CHAPTER 6

BUILDING CONSTRUCTION AND MAINTENANCE CODES

ARTICLE 7. REGULATING DEVELOPMENT IN SPECIAL FLOOD HAZARD AREAS

SECTION

100.0	Index
200.0	Purpose
300.0	Definitions
400.0	How to use This Ordinance
500.0	Duties of the Enforcement Official
600.0	Base Flood Elevation
700.0	Occupation and Use of Flood Fringe Area
800.0	Occupation and Use of Identified Floodways
900.0	Occupation and Use of Special Flood Hazard Areas Where Floodways Are Not Identified
1000.0	Permitting Requirements Applicable to All Flood Plain Areas and Protection of Building
1100.0	Other Development Requirements
1200.0	Variances
1300.0	Disclaimer of Liability
1400.0	Penalty
1500.0	Abrogation and Greater Restrictions
1600.0	Fees

6-7-2: PURPOSE: This Ordinance is enacted pursuant to the police powers granted to this Village by 65 ILCS 5/1-2-1, 5/11-30-2, 5/11-31-2. The purpose of this Ordinance 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 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 the wide utilization of water and related land resources. This Ordinance is adopted in order to accomplish the following specific purposes:

200.1 To meet the requirements of the Rivers, Lakes and Streams Act (615 ILCS 5/4.9*et seq.*)

200.2 To assure that new development does not increase the flood or drainage hazards to others, or creating unstable conditions susceptible to erosion;

200.3 To protect new buildings and major improvements to buildings from flood damage;

200.4 To protect human life and health from the hazards of flooding;

200.5 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; and

200.6 To make federally subsidized flood insurance available for property in the Village by fulfilling the requirements of the National Flood Insurance Program.

200.7 To comply with the rules and regulations of the National Flood Insurance Program codified as 44 CFR 59-79, as amended.

200.8 To protect, conserve, and promote the orderly development of land and water resources

200.9 To preserve the natural characteristics of stream corridors 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.

300.0 DEFINITIONS:

For the purpose of this Ordinance, the following definitions are adopted:

300.1 **"Act"** The Rivers, Lakes, and Streams Act (615 ILCS 5/4.9, *et seq*).

300.2 **"Applicant"** Any person, firm, corporation or agency which submits an application.

300.3 **"Appropriate Use"** Only uses of the regulatory floodway that are permissible and will be considered for permit issuance. The only uses that will be allowed are as specified in Section 802.0.

300.4 **"Base Flood"** The flood having a one-percent 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 defined in Section 600.0 of this Ordinance.

300.5 **"Building"** A structure that is principally above ground 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 180 days, unless fully licensed and ready for highway use.

300.6 **"Channel"** Any river, stream, creek, brook, branch, natural or artificial depression, ponded areas, flowage, slough, ditch, conduit, culvert, gully, ravine, wash, or natural or man-made drainageway, which has a definite bed and banks or shoreline, in or into which surface or groundwater flows, either perennially or intermittently.

300.7 **"Channel Modification"** Alteration of a channel by changing the physical dimensions or materials of its bed or banks. Channel modification includes damming, (rip-rapping or other armoring), widening, deepening, straightening, relocating, lining and significant removal of bottom or woody vegetation. 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 typically involving relocation of the existing channel (e.g. straightening).

300.8 **"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 floodplain. The uncompensated loss of natural floodplain storage can increase off-site floodwater elevations and flows.

300.9 **"Conditional Approval of a Regulatory Floodway Map Change"** Pre-construction approval by IDNR/OWR and the FEMA of a proposed change to the floodway map. This pre-construction 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.

300.10 **"Conditional Letter of Map Revision (CLOMR)"** A letter which indicates that the 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.

300.11 **"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.

300.12 **"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.

300.13 **"Designated Floodway"** The channel, including on-stream lakes, and that portion of the floodplain 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 10 percent increase in velocities.

(a) The floodways are designated on map number 17031C and panels 0489F, 0602F, 0606F and 0608F dated November 6, 2000, of the countywide Flood Insurance Rate Map for Cook County prepared by the Federal Emergency Management Agency.

(b) 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.

300.14 **"Development"** Any man-made change to real estate, including:

(a) Construction, reconstruction, repair, or replacement 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 180 days.

(c) Drilling, mining, installing utilities, construction of roads, bridges, 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 non-agricultural alterations of the ground surface; storage of materials, deposit of solid or liquid waste;

(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 re-roofing or re-surfacing 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.

300.15 **Elevation Certificates"** A form published by the FEMA that is used to certify the elevation to which a building has been elevated.

300.16 **"Erosion"** The general process whereby soils are moved by flowing water or wave action.

300.17 **"Exempt Organizations"** Organizations which are exempt from this ordinance per the Illinois Compiled Statutes (ILCS) including state, federal or local units of government.

300.18 **"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)has been completed before April 1, 1990.

300.19 **"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).

300.20 **"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.

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

300.22 **"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.

300.23 **"Flood Fringe"** That portion of the floodplain outside of the regulatory floodway.

300.24 **"Flood Insurance Rate Maps (FIRM)"** A map prepared by the FEMA that depicts the special flood hazard area (SFHA) within a community. This map includes insurance rate zones and flood plains and may not depict floodways.

300.25 **"Floodplain"** 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. Floodplains may also include detached Special Flood Hazard Areas, ponding areas, etc. The floodplain is also known as the Special Flood Hazard Area (SFHA).

The floodplains are those lands within the jurisdiction of the Village that are subject to inundation by the base flood or 100-year frequency flood. The SFHA's of the Village are generally identified as such on the following map number 17031C and panels 0489F, 0495F, 0602F, 0606F and 0608F dated November 6, 2000, of the countywide Flood Insurance Rate Map for Cook County prepared by the Federal Emergency Management Agency.

300.26 **"Floodproofing"** Any combination of structural and non-structural 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.

300.27 **"Floodproofing Certificate"** A form published by the FEMA that is used to certify that a building has been designed and constructed to be structurally dry floodproofed to the flood protection elevation.

300.28 **"Flood Protection Elevation (FPE)"** The elevation of the base flood or 100-year frequency flood plus one foot of freeboard at any given location in the SFHA.

300.29 **"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.

300.30 **"Historic Structure"** Any structure that is:

(a) Listed individually in the National Register of Historic Places or preliminary determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
(b) Certified or preliminary determined by the Secretary of the Interior as contributing to the historic district or a district preliminary 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.
(d) Individually listed on a local inventory of historic places by the Illinois Historic Preservation Agency;

300.31 **"Hydrologic and Hydraulic Calculations"** Engineering analysis which determine expected flood flows and flood elevations based on land characteristics and rainfall events.

300.32 **"IDNR/OWR"** Illinois Department of Natural Resources, Office of Water Resources.

300.33 **"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 (FHBM) or FIRM.

300.34 **"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.

300.35 **"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 connected to the required utilities. The term manufactured homes also includes park trailers, travel trailers and other similar vehicles placed on site for more than 180 consecutive days. The term "manufactured home" does not include a "recreational vehicle".

300.36 **Manufactured Home Park or Subdivision"** A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

300.37 **"Mitigation"** Mitigation includes those measures necessary to minimize the negative effects which floodplain 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.

300.38 **"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 1, 1990.

300.39 **"NGVD"** National Geodetic Vertical Datum of 1929. Reference surface set by the National Geodetic Survey deduced from a continental adjustment of all existing adjustments in 1929.

300.40 **"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 floodplain 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.

300.41 **"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.

300.42 **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.

300.43 **"Public Bodies of Waters"** All open public streams and lakes capable of being navigated by watercraft, in whole or in part, for commercial uses and purpose, and all lakes, rivers, 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 wit all bayous, sloughs, backwaters, and submerged lands that are open to the main channel or body of water directly accessible thereto.

300.44 **"Recreational Vehicle or Travel Trailer"** A vehicle which is:

(a) Built on a single chassis;
(b) 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 seasonable use.

300.45 **"Registered Land Surveyor"** A land surveyor registered in the State of Illinois, under the Illinois Land Surveyors Act (225 ILCS 330/1, *et seq.*).

300.46 **"Registered Professional Engineer"** An engineer registered in the State of Illinois, under The Illinois Professional Engineering Act (225 ILCS 325/1, *et seq.*).

300.47 **"Repair, Remodeling or Maintenance"** Development activities which do not result in any increase in the outside dimensions of a building or any changes to the dimensions of a structure.

300.48 **"Retention/Detention Facility"** A retention facility stores stormwater runoff without a gravity release. A detention facility provides for storage of stormwater runoff and controlled release of this runoff during and after a flood or storm.

300.49 **"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.

300.50 **"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.

300.51 **"Sedimentation"** The processes that deposit soils, debris, and other materials either on other ground surfaces or in bodies of water or watercourses.

300.52 **"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

300.53 **"Structure"** The results of a man-made 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 180 days unless they are fully licensed and ready for highway use.

300.54 **"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 50 percent of the pre-damage market value of the structure, regardless of the actual repair work performed.

300.55 **"Substantial Improvement"**

(a) Any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either, (1) before the improvement or repair is started, or (2) if the structure has been damaged, and is being restored, before the damage occurred.

(b) For the purpose of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

(c) The term does not, however, include either (1) any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions or (2) any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a historic structure.

300.56 **"Transition Section"** Reaches of the stream or floodway where water flows from a narrow cross-section to a wide cross-section or vice-versa.

400.0 HOW TO USE THIS ORDINANCE

401.0 The Building Commissioner shall be responsible for fulfilling all of the duties listed in Section 500.0.

402.0 To fulfill those duties the Building Commissioner first should use the criteria listed in Section 600.0 to determine whether the development site is located within a floodplain.

403.0 Once it has been determined that a site is located within a floodplain, the Building Commissioner must determine whether the development site is within a flood fringe, a regulatory floodway, or within a SFHA or floodplain on which no floodway has been identified.

403.1 If the site is within a flood fringe, the Building Commissioner shall require that the minimum requirements of Section 700.0 be met.

403.2 If the site is within a floodway, the Building Commissioner shall require that the minimum requirements of Section 800.0 be met.

403.3 If the site is located within a SFHA or floodplain for which no detailed study has been completed and approved, the Building Commissioner shall require that the minimum requirements of Section 900.00 be met.

404.0 In addition, the general requirements of Section 1000.0 shall be met for all developments meeting the requirements pf Sections 700.0, 800.0,or 900.0.

405.0 The Building Commissioner shall assure that all subdivision proposals shall meet the requirements of Section 1100.0.

406.0 If a variance is to be granted for a proposal, the Building Commissioner shall review the requirements of Section 1200.0 to make sure they are met. In addition, the Building Commissioner shall complete all notofication requirements.

407.0 In order to assure that property owners obtain permits as required in this Ordinance, the Building Commissioner may take any and all actions as outlined in Section 1400.0.

500.0 DUTIES OF THE ENFORCEMENT OFFICIAL

The Building Commissioner shall be responsible for the general administration and enforcement of this Ordinance which shall include the following:

501.0 Determining the Flood Plain Designation

501.1 Check all new development sites to determine whether they are in a Special Flood Hazard Area (SFHA)

501.2 If they are in a SFHA, determine whether they are in a floodway, flood fringe or in a floodplain on which a detailed study has not been conducted which drains more than one (1) square mile.

501.3 Check whether the development is potentially within an extended SFHA (with a drainage area less than one 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 floodplain and floodway and be subject to the remaining Sections of this Ordinance.

502.0 **Professional Engineer Review.**

502.1 If the development site is within a floodway or in a floodplain on which a detailed study has not been conducted which drains more than one square mile, the permit shall be referred to a registered professional engineer (P.E.) under the employ or contract of the Village for review to ensure that the development meets Section 800.0 or 900.0. All fees paid in review of the permit shall be charged to and paid by the applicant.

502.2 In the case of an Appropriate Use, The P.E. shall state in writing that the development meets the requirements of Section 800.0.

503.0 **Dam Safety Requirements.**

503.1 Ensure that an IDNR/OWR Dam Safety permit has been issued or a letter indicating no Dam Safety permit is required, if the proposed development activity includes construction of a dam as defined in Section 300.12.

503.2 Regulated dams may include weirs, restrictive culverts or impoundment structures.

504.0 **Other Permit Requirements.** Ensure that any and all required federal, state and local permits are received prior to the issuance of a floodplain development permit.

505.0 **Plan Review and Permit Issuance.**

505.1 Ensure that all development activities within the SFHAs of the jurisdiction of the Village meet the requirements of this Ordinance; and

505.2 Issue a floodplain development permit in accordance with the provisions of this Ordinance and other regulations of this community when development meets the conditions of this Ordinance.

506.0 **Inspection Review.** Inspect all development projects before, during and after construction to assure proper elevation of the structure and to ensure they comply with the provisions of this Ordinance.

507.0 **Elevation and Floodproofing Certificates.** Maintain permit files including:

507.1 An Elevation Certificate certifying the elevation of the lowest floor (including basement) of a residential or non-residential building subject to Section 1000.0 of this Ordinance, and;

507.2 The elevation to which a non-residential building has been floodproofed, using a Floodproofing Certificate, for all buildings subject to Section 1000.0 of this Ordinance.

508.0 **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 or elevation and flood-proofing certificates for all buildings constructed subject to this Ordinance.

509.0 **State Permits.** Ensure that construction authorization has been granted by IDNR/OWR, for all development projects subject to Sections 800.0 and 900.0 of this Ordinance, unless enforcement responsibility has been delegated to the Village. However, the following review approvals are not delegated to the Village and shall require review or permits for IDNR/OWR:

509.1 Organizations which are exempt from this Ordinance, as per the Illinois Compiled Statutes;

509.2 IDNR/OWR projects, dams or impoundment structures as defined in Section 300.12 and all other state, federal or local unit of government projects, including projects of the Village and County, except for those projects meeting the requirements of Section 802.7;

509.3 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 802.3(e);

509.4 An engineer's analysis of the flood profile due to Section 802.3(d);

509.5 Alternative transition sections and hydraulically equivalent compensatory storage as indicated in Section 802.3(a, b and h);

509.6 Permit issuance of structures within or over publicly navigable rivers, lakes and streams;

509.7 Any changes in the Base Flood Elevation or floodway locations; and,

509.8 Base Flood Elevation determinations where none now exist.

510.0 **Cooperation with Other Agencies.**

510.1 Cooperate with state and federal floodplain management agencies to improve base flood or 100-year frequency flood and floodway data and to improve the administration of this Ordinance;

510.2 Submit data to IDNR/OWR and the FEMA for proposed revisions of a regulatory map;

510.3 Submit reports as required for the National Flood Insurance Program; and

510.4 Notify the FEMA of any proposed amendments to this Ordinance.

511.0 **Promulgate Regulations.** Promulgate rules and regulations as necessary to administer and enforce the provisions of this Ordinance, subject however to the review and approval of IDNR/OWR and FEMA for any Ordinance changes.

600.0 BASE FLOOD ELEVATION

This Code's protection standard is based on the Flood Insurance Study for the Village.

600.1 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 IDNR/OWR and FEMA.

600.2 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.

601.0 The base flood or 100-year frequency flood elevation for the SFHAs shall be as delineated on the 100-year flood profiles in the countywide Flood Insurance Study for Cook County prepared by the Federal Emergency management Agency and dated November 6, 2000, and such amendments to such study maps as may be prepared from time to time.

602.0 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.

603.0 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.

603.1 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.

603.2 The flood flows used in the hydraulic models shall be obtained from a hydrologic model, such as HEC-I, TR-20, or HIP, or by techniques presented in various publications prepared by the United States Geological Survey for estimating peak flood discharges.

603.3 Along any watercourse draining more than one (1) square mile, the above analyses shall be submitted in IDNR/OWR for approval. Once approved it must be submitted to the Illinois State Water Survey Floodplain Information Repository for filing.

603.4 For a non-riverine SFHA, the Base Flood Elevation shall be the historic Flood of Record plus three feet, unless calculated by a detailed engineering study and approved by IDNR/OWR for drainage areas greater than one square mile.

603.5 For an unmapped extended SFHA (with a drainage area less than one square mile) which has been identified by the Building Commissioner pursuant to Section 501.3, the base flood elevation shall be determined by the applicant utilizing a method as approved in Section 604.0, with the concurrence of the Building Commissioner.

700.0 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 applicable provisions of this Ordinance. 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 1000.0.

701.0 Development Permit.

701.1 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.

701.2 Application for a development permit shall be made on a form provided by the Building Commissioner.

(a) 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 M.S.L., 1929 adj. Datum or N.G.V.D. and all changes in grade resulting from excavation or filling; the location and dimensions of all buildings and additions to buildings.

(b) 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 1000.0 of this Ordinance.

701.3 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.

(a) 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 and which has not been filed after the date of the site's first Flood Insurance Rate Map without a permit as required by this Ordinance is not in the SFHA and, therefore, not subject to the requirements of this Ordinance.

(b) 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.

701.4 A soil erosion and sedimentation 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.

701.5 The Building Commissioner shall be responsible for obtaining from the applicant, copies of all other local, state and federal 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 local, state and federal permits have been obtained.

702.0 Preventing Increased Damages. No development in the flood fringe shall create a threat to public health and safety.

702.1 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 floodplain.

702.2 Compensatory Storage.

(a) Whenever any portion of a floodplain 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.

(b) The excavation volume shall be at least equal to 1.5 times the volume of storage lost due to the fill or structure.

(c) In the case of streams and watercourses, such excavation shall be made opposite or adjacent to the areas so filled or occupied.

(d) All floodplain storage lost below the existing 19-year flood elevation shall be replaced below the proposed 10-year flood elevation. All floodplain storage lost above the existing 10-year flood elevation shall be replaced above the proposed 10-year flood elevation.

(e) All such excavations shall be constructed to drain freely and openly to the watercourse.

800.0 OCCUPATION AND USE OF IDENTIFIED FLOODWAYS

This section applies to proposed development, redevelopment, site modification within a regulatory floodway. The regulatory floodway for the Lucas Ditch Cut-Off shall be as delineated on the regulatory floodway maps designated by IDNR/OWR according and referenced in Section 300.13. 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 1000.0.

801.0 **Development Permit.** No person, firm, corporation or governmental body not exempted by state law shall commence any development in a floodway without first obtaining a development permit from the Building Commissioner.

801.1 Application for a development permit shall be made on a form provided by the Building Commissioner. The application shall include the following information:

(a) Name and address of applicant;
(b) Site location (including PIN, common address and legal description) of the property, drawn to scale, on the regulatory floodway map, indicating whether it is proposed to be in the Village, an unincorporated area, or another Village;
(c) Name of stream or body of water affected;
(d) Description of proposed activity;
(e) Statement of purpose of proposed activity;
(f) Anticipated dates of initiation and completion of activity;
(g) Name and mailing address of the owner of the subject property if different from the applicant;
(h) Signature of applicant or the applicant's agent;
(i) If the applicant is a corporation, the president or other authorized officer shall sign the application form;
(j) If the applicant is a partnership, each partner shall sign the application form; and
(k) If the applicant is a land trust, the trust officer shall sign the name of the trustee 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.

(l) Plans of the proposed activity shall be provided which include as a minimum:

i. 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;

ii. 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 (1929 adjustment) datum, or N.G.V.D., 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), regulatory floodway limit, floodplain limit, specifications and dimensions of any proposed channel of cross-sections, north arrow, and a graphic or numerical scale;

iii. 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, and graphic or numerical scales (horizontal and vertical);

iv. 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.

v. A copy of the regulatory floodway map, marked to reflect any proposed change in the regulatory floodway location.

(m) Any and all other local, state and federal permits or approval letters that may be required for this type of development.

(n) Engineering calculations and supporting data shall be submitted showing that the proposed work will meet the permit criteria of Section 802.0.

(o) If the regulatory 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 regulatory floodway map change. No structures may be built until a Letter of Map Revision has been approved by FEMA.

(p) 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 floodplain 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 1000.0 of this Ordinance.

(q) If the proposed project involves a channel modification, the applicant shall submit the following information:

i. A discussion of the purpose of and need for the proposed work;
ii. A discussion of the feasibility of using alternative locations or methods (see 802.3(i)i.) to accomplish the purpose of the proposed work;
iii. An analysis of the extent and permanence of the impacts each feasible alternative identified in 802.3(i)i. of this Section would have on the physical and biological conditions of the body of water affected; and
iv. An analysis of the impacts of the proposed project, considering cumulative effects on the physical and biological conditions of the body of water affected.

801.2 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.

(a) The Building Commissioner shall not issue the development permit unless all required federal and state permits have been obtained.
(b) A registered Professional Engineer, under the employ or contract of the Village shall review and approve applications reviewed under this Section.

802.0 **Preventing Increased Damages and a List of Appropriate Uses.**

802.1 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 Ordinance. Only those Appropriate Uses listed in 92 Ill. Adm. Code 708 will be allowed. The approved Appropriate Uses are as follows:

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

(b) 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;

(c) Storm and sanitary sewer outfalls;

(d) Underground and overhead utilities;

(e) Recreational facilities such as playing fields and trail systems including any related fencing (at least 50% 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;

(f) Detached garages, storage sheds, or other non-habitable accessory structures that will not block flood flows, nor reduce floodway storage;

(g) Bridges, culverts roadways, sidewalks, railways, runways and taxiways and any modification thereto;

(h) Parking lots built at or below existing grade where either

i. The depth of flooding at the 100-year frequency flood event will not exceed 1.0 foot; or

ii. 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.

(i) Designated floodway regarding, without fill, to create a positive non-erosive slope toward a watercourse.

(j) Floodproofing activities to protect previously existing lawful structures including the construction of water tight 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 (10) feet away from the exterior wall of the existing structure, and, which are not considered substantial improvements to the structure.

(k) The replacement, reconstruction or repair of a damaged building, provided that the outside dimensions are not increased, and if the building was damaged to 50% or more of the market value before the damage occurred, the building will be protected from flooding to the flood protection elevation.

(l) Modifications to an existing building that would not increase the enclosed floor area of the building below the 100-year frequency flood elevation, and which will not block flood flows including but not limited to, fireplaces, bay windows, decks, patios, and second story additions. If the building improved to 50% or more of the market value before the modification occurred (i.e. a substantial improvement), the building will be protected from flooding to the flood protection elevation.

802.2 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 non-appropriate uses in the floodway, fencing (including landscaping or planting designed to act as a fence) and storage of materials except as specifically defined above as an Appropriate Use.

802.3 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 1000.0 of this Ordinance:

(a) **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:

i. Regulatory floodway conveyance,

"K" = (1.486/n)(AR2/3) 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 Brook Company, New York)

ii. 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 non-vegetative land cover.

iii. 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 horizontal for every four feet 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 horizontal for every one foot of the flooded stream's length.

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

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

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

(b) **Preservation of Floodway Storage so as Not to Increase Downstream Flooding.**

i. 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.

ii. Compensatory storage for fill or structures shall be equal to at lease 1.5 times the volume of floodplain storage lost.

iii. Artificially created storage lost due to a reduction in head loss behind a bridge shall not be required to be replaced.

iv. 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 flood 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.

v. 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.

vi. There shall be no reduction in floodway surface area as a result of a floodway modification, unless such modification is necessary to reduce flooding at existing structure.

(c) **Preservation of Floodway Velocities so as Not to Increase Stream Erosion or Flood Heights.**

i. 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 or stage for all flood events up to and including the 100-year frequency event.

ii. 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 rip-rap or other design measures.

(d) **Construction of New Bridges or Culvert Crossings and Roadway Approaches.**

i. The proposed structure shall not result in an increase of upstream flood stages greater than 0.1 foot when compared to the existing conditions for all flood events up to and including the 100-year frequency event; or the upstream flood state 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.

ii. If the proposed construction will increase upstream flood stages greater than 0.1 feet, the developer must contact IDNR/OWR, to obtain a permit for a dam or waiver.

(1) 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 600.0 of this Ordinance. 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.

(2) Lost floodway storage must be compensation for per Section 802.3(b).

(3) Velocity increases must be mitigated per Section 802.3 c.

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

(5) 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 802.0.

(6) All excavations for the construction of the crossing shall be designated per Section 802.3(h).

(e) **Reconstruction or Modification of Existing Bridges, Culverts, and Approach Roads.**

i. 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.

ii. If the existing bridge or culvert and roadway approach is a source of flood damage to buildings or structures in the upstream floodplain, 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.

iii. 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 92 Ill. Adm. Code 708 (Floodway Construction in Northeastern Illinois)and submitted to IDNR/OWR for review and concurrence before a permit is issued.

(f) **On-Stream Structures Built for the Purpose of Backing Up Water.**

i. Any increase in upstream flood stages greater than 0.0 foot 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.

ii. 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.

iii. All dams and impoundment structures as defined in Section 300.12 shall meet the permitting requirements of 92 Ill. Adm. Code 702)Construction and Maintenance of Dams). If the proposed activity involves a modification of the channel or floodway to accommodate an impou8ndment, it shall be demonstrated that:

(1) The impoundment is determined to be in the public interest by providing flood control, public recreation, or regional storm water detention;

(2) The impoundment will not prevent the migration of indigenous fish species, which require access to upstream areas as part of their life cycle, such as for spawning;

(3) The impoundment will not cause or contribute to degraded water quality or habitat conditions. Impoundment design should include gradual bank slopes, appropriate bank stabilization measures, and a pre-sedimentation basin.

(4) A non-point source control plan has been implemented in the upstream watershed to control the effects of sediment runoff as well as minimize the input of nutrients, oil and grease, metals and other pollutants. If there is more than one municipality in the upstream watershed, the municipality in which the impoundment is constructed should coordinate with upstream municipalities to ensure comprehensive watershed control;

(5) The project otherwise complies with the requirements of Section 800.0.

(g) Flood Proofing of existing Habitable, Residential and Commercial Structures.

i. 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 10 feet from the outside of the building.

ii. Compensation of lost storage and conveyance will not be required for floodproofing activities.

(h) **Excavation in the Floodway.**

i. 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 for other Appropriate Uses, transition sections shall be provided for the excavation.

ii. 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 horizontal for every four feet 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 horizontal for every one foot of the flooded stream's length; and

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

(4) Erosion/scour protection shall be provided inland upstream and downstream of the transition sections.

(i) If the proposed activity involves a channel modification, it shall be demonstrated that:

i. There are no practicable alternatives to the activity which would accomplish its purpose with less impact to the natural conditions of the body of water affected. Possible alternatives include levees, bank stabilization, flood proofing of existing structures, removal of structures from the floodplain, clearing the channel, high flow channel, or the establishment of a stream side buffer strip or green belt. Channel modification is acceptable if the purpose is to restore natural conditions and improve water quality and fish and wildlife habitat;

ii. Water quality, habitat, and other natural functions would be significantly improved by the modification and no significant habitat area may be destroyed, or the impacts are offset by the replacement of an equivalent degree of natural resource values;

iii. The activity has been planned and designed and will be constructed in a way which will minimize its adverse impacts on the natural conditions of the body of water affected, consistent with the following criteria;

(1) The physical characteristics of the modified channel shall match as closely as possible those of the existing channel in length, cross-section, slope and sinuosity. If the existing channel has been previously modified, restoration of more natural physical conditions should be incorporated into channel modification design, where practical.

(2) Hydraulically effective transitions shall be provided at both the upstream and downstream ends of the project, designed such that they will prevent erosion.

(3) One-sided construction of a channel shall be used when feasible. Removal of streamside (riparian) vegetation should be limited to one side of the channel, where possible, to preserve the shading and stabilization effects of the vegetation.

(4) Clearing of stabilizing vegetation shall be limited to that which is essential for construction of the channel.

(5) Channel banks shall be constructed with a side slope no steeper than 3:1 horizontal to vertical, wherever practicable. Natural vegetation and gradual side slopes are the preferred methods for bank stabilization. Where high velocities or sharp bends necessitate the use of alternative stabilization measures, soil bioengineering techniques, natural rock or rip-rap are preferred approaches. Artificial materials such as concrete, gabions, or construction rubble should be avoided unless there are no practicable alternatives.

(6) All disturbed areas associated with the modification shall be seeded or otherwise stabilized as soon as possible upon completion of construction. Erosion blanket or an equivalent material shall be required to stabilize disturbed channel banks prior to establishment of the vegetative cover.

(7) If the existing channel contains considerable bottom diversity such as deep pools, riffles, and other similar features, such features shall be provided in the new channel. Spawning and nesting areas and flow characteristics compatible with fish habitat shall also be established, where appropriate.

(8) A sediment basin shall be installed at the downstream end of the modification to reduce sedimentation and degradation of downstream water quality.

(9) New or relocated channels should be built in the dry and all items of construction, including vegetation, should be completed prior to diversion of water into the new channel.

(10) There shall be no increases in stage or velocity as the channel enters or leaves the project site for any frequency flood unless necessitated by a public flood control project or unless such an increase is justified as part of a habitat improvement or erosion control project.

(11) Unless the modification is for a public flood control project, there shall be no reduction in the volume of floodwater storage outside the floodway as a result of the modification; and

iv. The project otherwise complies with the requirements of Section 800.0.

(j) **Seeding and Stabilization Plan.** For all activities located in a floodway, a seeding and stabilization plan shall be submitted by the applicant.

(k) **Soil Erosion and Sedimentation Measures.** For all activities in the floodway, including grading, filling, and excavation, in which there is potential for erosion of exposed soil, soil erosion and sedimentation control measures shall be employed consistent with the following criteria:

i. The construction area shall be minimized to preserve the maximum vegetation possible. Construction shall be scheduled to minimize the time soil is exposed and unprotected. In no case shall the existing natural vegetation be destroyed, removed, or disturbed more than 15 days prior to the initiation of improvements.

ii. Temporary and/or permanent soil stabilization shall be applied to denuded areas as soon as possible. As a minimum, soil stabilization shall be provided within 15 days after final grade is reached on any portion of the site, and within 15 days to denuded areas which may not be at final grade but will remain undisturbed for longer than 60 days.

iii. Sedimentation control measures shall be installed before any significant grading or filing is initiated on the site to prevent the movement of eroded sediments off site or into the channel. Potential sediment control devices

include filter fences, straw bale fences, check dams, diversion ditches, and sediment basins.

iv. A vegetated buffer strip of at least 25 feet in width shall be preserved and/or re-established, where possible, along existing channels [See 802.3(p)]. Construction vehicle use of channels shall be minimized. Temporary stream crossings shall be constructed, where necessary, to minimize erosion. Necessary construction in or along channels shall be restabilized immediately.

v. Soil erosion and sedimentation control measures shall be designed and implemented consistent with "Procedures and Standards for Urban Soil Erosion and Sedimentation Control in Illinois" (1988) also known as the "Green Book" and "Standards and The Illinois Urban Manual" (NRCS, 1995).

(l) **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.

(m) **General Criteria for Analysis of Flood Elevations.**

i. The flood profiles, flows and floodway data in the designated floodway study, referenced in Section 600.0, 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.

ii. 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:

(1) The requirements of this section for the 100-year frequency flood elevations of the designated floodway conditions; and

(2) Conditions with the receiving stream at normal water elevations.

iii. 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

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.

(n) **Conditional Letter of Map Revision.**

i. 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 to FEMA all the 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.

ii. However, the final designated floodway map will not be changed by FEMA until as-built plans or record drawings of initial filing, grading dredging, or excavating activities are submitted and accepted by FEMA and IDNR/OWR.

iii. In the case of non-government 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.

iv. No filling, grading, dredging or excavating shall take place until a conditional approval is issued.

v. After initial filling, grading, dredging or excavating, no activities shall take place until a final Letter of Map Revision (LOMR) is issued by FEMA and IDNR/OWR.

(o) **Professional Engineer's Supervision.** All engineering analyses shall be performed by or under the supervision of a registered professional engineer.

(p) For all activities in the floodway involving construction within 25 feet of the channel, the following criteria shall be met:

i. A natural vegetation buffer strip shall be preserved within at least 25 feet of the ordinary high water mark of the channel.

ii. 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.

(q) 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 of 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 the IDNR/OWR and FEMA of the "as built" plans.

802.4 **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 by a community or county delegated state permitting authority in the floodway.

(a) An engineer's analysis of the flood profile due to a proposed bridge pursuant to Section 802.3(d).

(b) 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 802.3(e).

(c) Alternative transition sections and hydraulically equivalent storage pursuant to Section 802.3 (a, b and h).

(d) The construction of any IDNR/OWR projects, dams (as defined in Section 300.12) and all other state, federal or local units of government projects, including projects of the municipality or county.

(e) An engineer's determination that a proposed bridge affected by backwater from a downstream receiving stream may be built with a smaller opening.

(f) Projects which revise or establish the floodway and/or flood profiles.

(g) Projects in public bodies of water.

802.5 Other Permits.

(a) In addition to the other requirements of this Ordinance, 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.ILCS 5/5,*et seq.*

(b) No permit from IDNR/OWR shall be required if IDNR/OWR has delegated this responsibility to the Village.

802.6 Dam Safety Permits.

(a) Any work involving the construction, modification or removal of a dam as defined in Section 300.12 per 92 Ill. Adm. Code part 702 (Rules for Construction of Dams) shall obtain an IDNR/OWR permit prior to the start of construction of a dam.

(b) If the Building Commissioner finds a dam that does not have a IDNR/OWR permit, the Building Commissioner shall immediately notify the IDNR/OWR Schaumburg office.

(c) 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 Schaumburg office, and the Illinois Emergency Management Agency (IEMA).

802.7 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 Ordinance, including the mitigation requirements.

(a) Underground and overhead utilities that:

i. Do not result in an increase in existing ground elevations, or

ii. Do not require the placement of above ground structures in the floodway, or

iii. In the case of underground stream crossings, the top of the pipe or encasement is buried a minimum of 3' below the existing streambed, and

iv. 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.

v. Disturbance of streamside vegetation shall be kept to 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.

vi. A utility crossing carrying material which may cause water pollution as defined b the Environmental Protection Act (415 ILCS 5/1, *et seq.*) shall be provided with shut-off valves on each side of the body of water to be crossed.

vi. All Illinois Commerce Commission, Electrical Code, and federal requirements for clearance must be met.

(b) Storm and sanitary sewer outfalls that:

i. Do not extend riverward or lakeward of the existing adjacent natural bank slope, and

ii. Do not result in an increase in ground elevation, and

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

(c) Construction of sidewalks, athletic fields (excluding fences), properly anchored playground equipment and patios at grade.

(d) Construction of shoreline and streambank protection that:

i. Does not exceed 1000 feet in length.

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

iii. Materials are placed so as not to reduce the cross-sectional area of the stream channel or bank of the lake.

iv. 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 rip-rap are preferred materials. Artificial materials such as concrete, construction rubble, and gabions should be avoided unless there are no practicable alternatives.

(e) Temporary stream crossings in which:

i. The approach roads will be ½ foot or less above natural grade.

ii. 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.

iii. The top of the roadway fill in the channel will be at least 2' below the top of the

lowest bank. Any fill in the channel shall be non-erosive material, such as rip-rap or gravel.

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

v. The access road and temporary crossings will be removed within one year after authorization.

900.0 OCCUPATION AND USE OF SFHA AREAS WHERE FLOODWAYS ARE NOT IDENTIFIED.

In SFHA or floodplains, (including AE, AH, AO 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 increase the base flood or 100-year frequency flood elevation.

901.0 Development Permit.

901.1 No person, firm, corporation, or governmental body, not exempted by state law, shall commence any development in a SFHA or floodplain without first obtaining a development permit from the Building Commissioner.

901.2 Application for a development permit shall be made on a form provided by the Building Commissioner.

(a) 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 Registered Professional Engineer, architect or Registered Land Surveyor; the location and dimensions of all buildings and additions to buildings; and the elevator at the lowest floor (including basement) of all proposed buildings subject to the requirements of Section 1000.0 of this Ordinance.

(b) The application for a development permit shall also include the following information:

i. A detailed description of the proposed activity, its purpose, and intended use;

ii. Site location (including legal description) of the property, drawn to scale, on the regulatory floodway maps, indicating whether it is proposed to be in an incorporated or unincorporated area;

iii. Anticipated dates of initiation and completion of activity;

iv. Plans of the proposed activity shall be provided which include as a minimum:

(1) 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;

(2) 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 (1919 adjustment) datum or N.G.V.D., 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), floodplain limit, location and orientation of cross-sections, north arrow, and a graphical or numerical scale.

(3) 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 a graphical or numerical scales (horizontal and vertical); and

(4) 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.

(c) Engineering calculations and supporting data shall be submitted showing that the proposed work will meet the criteria of Section 902.0.

(d) Any and all other local, state and federal permits or approvals that may be required for this type of development.

901.3 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.

(a) Should no elevation information exist for the site, the developer's engineer shall calculate the elevation according to Section 604.0.

(b) Any development located on land that can b shown to have been higher than the base flood elevation of the current Flood Insurance Rate Map Identification is not in the SFHA and, therefore, not subject to the requirements of this Ordinance.

(c) 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.

901.4 The Building Commissioner shall be responsible for obtaining from the applicant copies of all other local, state and federal 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 local, state and federal permits have been obtained.

902.0 **Preventing Increased Damages.**

902.1 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 Ordinance.

902.2 Within all riverine SFHA's where the floodway has not been determined, the following standards shall apply:

(a) 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 Section 802.3(a) through (1) for the entire floodplain as calculated under the provisions of Section 604.0 of this Ordinance.

i. 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 regulatory floodway.

ii. Upon acceptance of the floodway by IDNR/OWR, the developer shall then demonstrate that the project meets the requirements of Section 800.0 for the regulatory floodway. The floodway shall be defined according to the definition in Section 300.13 of this Ordinance.

(b) 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.

(c) No permit from IDNR/OWR shall be required if the IDNR/OWR has delegated permit responsibility to the Village per 92Ill. Adm. Code, Part 708 for designated floodways.

(d) Permits for Dams.

i. Any work involving the construction, modification or removal of a dam as defined in Section 300.12 per 92 Ill. Adm. Code Part 702 (Rules for Construction of Dams) shall obtain an IDNR/OWR permit prior to the start of construction of a dam.

ii. If the Building Commissioner finds a dam that does not have a IDNR/OWR permit, the Building Commissioner shall immediately notify the IDNR/OWR Schaumburg office.

iii. 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 Schaumburg office, and the Illinois Emergency Management Agency (IEMA).

902.3 The following activities may be permitted without a Registered Professional Engineer's review or calculation of a base flood elevation and regulatory floodway. Such activities shall still meet the other requirements of this Ordinance:

(a) Underground and overhead utilities that:

i. Do not result in an increase in existing ground elevations, or

ii. Do not require the placement of above ground structures in the floodway, or

iii. In the case of underground stream crossings, the top of the pipe or encasement is buried a minimum of 3' below the existing streambed, and

iv. 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.

v. Disturbance of streamside vegetation shall be kept to minimum during construction to prevent erosion and sedimentation.

vi. A utility crossing carrying material which may cause water pollution as defined by the Environmental Protection Act (415 ILCS 5/1, *et seq.*) shall be provided with

shut-off valves on each side of the body of water to be crossed.

vii. All Illinois Commerce Commission, Electrical Code, and federal requirements for clearance must be met.

(b) Storm and sanitary sewer relief outfalls that:

i. Do not extend riverward or lakeward of the existing adjacent natural bank slope, and

ii. Do not result in an increase in ground elevation, and

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

(c) Construction of shore line and streambed protection that:

i. Does not exceed 1000 feet in length.

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

iii. Materials are placed so as not to reduce the cross-sectional area of the stream channel by more than 10%.

iv. 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, natural rock or rip-rap are preferred materials. Artificial materials such as concrete, construction rubble, and gabions should be avoided unless there are no practicable alternatives.

(d) Temporary stream crossings in which:

i. The approach roads will be ½ foot or less above natural grade.

ii. 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.

iii. The top of the roadway fill in the channel will be at least 2' below the top of the lowest bank. Any fill in the channel shall be non-erosive material, such as rip-rap or gravel.

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

v. The access road and temporary crossings will be removed within one year after authorization. The construction of light poles, sign posts and similar structures;

(e) The construction of light poles, sign posts and similar structures;

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

(g) The construction of properly anchored, unwalled, open structures such as playground equipment, pavilions, and carports built at or below existing grade that would not obstruct the flow of flood waters;

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

(i) The construction of additions to existing buildings which do not increase the first floor area by more than twenty (20) percent, which are located on the upstream or downstream side of the existing building, and which do extend beyond the sides of the exising building that are parallel to the flow of flood waters;

(j) Minor maintenance dredging of a stream channel where:

i. The affected length of stream is less than 1000 feet.

ii. The work is confined to reestablishing flows in natural stream channels, or

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

902.4 The flood carrying capacity within any altered or relocated watercourse shall be maintained.

902.5 **Compensatory Storage.**

(a) Whenever any portion of a floodplain 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.

(b) The excavation volume shall be at least equal to 1.5 times the volume of storage lost due to the fill or structure.

(c) In the case of streams and watercourses, such excavation shall be made opposite or adjacent to the areas so filled or occupied.

(d) All floodplain storage lost below the existing 10-year flood elevation shall be replaced below the proposed 10-year flood elevation. All floodplain 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.

1000.0 PERMITTING REQUIREMENTS APPLICABLE TO ALL FLOODPLAIN AREAS.

In addition to the requirements found in Sections 700.0, 800.0, and 900.0 for development in flood fringes, regulatory floodways, and SFHA or floodplains where no floodways have been identified (Zones, A, AO, AH, AE, A1-A30, A99, VO, V1-30, VE, V, M, E, D, or X), the following requirements shall be met.

1001.0 Public Health Standards

1001.1 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 FPE.

1001.2 New and replacement water supply systems, wells, sanitary sewer lines and on-site waste disposal systems may be permitted providing all manholes or other above ground openings located below the FPE are watertight.

1002.0 Carrying Capacity and Notification.

1002.1 For all projects involving channel modification, fill, or stream maintenance (including levees), the flood carrying capacity of the watercourse shall be maintained.

1002.2 In addition, the Village shall notify adjacent communities in writing 30 days prior to the issuance of a permit for the alteration or relocation of the watercourse.

1003.0 Protecting Buildings.

1003.1 All buildings located within a 100-year floodplain also known as a SFHA, and all buildings located outside the 100-year floodplain but within the 500-year floodplain, shall be protected from flood damage below the flood protection elevation.

This building protection criteria applies to the following situations:

(a) Construction or placement of a new building.

(b) A structural alteration to an existing building that either increases the first floor area by more than 20% or is a substantial improvement (exceeding the building's market value by more than 50%). This alteration shall be figured cumulatively beginning with any alteration which has taken place subsequent to April 1, 1990.

(c) 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

(d) Installing a travel trailer on a site for more than 180 days.

This building protection requirement may be met by one of the following methods.

1003.2 A residential or non-residential building, when allowed, may be constructed on permanent land fill in accordance with the following:

(a) The lowest floor, (including basement) shall be at or above the flood protection elevation.

(b) Fill Requirements.

i. The fill shall be placed in layers no greater than one (1) foot deep before compaction and should extend at least ten (10) feet beyond the foundation of the building before sloping below the flood protection elevation

ii. The top of the fill shall be above the flood protection elevation. However, the ten (10) foot minimum may be waived if a structural engineer certifies an alternative method to protect the building from damages due to hydrostatic pressures.

iii. The fill shall be protected against erosion and scour.

iv. The fill shall not adversely affect the flow or surface drainage from or onto neighboring properties.

1003.3 A residential or non-residential building may be elevated in accordance with the following:

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

(b) 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.

© All areas below the flood protection elevation shall be constructed of materials resistant to flood damage.

i. 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.

ii. Water and sewer pipes, electrical and telephone lines, submersible pumps, and other waterproofed service facilities may be located below the flow protection elevation.

(d) 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.

(e) Manufactured homes and travel trailers to be installed on a site for more than 180 days, shall be elevated to or above the flood protection elevation; and 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 Ill. Adm. Code Part 870. In addition, all manufactured homes shall meet the following elevation requirements:

i. 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, or (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.

ii. 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 a least 36 inches in height above grade and supported by reinforced piers or other foundations of equivalent strength, whichever is less.

(f) Recreational vehicles or travel trailers shall be required to meet the elevation and anchoring requirements of Section 1003.3(e) above unless:

i. They are on site for fewer than 180 consecutive days; and,

ii. 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.

1003.4 Only a non-residential building may be structurally dry floodproofed (in lieu of elevation) provided that:

(a) 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.

(b) 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.

(c) 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).

1003.5 Tool sheds and detached garages on an existing single-family platted lot, may be constructed with the lowest floor below the flood protection elevation in accordance with the following:

(a) The building is not used for human habitation.

(b) All areas below the base flood or 100-year frequency flood elevation shall be constructed with waterproof material. Structures located in a designated floodway shall be constructed and placed on a building site so as not to block the flow of flood waters and shall also meet the Appropriate Use criteria of Section 800.0. In addition, all other requirements of Section 700.0, 800.0 and 900.0 must be met.

(c) The structure shall be anchored to prevent flotation.

(d) Service facilities such as electrical and heating equipment shall be elevated or floodproofed to the flood protection elevation.

(e) The building shall be valued at less than $7,500 and be less than 500 square feet in floor size.

(f) The building shall be used only for storage of vehicles or tools and may not contain other rooms, workshops, greenhouses or similar uses.

(g) The building shall meet the permanent opening criteria of Section 1003.3(a).

1003.6 Existing buildings located within a designated floodway shall also meet the more restrictive Appropriate Use standards included in Section 800.0. Non-conforming structures located in a designed floodway may remain in use and may only be enlarged, replaced or structurally altered in accordance with Section 802.0. A non-conforming structure damaged by flood, fire, wind or other natural or man-made 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 Ordinance.

1100.0 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 development.

1101.0 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 700.0, 800.0, 900.0, and 1000.0 of this Ordinance and the need to minimize flood damage. Plats or plans for new subdivisions, mobile 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 205/0.01 *et seq.*).

1102.0 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.

1102.1 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 604.0 and the floodway delineation per the definition in Section 300.13.

1102.2 The applicant's engineer shall submit the date to IDNR/OWR for review and approval as best available regulatory data and then send it to State Water Survey.

1103.0 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 floodplains shall be included within parks or other public grounds.

1104.0 The Board of Trustees shall not approve any Planned Unit Development (PUD) or plat of subdivision located outside the corporate limits unless such PUD or plat is in accordance with the provisions of this Ordinance.

1200.0 VARIANCES

1201.0 No variances shall be granted to any development located in a designed floodway as defined in Section 300.13.

1201.1 Whenever the standards of this Ordinance place undue hardship on a specific development proposal, the applicant may apply to the Village for a variance.

1201.2 The Board of Trustees shall review the applicant's request for a variance with the Building Commissioner and with the Village Engineer.

1202.0 No variance shall be granted unless the applicant demonstrates that:

1202.1 The development activity cannot be located outside the SFHA;

1202.2 An exceptional hardship would result if the variance were not granted;

1202.3 The relief requested is the minimum necessary.

1202.4 There will be no additional threat to public health, safety, beneficial stream uses and functions, especially aquatic habitat, or creation of a nuisance;

1202.5 There will be no additional public expense for flood protection, lost environmental stream uses and functions, rescue or relief operations, policing, or repairs to stream beds and banks, roads, utilities, or other public facilities;

1202.6 The provisions of Sections 702.0 and 902.0 of this Ordinance shall still be met;

1202.7 The activity is not in a regulatory floodway;

1202.8 The applicant's circumstances are unique and do not represent a general problem, and

1202.9 The granting of the variance will not alter the essential character of the area involved including existing stream uses.

1203.0 The Building Commissioner shall notify an applicant in writing that a variance from the requirements of Section 1000.0 that would lessen the degree of protection to a building will:

1203.1 Result in increased premium rates for flood insurance up to amounts as high as $25 for $100 of insurance coverage;

1203.2 Increase the risks to life and property; and

1203.3 Require that the applicant proceed with knowledge of these risks and that he will acknowledge in writing that he assumes the risk and liability.

1204.0 Variances requested in connection with restoration of a historic site or historic structure as defined in Section 300.30 "Historic Structures", may be granted using criteria more permissive than the requirements of Sections 1200.2 and 1200.3, subject to the conditions that:

1204.1 The repair or rehabilitation is the minimum necessary to preserve the historic character and design of the structure; and,

1204.2 The repair or rehabilitation will not result in the structure being removed as a certified historic structure.

1300.0 DISCLAIMER OF LIABILITY

1301.0 The degree of flood protection required by this Ordinance is considered reasonable for regulatory purposes and is based on available information derived from engineering and scientific methods of study.

1302.0 Larger floods may occur or flood heights may be increased by man-made or natural causes.

1303.0 This Ordinance does not imply that development, either inside or outside of the SFHA, will be free from flooding or damage.

1304.0 This Ordinance 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 Ordinance or any administrative decision made lawfully thereunder.

1400.0 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 Ordinance. Upon due investigation, the Building Commissioner may determine that a violation of the minimum standards of this Ordinance exists. The Building Commissioner shall notify the owner in writing of such violation.

1401.0 If such owner fails after ten days notice to correct the violation:

1401.1 The Village may make application to the Circuit Court for an injunction requiring conformance with this Ordinance or make such other order as the Court deems necessary to secure compliance with the Ordinance.

1401.2 Any person who violates this Ordinance 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.

1401.3 A separate offense shall be deemed committed upon each day during or on which a violation occurs or continues.

1401.4 The Village may record a notice of violation on the title to the property.

1402.0 The Building Commissioner shall inform the owner that any such violation is considered a willful act to increase flood damages and, therefore, may cause coverage by a Standard Flood Insurance Policy to be suspended.

1402.1 The Building Commissioner 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.

1402.2 No site development permit shall be permanently suspended or revoked until a hearing is held by the Board of Trustees. Written notice of such hearing shall be served on the permittee and shall state: (1) the grounds for compliant or reasons for suspension or revocation; and (2) the time and place of the hearing. At such hearing, the permittee shall be given an opportunity to present evidence on his/her behalf. At the conclusion of the hearing, the Board of Trustees shall determine whether the permit shall be suspended or revoked.

1403.0 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.

1500.0 ABROGATION AND GREATER RESTRICTIONS

1501.1 This ordinance is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions.

1502.0 Where this Ordinance and other ordinances, easements, covenants, or deed restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

1503.0 This Ordinance 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.

1600.0 FEES

The fees herein are in addition to all other fees required for the construction of buildings and structures as defined in other sections. Fees for permits shall be as follows:

1600.1	For a use permit	No fee
1600.2	For a development permit for clearing debris, demolishing buildings, or removing buildings out of any SFHA:	No fee
1600.3	For construction of a building valued at more than $100,000:	$100

1600.4	For construction or reconstruction of a building valued at less than $100,000 and for any other development project that requires three site inspections by the Building Commissioner:	$75
1600.5	For improvements made to an existing building, for installing a manufactured home on a permanent site, and for any other development projects:	$50

CHAPTER 6

BUILDING CONSTRUCTION AND MAINTENANCE CODES

ARTICLE 8. ENERGY CONSERVATION CODE

SECTION

6-8-1: **ENERGY CONSERVATION CODE**

The "Illinois Energy Conservation Code" as published by the Capital Development Board of the State of Illinois (Section 600.110 of Title 71 of the Illinois Administrative Code) is hereby adopted as the Energy Conservation Code of the Village.

Revised 7/6/2022
Revised 8/15/2018
Revised 3/17/2010
Revised 02/07/2007
Revised 10/06/04

CHAPTER 6

BUILDING CONSTRUCTION AND MAINTENANCE CODES

ARTICLE 9 PLUMBING CODE

SECTION

6-9-1: Plumbing Code
6-9-2: Blank
6-9-3: Overhead Plumbing
6-9-4: Footing Drains
6-9-5: Water Usage

6-9-1: PLUMBING CODE: The "Illinois Plumbing Code" as promulgated by the Illinois Department of Public Health at 77 Illinois Administrative Code, Part 890 with amendments to July 1, 2022, is hereby adopted as the Plumbing Code of the Village with the following changes, additions or insertions:

Appendix A, Table A: All materials shall meet the following requirements or be approved by the Building Commissioner.

Approved Materials for Water Service Pipe shall be as permitted by Table 29 (18-29-605.4) of the Chicago Plumbing Code.

Approved Materials for Water Distribution Pipe shall be as permitted by Table 29 (18-29-605.5) of the Chicago Plumbing Code.

Approved Standards for Fittings shall be as permitted by Table 29 (18-29-605.6) of the Chicago Plumbing Code.

6-9-2: Blank

6-9-3: OVERHEAD PLUMBING: All new buildings hereafter constructed in the municipality with basements, floors, rooms or occupancy areas below ground level at the building site and served by a public or private sewer system, shall have overhead plumbing.

Revised 07/06/2022, 08/15/2018, 3/17/2010,
Revised 2/06/2013, 10/06/2004, 2/07/2004

6-9-5: WATER USAGE:

(a) All new water services shall be metered. New services include but are not limited to water service in new construction of all types. All new and replacement plumbing fixtures shall be labeled as a WaterSense product, as specified by USEPA

(b) Flushing of sanitary sewers with potable water shall be performed through the use of a high velocity type sewer jet.

1. In all new construction and in all repair and/or replacement of water using fixtures, only fixtures not exceeding the following flow rates and/or water usage shall be installed. These ratings are based on a pressure at the fixture of 40 to 50 PSI.

Water Closets, tank type	3.5 gal. per flush
Water Closets, flushometer type	3.0 gal per flush
Urinals, tank type	3.0 gal per flush
Urinals, flushometer type	3.0 gal per flush
Shower heads	3.0 gal per flush
Lavatory, sink faucets	3.0 gal per flush

2. Lavatories for Public Use: In addition to the requirements in Section (a) above, in all new construction and in all repair and/or replacement of fixtures, faucets of lavatories located in restrooms intended for public use shall be of metering or self-closing type.

3. Car Wash Installation: In all new construction and replacement of fixtures, car wash installations shall be equipped with a recycling system on the wash water unit and the rinse cycle unit.

4. Air Conditioning: In all new construction and in all new remodeling, all air conditioning systems shall be of the closed system type.

Revised 10/06/2004, 2/07/2007, 3/17/2010, 02/06/2013, 10/7/2015
Revised 6/17/1998, 02/06/2013

Water Closets, tank type	3.5 gal. per flush
Water Closets, flushometer type	3.0 gal per flush
Urinals, tank type	3.0 gal per flush
Urinals, flushometer type	3.0 gal per flush
Shower heads	3.0 gal per flush
Lavatory, sink faucets	3.0 gal per flush

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3. Car Wash Installation: In all new construction and replacement of fixtures, car wash installations shall be equipped with a recycling system on the wash water unit and the rinse cycle unit.

4. Air Conditioning: In all new construction and in all new remodeling, all air conditioning systems shall be of the closed system type.

CHAPTER 6.

BUILDING CONSTRUCTION AND MAINTENANCE CODES

ARTICLE 10 ELECTRICAL CODE

SECTION

6-10-1: ELECTRICAL CODE

The "Chicago Electrical Code" (Title 14E of the Municipal Code of Chicago as amended to July 1, 2022) is hereby adopted as the Electrical Code of the Village with the following changes, additions or insertions:

"Village of Bridgeview" shall be substituted for "City of Chicago".

Any amendments to the Chicago Electrical Code after July 1, 2022 shall be effective in the Village upon the date of applicability in the City of Chicago.

CHAPTER 6

BUILDING CONSTRUCTION AND MAINTENANCE CODES

ARTICLE 11 MECHANICAL CODE

SECTION

6-11-1: MECHANICAL CODE:
The "2021 International Mechanical Code" as published by the International Code Council, Inc. is hereby adopted as the Mechanical Code of the Village with the following changes, additions or insertions:

Section 101.1, insert "Village of Bridgeview."

Section 103.1 delete in full.

Section 108.5, change the last sentence to read: " Any person violating a stop work order shall be liable for a fine of not less than $100 nor more than $750 for each violation. Each day that violation occurs shall be considered a separate violation and subject to penalty."

Section 109.2 change to read "The code official shall establish a schedule of permit fees and plan review fees."

Section 109.6, change to read "The code official may authorize a refund of fees."

Section 113.4, change to read "A penalty of not less than $100 nor more than $750 is hereby imposed for each violation of this Code. Each day that a violation occurs shall be considered a separate violation and subject to penalty."

Section 114, delete in full. All appeals shall be taken as provided in the Building Code.

Section 115.4, Change to read "A penalty of not less than $100 nor more than $750 is hereby imposed for each violation of this Code. Each day that a violation occurs shall be considered a separate violation and subject to penalty."

Revised 02/06/2013, 08/15/2018, 07/06/2022
Revised 10/06/04, 02/07/2007, 03/17/2010

BUILDING CONSTRUCTION AND MAINTENANCE CODES

ARTICLE 12 ELEVATORS, DUMBWAITERS, ESCALATORS AND MOVABLE PLATFORMS

SECTION

6-12-1: Elevator Code
6-12-2: Amendments
6-12-3: Upgrades
6-12-4: Inspection Required
6-12-5: Inspection Fees
6-12-6 Certificate

6-12-1 ELEVATOR CODE: The following are hereby adopted herein by reference and shall constitute the Elevator Code of the Village:

1. American Society of Mechanical Engineers (ASME)
Three Park Avenue
New York, NY 10016-5990

A. Safety Code for Elevators and Escalators (ASMEA 17.1-2007/CSA B44-07) and Performance-Based Safety Code for Elevators and Escalators (ASMEA17.1-2007/CSA B44.7-07);

B. Guide for Inspection of Elevators, Escalators, and Moving Walks (ASME A17.2-2004);

C. Safety Code for Existing Elevators and Escalators (ASME A17.3-2005) (only upgrades required by application of the Safety Code for Existing Elevators and Escalators must be completed no later than January 1, 2015);

D. Safety Standard for Platform Lifts and Stairway Chairlifts (ASME A18.1-2005);

E. Standard for the Qualification of Elevator Inspectors (ASME QEI-1-2007).

2. American Society of Civil Engineers (ASCE)
1801 Alexander Bell Drive
Reston, VA 20191-4400

Revised 4/20/2011
Revised 10/06/2004

A. Automated People Mover Standards (ASCE 21-05), Park 1, 2006.

B. Automated People Mover Standards (ANSI/ASCE/T&DI 21.2-08), Parts 2, 3, and 4, 2008

6-12-2: AMENDMENTS: The Village shall submit a copy of any amendment to the standards set forth in Sec. 6-12-1, and the basis for amending the same to the State Fire Marshall before those amendments are enacted.

6-12-3: UPGRADES: Upgrades required by Section 35(h) of ASME A17.3-2005 Safety Code for Existing Elevators shall be completed no later than January 1, 2015.

6-12-4: INSPECTION REQUIRED: All elevators, escalators, and dumbwaiters shall be inspected at not less than the periodic intervals listed in ASME A17.l, Appendix N.

6-12-5: INSPECTION FEES: The fees for inspections required by this Article shall be set forth on a schedule promulgated by the Director of Buildings and Inspectional Services.

6-12-6 CERTIFICATE: The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter, be available for public inspection in the office of the building operator, or be posted in a publicly conspicuous location with prior approval of the Director of Buildings and Inspectional Services.

BUILDING CONSTRUCTION AND MAINTENANCE CODES

ARTICLE 13. BUILDING PERMITS

SECTION

6-13-1: Permit Required
6-13-2: Time Limit of Permit
6-13-3: Permit Waived for Ordinary Work
6-13-4: Application for Permits
6-13-5: Plans and Specifications
6-13-6: Issuance of Permits
6-13-7: Alteration in Plans
6-13-8: Remodeling
6-13-9: Certificate of Occupancy
6-13-10: Use of Streets
6-13-11: Construction Operations
6-13-12: Safeguarding the Public

6-13-1: PERMIT REQUIRED: Before proceeding with the erection, construction, addition, repair, removal or the excavation for any building or structure in the municipality, a permit for such erection, construction, alteration, addition, repair, removal or excavation shall first be obtained by the owner or his agent from the Building Commissioner.

As evidence that such permit has been issued, the building permit card must be posted on the street side of the building when excavation is started, kept posted during the entire time of construction, and for ten (10) days after completion of the building.

No building permits shall be issued for the erection of buildings on any lot or parcel of land within the municipality unless a highway, road or street or way for public service facilities, improved with adequate water mains, storm sewers and sanitary sewers, or other adequate water supply and sanitary sewage disposal, is provided to serve said parcel or land or lot.

6-13-2: TIME LIMIT OF PERMIT: If, after such permit shall have been granted, the operations covered by said permit shall not have begun within six (6) months after the date thereof, or if such operations are not completed within one (1) year from said date, then such permit shall expire by the terms thereof, and no operations thereunder shall be started or completed until a renewal of said permit, as provided in Article 14 of this Chapter.

6-13-3: PERMIT WAIVED FOR ORDINARY WORK: A permit will not be required for ordinary repair work incidental to the upkeep of a building or structure; provided there is not contemplated, nor involved, any change in the classification or use or any increase in the fire hazard thereof; nor the removal or installing of any external wall; nor the removal of any supporting wall, column, truss, girder or beam; nor the installation, closing or changing of any stairs, exists, scuttles, skylights or fire escapes; nor the changing of number, location or connections of fixtures, traps, vents, waste, soil or drain pipes of the plumbing system; nor changing the number, locating or connections of the fixtures of the electrical system; nor reshingling or covering of roofs or the renewing of the exterior woodwork of any frame building structure or potion thereof.

Nothing in this section contained shall be interpreted or construed to allow any work included in the permit exemptions thereof, to be done in any manner contrary to the requirements of the Building Code or other ordinances of the municipality.

6-13-4: APPLICATION FOR PERMITS: Application for building permits shall be made by the owner or his agent to the Building Commissioner on forms prepared and kept on file in the office of the Building Commissioner. Such applications shall describe the location of the proposed work by setting forth the correct legal description of the land upon which the building, structure or part thereof is to be erected, constructed, added, altered or repaired and the street name and number assigned to the site; the purpose for which the building or structure is designed to be used; the length, width, and height thereof; the number of rooms; the total cost of the work proposed to be done under the permit sought; the name and address of the owner or his agent, or architect; and if contracts for the work have been let, the names of the general contractors and subcontractors such as mason, carpenter, sewer, builder, plumber and electrician.

Said application for a building permit shall also be accompanied by a plat of survey, showing the proposed location of the building to be erected on said lot, piece or parcel of land. Said application shall also contain an agreement to be signed by the owner, his agent or architect, conditioned that he or his duly authorized agent or architect, if granted the permit sought, will construct the work in accordance with the description set forth in the application and accompanying plans and specifications.

6-13-5: PLANS AND SPECIFICATIONS: All applications for building permits shall be accompanied by detailed drawings and specifications showing presently existing water mains, storm sewers and sanitary sewers or other sanitary sewage disposal facilities, if any, as well as any presently existing highway, road, street, way, alley or sidewalk improvements, if any. Applications which must meet the requirements as to improvements shall also be

accompanied by such detailed drawings and specifications showing the proposed new construction of water mains, storm sewers and sewage disposal facilities, as well as such street, alley, sidewalk and street lighting improvements as may be necessary to meet the said minimum requirements of the municipality.

All such plans and drawings shall be drawn to a scale of not less than one-eighth (1/8) inch to the foot on paper or cloth, in ink or by some process that will not fade or obliterate. All distances and dimensions shall be accurately figured, and drawings made explicit and complete, showing the lot lines and the locatio of the exterior lines of said building in relation thereto, and the entire ventilating sewerage and drain pipes and the location of all plumbing fixtures within such building.

No permit shall be granted or plans approved unless such plans are made and signed by such persons as are permitted under the laws of the State of Illinois, to make plans for buildings.

True copies of so much of the said plans as may be required, in the opinion of the Building Commissioner, to illustrate the features of construction and equipment of the building referred to, shall be filed with the Building Commissioner, and shall remain on file in his office for a period of six (6) months after the occupation of such building, after which such plans shall be returned to the person by whom they have been deposited with him, upon demand. It shall not be obligatory upon the Building Commissioner to retain such plans in his custody for more than six (6) months after the occupation of the building to which they relate.

Complete plans and specifications of buildings for public or business use for which permits are granted shall remain on file permanently in said Building Commissioner's office.

In all cases, the approved plan or plans, together with building permits, must be kept on the premises while work is in progress.

The Building Commissioner shall not issue any permit authorizing the erection, construction, alteration, addition or repair of any building or structure unless the plans submitted clearly show that such building or structure with all its appurtenances, foundations and attachments can be erected entirely within the limits of the lot or tract of land upon which it is proposed to erect such building or structure, except as provided by the Building Code and Zoning Ordinance of the municipality, and no permit to construct or alter any building or structure shall authorize the use of any part of any public highway or other public grounds for the construction or maintenance of such building or structure except as provided by the Building Code, nor shall any permit be issued for the construction or maintenance of any balcony extending over any public highway or other public ground unless permits therefor have been

obtained form the corporate authorities pursuant to an ordinance specially authorizing the same.

6-13-6: ISSUANCE OF PERMITS: Permits authorized to be issued and required to be obtained under the Building Construction and Maintenance Codes and other Chapters of this Code shall be promptly issued by the Building Commissioner when the application, approval of plans, filing of frontage consents (if required) and giving of notices are all completed as provided in this Code; however, this provision shall not be construed to deny the Building Commissioner ample time to investigate any matters pertaining to the issuance of a permit.

No permit herein provided to be issued for the erection, construction, alteration, addition, repair or excavation for any wall, structure, building or any portion thereof, for which a fee is prescribed, shall be in force until the fees prescribed shall have been paid.

No permit shall be issued to build any structure on property, the front of which structure faces a road or street not improved in accordance with the minimum requirements of the municipality.

Any person, firm or corporation or their duly authorized agent, making application for a permit to construct a building on any lot owned or represented by him or them, the front of which is not improved with a road or street which meets the minimum requirements of the municipality, may be granted a permit to construct such building, providing such applicant shall consent to the provisions of a Certificate in substantially the following form:

I, (We) _____, hereby certify that I (we) am (are) the owner (owners) of the following described property:

I (We) further certify that I (we) have made application to construct a (type of building) on the property set out above, and that I (we) have been told by the Building Commissioner of the Village of Bridgeview that due to the fact that the street bordering said lot is not improved in accordance with the minimum specifications of the Village, that until the Village opens a street and improves, or consents to the improvement of, said street in accordance with the Village Ordinances, the said street will not be opened by the Village to public travel and that any improvement of said street must be made by the owner of said property with the consent of the Village and at the owner's expense.

I (We) further certify that this instrument may be recorded in the Office of the Recorder of Cook County, or in the Office of the Registrar of Titles of Cook County, Illinois.

_____
Owner

When an application for a permit to erect a building on an improved road or street within this municipality is made to the municipality, the applicant shall be notified of the provisions of this Article and shall, before a permit is issued to construct said building, obtain three (3) signed Certificates in such form as set forth above, and attach (1) of the same to the coy of the permit retained by the Building Commissioner. One copy (1) shall be recorded in the Office of the Recorder or in the Office of the Registrar of Titles of Cook County,Illinois, at the expense of the applicant, and thereafter filed with the Village Clerk. The third copy shall be attached to the original permit issued to the applicant.

a. In the event that any such proposed building will be located on a lot or parcel of land which adjoins a located but unimproved alley, no building permit shall be issued unless the applicant files a Certificate similar to that set forth above, but relating to such alley, and shall first post bond and cash indemnity with the municipality guaranteeing the municipality that said improvements will be made as set forth in said Certificate. Such bond shall be in a sum equal to the cost of said improvements and shall be executed by the principal and a surety company authorized and licensed to do surety business in the State of Illinois. The cash indemnity shall be in addition to the bond and shall be a sum of money equal to ten percent (10%) of the estimated cost of said improvements.

b. In the event that any such proposed building will be located on a lot or parcel of land which is not improved with water or sanitary or storm sewer facilities, or improved with water or sanitary or storm sewer facilities which are inadequate, no building permit shall be issued unless applicant files a Certificate similar to that set forth above, but relating to such water or sanitary sewer or storm sewer facilities.

6-13-7: ALTERATION IN PLANS: It shall be unlawful to alter, or in any way modify, plans which have been approved by the Building Commissioner as hereinbefore provided. If, during the progress of such work, it is desired to deviate, in any manner affecting the construction or other essentials of the building, from the terms of the application, or drawing, notice of such intention to alter or deviate shall be given to the Building

Commissioner, and his written approval shall first be obtained before such alteration or deviation may be made; but alterations in buildings which do not involve any change in their structural parts or of their stairways, elevators, fire escapes or other communication or ingress or ingress, or in lighting or ventilating, or in plumbing or electric wiring, and that are not in violation of any of the provisions of this Article, or the provisions of the Zoning Ordinance, may be made without the permission of the Building Commissioner.

6-13-8: REMODELING: Any building erected or used for other than human habitation in the municipality, which the owner thereof may desire to change, remodel or rebuild for human occupancy, shall, for the purpose of this Article, be considered as a new building. The owner thereof shall, before commencing to change, remodel or rebuild such building, present plans and specifications and obtain a permit as required for new buildings, and shall in all respects comply with the terms of this Article.

6-13-9: CERTIFICATE OF OCCUPANCY: No building shall be occupied in any part thereof unless or until a certificate of occupancy has been issued by the Building Commissioner, and said Building Commissioner has certified therein that all provisions of this Code have been complied with.

A temporary certificate of occupancy, for a period of six (6) months, may be issued to permit the completion of the interior of a house. Minimum standards of health and safety must be complied with before this temporary certificate will be issued.

A six (6) month extension of this certificate may be issued upon proof that progress has been made towards completion.

6-13-10: USE OF STREETS: The corporate authorities may issue a permit for the temporary use of streets and parkways, within the limits of the building site lot lines extended, for the storage o building materials; but a continuous roadway shall be maintained with a minimum width of not less than three-fourths (3/4) of the total width of the roadway, nor less than fifteen (15) feet; provided that the view at street intersections shall not be obstructed.

All excavations made in or under any public street in connection with the construction or alteration of a building shall comply with all ordinances of the municipality.

6-13-11: CONSTRUCTION OPERATIONS: It shall be unlawful to conduct construction operations between 10:00 p.m. and 7:00 a.m. in any place where a majority of the buildings within a radius of four hundred (400) feet are used in part or exclusively for residential purposes.

6-13-12: SAFEGUARDING THE PUBLIC: It shall be the duty of all owners, contractors, builders or persons having control or supervision of any buildings or parts of buildings in the course of erection or any uncompleted structures to see that all stairways, elevator openings, flues and all other openings in the floors of the structures, manholes, catch basins, cisterns, etc., and all excavation adjacent to public street or sidewalks shall be covered or properly protected. Satisfactory measures shall be taken to safeguard the public against injury resulting from lime boxes, live wires, power tools, insecure scaffolding, falling material, stacked or piled construction material and equipment.

Where a permit has been issued for the temporary use of the street for storage of material, as stated in Section 6-13-10 of this Article, lighted red lanterns or other warning lights shall be displayed for excavations immediately adjacent to sidewalks or public streets. Failure to comply with the above requirements after twenty four (24) hours' notice shall result in a penalty of Ten Dollars ($10.00) for each and every offense, and a stop order shall be issued on all work. Each day's failure to comply with these requirements shall be considered a separate offense.