individually listed on a local inventory of historic places in communities with historic preservation that have been certified either:
 - (i) By an approved state program as determined by the Secretary of the Interior; or
 - (ii) Directly by the Secretary of the Interior in states without approved programs.
- (q) **Identified Floodplain Area** is an umbrella term that includes all of the areas within which the community has selected to enforce floodplain regulations. It will always include the area identified as the Special Flood Hazard Area on the Flood Insurance Rate Maps and Flood Insurance Study, but may include additional areas identified by the community. See Sections 906.02.E.1 and 906.02.E.2 for the specifics on what areas the community has included in the Identified Floodplain Area.
- (r) **Lowest floor** means the lowest floor of the lowest fully enclosed area (including basement). An unfinished, flood resistant partially enclosed area, used solely for parking of vehicles, building access, and incidental storage, in an area other than a basement area is not considered the lowest floor of a building, provided that such space is not designed and built so that the structure is in violation of the applicable non-elevation design requirements of this chapter.
- (s) **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 attached to the required utilities. The term includes park trailers, travel trailers, recreational and other similar vehicles which are placed on a site for more than 180 consecutive days.
- (t) **Manufactured home park or subdivision** means a parcel (or contiguous parcels) of land

divided into two or more manufactured home lots for rent or sale.

- (u) **Minor Repair** means the replacement of existing work with equivalent materials for the purpose of its routine maintenance and upkeep, but not including the cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the exitway requirements; nor shall minor repairs include addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, oil, waste, vent, or similar piping, electric wiring, mechanical or other work affecting public health or general safety.
- (v) **New Construction** means structures for which the start of construction commenced on or after September 26, 2014 and includes any subsequent improvements to such structures. Any construction started after December 15, 1981 and before September 26, 2014 is subject to the Code in effect at the time the permit was issued, provided the start of construction was within 180 days of permit issuance.
- (w) **Person** means an individual, partnership, public or private association or corporation, firm, trust, estate, municipality, governmental unit, public utility or any other legal entity whatsoever, which is recognized by law as the subject of rights and duties.
- (x) **Post-FIRM Structure** means a structure for which construction or substantial improvement occurred after December 31, 1974 or on or after the community's initial Flood Insurance Rate Map (FIRM) dated December 15, 1981, whichever is later, and, as such, would be required to be compliant with the regulations of the National Flood Insurance Program.
- (y) **Pre-FIRM Structure** means a structure for which construction or substantial improvement occurred on or before December 31, 1974 or before the community's initial Flood Insurance Rate Map (FIRM) dated December 15, 1981, whichever is later, and, as such, would not be required to be compliant with the regulations of the National Flood Insurance Program.
- (z) **Recreational vehicle** means a vehicle which is:
 - (1) built on a single chassis;
 - (2) not more than 400 square feet, measured at the largest horizontal projections;
 - (3) designed to be self-propelled or permanently towable by a light-duty truck,
 - (4) not designed for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.
- (aa) **Regulatory flood elevation** means the base flood elevation (BFE) or estimated flood height as

determined using simplified methods plus a freeboard safety factor of one and one-half (1½) feet.

- (bb) **Special permit** means a special approval which is required for hospitals, nursing homes, correctional facilities, and new manufactured home parks/ subdivisions and substantial improvements to such existing parks, when such development is located in all, or a designated portion of a floodplain.
- (cc) **Special flood hazard area (SFHA)** means an area in the floodplain subject to a 1 percent or greater chance of flooding in any given year. It is shown on the FIRM as Zone A or AE.
- (dd) **Start of construction** means includes substantial improvement and other proposed new development and means the date the Permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days after the date of the permit and shall be completed within twelve (12) months after the date of issuance of the permit unless a time extension is granted, in writing, by the Zoning Administrator . The actual start 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 construction of columns, or any work beyond the stage of excavation; or the placement of a manufacture 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 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. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.
- (ee) **Structure** means a walled and roofed building, including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.
- (ff) **Subdivision** means the division or re-division of a lot, tract, or parcel of land by any means into two or more lots, tracts, parcels or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs, or devisees, transfer of ownership or building or lot development: Provided, however, that the subdivision by lease of land for agricultural purposes into parcels of more than ten acres, not involving any new street or easement of access or any residential dwelling, shall be exempted.
- (gg) **Substantial damage** means damage from any cause sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty (50) percent or more of the market value of the structure before the damage occurred.
- (hh) **Substantial improvement** means any reconstruction, rehabilitation, addition, or other improvement of a structure, of which the cost equals or exceeds fifty (50) percent of the market value of the structure before the "start of construction" of the improvement. This term includes

structures which have incurred "substantial damage" regardless of the actual repair work performed. The term does not, however, include any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions.

- (ii) **Uniform Construction Code (UCC)** means the statewide building code adopted by The Pennsylvania General Assembly in 1999 applicable to new construction in all municipalities whether administered by the municipality, a third party or the Department of Labor and Industry. Applicable to residential and commercial buildings, The Code adopted The International Residential Code (IRC) and the International Building Code (IBC), by reference, as the construction standard applicable with the State floodplain construction. For coordination purposes, references to the above are made specifically to various sections of the IRC and the IBC.
- (jj) **Violation** means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in 44 CFR §60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.