

**TITLE 9C
FLOOD DAMAGE PREVENTION**

**CHAPTER 1
FLOOD DAMAGE PREVENTION**

9C-1-1: PURPOSE:

This chapter is enacted pursuant to the police powers granted to this village by 65 ILCS 5/1-2-1, 5/11-12-12, 5/11-30-2, 5/11-30-8 and 5/11-31-2. The purpose of this chapter is to maintain this village's eligibility in the National Flood Insurance Program; to minimize potential losses due to periodic flooding including loss of life, loss of property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare; and to preserve and enhance the quality of surface waters, conserve economic and natural values and provide for this wise utilization of water and related land resources. This chapter is adopted in order to accomplish the following specific purposes:

- A. To meet the requirements of 615 ILCS 5/18g, Rivers, Lakes and Streams Act;
- B. To assure that new development does not increase the flood or drainage hazards to others, or creating unstable conditions susceptible to erosion;
- C. To protect new buildings and major improvements to buildings from flood damage;
- D. To protect human life and health from the hazards of flooding;
- E. To lessen the burden on the taxpayer for flood control projects, repairs to flood-damaged public facilities and utilities, and flood rescue and relief operations;
- F. To make federally subsidized flood insurance available for property in the village by fulfilling the requirements of the National Flood Insurance Program;
- G. To comply with the rules and regulations of the National Flood Insurance Program codified as 44 CFR 59-79, as amended;
- H. To protect, conserve and promote the orderly development of land and water resources; and
- I. To preserve the natural characteristics and functions of watercourses and flood plains in order to moderate flood and storm water impacts, improve water quality, reduce soil erosion, protect aquatic and riparian habitat, provide recreational opportunities, provide aesthetic benefits and enhance community and economic development.

9C-1-2: DEFINITIONS:

For the purposes of this chapter, the following definitions are adopted:

ACT: An act in relation to the regulation of the rivers, lakes and streams of the state of Illinois, 615 Illinois Compiled Statutes 5/5 et seq.

APPLICANT: Any person, firm, corporation or agency which submits an application.

APPROPRIATE USE: Only uses of the designated floodway that are permissible and will be considered for permit issuance. The only uses that will be allowed are as specified in section 9C-1-7 of this chapter.

BASE FLOOD: The flood having a one percent (1%) probability of being equaled or exceeded in any given year. The base flood is also known as the 100-year frequency flood event. Application of the base flood elevation at any location is as defined in section 9C-1-5 of this chapter.

BUILDING: A structure that is principally aboveground and is enclosed by walls and a roof. The term includes a gas or liquid storage tank, a manufactured home, mobile home or a prefabricated building. This term also includes recreational vehicles and travel trailers to be installed on a site for more than one hundred eighty (180) days, unless they are fully licensed and ready for highway use.

CHANNEL: Any river, stream, creek, brook, branch, natural or artificial depression, ponded area, flowage, slough, ditch, conduit, culvert, gully, ravine, wash, or natural or manmade drainageway, which has a definite bed and banks or shoreline, in or into which surface or groundwater flows, either perennially or intermittently.

CHANNEL MODIFICATION: Alteration of a channel by changing the physical dimensions or materials of its bed or banks. Channel modification includes damming, riprapping (or other armoring), widening, deepening, straightening, relocating, lining and significant removal of native vegetation from the bottom or banks. Channel modification does not include the clearing of dead or dying vegetation, debris, or trash from the channel. Channelization is a severe form of channel modification involving a significant change in the channel cross section and typically involving relocation of the existing channel (e.g., straightening).

COMPENSATORY STORAGE: An artificially excavated, hydraulically equivalent volume of storage within the SFHA used to balance the loss of natural flood storage capacity when artificial fill or structures are placed within the flood plain. The uncompensated loss of natural flood plain storage can increase off-site floodwater elevations and flows.

CONDITIONAL APPROVAL OF A DESIGNATED FLOODWAY MAP CHANGE: Preconstruction approval by IDNR/OWR and FEMA of a proposed change to the

floodway map. This preconstruction approval, pursuant to this part, gives assurances to the property owner that once an appropriate use is constructed according to permitted plans, the floodway map can be changed, as previously agreed, upon review and acceptance of as-built plans.

CONDITIONAL LETTER OF MAP REVISION (CLOMR): A letter which indicates that FEMA will revise base flood elevations, flood insurance rate zones, flood boundaries or floodway as shown on an effective flood hazard boundary map or flood insurance rate map, once the as-built plans are submitted and approved.

CONTROL STRUCTURE: A structure designed to control the rate of flow that passes through the structure, given a specific upstream and downstream water surface elevation.

DAM: All obstructions, wall embankments or barriers, together with their abutments and appurtenant works, if any, constructed for the purpose of storing or diverting water or creating a pool. Underground water storage tanks are not included.

DESIGNATED FLOODWAY: The channel, including on-stream lakes, and that portion of the flood plain adjacent to a stream or watercourse as designated by IDNR/OWR, which is needed to store and convey the existing 100-year frequency flood discharge with no more than a 0.1 foot increase in stage due to the loss of flood conveyance or storage, and no more than a ten percent (10%) increase in velocities.

A. The floodways are designated for Flag Creek and its tributaries; Des Plaines River; Chicago Sanitary Drainage and Ship Canal; and Illinois and Michigan Canal and its tributaries, on the following map no. 17031C, and panels 469J, 488J, 581J, 582J, 583J, 584J and 601J, dated August 19, 2008, respectively, of the countywide flood insurance rate map for Cook County prepared by FEMA.

B. The floodways for those parts of unincorporated Cook County that are within the one and half mile extraterritorial jurisdiction of the village and may be annexed into the village are designated for Flag Creek and its tributaries; Des Plaines River; Chicago Sanitary Drainage and Ship Canal; and Illinois and Michigan Canal and its tributaries, on the following map no. 17031C, and panels 579J, 591J, 592J and 603J, dated August 19, 2008, respectively, of the countywide flood insurance rate map for Cook County prepared by FEMA.

C. To locate the designated floodway boundary on any site, the designated floodway boundary should be scaled off the designated floodway map and located on a site plan, using reference marks common to both maps. Where interpretation is needed to determine the exact location of the designated floodway boundary, IDNR/OWR should be contacted for the interpretation.

DEVELOPMENT: Any manmade change to real estate, including:

A. Construction, reconstruction, repair or placement of a building or any addition to a building;

B. Installing a manufactured home on a site, preparing a site for a manufactured home, or installing a travel trailer on a site for more than one hundred eighty (180) days. If the travel trailer or recreational vehicle is on-site for less than one hundred eighty (180) days, it must be fully licensed and ready for highway use;

C. Drilling, mining, installing utilities, construction of roads, bridges, storage of equipment or materials, or similar projects;

D. Demolition of a structure or redevelopment of a site;

E. Clearing of land as an adjunct of construction;

F. Construction or erection of levees, walls, fences, dams or culverts; channel modification; filling, dredging, grading, excavating, paving or other nonagricultural alterations of the ground surface; storage of materials; deposit of solid or liquid waste; and

G. Any other activity of man that might change the direction, height or velocity of flood or surface water, including extensive vegetation removal.

Development does not include maintenance of existing buildings and facilities such as reroofing or resurfacing of roads when there is no increase in elevation, or gardening, plowing and similar agricultural practices that do not involve filling, grading or construction of levees.

ELEVATION CERTIFICATES: A form published by FEMA that is used to certify the elevation to which a building has been elevated.

EROSION: The general process whereby soils are moved by flowing water or wave action.

EXEMPT ORGANIZATIONS: Organizations which are exempt from this chapter per the Illinois Compiled Statutes (ILCS) including state, federal or local units of government.

EXISTING MANUFACTURED HOME PARK OR SUBDIVISION: 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 April 1, 1990.

EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION: 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).

FEMA: Federal Emergency Management Agency and its regulations at 44 CFR 59-79 effective as of September 29, 1989. This incorporation does not include any later editions or amendments.

FLOOD: A general and temporary condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal waves, or the unusual and rapid accumulation or runoff or surface waters from any source.

FLOOD FREQUENCY: A period of years, based on a statistical analysis, during which a flood of a stated magnitude may be expected to be equaled or exceeded.

FLOOD FRINGE: That portion of the flood plain outside of the designated floodway.

FLOOD INSURANCE RATE MAPS (FIRM): A map prepared by FEMA that depicts the special flood hazard area (SFHA) within a community. This map includes insurance rate zones and flood plains and may or may not depict floodways.

FLOOD PLAIN: That land typically adjacent to a body of water with ground surface elevations at or below the base flood or the 100-year frequency flood elevation. Flood plains may also include detached special flood hazard areas, ponding areas, etc. The flood plain is also known as the special flood hazard area (SFHA).

A. The flood plains are those lands within the jurisdiction of the village that are subject to inundation by the base flood or 100-year frequency flood. The SFHAs of the village are generally identified as such on the following map no. 17031C, and panels 469J, 488J, 581J, 582J, 583J, 584J and 601J, dated August 19, 2008, respectively, of the countywide flood insurance rate map for Cook County prepared by FEMA.

B. The SFHAs of those parts of unincorporated Cook County that are within the one and half mile extraterritorial jurisdiction of the village and may be annexed into the village are designated for Flag Creek and its tributaries; Des Plaines River; Chicago Sanitary Drainage and Ship Canal; and Illinois and Michigan Canal and its tributaries, on the following map no. 17031C, and panels 579J, 591J, 592J and 603J, dated August 19, 2008; respectively, of the countywide flood insurance rate map for Cook County prepared by FEMA.

FLOOD PROTECTION ELEVATION (FPE): The elevation of the base flood or 100-year frequency flood plus one foot (1') of freeboard at any given location in the SFHA.

FLOODPROOFING: 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.

FLOODPROOFING CERTIFICATE: A form published by FEMA that is used to certify that a building has been designed and constructed to be structurally dry floodproofed to the flood protection elevation.

FREEBOARD: An increment of elevation added to the base flood elevation to provide a factor of safety for uncertainties in calculations, future watershed development, unknown localized conditions, wave actions and unpredictable effects such as those caused by ice or debris jams.

HISTORIC STRUCTURE: Any structure that is:

A. Listed individually in the National Register of Historic Places or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

B. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historic district or a district preliminarily determined by the secretary to qualify as a registered historic district;

C. Individually listed on the state inventory of historic places by the Illinois Historic Preservation Agency; and

D. Individually listed on a local inventory of historic places that has been certified by the Illinois Historic Preservation Agency.

HYDROLOGIC AND HYDRAULIC CALCULATIONS: Engineering analyses which determine expected flood flows and flood elevations based on land characteristics and rainfall events.

IDNR/OWR: Illinois Department of Natural Resources, Office of Water Resources.

LETTER OF MAP AMENDMENT (LOMA): Official determination by FEMA that a specific structure is not in a 100-year flood zone; amends the effective flood hazard boundary map or FIRM.

LETTER OF MAP REVISION (LOMR): Letter that revises base flood or 100-year frequency flood elevations, flood insurance rate zones, flood boundaries or floodways as shown on an effective FHBM or FIRM.

MANUFACTURED HOME: A structure, transportable in one or more sections, which is built on a permanent chassis and is designated for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

MANUFACTURED HOME PARK OR SUBDIVISION: A parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

MITIGATION: Includes those measures necessary to minimize the negative effects which flood plain development activities might have on the public health, safety and welfare. Examples of mitigation include compensatory storage, soil erosion and sedimentation control, and channel restoration. Mitigation may also include those activities taken to reduce a structure's susceptibility to flooding.

NAVD: North American Vertical Datum of 1988. Vertical control datum established for vertical control based upon the General Adjustment of the North American Datum of 1988 [replacing the National Geodetic Vertical Datum of 1929 (NGVD 29)].

NATURAL: When used in reference to channels means those channels formed by the existing surface topography of the earth prior to changes made by man. A natural stream tends to follow a meandering path; its flood plain is not constrained by levees; the area near the bank has not been cleared, mowed or cultivated; the stream flows over soil and geologic materials typical of the area with no substantial alteration of the course or cross section of the stream caused by filling or excavating. A modified channel may regain some natural characteristics over time as the channel meanders and vegetation is reestablished. Similarly, a modified channel may be restored to more natural conditions by man through regrading and revegetation.

NEW MANUFACTURED HOME PARK OR SUBDIVISION: 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) has been completed on or after April 23, 1992.

ORDINARY HIGH WATER MARK (OHWM): The point on the bank or shore up to which the presence and action of surface water is so continuous so as to leave a distinctive mark such as by erosion, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation or other easily recognized characteristics.

PUBLIC BODIES OF WATER: All open public streams and lakes capable of being navigated by watercraft, in whole or in part, for commercial uses and purposes, and all lakes, rivers, and streams which in their natural condition were capable of being improved and made navigable, or that are connected with or discharge their waters into navigable lakes or rivers within, or upon the borders of the state of Illinois, together with all bayous, sloughs, backwaters, and submerged lands that are open to the main channel or body of water directly accessible thereto.

PUBLIC FLOOD CONTROL PROJECT: A flood control project which will be operated and maintained by a public agency to reduce flood damages to existing buildings and structures which includes a hydrologic and hydraulic study of the existing and proposed conditions of the watershed. Nothing in this definition shall preclude the design, engineering, construction or financing, in whole or in part, of a flood control project by persons or parties who are not public agencies.

RECREATIONAL VEHICLE OR TRAVEL TRAILER: A vehicle which is:

- A. Built on a single chassis;
- B. Four hundred (400) square feet or less when measured at the largest horizontal projection;
- C. Designed to be self-propelled or permanently towable by a light duty truck; and
- D. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

REGISTERED LAND SURVEYOR: A land surveyor registered in the state of Illinois, under the Illinois Land Surveyor Act (225 ILCS 330-1 et seq.)

REGISTERED PROFESSIONAL ENGINEER: An engineer registered in the state of Illinois, under the Illinois Professional Engineering Act 225 ILCS 325/1, et seq.

REPAIR, REMODELING OR MAINTENANCE: Development activities which do not result in any increases in the outside dimensions of a building or any changes to the dimensions of a structure.

RETENTION/DETENTION FACILITY: A retention facility stores storm water runoff without a gravity release. A detention facility provides for storage of storm water runoff and controlled release of this runoff during and after a flood or storm.

RIVERINE SFHA: Any SFHA subject to flooding from a river, creek, intermittent stream, ditch, on-stream lake system or any other identified channel. This term does not include areas subject to flooding from lakes, ponding areas, areas of sheet flow or other areas not subject to overbank flooding.

RUNOFF: The water derived from melting snow or rain falling on the land surface, flowing over the surface of the ground or collected in channels or conduits.

SEDIMENTATION: The processes that deposit soils, debris and other materials either on ground surfaces or in bodies of water or watercourses.

SPECIAL FLOOD HAZARD AREA (SFHA): Any base flood area subject to flooding from a river, creek, intermittent stream, ditch or any other identified channel or ponding and shown on a flood hazard boundary map or flood insurance rate map as zone A, AO, A1-3D, AE, A99, AR, VO, V30, VE, V, M, E, D or X.

STRUCTURE: The results of a manmade change to the land constructed on or below the ground, including the construction, reconstruction or placement of a building or any addition to a building; installing a manufactured home on a site; preparing a site for a

manufactured home or installing a travel trailer on a site for more than one hundred eighty (180) days, unless they are fully licensed and ready for highway use.

SUBSTANTIAL DAMAGE: A building is considered substantially damaged when it sustains damage from any cause (fire, flood, earthquake, etc.), whereby the cost of fully restoring the structure would equal or exceed fifty percent (50%) of the predamage market value of the structure, regardless of the actual repair work performed.

SUBSTANTIAL IMPROVEMENT: Any repair, reconstruction, rehabilitation, addition or improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure either: a) before the improvement or repair is started; or b) if the structure has been damaged from any source, and is being restored, before the damage occurred. The term includes structures which were damaged whereby the cost of restoring the structure to its predamaged condition would equal or exceed fifty percent (50%) of the market value before the damage occurred, regardless of the actual repair work performed. For the purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural parts of a building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either: a) any project for improvement of a structure to comply with any existing state or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions; or b) any alteration of an "Historic Structure"; provided that the alteration will not preclude the structure's continued designation as an "Historic Structure".

TRANSITION SECTION: Reaches of the stream or floodway where water flows from a narrow cross section to a wide cross section or vice versa.

9C-1-3: HOW TO USE THIS CHAPTER:

- A. The building commissioner, in all cases, consulting with and working in conjunction with the village engineer, shall be responsible for fulfilling all of the duties listed in section 9C-1-4 of this chapter.
- B. To fulfill those duties, the building commissioner and village engineer first should use the criteria listed in section 9C-1-5 base flood elevations of this chapter to determine whether the development site is located within a flood plain.
- C. Once it has been determined that a site is located within a flood plain, the building commissioner and village engineer must determine whether the development site is within a flood fringe, a designated floodway or within an SFHA or flood plain for which no floodway has been identified. If the site is within a flood fringe, the building commissioner and village engineer shall require that the minimum requirements of section 9C-1-6 of this chapter be met. If the site is within a floodway, the building commissioner and village engineer shall require that the minimum requirements of section 9C-1-7 of this chapter be met. If the site is located within an SFHA or flood plain for which no detailed study has been completed and approved,

the building commissioner and village engineer shall require that the minimum requirements of section 9C-1-8 of this chapter be met.

- D. In addition, the general requirements of section 9C-1-9 of this chapter shall be met for all developments meeting the requirements of section 9C-1-6, 9C-1-7 or 9C-1-8 of this chapter.
- E. The building commissioner and village engineer shall assure that all subdivision proposals shall meet the requirements of section 9C-1-10 of this chapter.
- F. If a variance is to be granted for a proposal, the building commissioner and village engineer shall review the requirements of section 9C-1-11 of this chapter to make sure they are met. In addition, the building commissioner and village engineer shall complete all notification requirements.
- G. In order to assure that property owners obtain permits as required in this chapter, the building commissioner and village engineer may take any and all actions as outlined in section 9C-1-13 of this chapter.

9C-1-4: DUTIES OF THE ENFORCEMENT OFFICIALS:

The building commissioner, in all cases, consulting with and working in conjunction with the village engineer, shall be responsible for the general administration and enforcement of this chapter which shall include the following:

- A. **Determining The Flood Plain Designation:** Check all new development sites to determine whether they are in a special flood hazard area (SFHA). If they are in an SFHA, determine whether they are in a floodway, flood fringe or a flood plain on which a detailed study has not been conducted which drains more than one square mile. Check whether the development is potentially within an extended SFHA (with a drainage area less than 1 square mile), indicating that the development would have adverse impacts regarding storage, conveyance, or inundation which would be the basis for the applicant being required to delineate the flood plain and floodway and be subject to the remaining sections of this chapter.
- B. **Professional Engineer Review:** If the development site is within a floodway or in a flood plain for which a detailed study has not been conducted which drains more than one square mile, then the permit shall be referred to a registered professional engineer under the employ or contract of the village for review to ensure that the development meets the requirements of section 9C-1-7 of this chapter. In the case of an appropriate use, the PE shall state in writing that the development meets the requirements of section 9C-1-7 of this chapter.
- C. **Dam Safety Requirements:** Ensure that an IDNR/OWR permit has been issued or a letter indicating no permit is required, if the proposed development activity includes

construction of a "dam" as defined in section 9C-1-2 of this chapter. Regulated dams may include weirs, restrictive culverts or impoundment structures.

- D. Other Permit Requirements: Ensure that any and all required federal, state and local permits are received prior to the issuance of a flood plain development permit.
- E. Plan Review And Permit Issuance: Ensure that all development activities within the SFHAs of the jurisdiction of the village meet the requirements of this chapter. Issue a flood plain development permit in accordance with the provisions of this chapter and other regulations of this community when the development meets the conditions of this chapter.
- F. Inspection Review: Inspect all development projects before, during and after construction to assure proper elevation of the structure and to ensure compliance with the provisions of this chapter.
- G. Elevation And Floodproofing Certificates: Maintain permit files including: Elevation certificate certifying the elevation of the lowest floor (including basement) of a residential or nonresidential building subject to section 9C-1-9 of this chapter. The elevation to which a nonresidential building has been floodproofed, using a floodproofing certificate, for all buildings subject to section 9C-1-9 of this chapter.
- H. Records For Public Inspection: Maintain for public inspection and furnish upon request base flood data, SFHA and designated floodway maps, copies of federal or state permit documents, variance documentation, conditional letter of map revision, letter of map revision, letter of map amendment and "as-built" elevation and floodproofing and/or elevation certificates for all buildings constructed subject to this chapter.
- I. State Permits: Ensure that construction authorization has been granted by the IDNR/OWR, for all development projects subject to sections 9C-1-7 and 9C-1-8 of this chapter, unless enforcement responsibility has been delegated to the village. Upon acceptance of this section by IDNR/OWR and FEMA, responsibility is hereby delegated to the village as per 92 Illinois Administrative Code 708 for construction in the regulatory floodway and flood plain when floodways have not been defined in sections 9C-1-7 and 9C-1-8 of this chapter. However, the following review approvals are not delegated to the village and shall require review or permits from IDNR/OWR:
 - 1. Organizations which are exempt from this chapter, as per the Illinois Compiled Statutes;
 - 2. IDNR/OWR projects, dams or impoundment structures as defined in section 9C-1-2 of this chapter and all other state, federal or local units of government projects, including projects of the village and county, except for those projects meeting the requirements of section 9C-1-7 of this chapter;

3. An engineer's determination that an existing bridge or culvert crossing is not a source of flood damage and the analysis indicating the proposed flood profile, per section 9C-1-7 of this chapter;
4. An engineer's analysis of the flood profile due to section 9C-1-7 of this chapter;
5. Alternative transition sections and hydraulically equivalent compensatory storage as indicated in section 9C-1-7 of this chapter;
6. Permit issuance of structures within or over publicly navigable rivers, lakes and streams;
7. Any changes in the base flood elevation or floodway locations; and
8. Base flood elevation determinations where none now exist.

J. Cooperation With Other Agencies: Cooperate with state and federal flood plain management agencies to improve base flood or 100-year frequency flood and floodway data and to improve the administration of this chapter. Submit data to IDNR/OWR and FEMA for proposed revisions of a regulatory map. Submit reports as required for the National Flood Insurance Program. Notify FEMA of any proposed amendments to this chapter.

K. Promulgate Regulations: Promulgate rules and regulations as necessary to administer and enforce the provisions of this chapter, subject, however, to the review and approval of IDNR/OWR and FEMA for any chapter changes. (Ord. 32-O-2000, 10-26-2000)

9C-1-5: BASE FLOOD ELEVATION:

This chapter's protection standard is based on the flood insurance study for the village.

- A. If a base flood elevation or 100-year frequency flood elevation is not available for a particular site, then the protection standard shall be according to the best existing data available in the Illinois State Water Survey's Floodplain Information Repository that has been approved by IDNR/OWR and FEMA. When a party disagrees with the best available data, he/she may finance the detailed engineering study needed to replace existing data with better data and submit it to IDNR/OWR and FEMA.
- B. The base flood or 100-year frequency flood elevation for the SFHAs of the Flag Creek and its tributaries; Des Plaines River; Chicago Sanitary Drainage and Ship Canal; and Illinois and Michigan Canal and its tributaries, shall be as delineated on the 100-year flood profiles in the countywide flood insurance study for Cook County prepared by FEMA and dated August 19, 2008, and such amendments to such study and maps as may be prepared from time to time.

- C. The base flood or 100-year frequency flood elevation for the SFHAs of those parts of unincorporated Cook County that are within the one and half mile extraterritorial jurisdiction or that may be annexed into the village shall be as delineated on the 100-year flood profiles in the countywide flood insurance study for Cook County prepared by FEMA and dated August 19, 2008, and such amendments or revisions of such study and maps as may be prepared from time to time.
- D. The base flood or 100-year frequency flood elevation for each SFHA delineated as an "AH Zone" or "AO Zone" shall be that elevation (or depth) delineated on the flood insurance rate map of the village.
- E. The base flood or 100-year frequency flood elevation for each of the remaining SFHAs delineated as an "A Zone" on the flood insurance rate map of the village shall be according to the best existing data available in the Illinois State Water Survey Floodplain Information Repository. When no base flood or 100-year frequency flood elevation exists, the base flood or 100-year frequency flood elevation for a riverine SFHA shall be determined from a backwater model, such as HEC-II, WSP-2, or a dynamic model such as HIP. The flood flows used in the hydraulic models shall be obtained from a hydrologic model, such as HEC-1, TR-20 or HIP, or by techniques presented in various publications prepared by the United States Geological Survey for estimating peak flood discharges. Flood flows should be based on anticipated future land use conditions in the watershed as determined from adopted local regional land use plans. Along any watercourses draining more than one square mile, the above analyses shall be submitted to IDNR/OWR for approval. Once approved, it must be submitted to the Illinois State Water Survey Floodplain Information Repository for filing. For a nonriverine SFHA, the base flood elevation shall be the historic flood of record plus three feet (3'), unless calculated by a detailed engineering study and approved by IDNR/OWR for drainage areas greater than one square mile.

9C-1-6: OCCUPATION AND USE OF FLOOD FRINGE AREAS:

Development in and/or filling of the flood fringe will be permitted if protection is provided against the base flood or 100-year frequency flood by proper elevation, and compensatory storage and other provisions of this chapter. No use will be permitted which adversely affects the capacity of drainage facilities or systems. Developments located within the flood fringe shall meet the requirements of this section, along with the requirements of section 9C-1-9 of this chapter.

- A. Development Permit: No person, firm, corporation or governmental body not exempted by state law shall commence any development in the SFHA without first obtaining a development permit from the building commissioner. Application for a development permit shall be made on a form provided by the village.
 - 1. The application shall be accompanied by drawings of the site, drawn to scale, showing property line dimensions and legal description for the property and sealed by a licensed engineer, architect or land surveyor; existing grade elevations in MSL,

1988 adj. datum or NAVD and all changes in grade resulting from excavation or filling; the location and dimensions of all buildings and additions to buildings.

2. For all proposed buildings, the elevation of the lowest floor (including basement) and lowest adjacent grade shall be shown on the submitted plans and the development will be subject to the requirements of section 9C-1-9 of this Chapter. An elevation certificate completed by a licensed engineer, architect or land surveyor shall be submitted to the Village for review.

B. Development Permit Application: Upon receipt of a development permit application, the building commissioner shall compare the elevation of the site to the base flood or 100-year frequency flood elevation.

1. Any development located on land that can be shown to have been higher than the base flood elevation of the current flood insurance rate map which has not been filled after the date of the site's first flood insurance rate map without a permit as required by this chapter is not in the SFHA and, therefore, not subject to the requirements of this chapter.

2. The building commissioner shall maintain documentation of the existing ground elevation at the development site and certification that this ground elevation existed prior to the date of the site's first flood insurance rate map identification.

C. Soil Erosion And Sedimentation Control Plan: A soil erosion and sediment control plan for disturbed areas shall be submitted. This plan shall include a description of the sequence of grading activities and the temporary sediment and erosion control measures to be implemented to mitigate their effects. This plan shall also include a description of final stabilization and revegetation measures, and the identification of a responsible party to ensure post-construction maintenance.

D. Copies Of Permits: The building commissioner shall be responsible for obtaining from the applicant copies of all other federal, state and local permits, approvals or permit-not-required letters that may be required for this type of activity. The building commissioner shall not issue a permit unless all other federal, state and local permits have been obtained.

E. Preventing Increased Damages: No development in the flood fringe shall create a threat to public health and safety. If fill is being used to elevate the site above the base flood or 100-year frequency flood elevation, the applicant shall submit sufficient data and obtain a letter of map revision (LOMR) from FEMA for the purpose of removing the site from the flood plain.

F. Compensatory Storage: Whenever any portion of a flood plain is authorized for use, the volume of space which will be occupied by the authorized fill or structure below the base flood or 100-year frequency flood elevation shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the

base flood or 100-year frequency flood elevation. The excavation volume shall be at least equal to 1.5 times the volume of storage lost due to the fill or structure. In the case of streams and watercourses, such excavation shall be made opposite or adjacent to the areas so filled or occupied. All flood plain storage lost below the existing 10-year flood elevation shall be replaced below the proposed 10-year flood elevation. All flood plain storage lost above the existing 10-year flood elevation shall be replaced above the proposed 10-year flood elevation. All such excavations shall be constructed to drain freely and openly to the watercourse.

- G. Construction of the Lowest Floor Below the Base Flood Elevation (BFE). A person who has obtained a Letter of Map Revision Based on Fill that removes a site in the flood fringe from the floodplain due to the use of fill to elevate the site above the BFE, may apply for a permit from the Village to construct the lowest floor of a residential building below the BFE in the flood fringe. The Building Commissioner shall not issue such a permit unless the applicant has complied with all the criteria set forth in the following subsection.
1. Compensatory storage shall be provided per Section 9C-1-6F of this Chapter.
 2. The elevation of the lowest opening in the basement wall (i.e., window wells, access ways) shall be at or above the Flood Protection Elevation (FPE).
 3. The lowest adjacent grade to the foundation shall be at or above the FPE, for a minimum distance of ten (10) feet beyond the outside face of the structure. However, if site conditions are such that this requirement cannot be met, the Building Commissioner may waive the ten (10) foot minimum setback if an Illinois Licensed Professional Engineer certify that an alternative method to protect the building from damage due to hydrostatic pressures has been met. The certifications shall be in the form of a detailed soils and structural design analysis, which shall be submitted to the Building Commissioner for review. The Building Commissioner may require such additional documentation as necessary to prove that the proposed shorter setback distance will keep the structure reasonably safe. In no case shall the setback distance be less than four (4) feet.
 4. The grade around the perimeter of the structure, measured at a distance of twenty (20) feet from the structure, shall be above the BFE. However, if site conditions are such that this requirement cannot be obtained, the Building Commissioner may waive the twenty (20) foot minimum setback distance if an Illinois Licensed Professional Engineer certifies that an alternative method to protect the building from damages due to hydrostatic pressures have been met. A detailed soils analysis and structural design proving that a shorter setback distance will keep the structure reasonably safe from flooding, shall be submitted to the Village for review. In no case shall the setback distance be less than four (4) feet.
 5. The ground around the building shall be compacted fill that meets all requirements of this subsection and is at least five (5) feet thick under the basement floor slab.

Nothing in this subsection shall be interpreted to require the removal or replacement of fill that was placed as part of a LOMR-F, if such fill consists of material including soils of similar classification and degree permeability, such as those classified as CH, CL, SC or ML according to ASTM standard D-2487, Classification of Soils for Engineering Purposes.

6. The fill material must be homogeneous and isotropic; that is, the soil must be all of one material, and the engineering priorities must be in the same direction.
7. All fill material and compaction shall be designed, certified and inspected by an Illinois Licensed Professional Engineer, as warranted by site conditions.
8. The basement floor shall be at an elevation that is no more than five (5) feet below the BFE.
9. There shall be a granular drainage layer beneath the floor slab, and minimum of one quarter (1/4) horsepower sump pump with a backup power supply shall be provided to remove seepage flow. The pump shall be rated at four (4) times the estimated seepage rate and shall discharge above the BFE and away from the building in order to prevent flooding of the basement or uplift of the floor under the effect of the seepage pressure.
10. The drainage system shall be equipped with a positive means of preventing backflow.
11. All foundation elements shall be designed to withstand hydrostatic pressure in accordance with accepted engineering practices.
12. If the applicant is unable to meet all of the requirements set forth in the preceding paragraphs of this subsection, the Building Commissioner may allow the construction of a basement below the BFE only if the applicant demonstrates that the proposed fill and structure meet the guidelines and requirements set forth in FEMA Technical Bulletin 10-01 and are reasonably safe from flooding. In order to demonstrate that the proposed structure is reasonably safe from flooding, the applicant shall submit a detailed engineering analysis of the proposed fill and foundation wall. The engineered basement study shall be completed in accordance with the latest edition of FEMA Technical Bulletin 10-01, with the analysis of the fill being prepared by an Illinois Licensed Professional Engineer.
13. In order to provide the required compensatory storage on site, in no case shall the depth of excavation in the front and side yards of the lot exceed eighteen (18) inches, as measured from the previously existing natural grade. The rear yard shall be permitted to have a greater depth of excavation, if necessary. All such excavation shall be constructed to drain freely and openly to the watercourse or storm sewer system. The use of mechanical means to drain the compensatory storage area will not be permitted.

9C-1-7: OCCUPATION AND USE OF DESIGNATED FLOODWAYS:

This section applies to proposed development, redevelopment, site modification or building modification within a designated floodway. The designated floodway for the Des Plaines River, Flag Creek and the tributary to the Illinois and Michigan Canal shall be as delineated on the designated floodway maps designated by IDNR/OWR according to and referenced in section 9C-1-2 of this chapter. Only those uses and structures will be permitted which meet the criteria in this section. All floodway modifications shall be the minimum necessary to accomplish the purpose of the project. The development shall also meet the requirements of section 9C-1-9 of this chapter.

A. Development Permit: No person, firm, corporation or governmental body not exempted by state law shall commence any development in the floodway without first obtaining a development permit from the building commissioner and IDNR/OWR.

B. Application Information: Application for a development permit shall be made on a form provided by the village. The application shall include the following information:

1. Name and address of applicant;
2. Site location (including legal description) of the property, drawn to scale, on the designated floodway map, indicating whether it is proposed to be in an incorporated or unincorporated area;
3. Name of stream or body of water affected;
4. Description of proposed activity;
5. Statement of purpose of proposed activity;
6. Anticipated dates of initiation and completion of activity;
7. Name and mailing address of the owner of the subject property if different from the applicant;
8. Signature of applicant or the applicant's agent;
9. If the applicant is a corporation, the president or other authorized officer shall sign the application form;
10. If the applicant is a partnership, each partner shall sign the application form;
11. If the applicant is a land trust, the trust officer shall sign the name of the trustees by him (her) as trust officer. A disclosure affidavit shall be filed with the application, identifying each beneficiary of the trust by name and address and defining the respective interests therein;

12. Plans of the proposed activity shall be provided which include as a minimum:
 - a. A vicinity map showing the site of the activity, name of the waterway, boundary lines, names of roads in the vicinity of the site, graphic or numerical scale, and north arrow;
 - b. A plan view of the project and engineering study reach showing existing and proposed conditions including principal dimensions of the structure or work, elevations in mean sea level (1988 adjustment) datum or NAVD, adjacent property lines and ownership, drainage and flood control easements, location of any channels and any existing or future access roads, distance between proposed activity and navigation channel (when the proposed construction is near a commercially navigable body of water), designated floodway limit, flood plain limit, specifications and dimensions of any proposed channel modifications, location and orientation of cross sections, north arrow, and a graphic or numerical scale;
 - c. Cross-section views of the project and engineering study reach showing existing and proposed conditions including principal dimensions of the work as shown in plan view, existing and proposed elevations, normal water elevation, 10-year frequency flood elevation, 100-year frequency flood elevation, and graphic or numerical scales (horizontal and vertical);
 - d. A soil erosion and sedimentation control plan for disturbed areas. This plan shall include a description of the sequence of grading activities and the temporary sediment and erosion control measures to be implemented to mitigate their effects. This plan shall also include a description of final stabilization and revegetation measures, and the identification of a responsible party to ensure post-construction maintenance; and
 - e. A copy of the designated floodway map, marked to reflect any proposed change in the designated floodway location.
13. Any and all other federal, state and local permits or approval letters that may be required for this type of development;
14. Engineering calculations and supporting data shall be submitted showing that the proposed work will meet the permit criteria of section 9C-1-7;
15. If the designated floodway delineation, base flood or 100-year frequency flood elevation will change due to the proposed project, the application will not be considered complete until IDNR/OWR has indicated conditional approval of the designated floodway map change. No structures may be built until a letter of map revision has been approved by FEMA; and

16. The application for a structure shall be accompanied by drawings of the site, drawn to scale showing property line dimensions and existing ground elevations and all changes in grade resulting from any proposed excavation or filling, and flood plain and floodway limits; sealed by a registered professional engineer, licensed architect or registered land surveyor; the location and dimensions of all buildings and additions to buildings; and the elevation of the lowest floor (including basement) of all proposed buildings subject to the requirements of section 9C-1-9 of this chapter. An elevation certificate completed by a licensed engineer, architect, or land surveyor shall be submitted to the Village for review.

C. Building Commissioner Responsibilities: The building commissioner shall be responsible for obtaining from the applicant copies of all other federal, state and local permits and approvals that may be required for this type of activity. The building commissioner shall not issue the development permit unless all required federal and state permits have been obtained. A registered professional engineer, under the employ or contract of the village shall review and approve applications reviewed under this section.

D. Preventing Increased Damages And A List Of Appropriate Uses: The only development in a floodway which will be allowed are appropriate uses, which will not cause a rise in the base flood elevation, and which will not create a damaging or potentially damaging increase in flood heights or velocity or be a threat to public health and safety and welfare or impair the natural hydrologic and hydraulic functions of the floodway or channel, or permanently impair existing water quality or aquatic habitat. Construction impacts shall be minimized by appropriate mitigation methods as called for in this chapter. Only those appropriate uses listed in 17 Illinois Administrative Code 3708 will be allowed. Appropriate uses do not include the construction or placement of any new structures, fill, building additions, buildings on stilts, excavation or channel modifications done to accommodate otherwise nonappropriate uses in the floodway, fencing (including landscaping or planting designed to act as a fence) and storage of materials except as specifically defined below as an appropriate use. The approved appropriate uses are as follows:

1. Flood control structures, dikes, dams and other public works or private improvements relating to the control of drainage, flooding, erosion or water quality or habitat for fish and wildlife;

2. Structures or facilities relating to the use of, or requiring access to, the water or shoreline, such as pumping and treatment facilities, and facilities and improvements related to recreational boating, commercial shipping and other functionally water dependent uses;

3. Storm and sanitary sewer outfalls;

4. Underground and overhead utilities;

5. Recreational facilities such as playing fields and trail systems including any related fencing (at least 50 percent open when viewed from any one direction) built parallel to the direction of flood flows and including open air pavilions and toilet facilities (4 stall maximum) that will not block flood flows nor reduce floodway storage;
 6. Detached garages, storage sheds or other nonhabitable accessory structures without toilet facilities to existing buildings that will not block flood flows, nor reduce floodway storage;
 7. Bridges, culverts, roadways, sidewalks, railways, runways and taxiways and any modification hereto;
 8. Parking lots built at or below existing grade where either:
 - a. The depth of flooding at the 100-year frequency flood event will not exceed 1.0 feet; or
 - b. The applicant of a short-term recreational use facility parking lot formally agrees to restrict access during overbank flooding events and accepts liability for all damage caused by vehicular access during all overbank flooding events;
 9. Designated floodway regrading, without fill, to create a positive nonerosive slope toward a watercourse;
 10. Flood proofing activities to protect previously existing lawful structures including the construction of watertight window wells, elevating structures or construction of floodwalls around residential, commercial or industrial principal structures where the outside toe of the floodwall shall be no more than ten feet (10') away from the exterior wall of the existing structure, and which are not considered substantial improvements to the structure;
 11. In the case of damaged or replacement buildings, reconstruction or repairs made to a building that are valued at less than fifty percent (50%) of the market value of the building before it was damaged or replaced, and which do not increase the outside dimensions of the building; and
 12. Additions to existing buildings above the BFE that do not increase the building's footprint and are valued at less than fifty percent (50%) of the market value of the building.
- E. Engineering Criteria: Within the designated floodway as identified on the floodway maps designated by IDNR/OWR, the construction of an appropriate use, will be considered permissible provided that the proposed project meets the following engineering and mitigation criteria and is so stated in writing with supporting plans, calculations and data by a registered professional engineer and provided that any structure meets the protection requirements of section 9C-1-9 of this chapter.

1. Preservation Of Flood Conveyance, So As Not To Increase Flood Stages Upstream: For appropriate uses other than bridge or culvert crossings, on-stream structures or dams, all effective designated floodway conveyance lost due to the project will be replaced for all flood events up to and including the 100-year frequency flood. In calculating effective designated floodway conveyance, the following factors shall be taken into consideration:

a. Designated floodway conveyance,

$$K = 1,486 A R^{2/3}$$

N

where "n" is Manning's roughness factor, "A" is the effective flow area of the cross section, and "R" is the ratio of the area to the wetted perimeter. (See Open Channel Hydraulics, Ven Te Chow, 1959, McGraw-Hill Book Company, New York.)

b. The same Manning's "n" value shall be used for both existing and proposed conditions unless a recorded maintenance agreement with a federal, state or local unit of government can assure the proposed conditions will be maintained or the land cover is changing from a vegetative to a nonvegetative land cover.

c. Transition sections shall be provided and used in calculations of effective designated floodway conveyance. The following expansion and contraction ratios shall be used unless an applicant's engineer can prove to IDNR/OWR through engineering calculations or model tests that more abrupt transitions may be used with the same efficiency:

(1) When water is flowing from a narrow section to a wider section, the water should be assumed to expand no faster than at a rate of one foot (1') horizontal for every four feet (4') of the flooded stream's length;

(2) When water is flowing from a wide section to a narrow section, the water should be assumed to contract no faster than at a rate of one foot (1') horizontal for every one foot (1') of the flooded stream's length;

(3) When expanding or contracting flows in a vertical direction, a minimum of one foot (1') vertical transition for every ten feet (10') of stream length shall be used;

(4) Transition sections shall be provided between cross sections with rapid expansions and contractions and when meeting the designated floodway delineation on adjacent properties; and

(5) All cross sections used in the calculations shall be located perpendicular to flood flows.

2. Preservation Of Floodway Storage So As Not To Increase Downstream Flooding: Compensatory storage shall be provided for any designated floodway storage lost due to the proposed work from the volume of fill or structures placed and the impact of any related flood control projects. Compensatory storage for fill or structures shall be equal to at least 1.5 times the volume of flood plain storage lost. Artificially created storage lost due to a reduction in head loss behind a bridge shall not be required to be replaced. The compensatory designated floodway storage shall be placed between the proposed normal water elevation and the proposed 100-year flood elevation. All designated floodway storage lost below the existing 10-year flood elevation shall be replaced below the proposed 10-year elevation. All designated floodway storage lost above the existing 10-year flood elevation shall be replaced above the proposed 10-year flood elevation. All such excavations shall be constructed to drain freely and openly to the watercourse. If the compensatory storage will not be placed at the location of the proposed construction, the applicant's engineer shall demonstrate to IDNR/OWR through a determination of flood discharges and water surface elevations that the compensatory storage is hydraulically equivalent.

3. Preservation Of Floodway Velocities So As Not To Increase Stream Erosion Or Flood Heights: For all appropriate uses, except bridges or culverts or on-stream structures, the proposed work will not result in an increase in the average channel or designated floodway velocities. In the case of bridges or culverts or on-stream structures built for the purpose of backing up water in the stream during normal or flood flows, velocities may be increased at the structure site if scour, erosion and sedimentation will be avoided by the use of riprap or other design measures.

4. Construction Of New Bridges Or Culvert Crossings And Roadway Approaches: The proposed structure shall not result in an increase of upstream flood stages greater than 0.1 feet when compared to the existing conditions for all flood events up to and including the 100-year frequency event; or the upstream flood stage increases will be contained within the channel banks (or within existing vertical extensions of the channel banks) such as within the design protection grade of existing levees or flood walls or within recorded flood easements. If the proposed construction will increase upstream flood stages greater than 0.1 feet, the developer must contact IDNR/OWR, Dam Safety Section for a dam safety permit or waiver.

a. The engineering analysis of upstream flood stages must be calculated using the flood study flows, and corresponding flood elevations for tailwater conditions for the flood study specified in section 9C-1-5 of this chapter. Culverts must be analyzed using the U.S. DOT, FHWA Hydraulic Chart for the Selection of Highway Culverts. Bridges must be analyzed using the U.S. DOT/Federal Highway Administration Hydraulics of Bridge Waterways calculation procedures.

b. Lost floodway storage must be compensated for per section 9C-1-7B.

c. Velocity increases must be mitigated per section 9C-1-7C.

d. If the crossing is proposed over a public water that is used for recreational or commercial navigation, an IDNR/OWR permit must be received.

e. The hydraulic analysis for the backwater caused by the bridge showing the existing condition and proposed regulatory profile must be submitted to IDNR/OWR for concurrence that a CLOMR is not required by section 9C-1-7H.

f. All excavations for the construction of the crossing shall be designed per section 9C-1-7.

F. Reconstruction Or Modification Of Existing Bridges, Culverts And Approach Roads:

1. The bridge or culvert and roadway approach reconstruction or modification shall be constructed with no more than 0.1 foot increase in backwater over the existing flood profile for all flood frequencies up to and including the 100-year event, if the existing structure is not a source of flood damage.

2. If the existing bridge or culvert and roadway approach is a source of flood damage to buildings or structures in the upstream flood plain, the applicant's engineer shall evaluate the feasibility of redesigning the structure to reduce the existing backwater, taking into consideration the effects on flood stages on upstream and downstream properties.

3. The determination as to whether or not the existing crossing is a source of flood damage and should be redesigned must be prepared in accordance with 17 Illinois Administrative Code 3708 (Floodway Construction in Northeastern Illinois) and submitted to IDNR/OWR for review and concurrence before a permit is issued.

G. On-Stream Structures Built For The Purpose Of Backing Up Water: Any increase in upstream flood stages greater than 0.0 feet when compared to the existing conditions, for all flood events up to and including the 100-year frequency event shall be contained within the channel banks (or within existing vertical extensions of the channel banks) such as within the design protection grade of existing levees or flood walls or within recorded flood easements. A permit, or letter indicating a permit is not required, must be obtained from IDNR/OWR for any structure built for the purpose of backing up water in the stream during normal or flood flow. All dams and impoundment structures as defined in section 9C-1-2 of this chapter shall meet the permitting requirements of 92 Illinois Administrative Code 702 (Construction and Maintenance of Dams).

H. Floodproofing Of Existing Habitable, Residential And Commercial Structures: If construction is required beyond the outside dimensions of the existing building, the outside perimeter of the floodproofing construction shall be placed no further than ten feet (10') from the outside of the building. Compensation of lost storage and conveyance will not be required for floodproofing activities.

- I. **Excavation In The Floodway:** When excavation is proposed in the design of bridges and culvert openings, including the modifications to and replacement of existing bridge and culvert structures, or to compensate for lost conveyance or other appropriate uses, transition sections shall be provided for the excavation. The following expansion and contraction ratios shall be used unless an applicant's engineer can prove to IDNR/OWR through engineering calculations or model tests that more abrupt transitions may be used with the same efficiency:
1. When water is flowing from a narrow section to a wider section, the water should be assumed to expand no faster than at a rate of one foot (1') horizontal for every four feet (4') of the flooded stream's length;
 2. When water is flowing from a wide section to a narrow section, the water should be assumed to contract no faster than at a rate of one foot (1') horizontal for every one foot (1') of the flooded stream's length;
 3. When expanding or contracting flows in a vertical direction, a minimum of one foot (1') vertical transition for every ten feet (10') of stream length shall be used; and
 4. Erosion/scour protection shall be provided inland upstream and downstream of the transition sections.
- J. **Seeding And Stabilization Plan:** For all activities located in a floodway, a seeding and stabilization plan shall be submitted by the applicant.
- K. **Public Flood Control Projects:** For public flood control projects, the permitting requirements of this section will be considered met if the applicant can demonstrate to IDNR/OWR through hydraulic and hydrologic calculations that the proposed project will not singularly or cumulatively result in increased flood heights outside the project right of way or easements for all flood events up to and including the 100-year frequency event.
- L. **General Criteria For Analysis Of Flood Elevations:**
1. The flood profiles, flows and floodway data in the designated floodway study, referenced in section 9C-1-5 of this chapter, must be used for analysis of the base conditions. If the study data appears to be in error or conditions have changed, IDNR/OWR shall be contacted for approval and concurrence on the appropriate base conditions data to use.
 2. If the 100-year designated floodway elevation at the site of the proposed construction is affected by backwater from a downstream receiving stream with a larger drainage area, the proposed construction shall be shown to meet: a) the requirements of this section for the 100-year frequency flood elevations of the designated floodway conditions; and b) conditions with the receiving stream at normal water elevations.

3. If the applicant learns from IDNR/OWR, local governments or a private owner that a downstream restrictive bridge or culvert is scheduled to be removed, reconstructed, modified or a regional flood control project is scheduled to be built, removed, constructed or modified within the next five (5) years, the proposed construction shall be analyzed and shown to meet the requirements of this section for both the existing conditions and the expected flood profile conditions when the bridge, culvert or flood control project is built.

M. Conditional Letter Of Map Revision: If the appropriate use would result in a change in the designated floodway location or the 100-year frequency flood elevation, the applicant shall submit to IDNR/OWR and FEMA all information, calculations and documents necessary to be issued a conditional designated floodway map revision and receive from IDNR/OWR a conditional concurrence of the designated floodway change before a permit is issued. The final designated floodway map will not be changed by FEMA until as-built plans or record drawings of initial filling, grading, dredging, or excavating activities are submitted and accepted by FEMA and IDNR/OWR. In the case of nongovernment projects, the municipality in incorporated areas and the county in unincorporated areas shall concur with the proposed conditional designated floodway map revision before IDNR/OWR approval can be given. No filling, grading, dredging or excavating shall take place until a conditional approval is issued. After initial filling, grading, dredging or excavating, no activities shall take place until a final letter of map revision (LOMR) is issued by FEMA with concurrence from IDNR/OWR.

N. Professional Engineer's Supervision: All engineering analyses shall be performed by or under the supervision of a registered professional engineer.

O. Channel Activities: For all activities in the floodway involving construction within twenty five feet (25') of the channel, the following criteria shall be met:

1. A natural vegetation buffer strip shall be preserved within at least twenty five feet (25') of the ordinary high water mark of the channel; and

2. Where it is impossible to protect this buffer strip during the construction of an appropriate use, a vegetated buffer strip shall be established upon completion of construction.

P. Designated Floodway Change: After receipt of conditional approval of the designated floodway change and issuance of a permit and a conditional letter of map revision, construction as necessary to change the designated floodway designation may proceed but no buildings or structures or other construction that is not an appropriate use may be placed in that area until the designated floodway map is changed and a final letter of map revision is received. The designated floodway map will be revised upon acceptance and concurrence by IDNR/OWR and FEMA of the "as-built" plans.

Q. Development Activities In Delegated Communities Requiring State Review: For those projects listed below located in a designated floodway, the following criteria shall be submitted to IDNR/OWR for their review and concurrence prior to the issuance of a permit:

1. IDNR/OWR will review an engineer's analysis of the flood profile due to a proposed bridge pursuant to section 9C-1-7D.
2. IDNR/OWR will review an engineer's determination that an existing bridge or culvert crossing is not a source of flood damage and the analysis indicating the proposed flood profile, pursuant to section 9C-1-7E.
3. The IDNR/OWR will review alternative transition sections and hydraulically equivalent storage pursuant to sections 9C-1-7A, B and H.
4. The IDNR/OWR will review and approve prior to the start of construction any department projects, dams (as defined in section 9C-1-2 of this chapter) and all other state, federal or local units of government projects, including projects of the municipality or county.

R. Other Permits: In addition to the other requirements of this chapter, a development permit for a site located in a floodway shall not be issued unless the applicant first obtains a permit or written documentation that a permit is not required from IDNR/OWR, issued pursuant to 615 Illinois Compiled Statutes 5/5 et seq. No permit from IDNR/OWR shall be required if the IDNR/OWR has delegated this responsibility to the village. No correspondence from IDNR/OWR shall be required if the project meets the requirements of Regional Permit 3.

S. Permits For Dams: Any work involving the construction, modification or removal of a "dam" as defined in section 9C-1-2 of this chapter per 17 Illinois Administrative Code part 3702 (Rules for Construction of Dams) shall obtain an IDNR/OWR permit prior to the start of construction of a dam. If the building commissioner finds a dam that does not have an IDNR/OWR permit, the building commissioner shall immediately notify the IDNR/OWR Bartlett office. If the building commissioner finds a dam which is believed to be in unsafe condition, the building commissioner shall immediately notify the owner of the dam, the IDNR/OWR Bartlett office and the Illinois Emergency Management Agency (IEMA).

T. Activities That Do Not Require A Registered Professional Engineer's Review: The following activities may be permitted without a registered professional engineer's review. Such activities shall still meet the other requirements of this chapter, including the mitigation requirements.

1. Regional Permit 3 which authorizes, for example, underground and overhead utilities, storm and sanitary sewer outfalls, sidewalk, patios, athletic fields, playground equipment and streambank protection activities.

9C-1-8: OCCUPATION AND USE OF SFHA AREAS WHERE FLOODWAYS ARE NOT IDENTIFIED:

In SFHA or flood plains (including AE, AH, AO zones and unnumbered A zones) where no floodways have been identified and no base flood or 100-year frequency flood elevations have been established by FEMA, and draining more than a square mile, no development shall be permitted unless the cumulative effect of the proposals, when combined with all other existing and anticipated uses and structures, shall not significantly impede or increase the flow and passage of the floodwaters nor significantly increase the base flood or 100-year frequency flood elevations.

- A. Development Permit: No person, firm, corporation or governmental body, not exempted by state law, shall commence any development in an SFHA or flood plain without first obtaining a development permit from the building commissioner. Application for a development permit shall be made on a form provided by the village. The application shall be accompanied by drawings of the site, drawn to scale showing property line dimensions; and existing grade elevations and all changes in grade resulting from excavation or filling, sealed by a licensed engineer, architect or surveyor; the location and dimensions of all buildings and additions to buildings; and the elevation of the lowest floor (including basement) of all proposed buildings subject to the requirements of section 9C-1-9 of this chapter.
- B. Application Contents: The application for a development permit shall also include the following information:
1. A detailed description of the proposed activity, its purpose and intended use;
 2. Site location (including legal description) of the property, drawn to scale, on the designated floodway maps, indicating whether it is proposed to be in an incorporated or unincorporated area;
 3. Anticipated dates of initiation and completion of activity;
 4. Plans of the proposed activity shall be provided which include as a minimum:
 - a. A vicinity map showing the site of the activity, name of the waterway, boundary lines, names of roads in the vicinity of the site, graphic or numerical scale and north arrow;
 - b. A plan view of the project and engineering study reach showing existing and proposed conditions including principal dimensions of the structure or work, elevations in a mean sea level (1988 adjustment) datum or NAVD, adjacent property lines and ownership, drainage and flood control easements, distance between proposed activity and navigation channel (when the proposed construction is near a commercially navigable body of water), flood plain limit, location and orientation of cross sections, north arrow and a graphical or numerical scale;

- c. Cross-section views of the project perpendicular to the flow of floodwater and engineering study reach showing existing and proposed conditions including principal dimensions of the work as shown in plan view, existing and proposed elevations, normal water elevation, 10-year frequency flood elevation, 100-year frequency flood elevation and graphical or numerical scales (horizontal and vertical); and
 - d. A soil erosion and sedimentation control plan for disturbed areas. This plan shall include a description of the sequence of grading activities and the temporary sediment and erosion control measures to be implemented to mitigate their effects. This plan shall also include a description of final stabilization and revegetation measures, and the identification of a responsible party to ensure post-construction maintenance.
5. Engineering calculations and supporting data shall be submitted showing that the proposed work will meet the criteria of section 9C-1-8; and
6. Any and all other federal, state and local permits or approvals that may be required for this type of development.
- C. Site Elevation: Based on the best available existing data according to the Illinois State Water Survey's Floodplain Information Repository, the building commissioner shall compare the elevation of the site to the base flood or 100-year frequency flood elevation. Should no elevation information exist for the site, the developer's engineer shall calculate the elevation according to section 9C-1-5 of this chapter. Any development located on land that can be shown to have been higher than the base flood elevation as of the current flood insurance rate map identification is not in the SFHA and, therefore, not subject to the requirements of this chapter. The building official shall maintain documentation of the existing ground elevation at the development site and certification that this ground elevation existed prior to the date of the site's first flood insurance rate map identification.
- D. Building Commissioner Responsibilities: The building commissioner shall be responsible for obtaining from the applicant copies of all other federal, state and local permits, approvals or permit-not-required letters that may be required for this type of activity. The building commissioner shall not issue the development permit unless all required federal, state and local permits have been obtained.
- E. Preventing Increased Damages: No development in the SFHA, where a floodway has not been determined shall create a damaging or potentially damaging increase in flood heights or velocity or threat to public health, safety and welfare or impair the natural hydrologic and hydraulic functions of the floodway or channel, or impair existing water quality or aquatic habitat. Construction impacts shall be minimized by appropriate mitigation methods as called for in this chapter.

F. SFHA Standards: Within all riverine SFHAs where the floodway has not been determined, the following standards shall apply:

1. Compliance With Engineering Requirements: The developer shall have a registered professional engineer state in writing and show through supporting plans, calculations and data that the project meets the engineering requirements of sections 9C-1-7A through 9C-1-7L of this chapter for the entire flood plain as calculated under the provisions of section 9C-1-5 of this chapter. As an alternative, the developer should have an engineering study performed to determine a floodway and submit that engineering study to IDNR/OWR for acceptance as a designated floodway. Upon acceptance of their floodway by IDNR/OWR, the developer shall then demonstrate that the project meets the requirements of section 9C-1-7 of this chapter for the designated floodway. The floodway shall be defined according to the definition in section 9C-1-2 of this chapter;

2. Development Permit: A development permit shall not be issued unless the applicant first obtains a permit from IDNR/OWR or written documentation that a permit is not required from IDNR/OWR;

3. Permits For Dams: Any work involving the construction, modification or removal of a "dam" as defined in section 9C-1-2 of this chapter per 17 Illinois Administrative Code part 3702 (Rules for Construction of Dams) shall obtain an IDNR/OWR permit prior to the start of construction of a dam. If the building commissioner finds a dam that does not have an IDNR/OWR permit, the building commissioner shall immediately notify IDNR/OWR Bartlett office. If the building commissioner finds a dam which is believed to be in unsafe condition, the building commissioner shall immediately notify the owner of the dam, IDNR/OWR Bartlett office and the Illinois Emergency Management Agency (IEMA).

G. Activities That Do Not Require A Registered Professional Engineer's Review: The following activities may be permitted without a registered professional engineer's review or calculation of a base flood elevation and designated floodway. Such activities shall still meet the other requirements of this chapter.

1. Underground and overhead utilities that:

a. Do not result in any increase in existing ground elevations;

b. Do not require the placement of aboveground structures in the floodway;

c. In the case of underground stream crossings, the top of the pipe or encasement is buried in a minimum of three feet (3') below the existing streambed;

d. Overhead utility lines shall be constructed above the estimated 100-year frequency flood elevation or attached above the low chord of an existing bridge

(with the permission of the bridge owner). No supporting towers shall be placed in the watercourse and shall be designed so as to not catch debris;

e. Disturbance of streamside vegetation shall be kept to a minimum during construction to prevent erosion and sedimentation. All disturbed floodway areas, including the stream banks shall be restored to their original contours and seeded or otherwise stabilized upon completion of construction;

f. A utility crossing carrying material which may cause water pollution as defined by the Environmental Protection Act 415 Illinois Compiled Statutes 5 (1992 State Bar edition) shall be provided with shut-off valves on each side of the body of water to be crosses; and

g. All Illinois Commerce Commission, National Electrical Safety Codes, and federal requirements for clearance must be met.

2. Storm and sanitary sewer relief outfalls that:

a. Do not extend riverward or lakeward of the existing adjacent natural bank slope;

b. Do not result in an increase in ground elevation; and

c. Are designed so as not to cause stream bank erosion at the outfall location.

3. Construction of shoreline and streambed protection that:

a. Does not exceed one thousand feet (1,000') in length;

b. Materials are not placed higher than the existing top of bank;

c. Materials are placed so as not to reduce the cross-sectional area of the stream channel by more than ten percent (10%); and

d. Stabilization utilizing native vegetation and gradual side slopes are the preferred mitigation methods for existing erosion problems. Where high channel velocities, sharp bends or wave action necessitate the use of alternative stabilization measures, soil bioengineering techniques, natural rock or riprap are preferred materials. Artificial materials such as concrete, construction rubble and gabions should be avoided unless there are no practicable alternatives.

4. Temporary stream crossings in which:

a. The approach roads will be 0.5 (1/2) foot or less above natural grade;

b. The crossing will allow stream flow to pass without backing up the water above the stream bank vegetation line or above any drainage tile or outfall invert;

c. The top of the roadway fill in the channel will be at least two feet (2') below the top of the lowest bank. Any fill in the channel shall be nonerosive material, such as riprap or gravel;

d. All disturbed stream banks will be seeded or otherwise stabilized as soon as possible upon installation and again upon removal of construction; and

e. The access road and temporary crossings will be removed within one (1) year after authorization.

5. The construction of light poles, sign posts and similar structures.

6. The construction of sidewalks, driveways, athletic fields (excluding fences), patios and similar surfaces which are built at grade.

7. The construction of properly anchored, unwallied, open structures such as playground equipment, pavilions and carports built at or below existing grade that would not obstruct the flow of flood waters.

8. The placement of properly anchored buildings not exceeding seventy (70) square feet in size, nor ten feet (10') in any one dimension (e.g., animal shelters and tool sheds).

9. Modifications to an existing building that will not increase the enclosed floor area of the building below the flood protection elevation, which does not exceed five hundred (500) square feet in size, and which will not block flood flows, including, but not limited to, fireplaces, bay windows, decks, patios, and second story additions.

10. Minor maintenance dredging of a stream channel where:

a. The affected length of stream is less than one thousand feet (1,000');

b. The work is confined to reestablishing flows in natural stream channels; or

c. The cross-sectional area of the dredged channel conforms to that of the natural channel upstream and downstream of the site.

H. Maintenance Of Flood-Carrying Capacity: The flood-carrying capacity within any altered or relocated watercourse shall be maintained. Whenever any portion of a flood plain is authorized for use, the volume of space which will be occupied by the authorized fill or structure below the base flood or 100-year frequency flood elevation shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the base flood or 100-year frequency flood elevation. The excavation volume shall be at least equal to 1.5 times the volume of storage lost due to the fill or structure. In the case of streams and watercourses, such excavation shall be made opposite or adjacent to the areas so filled or occupied. All flood plain

storage lost below the existing 10-year flood elevation shall be replaced below the proposed 10-year flood elevation. All flood plain storage lost above the existing 10-year flood elevation shall be replaced above the proposed 10-year flood elevation. All such excavations shall be constructed to drain freely and openly to the watercourse.

9C-1-9: PERMITTING REQUIREMENTS APPLICABLE TO ALL FLOOD PLAIN AREAS:

In addition to the requirements found in sections 9C-1-7 and 9C-1-8 of this chapter for development in flood fringes, designated floodways and SFHA or flood plains where no floodways have been identified (zones A, AO, AH, AE, A1-A30, A99, VO, V1-30, VE, V, M, D or X), the following requirements shall be met:

- A. Public Health Standards: No developments in the SFHA shall include locating or storing chemicals, explosives, buoyant materials, animal wastes, fertilizers, flammable liquids, pollutants or other hazardous or toxic materials below the flood protection elevation (FPE). New and replacement water supply systems, wells, sanitary sewer lines and on-site waste disposal systems may be permitted providing all manholes or other aboveground openings located below the FPE are watertight.
- B. Carrying Capacity And Notification: For all projects involving channel modification, fill or stream maintenance (including levees), the flood-carrying capacity of the watercourse shall be maintained. In addition, the village shall notify adjacent communities in writing thirty (30) days prior to the issuance of a permit for the alteration or relocation of the watercourse.
- C. Protecting Buildings: All buildings located within a 100-year flood plain also known as an SFHA, shall be protected from flood damage below the flood protection elevation. However, existing buildings located within a designated floodway shall also meet the more restrictive appropriate use standards included in section 9C-1-7 of this chapter. This building protection criteria applies to the following situations:
 - 1. Construction or placement of a new building or alteration or addition to an existing building valued at more than one thousand dollars (\$1,000) or seventy (70) square feet.
 - 2. A structural alteration to an existing building that either increases the first floor area by more than twenty percent (20%) or the building's market value by more than fifty percent (50%). This alteration shall be figured cumulatively, beginning with any alteration which has taken place subsequent to April 1, 1990;
 - 3. Installing a manufactured home on a new site or a new manufactured home on an existing site. This building protection requirement does not apply to returning a mobile home to the same site it lawfully occupied before it was removed to avoid flood damage; and

4. Installing a travel trailer on a site for more than one hundred eighty (180) days.

5. This building protection requirement may be met by one (1) of the following methods.

D. Buildings On Permanent Landfill: A residential or nonresidential building, when allowed, may be constructed on permanent landfill in accordance with the following:

1. Lowest Floor: The lowest floor (including basement) shall be at or above the flood protection elevation; and

2. Fill Requirements: The fill shall be placed in layers no greater than six (6) inches deep before compaction and should extend at least ten feet (10') beyond the foundation of the building before sloping below the flood protection elevation. The top of the fill shall be above the flood protection elevation. However, the ten foot (10') minimum may be waived if a structural engineer certifies an alternative method to protect the building from damages due to hydrostatic pressures. The fill shall be protected against erosion and scour. The fill shall not adversely affect the flow or surface drainage from or onto neighboring properties.

E. A residential or nonresidential building may be elevated in accordance with the following:

1. The building or improvements shall be elevated on crawlspace, stilts, piles, walls or other foundation that is permanently open to flood waters and not subject to damage by hydrostatic pressures of the base flood or 100-year frequency flood. The permanent openings shall be no more than one foot (1') above grade, and consist of a minimum of two (2) openings. The openings must have a total net area of not less than one (1) square inch for every one (1) square foot of enclosed area subject to flooding below the base flood elevation;

2. The foundation and supporting members shall be anchored and aligned in relation to flood flows and adjoining structures so as to minimize exposure to known hydrodynamic forces such as current, waves, ice and floating debris;

3. All areas below the flood protection elevation shall be constructed of materials resistant to flood damage. The lowest floor (including basement) and all electrical, heating, ventilating, plumbing and air-conditioning equipment and utility meters shall be located at or above the flood protection elevation. Water and sewer pipes, electrical and telephone lines, submersible pumps and other waterproofed service facilities may be located below the flood protection elevation;

4. The areas below the flood protection elevation may only be used for the parking of vehicles, building access or storage in an area other than a basement;

5. Manufactured homes shall be anchored to resist flotation, collapse or lateral movement by being tied down in accordance with the rules and regulations for the Illinois Mobile Home Tie-Down Act issued pursuant to 77 Illinois Administrative Code part 870. In addition, all manufactured homes shall meet the following elevation requirements:

a. In the case of manufactured homes placed or substantially improved: 1) outside of a manufactured home park or subdivision, 2) in a new manufactured home park or subdivision, 3) in an expansion to an existing manufactured home park or subdivision, or 4) in an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage from a flood, the top of the lowest floor shall be elevated to or above the flood protection elevation;

b. In the case of manufactured homes placed or substantially improved in an existing manufactured home park or subdivision, the manufactured home shall be elevated so that either the top of the lowest floor is above the base flood elevation or the chassis is at least thirty six inches (36") in height above grade and supported by reinforced piers or other foundations of equivalent strength, whichever is less.

6. Recreational vehicles or travel trailers shall be required to meet the elevation and anchoring requirements of subsection B unless:

a. They are on-site for less than one hundred eighty (180) consecutive days; and

b. They are fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utility and service devices, and has no permanently attached additions.

F. Dry Floodproofed Nonresidential Building: Only a nonresidential building may be structurally dry floodproofed (in lieu of elevation) provided that:

1. A registered professional engineer shall certify that the building has been structurally dry floodproofed below the flood protection elevation, the structure and attendant utility facilities are watertight and capable of resisting the effects of the base flood or 100-year frequency flood.

2. The building design shall take into account flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces, the effects of buoyancy and impacts from debris or ice.

3. Floodproofing measures shall be operable without human intervention and without an outside source of electricity (levees, berms, floodwalls and similar works are not considered floodproofing for the purpose of this subsection).

G. A building may be constructed with a crawlspace located below the flood protection elevation provided that the following conditions are met:

1. The building must be designed and adequately anchored to resist flotation, collapse and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy; and
2. Any enclosed area below the flood protection elevation shall have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters. A minimum of one opening on each wall having a total net area of not less than one square inch per one square foot of enclosed area. The openings shall be no more than one (1) foot above grade; and
3. The interior grade of the crawlspace below the flood protection elevation must not be more than two (2) feet below the lowest adjacent exterior grade; and
4. The interior height of the crawlspace measured from the interior grade of the crawl to the top of the foundation wall must not exceed four (4) feet at any point; and
5. An adequate drainage system must be installed to remove floodwaters from the interior area of the crawlspace within a reasonable period of time after a flood event; and
6. Portions of the building below the flood protection elevation must be constructed with materials resistant to flood damage; and
7. Utility systems within the crawlspace must be elevated above the flood protection elevation.

H. Nonconforming Structures: Nonconforming structures located in a designated floodway may remain in use and may only be enlarged, replaced or structurally altered in accordance with section 9C-1-7 of this chapter. A nonconforming structure damaged by flood, fire, wind or natural or manmade disaster may be restored unless the damage exceeds fifty percent (50%) of its market value before it was damaged, in which case it shall conform to this chapter.

9C-1-10: OTHER DEVELOPMENT REQUIREMENTS:

The board of trustees shall take into account flood hazards, to the extent that they are known in all official actions related to land management, use and developments.

A. New subdivisions, manufactured home parks, annexation agreements and planned unit developments (PUDs) within the SFHA shall be reviewed to assure that the proposed developments are consistent with sections 9C-1-6, 9C-1-7, 9C-1-8 and 9C-1-9 of this chapter and the need to minimize flood damage. Plats or plans for new subdivisions, manufactured home parks and planned unit developments (PUDs) shall include a

signed statement by a registered professional engineer that the plat or plans account for changes in the drainage of surface waters in accordance with the Plat Act 765 ILCS 205/2.

- B. Proposals for new subdivisions, manufactured home parks, travel trailer parks, planned unit developments (PUDs) and additions to manufactured home parks and additions to subdivisions shall include base flood or 100-year frequency flood elevation data and floodway delineations. Where this information is not available from an existing study filed with the Illinois State Water Survey, the applicant's engineer shall be responsible for calculating the base flood or 100-year frequency flood elevation per section 9C-1-5 of this chapter and the floodway delineation per the definition in section 9C-1-2 of this chapter. The applicant's engineer shall submit the data to IDNR/OWR for review and approval as best available regulatory data and then send it to the State Water Survey.
- C. Streets, blocks, lots, parks and other public grounds shall be located and laid out in such a manner as to preserve and utilize natural streams and channels. Wherever possible, the flood plains shall be included within parks or other public grounds.
- D. The board of trustees shall not approve any planned unit development (PUD) or plat of subdivision located outside the corporate limits unless such agreement or plat is in accordance with the provisions of this chapter.

9C-1-11: VARIANCES:

- A. No variances shall be granted to any development located in a "designated floodway", as defined in section 9C-1-2 of this chapter. Whenever the standards of this chapter place undue hardship on a specific development proposal, the applicant may apply to the village for a variance. The building commissioner shall review the applicant's request for a variance and shall submit its recommendation to the board of trustees.
- B. No variance shall be granted unless the applicant demonstrates that:
 - 1. The development activity cannot be located outside the SFHA;
 - 2. An exceptional hardship would result if the variance were not granted;
 - 3. The relief required is the minimum necessary;
 - 4. There will be no additional threat to public health and safety, beneficial stream uses and functions, especially aquatic habitat, or creation of a nuisance;
 - 5. There will be no additional public expense for flood protection, lost environmental stream uses and functions, rescue or relief operations, policing or repairs to streambeds and banks, roads, utilities or other public facilities;

6. The provisions of sections 9C-1-6 and 9C-1-8 of this chapter shall still be met;
 7. The activity is not in a designated floodway;
 8. The applicant's circumstances are unique and do not represent a general problem;
and
 9. The granting of the variance will not alter the essential character of the area involved including existing stream uses.
- C. The building commissioner shall notify an applicant in writing that a variance from the requirements of section 9C-1-9 of this chapter that would lessen the degree of protection to a building will:
1. Result in increased premium rates for flood insurance up to amounts as high as twenty five dollars (\$25.00) for one hundred dollars (\$100.00) of insurance coverage;
 2. Increase the risks to life and property; and
 3. Require that the applicant proceed with knowledge of these risks and that he will acknowledge in writing that he assumes the risk and liability.
- D. Variances requested in connection with restoration of an historic site or "historic structure" as defined in section 9C-1-2 of this chapter may be granted using criteria more permissive than the requirements of section 9C-1-11, subject to the conditions that:
1. The repair or rehabilitation is the minimum necessary to preserve the historic character and design of the structure; and
 2. The repair or rehabilitation will not result in the structure being removed as a certified historic structure.

9C-1-12: DISCLAIMER OF LIABILITY:

- A. The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on available information derived from engineering and scientific methods of study.
- B. Larger floods may occur or flood heights may be increased by manmade or natural cases.
- C. This chapter does not imply that development, either inside or outside of the SFHA, will be free from flooding or damage.

D. This chapter does not create liability on the part of the village or any officer or employee thereof for any flood damage that results from reliance on this chapter or any administrative decision made lawfully thereunder. (Ord. 32-O-2000, 10-26-2000)

9C-1-13: PENALTY:

Failure to comply with the requirements of a permit or conditions of a variance resolution shall be deemed to be a violation of this chapter. Upon due investigation, the building commissioner may determine that a violation of the minimum standards of this chapter exist. The building commissioner shall notify the owner in writing of such violation.

A. If such owner fails after ten (10) days' notice to correct the violation:

1. The village may make application to the circuit court for an injunction requiring conformance with this chapter or make such other order as the court deems necessary to secure compliance with this chapter;
2. Any person who violates this chapter shall, upon conviction thereof, be fined not less than fifty dollars (\$50.00) or more than one thousand dollars (\$1,000.00) for each offense.
3. A separate offense shall be deemed committed upon each day during or on which a violation occurs or continues.
4. The village may record a notice of violation on the title to the property.

B. The building commissioner shall inform the owner that any such violation is considered a wilful act to increase flood damages and, therefore, may cause coverage by a standard flood insurance policy to be suspended. The village administrator is authorized to issue an order requiring the suspension of the subject development. The stop-work order shall be in writing, shall indicate the reason for the issuance, and shall order the action, if necessary, to resolve the circumstances requiring the stop-work order. The stop-work order constitutes a suspension of the permit.

C. Nothing herein shall prevent the village from taking such other lawful action to prevent or remedy any violations. All costs connected therewith shall accrue to the person or persons responsible. (Ord. 32-O-2000, 10-26-2000)

9C-1-14: ABROGATION AND GREATER RESTRICTIONS:

- A. This chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions.
- B. Where this chapter and other ordinances, easements, covenants or deed restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

C. This chapter is intended to repeal the original ordinance or resolution which was adopted to meet the National Flood Insurance Program regulations, but is not intended to repeal the resolution which the village passed in order to establish initial eligibility for the program. (Ord. 32-O-2000, 10-26-2000, Ord. 2008-O-30)