

VILLAGE OF VERNON HILLS

ORDINANCE NO. 2012-057

AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF THE VILLAGE OF VERNON HILLS, CHAPTER 5, ARTICLE II- BUILDING CODE, ARTICLE III-ONE AND TWO FAMILY DWELLING CODE, ARTICLE VI-MECHANICAL CODE, ARTICLE VII- FUEL GAS CODE, ARTICLE VIII-FIRE PREVENTION CODE, ARTICLE IX-PROPERTY MAINTENANCE CODE, ARTICLE X-ELECTRICAL CODE AND CREATING ARTICLE XVI-ENERGY CONSERVATION CODE, ARTICLE XVII-EXISTING BUILDING CODE AND ARTICLE XVIII-WILDLAND URBAN INTERFACE CODE, ADOPTING THE 2012 EDITION OF THE MODEL CODES

THE 16<sup>th</sup> DAY OF OCTOBER, 2012

Published in pamphlet form by the Authority of the President and Board of Trustees of the Village of Vernon Hills, Lake County, Illinois, this 18<sup>th</sup> Day of October, 2012



AFFIDAVIT OF SERVICE

STATE OF ILLINOIS     )  
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COUNTY OF LAKE     )

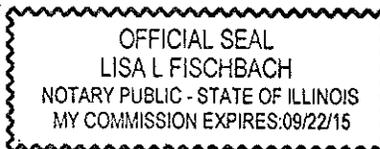
I, MICHAEL S. ALLISON, BEING FIRST DULY APPOINTED, DEPOSES AND SAYS ON OATH THAT AS VILLAGE CLERK OF THE VILLAGE OF VERNON HILLS, HE DID CAUSE THE FOREGOING CERTIFICATE FOR ORDINANCE 2012-057, AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF THE VILLAGE OF VERNON HILLS, CHAPTER 5, ARTICLE II- BUILDING CODE, ARTICLE III-ONE AND TWO FAMILY DWELLING CODE, ARTICLE VI-MECHANICAL CODE, ARTICLE VII- FUEL GAS CODE, ARTICLE VIII-FIRE PREVENTION CODE, ARTICLE IX-PROPERTY MAINTENANCE CODE, ARTICLE X-ELECTRICAL CODE AND CREATING ARTICLE XVI-ENERGY CONSERVATION CODE, ARTICLE XVII-EXISTING BUILDING CODE AND ARTICLE XVIII-WILDLAND URBAN INTERFACE CODE, ADOPTING THE 2012 EDITION OF THE MODEL CODES TO BE POSTED IN THE VILLAGE HALL AS REQUIRED BY LAW FROM OCTOBER 18, 2012 TO OCTOBER 29, 2012.



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MICHAEL S. ALLISON, VILLAGE CLERK

SUBSCRIBED AND SWORN to Before  
THIS 18<sup>th</sup> DAY OF OCTOBER, 2012

  
\_\_\_\_\_  
Notary Public



**ORDINANCE NO. 2012-057**

**AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF THE VILLAGE OF VERNON HILLS, CHAPTER 5, ARTICLE II- BUILDING CODE, ARTICLE III-ONE AND TWO FAMILY DWELLING CODE, ARTICLE VI-MECHANICAL CODE, ARTICLE VII- FUEL GAS CODE, ARTICLE VIII-FIRE PREVENTION CODE, ARTICLE IX-PROPERTY MAINTENANCE CODE, ARTICLE X-ELECTRICAL CODE AND CREATING ARTICLE XVI-ENERGY CONSERVATION CODE, ARTICLE XVII- EXISTING BUILDING CODE AND ARTICLE XVIII-WILDLAND URBAN INTERFACE CODE, ADOPTING THE 2012 EDITION OF THE MODEL CODES**

**WHEREAS**, The President and Board of Trustees of the Village of Vernon Hills is authorized to prescribe minimum building and property maintenance standards for the purpose of promoting the public health, safety, convenience and general welfare for the people of Vernon Hills; and

**WHEREAS**, In its legislative judgment the President and Board of Trustees found that building regulations and minimum property maintenance standards must be up-dated from time to time to reflect changes in model codes, construction materials, recognized construction methods, and safety standards necessary to preserve and promote the public interest.

**NOW, THEREFORE, BE IT ORDAINED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF VERNON HILLS, COUNTY OF LAKE AND STATE OF ILLINOIS:**

**SECTION I.** That Chapter 5, Article II, Building Code, of the Village of Vernon Hills Code of Ordinances is hereby repealed and amended to read as follows:

**Sec. 5-20. Adopted:**

The regulations of the 2012 edition of the International Building Code as published by the International Code Council Incorporated are hereby adopted as the regulations governing the design, installation, maintenance, alteration, and inspection of buildings and structures in the Village of Vernon Hills, Illinois, with such amendments as hereafter set forth. Where any provision of the International Building Code as adopted, conflicts with the provisions of the Code of Ordinances of the Village of Vernon Hills, the Code of Ordinances shall prevail as the applicable law of the village.

**Sec. 5-21. Chapter I Administration:**

(a) *Section 101.1* is deleted and in its place is approved to read as follows:

*101.1 Title.* These regulations shall be known as the Building Code of the Village of Vernon Hills, hereinafter referred to as "this code".

(b) *Section 101.4.3* is deleted and in its place is approved to read as follows:

*101.4.4 Plumbing.* The provisions of chapter 5, article V of the Code of Ordinances of Village of Vernon Hills shall apply to the installation, alterations, repairs and replacement of plumbing and private sewage disposal systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects of a medical gas system.

(c) *Section 102.6* is deleted and in its place is approved to read as follows:

*102.6 Existing structures.* The legal occupancy of any structure existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the International Property Maintenance Code or the International Fire Code, or as deemed necessary by the building official for the general safety and welfare of the occupants and the public. Any building or structure constructed and/or occupied in violation of any of the provisions of this code or that was in violation of any previous codes or regulations, shall be deemed a continuing violation and subject to the penalties of this code.

(d) *Section 103.2* is deleted and in its place is approved to read as follows:

*103.2 Appointment.* The building commissioner shall be appointed by the chief appointing authority of the jurisdiction. For the purposes of this code, the building commissioner is the same as the building official.

(e) *Section 104.1* is deleted and in its place is approved to read as follows:

*104.1 General.* The building official is hereby authorized and directed to enforce the provisions of this code. The building official shall have the authority to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies and procedures shall be in compliance with the intent and purpose of this code. The building official shall prepare a recommendation to up-date and adopt applicable codes within one (1) year of the model code agencies publication date.

(f) *Section 105.1.1 Annual permit* is hereby deleted in its entirety.

(g) *Section 105.1.2 Annual permit records* is hereby deleted in its entirety.

(h) *Section 105.2* is deleted and in its place is approved to read as follows:

*105.2 Work exempt from permit.* Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

*Building:*

1. Retaining walls which are not over two feet (609 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding class I, II, or III-A liquids.
2. Painting, papering, tiling, carpeting, cabinets, counter tops and similar interior finish work.
3. Temporary motion picture, television and theater stage sets and scenery.
4. Swings and other playground equipment accessory to one- and two-family dwellings except as may otherwise be set forth within the Village of Vernon Hills Code of Ordinances.
5. Movable cases, non-electrical counters.

*Electrical:*

1. *Repairs and maintenance:* Minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.
2. *Radio and television transmitting stations:* The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but does apply to equipment and wiring for power supply, the installations of towers and antennas.
3. *Temporary testing systems:* A permit shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

*Gas:*

1. Portable heating appliance.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

Mechanical:

1. Portable heating appliance;
2. Portable ventilation equipment;
3. Portable cooling unit;
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code;
5. Replacement of any part which does not alter its approval or make it unsafe;
6. Portable evaporative cooler;
7. Self-contained refrigeration system containing 10 pound (4.54 kg) or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.

Plumbing:

1. The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

(i) *Section 105.3.2* is deleted and in its place is approved to read as follows:

*105.3.2 Time limitation of application.* An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued. Unpaid review fees due the village must be paid and all review fees paid shall be forfeited to the village. Any zoning or other approvals or any variances from the zoning ordinance or other ordinances or codes, if any, shall become null and void.

- (j) *Section 105.5* is amended and approved to read as follows:

*105.5 Expiration.* Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after the issuance of the permit, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days, or if the work authorized is not completed within 365 days after the time the work is commenced unless otherwise approved by the Building Commissioner. All fees paid shall be forfeited to the village and any zoning or other approvals or any variances from the zoning ordinance or other ordinances or codes, if any, shall become null and void.

- (k) *Section 105.5.1* is created and approved to read as follows:

*105.5.1 Renewal of permit.* If a permit expires by failure to begin construction within 180 days of the date of issuance of the permit, the permit holder must repeat the application process and pay all fees as required for a new permit. A new permit will not be issued if zoning variances or other variations and/or approvals have expired. If a permit expires by failure to complete construction within 365 days after the date of commencing construction, the permit holder must renew the permit within the succeeding 90 days. A renewal fee as specified in Chapter 25, Comprehensive Fees and Penalties shall be paid to the village and the permit shall be renewed for a 365-day period, commencing 365 days after the original issuance date. No additional renewals shall be made.

- (l) *Section 105.5.2* is created and approved to read as follows:

*105.5.2 Restoration of property.* If a permit has not been renewed, all previous construction, if any, shall be removed and the property restored as required by the section of this code governing demolition of structures. If the permittee does not remove all previous construction and restore the property as required by the code, the village, through its employees or agents, shall remove same and restore the property and recover its expenses by filing a lien against the property, or by any other legal action permitted by law.

- (m) *Section 107.1* is deleted and in its place approved to read as follows:

*107.1 Submittal documents.* A minimum of five sets of construction documents, special inspection and structural observation programs, and other data shall be submitted with each application for a permit. The construction documents shall be prepared by or under the direct supervision of and shall bear the signature and seal of a registered design professional when the estimated value of such work exceeds \$15,000.00 and/or when such work involves the practice of professional architecture or engineering, as defined by the statutory requirements of the professional registration laws of the State of Illinois. Where special conditions

exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional.

(n) *Section 107.2.1* is deleted and in its place is approved to read as follows:

*107.2.1 Information on construction documents.* Construction documents shall be drawn to a minimum one-fourth inch per foot scale and upon suitable material. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the building official. No drawings shall be larger than 30 inches by 42 inches. When the quality of materials is essential for conformity to this code, specific information shall be given to establish such quality; and this code shall not be cited, or the term "legal" or its equivalent is used, as a substitute for specific information.

(o) *Section 107.2.5* is deleted and in its place is approved to read as follows:

*107.2.5 Site plan and plat of survey.* The construction documents submitted with the application for permit shall be accompanied by a site plan showing to scale the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades and the proposed finished grades; and it shall be drawn in accordance with an accurate plat of survey. A plat of survey prepared, signed and sealed by an Illinois Registered Land Surveyor, showing all boundaries of the property, setback lines, all existing improvements and all easements of record shall also accompany a permit application. In the case of demolition, the site plan shall show construction to be demolished and the locations and size of existing structures and construction that are to remain on the site or plot. The building official is authorized to waive or modify the requirement for a site plan and plat of survey when the application for permit is for alteration or repair or when otherwise warranted.

(p) *Section 107.3* is deleted and in its place is approved to read as follows:

*107.3 Examination of documents.* The building official shall examine or cause to be examined the accompanying construction documents and shall ascertain by such examinations whether the construction indicated and described is in accordance with the requirements of this code and other pertinent laws or ordinances. The building official may, at his discretion, employ services of outside consultants to review construction documents in whole or in part to determine compliance with this code. The applicant prior to the issuance of the permit shall pay the cost of such reviews to the village.

(q) *Section 107.3.1* is deleted and in its place is approved to read as follows:

*107.3.1 Approval of construction documents.* When the building official issues a permit, the construction documents shall be approved, in writing or by stamp, as "reviewed for code compliance." Any omissions or errors on the approved construction documents shall not relieve the applicant of his responsibility to comply with all applicable requirements of this code or the requirements of any other agencies legally having jurisdiction over the project. One set of construction documents so reviewed shall be retained by the building official. At least one set shall be returned to the applicant, shall be kept on the site of work and shall be open to inspection by the building official or his authorized representative.

- (r) *Section 107.3.1.1* is created and approved to read as follows:

*107.3.1.1 Approvals by other governmental agencies.* It shall be the applicant's responsibility to secure approvals from all other governmental agencies, which may have jurisdiction over the project. These agencies include, but are not limited to, the State of Illinois Fire Marshall, Lake County Public Works Department, Lake County Health Department and any other municipal, state, or federal agency legally requiring plan review and approval prior to construction, depending on the requirements for a particular building or structure. Approvals from all such agencies shall be forwarded to the building official before the building permit can be issued.

- (s) *Section 109.2* is deleted and in its place is approved to read as follows:

*109.2 Schedule of permit fees.* On buildings, structures, electrical, gas, mechanical and plumbing systems or alterations requiring a permit, a fee for each permit shall be paid as required in accordance with chapter 25 of the Code of Ordinances of the Village of Vernon Hills. Evidence of an adequate liability and workman's compensation insurance shall be presented as required in chapter 5, article XI.

- (t) *Section 109.4* is deleted and in its place is approved to read as follows:

*109.4 Work commencing before permit issuance.* Any person, firm, corporation or any other entity who commences any work on a building, structure, electrical, gas, mechanical or plumbing system before obtaining the necessary permits shall, upon approval of a permit application, pay a permit fee as specified in Chapter 25, Comprehensive Fees and Penalties.

- (u) *Section 110.3.8* is deleted and in its place is approved to read as follows:

*110.3.8 Other inspections.* In addition to the inspections specified above, the building official is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of the code and

other laws that are enforced by the Building Division of the Community Development Department

- (v) *Section 110.3.11* is created and approved to read as follows:

*110.3.11 As-built surveys.* After construction of the foundation, three (3) copies of an as-built plat of survey prepared and sealed by a State of Illinois Registered Land Surveyor shall be submitted to the building division for review and approval. This survey shall show the location of the foundation on the lot, including distances to the lot lines; the elevations of the top of foundation in reference to USGS datum and the lowest floor elevation as required in Section 1612.5. Upon completion of the work authorized by the building permit and prior to issuance of a certificate of occupancy, a final as-built survey shall be submitted to the building division. This survey shall show the building or structure location on the lot with reference to all lot lines, all recorded easements, top of foundation elevation and the lot's topographical information

- (w) *Section 111.1* is deleted and in its place is approved to read as follows:

*111.1 Certificate of occupancy.* Final and temporary certificates of occupancy shall be issued in accordance with article 21 of the Village of Vernon Hills Zoning Ordinance.

- (x) *Section 113.1* is deleted and in its place is approved to read as follows:

*113.1 General.* Any person shall have the right to appeal a decision of the Building Commissioner. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted there under have been incorrectly interpreted, the provisions of this code do not apply, or an equivalent form of construction is to be used.

A hearing officer appointed by the village manager shall hear the appeals. The hearing officer shall not be an employee of the building division or otherwise be subordinate to the building commissioner.

The Board of Trustees shall have the right to sustain, overrule or modify the decision or interpretation as made by the building commissioner upon recommendation of the hearing officer after a hearing. The board of trustees shall have no authority to waive the requirements of this code, except upon the review of the hearing officers recommendation and a determination that the requested waiver is functionally equivalent to the code and will pose no threat to public health and safety.

- (y) *Section 113.2* is deleted and in its place is approved to read as follows:

*113.2 Limitations on authority.* An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted there under have been incorrectly interpreted, the provisions of this code do not fully apply, or an

equally good or better form on construction is proposed. The board of trustees shall have no authority to waive requirements of this code.

(z) *Section 113.3* is deleted and in its place is approved to read as follows:

*113.3 Qualifications.* The hearing officer shall be qualified by experience and training to pass on matters pertaining to building construction and shall not be an employee of the building division of the community development department.

(aa) *Section 113.4* is created and approved to read as follows:

*113.4 Administration.* The building official shall take immediate action in accordance with the decision of the hearing officer and board of trustees.

(bb) *Section 114.4* is deleted and in its place is approved to read as follows:

*R114.4 Violation penalties:* Any person, firm, corporation or entity who shall violate any of the provisions of this code or shall fail to comply with any of the requirements thereof, or who disobeys, omits, neglects or refuses to comply with, or who resists the enforcement of any provisions of this code, or who shall refuse or neglect to remedy a violation of this code, or who shall erect, construct, alter, repair or occupy a building or structure in violation of an approved plan or directive of the building commissioner, or a permit, or a certificate issued under the provisions of this code, shall be guilty of a misdemeanor, punishable by a fine as specified in Chapter 25, Comprehensive Fees and Penalties. Each day that a violation continues shall be deemed a separate offense. In addition, the corporate authorities of the village may institute an action in any lawful court in the State of Illinois for such additional legal and/or equitable relief as may be deemed fit in accordance with the statutes of the State of Illinois.

(cc) *Section 115.3* is deleted and in its place is approved to read as follows:

*115.3 Unlawful continuance.* Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe conditions, shall be stopped and/or subject to arrest by the police of the village, and charged with a violation of this section and shall be liable for a fine in accordance with section 113.4 or [of] this code.

(dd) *Section 115.4* is created and approved to read as follows:

*115.4 Removal of a stop work order.* The stop work order shall only be removed upon authorization by the building official and only after all conditions for which the stop work order has been issued were corrected and all requirements of this

code were satisfied. Any person who shall remove a stop work order without permission shall be liable for a fine in accordance with section 113.4 of this code.

(ee) *Section 116.1* is deleted and in its place is approved to read as follows:

*116.1 Conditions.* Structures or existing equipment that are or hereafter become unsafe, unsanitary or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or which constitute a fire hazard, or which contain open wells, pits or shafts, equipment with doors operable from one side only, solid debris such as concrete, lumber, wire, steel, glass and similar materials, junk cars or other similar debris, or are otherwise dangerous to human life or the public welfare, or which involve illegal or improper occupancy or inadequate maintenance, shall be taken down and removed or made safe, as the building official deems necessary and as provided for in this section. A vacant structure that is not secured against entry shall be deemed unsafe.

(ff) *Section 116.3* is amended and approved to read as follows:

*116.3 Notice.* If an unsafe condition is found, the building official shall serve on the owner, agent or person in control of the structure, a written notice that describes the condition deemed unsafe and specifies the required repairs or improvements to be made to abate the unsafe condition, or that requires the unsafe structure to be demolished with a stipulated time. Such notice shall require the person thus notified to declare immediately to the building official acceptance or rejection of the terms of the order. If the person thus notified rejects the order, or refuses or is unable to comply with the terms of the order, the building official is hereby authorized to proceed to take such steps and actions as deemed necessary to protect the general public from the immediate unsafe and dangerous conditions, the cost of such work to be borne by the owner of the premises.

Sec. 5-22. Chapter III Use and Occupancy Classification:

(a) *Section 310.7* is created and approved to read as follows:

*310.7 Required dwelling unit and guestroom separation.* Walls and floor separating dwelling units in the same building, or guest rooms in group R-1 hotel occupancies, shall be fire barriers or horizontal assemblies as required by Sections 707 and 711.

Sec. 5-23. Chapter IV Special Detailed Requirements Based on Use and Occupancy.

(a) *Section 402.4.2.1* is deleted and in its place is approved to read as follows:

*402.7.2 Tenant separations.* Each tenant space shall be separated from other tenant spaces by a fire barrier in accordance with section 707. A tenant separation wall is not required between any tenant space and the mall except for occupancy separations required elsewhere in this code.

(b) *Section 402.5* is deleted and in its place is approved to read as follows:

*402.5 Automatic sprinkler system.* The covered mall building and buildings connected shall be provided throughout with an automatic sprinkler system in accordance with section 903.3.1.1, which shall comply with the following:

1. The automatic sprinkler system shall be complete and operative throughout occupied space in the covered mall building prior to occupancy of any of the tenant spaces.
2. Sprinkler protection for the mall shall be independent from that provided for tenant spaces or anchors. Where tenant spaces are supplied by the same system, they shall be independently controlled.
3. Sprinkler protection for the tenant spaces of an open mall building shall be independent from that provided for anchor buildings.
4. Sprinkler protection shall be provided beneath exterior circulation balconies located adjacent to an open mall.
5. Where tenant spaces are supplied by the same systems, they shall be independently controlled.

(c) *Section 402.8.6* is deleted and in its place is approved to read as follows:

*402.8.6 Access to exits.* Where more than one exit is required, they shall be so arranged that it is possible to travel in either direction from any point in a mall to separate exits. The minimum width of an exit passageway or corridor from a mall shall be 66 inches (1,676 mm).

(d) *Section 413.2* is deleted and in its place is approved to read as follows:

*413.2 Attic, under-floor and concealed spaces.* Attic, under-floor and concealed spaces used for storage of combustible materials shall be protected on the storage side as required for one-hour fire-resistant construction. Openings shall be protected by assemblies that are self-closing and are of noncombustible construction or solid wood core not less than 1 3/4 inch (45 mm) in thickness.

*Exception:* Areas protected by approved automatic sprinkler systems.

(e) *Section 415.10.1.8* is deleted and in its place is approved to read as follows:

*415.10.1.8 Electrical.* Electrical equipment and devices within the fabrication area shall comply with the provisions of chapter 5 of the Code of Ordinances of the Village of Vernon Hills. The requirements for hazardous locations need not be applied where the average air change is at least four times that set forth in Section 415.10.1.6 and where the number of air changes at any location is not less than three times that required by Section 415.10.1.6. The use of re-circulated air shall be permitted.

Sec. 5-24. Chapter V General Building Heights and Areas:

(a) *Section 501.2* is deleted and in its place is approved to read as follows:

*501.2 Address Identification.* Approved numbering or addresses shall be provided for new buildings in accordance with chapter 5 of the Code of Ordinances of the Village of Vernon Hills.

(b) *Table 503 ALLOWABLE HEIGHTS AND BUILDING AREAS* is amended by creating a new footnote “c” for types VA and VB construction approved as follows:

*Table 503, footnote “c”:* Buildings of type VA and VB construction shall not be permitted for structures which are more than three stories above the grade plane.

(c) *Section 507.3* is deleted and in its place is approved to read as follows:

*507.3 Sprinklered, one-story.* The area of a one-story, group A-4, B, F, M or S building shall not be limited when the building is provided with an automatic sprinkler system throughout in accordance with Section 903.3.1.1, and is surrounded and adjoined by public ways or yards not less than 60 feet (18 288mm) in width.

Sec. 5-25. Chapter VI Types of construction.

(a) *TABLE 601 FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (hours)* is amended by creating a new footnote “h” for types VA and VB construction approved as follows:

*Table 601, footnote “h”:* Buildings of types VA and VB shall not be permitted for structures which are more than three stories above the grade plane.

(b) *TABLE 601 FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (hours), footnote “b”* is deleted and in its place is approved to read as follows:

*Table 601, footnote “”:* Except in group F-1, H, M and S-1 occupancies and in buildings of type VA and VB construction which are more than three stories above the grade plane, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof

construction is 20 feet or more above any floor immediately below. Fire retardant treated wood members shall be allowed to be used for such unprotected members.

(c) *Section 602.3* is deleted and in its place is approved to read as follows:

*602.3 Type III.* Type III construction are those types of construction in which the exterior walls are of noncombustible materials and the interior building elements are of any material permitted by this code.

(d) *Section 603.1* is deleted and in its place is approved to read as follows:

*603.1 Allowable materials.* Combustible materials are permitted in buildings of type I and type II construction in the following applications:

1. Thermal and acoustical insulations, other than foam plastics, having a flame spread index of not more than 25.

*Exceptions:*

a. Insulation placed between two layers of noncombustible materials without an intervening air space shall be allowed to have a flame spread index of not more than 100.

b. Insulation installed between a finished floor and solid decking without intervening air space shall be allowed to have a flame spread index of not more than 200.

2. Foam plastics in accordance with chapter 26.

3. Roof coverings that have an A, B or C classification.

4. Interior floor finish and interior finish, trim and millwork such as doors, doorframes, window sashes and frames.

5. Finish flooring applied directly to the floor slab or to wood sleepers that are fire stopped in accordance with Section 804.

6. Platforms as permitted in Section 410.

7. Materials complying with section 602 of the International Mechanical Code.

8. Combustible exterior wall coverings, balconies, bay or oriel windows, or similar appendages in accordance with chapter 14.

9. Blocking such as for handrails, millwork, cabinets, and window and doorframes.

10. Light-transmitting plastics as permitted by Chapter 26.

11. Mastics and caulking materials applied to provide flexible seals between components of exterior wall construction.
12. Exterior plastic veneer installed in accordance with section 2605.
13. Nailing or furring strips as permitted by section 803.11.
14. Heavy timber as permitted by note C, item 2, to table 601 and sections 602.4.7 and 1406.3.
15. Aggregates, component materials and admixtures as permitted by section 703.2.2.
16. Sprayed cementations and mineral fiber fire-resistance-rated materials.
17. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with section 711.
18. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 712.
19. Materials allowed in the concealed spaces of buildings of Types I and II construction.

Sec. 5-26. Chapter VII Fire-Resistance-Rated Construction

- (a) *Section 706.3* is deleted and in its place is approved to read as follows:

*706.3 Materials.* Firewalls shall be of concrete or masonry construction.

- (b) *Section 706.3.11* is created and approved to read as follows:

*706.3.11 Separation of tenant spaces:* The fire barrier separating tenant spaces shall have a fire-resistance rating of not less than one hour.

- (c) *Section 706.3.12* is created and approved to read as follows:

*706.3.12 Separation of dwelling units or guestrooms:* The fire barrier separating dwelling units or guest rooms shall be of masonry or masonry-like materials and shall have a fire-resistance rating of not less than two hours.

- (d) *Section 706.3.13* is created and approved to read as follows:

*706.3.13 Separation of dwelling units or guestrooms from corridors:* A fire barrier separating dwelling units or guest rooms from a corridor shall have a fire-resistance rating of not less than one hour.

- (e) *Section 708.3* is deleted and in its place is approved to read as follows:

*708.3 Fire-resistance rating.* The fire-resistance rating of the walls shall be one hour.

*Exception:* Corridor walls as permitted by table 1018.1.

- (f) *Section 711.2* is deleted and in its place is approved to read as follows:

*711.2 Materials.* The floor and roof assemblies shall be of materials permitted by the building type of construction.

*Exception:* The floor assembly separating dwelling units or guestrooms shall be of concrete construction.

- (g) *Section 711.3* is deleted and in its place is approved to read as follows:

*711.3 Fire-resistance rating.* The fire-resistance rating of floor and roof assemblies shall not be less than that required by the building type of construction. Where the floor assembly separates occupancies, or separates a single occupancy into different fire areas, or separates dwelling units or guestrooms, the assembly shall have a fire-resistance rating of not less than that required by section 302.3.3 based on the occupancies separated.

- (h) *Section 718.2.1* is deleted and in its place is approved to read as follows:

*718.2.1 Fireblocking materials.* Fireblocking shall consist of 2-inch (51 mm) nominal lumber, or two thicknesses of one-inch (25.4 mm) nominal lumber with broken lap joints, or one thickness of 23/32-inch (19.8 mm) wood structural panels with joints backed by 23/32-inch (19.8 mm) wood structural panels or one thickness of 3/4-inch (19.1 mm) particleboard with joints backed by 3/4-inch (19.1 mm) particleboard, 1/2-inch (12.7 mm) gypsum board, or 1/4-inch (6.4 mm) cement-based millboard. Under certain conditions and when securely retained in place, unfaced batts or blankets of mineral wool insulation, or other approved materials may be used when approved by the building commissioner.

- (i) *Section 718.2.1.5* is deleted and in its place is approved to read as follows:

*718.2.1.5 Double stud walls.* Batts or blankets of mineral or other approved non-rigid materials shall be allowed as fireblocking in walls constructed using parallel rows of studs or staggered studs. Batts or blankets of glass fiber may be used when approved by the building commissioner.

.Sec. 5-27. Chapter IX Fire Protection Systems:

- (a) *Section 903.1.1* is deleted and in its place is approved to read as follows:

*903.1.1 Alternative protection.* Alternative automatic fire extinguishing systems complying with section 904 may be permitted in lieu of automatic sprinkler protection where recognized by the applicable standard and approved by the code official.

(b) *Section 903.2* is deleted and in its place is approved to read as follows:

*903.2 Where required.* Approved automatic sprinkler systems in new buildings and structures shall be provided in all use groups described in this code that exceeds 1,000 square feet.

Exception: Real estate sales and construction trailers utilized during the development of property when approved by the code official.

- (c) *Section 903.2.1 Group A* is deleted.
- (d) *Section 903.2.1.1 Group A-1* is deleted.
- (e) *Section 903.2.1.2 Group A-2* is deleted
- (f) *Section 903.2.1.3 Group A-3* is deleted.
- (g) *Section 903.2.1.4 Group A-4* is deleted.
- (h) *Section 903.2.1.5 Group A-5* is deleted.
- (i) *Section 903.2.2 Ambulatory care facilities* is deleted
- (j) *Section 903.2.3 Group E* is deleted.
- (k) *Section 903.2.4 Group F-1* is deleted.
- (l) *Section 903.2.4.1 Woodworking operations* is deleted.
- (m) *Section 903.2.7 Group M* is deleted.
- (n) *Section 903.2.7.1 high piled storage* is deleted.
- (o) *Section 903.2.8 Group R* is deleted.
- (p) *Section 903.2.9 Group S-1* is deleted.
- (q) *Section 903.2.9.1 Repair garages* is deleted.
- (r) *Section 903.2.10 Group S-2* is deleted.
- (s) *Section 903.2.10.1 Commercial parking garages* is deleted.

(t) *Section 903.2.11.1* is deleted and in its place is approved to read as follows:

*903.2.11.1 Stories and basements without openings.* An automatic sprinkler system shall be installed throughout every story or basement of all buildings where the floor area exceeds 1,000 square feet and where there is not provided at least one of the following types of exterior wall openings.

1. Openings below grade that lead directly to ground level by an exterior stairway complying with section 100.3.3 of an outside ramp complying with section 1003.3.4. Openings shall be located in each 50 linear feet, or fraction thereof, of exterior wall in the story on at least one side.
2. Openings entirely above the adjoining ground level totaling at least 20 square feet in each 50 linear feet, or fraction thereof, of exterior wall in the story on at least one side.

(u) *Section 903.6* is created and is approved to read as follows:

*903.6 Existing buildings.* If the alteration costs 50 percent or more of the reproduction cost of the building or structure, the entire building or structure shall comply with the requirements of new construction as defined in this code. For the purpose of calculating percentages of reproduction cost, the cost of alteration shall be construed as the total actual combined cost of all alterations made within any period of 30 months.

(v) *Section 905.3.1* is deleted and in its place is approved to read as follows:

*905.3.1 Height.* Class III standpipe systems shall be installed throughout all building or structures more than two stories in height.

*Exceptions:*

1. Class I standpipes are allowed in buildings equipped with an automatic sprinkler system in accordance with section 903.1.1 or 903.1.2.
2. Class I manual standpipes are allowed in open parking garages where the highest floor is located not more than 150 feet (45,720mm) above the lowest level of fire department vehicle access.
3. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures.
4. Class I standpipes are allowed in basements equipped throughout with an automatic sprinkler system.

(w) *Section 905.11* is created and is approved to read as follows:

*905.12 Piping design.* The riser piping, supply piping and the water service piping shall be sized to maintain a residual pressure of at least 65 psi (448kPa) at the topmost outlet of each riser while flowing the minimum quantities of water

specified in section 905.11.1 and 905.11.2. The pipe size shall be based on the capacity of the automatic water supply system or, where an automatic water supply is neither required nor provided to maintain the residual pressure of 65 psi (448 kPa), the pipe size shall be based on a pressure of 150 psi (1034 kPa) available at the fire department connection.

*Exception:* The residual pressure of 65 psi (448 kPa) is not required in buildings equipped throughout with an automatic sprinkler system in accordance with section 903.3. and where the highest floor level is not more than 150 ft. (45720 mm) above the lowest level of fire department vehicle access.

(x) *Section 905.11.1* is created and is approved to read as follows:

*905.12.1 Riser sizing.* The riser size shall be based on the hydraulic calculations for a minimum flow of 500 gallons per minute (gpm) (1892L/min.).

*Exceptions:*

1. Where only 1 1/2-inch valves are provided, the riser(s) shall be sized to provide a minimum flow of 100 gpm (378 L/min.).
2. In buildings where limited area sprinkler systems are supplied with water from a common standpipe riser, the riser shall be sized to satisfy total demand.
3. For occupancies use group B, I, R1, or R2 in buildings that equipped throughout with an automatic sprinkler system in accordance with section 903.3, each riser shall be sized for a minimum flow of 250 gpm (945 L/min.).
4. Risers that are sized in accordance with the pipe schedule requirements of NFPA 14 listed in chapter 35 are not subject to this requirement.

(y) *Section 905.11.2 system pipe sizing* is created and is approved to read as follows:

*905.12.2 System pipe sizing.* The system piping, including the horizontal or common feeder lines, shall be sized for a minimum flow of 500 gpm (1892 L/min.). Where more than one standpipe riser is required or provided, all common system piping shall be sized for a minimum flow of 500 gpm (1892 L/min.) for the first riser plus 250 gpm (945 L/min.) for each additional riser, and the total shall not be required to exceed 1,250 gpm (4731 L/min.).

*Exceptions:*

1. Where only 1 1/2-inch valves are provided, the supply piping shall be sized for a minimum flow of 100 gpm (378 L/min.) for each riser, and the total shall not be required to exceed 500 gpm (1892 L/min.).
2. In buildings where limited area sprinkler systems are supplied with water from a common standpipe riser, the supply piping shall be sized for a minimum flow of 500 gpm (1,892 L/min.) plus the sprinkler demand for first riser, plus 250 gpm (945 L/min.) for each additional riser, and the total shall be required to exceed 1,250 gpm (4,731 L/min.).

3. For occupancies in use group B, I, R-1, or R-2 in buildings that are equipped throughout with an automatic sprinkler system in accordance with section 903.3, all common supply piping shall be sized for a minimum flow of 250 gpm (945 L/min.) for the first riser plus 250 gpm (945 L/min.) for each additional riser, and the total shall not be required to exceed 750 gpm (2,838 L/min.).

(z) *Section 906.1* is deleted and in its place is approved to read as follows:

*906.1 Where required.* Portable fire extinguishers shall be installed in the following locations.

1. In group A, B, E, F, H, I, M, R-1, R-2, and S occupancies.
2. Within 30 feet (9,144 mm) of commercial cooking equipment.
3. In areas where flammable or combustible liquids are stored, used or dispensed.
4. On each floor of structures under construction, except Group R-3 occupancies, in accordance with section 1414.1.
5. Where required by the sections indicated in table 906.1.
6. Special-hazard areas, including but not limited to laboratories, computer rooms, and generator rooms where required by the code official.

(aa) *Section 907.2* is deleted and in its place is approved to read as follows:

*907.2 Where required – New Buildings and Structures.* An approved manual, automatic, or manual and automatic fire alarm system shall be provided in new or existing buildings and structures in accordance with sections 907.2.1 through 907.2.23 and provide occupant notification in accordance with section 907.5. Where automatic sprinkler protection installed in accordance with section 903.1.1 or 903.1.2 is provided and connected to the building fire alarm system, automatic heat detection required by this section shall not be required.

An approved automatic fire detection system shall be installed in accordance with the provisions of this code and NFPA 72. Devices, combinations of devices, appliances and equipment shall comply with section 907.1.2. The automatic fire detectors shall be smoke detectors, except that an approved alternative type of detector shall be installed in spaces such as boiler rooms where, during normal operation, products of combustion are present in sufficient quantity to actuate a smoke detector. If the alteration costs 50 percent or more of the reproduction cost of the building or structure, the entire building or structure shall comply with the requirements of new construction as defined in this code. For the purpose of

calculating percentages of reproduction cost, the cost of alteration shall be construed as the total actual combined cost of all alterations made within any period of 30 months.

(bb) *Section 907.2.1* is deleted and in its place is approved to read as follows:

*907.2.1 Group A.* A manual fire alarm system shall be installed in accordance with NFPA 72 in group A occupancies.

(cc) *Section 907.2.1.3* is created and is approved to read as follows:

*907.2.1.3 Group A-2:* An automatic fire alarm detection system shall be installed in accordance with NFPA 72 in group A-2 occupancies that have an occupant load of 50 or more persons.

(dd) *Section 907.2.2* is deleted and in its place is approved to read as follows:

*907.2.2 Group B.* A manual fire alarm system shall be installed in accordance with NFPA 72 in group B occupancies.

(ee) *Section 907.2.3* is deleted and in its place is approved to read as follows:

*907.2.3 Group E.* A manual fire alarm system shall be installed in group E occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

(ff) *Section 907.2.4* is deleted and in its place is approved to read as follows:

*907.2.4 Group F.* A manual fire alarm system shall be installed in accordance with NFPA 72 in group F occupancies.

(gg) *Section 907.2.6* is deleted and in its place is approved to read as follows:

*907.2.6 Group I.* A manual fire alarm fire system and an automatic fire detection system shall be installed in group I occupancies. An electrically supervised, automatic smoke detection system shall be provided in waiting areas that are open to corridors.

(hh) *907.2.6.3* is deleted and in its place is approved to read as follows:

*907.2.6.3 Group I-3 Occupancies* All required fire protective signaling systems shall transmit alarm, supervisory and trouble signals to the main dispatch center for the fire district in accordance with NFPA 72 by one of the methods listed in [section] 907.15 of this code.

*Exceptions:*

1. Smoke detectors in buildings of group R-3 and R-4 not including common areas and attics.
2. Single-station smoke detectors as required by [section] 907.2.9.
3. Smoke detectors in building group I-3.
4. Smoke detectors in patient sleeping areas of group I-2.

(ii) *Section 907.2.7* is deleted and in its place is approved to read as follows:

*907.2.7 Groups M and S.* A manual fire alarm system shall be installed in accordance with NFPA 72 in group[s] M and S occupancies.

(jj) *Section 907.2.8* is deleted and in its place is approved to read as follows:

*907.2.8 Group R-1.* A manual fire alarm system and an automatic fire detection system shall be installed in group R-1 occupancies.

*Exceptions:*

1. A manual fire alarm system is not required in buildings over two stories in height where all individual guestrooms and contiguous attic and crawl spaces are separated by at least one-hour fire partitions and each individual guestroom has an exit directly to a public way, exit court or yard.
2. An automatic fire detection system is not required in buildings that do not have interior corridors serving guestrooms and where guestrooms have a means of egress door opening directly to an exterior exit access that leads directly to the exits.
3. A separate fire alarm detection system is not required in buildings that are equipped throughout with an approved supervised automatic sprinkler system and a manual fire alarm system.

(kk) *Section 907.2.9* is deleted and in its place is approved to read as follows:

*907.2.9 Group R-2.* A manual and an automatic fire detection system shall be installed and maintained in common areas in all occupancies in use group R-2 such as corridors, hallways, stairwell, boiler or furnace rooms, laundry rooms, community rooms, meeting rooms, offices, attics and all other similar common areas within buildings. The automatic fire detection system must include occupant notification.

(ll) *Section 907.2.11.4* is deleted and in its place is approved to read as follows:

*907.2.11.4 Power source.* In new construction, required smoke alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for over-current protection.

Exceptions:

1. Smoke alarms are not required to be equipped with battery backup in group R-1 where they are connected to an emergency electrical system.
2. Group R-3 smoke alarms are to be 120 volt with a battery backup.

(mm) *Section 907.3.1* is deleted and in its place is approved to reads as follows:

*907.3.1 Duct smoke detectors.* Duct smoke detectors shall be connected to the building's fire alarm control panel when a fire alarm system is provided. Activation of a duct smoke detector shall initiate a trouble signal at a constantly attended location. Duct smoke detectors shall not be used as a substitute for required open area detection.

(nn) *Section 907.4.2* is deleted and in its place is approved to read as follows:

*907.4.2 Manual fire alarm boxes.* Manual fire alarm boxes shall be installed in each use group described in this code; they shall be installed in accordance with sections 907.3.1 through 907.3.5.

(oo) *Section 907.5.2.1* is deleted and in its place is approved to read as follows:

*907.5.2.1 Audible Alarms.* Audible alarm notification appliances shall be provided and sound a distinctive sound that is not used to be used for any purpose other than that of a fire alarm. The audible alarm notification appliances shall provide a sound pressure level of 15 decibels (dBA) above the average ambient sound level or 5dBA above the maximum sound level having duration of at least 60 seconds, whichever is greater, in every space within the building. The minimum sound pressure levels shall be: 70 dBA in occupancies in group[s] R and I-1; 90 dBA in mechanical equipment rooms; and 60 dBA in other occupancies. The maximum sound pressure level for audible alarm notification appliances shall be 120 dBA at the minimum hearing distance from the audible appliance. Where the average ambient noise is greater that 105 dBA, visible alarm notification appliances shall be provided in accordance with NFPA 72 and audio alarm appliances shall not be required.

Exception: Visible alarm notification appliances shall be allowed in lieu of audible alarm notification appliances in critical care areas of group I-2 occupancies.

(pp) *Section 907.5.2.3* is deleted and in its place is approved to read as follows:

*907.5.2.3 Visible Alarms.* Visible alarm notification appliances shall be provided in accordance with sections 907.9.1.1 through 907.9.1.3.

(qq) *Section 907.6.5 Monitoring* is deleted and in its place is approved to read as follows:

*907.6.5 Monitoring.* All required fire protective-signaling systems shall transmit alarm, supervisory and trouble signals to the main dispatch center for Countryside Fire District and shall transmit alarm and trouble signals to the main dispatch center for Lincolnshire/Riverwoods Fire District in accordance with NFIPA [NFPA] 72.

*Exceptions:*

1. Smoke detectors in buildings of use group[s] R-3 and R-4 not including common areas and attics.
2. Single-station smoke detectors as required by section 910.0.
3. Smoke detectors in buildings of use group 1-3 (see section 918.7.1).
4. Smoke detectors in patient sleeping rooms in buildings of use group 1-2.

Sec. 5-28. Chapter X Means of Egress:

(a) *Section 1006.3* is deleted and in its place is approved to read as follows:

*1006.3 Illumination emergency power.* The power supply for means of egress illumination shall normally be provided by the premise's electrical supply. In the event of power supply failure, an emergency system shall automatically illuminate all of the following areas:

1. Exit access corridors, passageways, and aisles in rooms and spaces.
2. Exit access corridors and exit stairways located in a building.
3. Interior exit discharge elements, as permitted in section 1006.1, in a building.
4. The portion of the exterior exit discharge immediately adjacent to the exit discharge doorways in a building.
5. Public restrooms.

The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with chapter 5, article X of the Code of Ordinances of the Village of Vernon Hills.

(b) *Section 1008.1.6* is deleted and in its place is approved to read as follows:

*1008.1.6 Landings at doors.* Landings shall have a width not less than the width of the stairway or the width of the door, whichever is the greater. Doors in the fully open position shall not reduce a required dimension by more than seven inches (178 mm). When a landing serves an occupant load of 50 or more, doors in any position shall not reduce the landing to less than one-half its required width. Landings shall have a length measured in the direction of travel of not less than

44 inches (118 mm). Exterior landings or stoops shall be reinforced to span between the supports and adequately support the imposed loads. They shall be supported on full foundations or reinforced wing walls properly designed to support the imposed loads.

Exception: Landing length in the direction of travel in group R-3 and group U and within individual unit of group R-2 may be 36 inches (914 mm).

(c) *Section 1008.1.9.3* is deleted and in its place is approved to read as follows:

*1008.1.9.3 Locks and latches.* Egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort.

Exceptions:

1. Places of detention or restraint.
2. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware. The unlatching of any leaf shall not require more than one operation.
3. Doors from individual dwelling units and guest rooms of group R occupancies having an occupant load of ten or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside with the use of a key or tool.

(d) *Section 1011.6.1* is deleted and in its place is approved to read as follows:

*1011.6.1 Graphics.* Every exit sign and directional exit sign shall have plainly legible letters, red in color, not less than six inches (142 mm) high with the principal strokes of the letters not less than 0.75 inch (19.1 mm) wide. The word "EXIT" shall have letters having a width not less than two inches (51 mm) wide except the letter "I", and the minimum spacing between letters shall not be less than 0.375 inch (9.5 mm). Signs larger than the minimum established in this section shall have letter widths, strokes and spacing in proportion to their height. The word "EXIT" shall be in high contrast with the background and shall be clearly discernible when the exit sign illumination means is or is not energized. If an arrow is provided as part of the exit sign, it shall be red in color and the construction shall be such that the arrow direction cannot be readily changed.

(e) *Section 1011.6.2* is deleted and in its place is approved to read as follows:

*1011.6.2 Exit sign illumination.* Exit signs shall be internally illuminated. The face of an internally illuminated exit sign shall have an intensity of not less than five foot-candles (54 lux).

Exception: Tactile signs required by section 1003.2.10.3 need not be provided with illumination.

(f) *Section 1011.6.3* is deleted and in its place is approved to read as follows:

*1011.6.3 Power source.* Exit signs shall be illuminated at all times. To ensure continued illumination for duration of not less than 90 minutes in case of primary power loss, the exit signs shall be connected to an emergency electrical system provided from storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with chapter 5, article X of the Code of Ordinances of the Village of Vernon Hills.

Exceptions:

1. Approved self-luminous exit signs that provide evenly illuminated letters shall have a minimum luminance of .06 foot-lamberts (.21 cd/m<sup>2</sup> )
2. Tactile signs required by section 1003.2.10.3 need not be provided with illumination.

(g) *Section 1013.6* is deleted and in its place is approved to read as follows:

*1013.6 Mechanical equipment.* Guards shall be provided where appliances, equipment, fans or other components that require service are located within 10 feet (3,048 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 18 inches (457 mm) above the floor, roof or grade below. The guard shall be constructed so as to prevent the passage of a 21-inch-diameter (522 mm) sphere.

(h) *Section 1029.5.3* is created and approved to read as follows:

*1029.5.3 Protective covers.* All window wells shall have a protective cover to prevent people and animals from falling into the well.

Sec. 5-29. Chapter XI, Accessibility:

*Section 1101.2* is deleted and in its place is approved to read as follows:

*1101.2 Design.* Buildings and facilities shall be designed and constructed to be accessible in accordance with this code, ICC/ANSI A117.1 and the requirements contained in the current State of Illinois Accessibility Code, Illinois 70 Administrative Code, Part 400, as amended. The State of Illinois Accessibility Code shall supersede any conflicting requirement in this code or ICC/ANSI A117.1.

Sec. 5-30. Chapter XII, Interior Environment:

(a) *Section 1205.4.1* is deleted and in its place is approved to read as follows:

*1205.4.1 Controls.* The control for activation of the required stairway lighting shall be in accordance with chapter 5, article X of the Code of Ordinances of the Village of Vernon Hills.

- (b) *Section 1209.1* is deleted and in its place is approved to read as follows:

*1209.1 Crawl spaces.* Crawl spaces shall be provided with a minimum of one access opening not less than 22 inches by 36 inches (559 mm by 914 mm).

- (c) *Section 1209.2* is deleted and in its place is approved to read as follows:

*1209.2 Attic spaces.* An opening not less than 22 inches by 36 inches (559 mm by 914 mm) shall be provided to any attic area having a clear height of over 30 inches (762 mm). A 30-inch (762-mm) minimum clear headroom in the attic space shall be provided at or above the access opening.

Sec. 5-31. Chapter XIV, Exterior Walls:

- (a) *Section 1404.5.1* is deleted.

- (b) *Section 1404.9* is deleted.

- (c) *Section 1405.11.4* is deleted and in its place is approved to read as follows:

*1405.11.4 Grounding.* Grounding of metal veneers on building shall comply with the requirements of chapter 5, article X of the Code of Ordinances of the Village of Vernon Hills.

- (d) *Section 1405.14* is deleted.

Sec. 5-32. Chapter XV, Roof Assemblies and Rooftop Structures:

- (a) *Section 1503.4* is deleted and in its place is approved to read as follows:

*1503.4 Roof Drainage.* Design and installation of roof drainage systems shall comply with chapter 5, article V of the Code of Ordinances of the Village of Vernon Hills and section 1107 of the International Plumbing Code (IPC).

- (b) *Section 1505.3* is deleted.

- (c) *Section 1505.4* is deleted.

- (d) *Section 1507.2* is deleted and in its place is approved to read as follows:

*1507.2 Asphalt shingles.* Asphalt singles shall be of the random tab, 30-year, architectural-profile type. The installation of asphalt singles shall comply with the provisions of this section.

- (e) *Section 1507.2.8.2* is amended and approved to read as follows:

*1507.2.8.2 Ice Barrier.* An ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet, shall be used in lieu of normal underlayment and extend from the eave's edge to a point at least 24 inches (610 mm) inside the exterior wall line of the building.

(f) *Section 1507.2.9.2* is deleted and in its place is approved to read as follows:

*1507.2.9.2 Valleys.* An ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet shall be used in lieu of normal underlayment and shall extend from the valley's eave end to a point at least 72 inches (1,828 mm) inside the exterior wall line of the building. Valley linings shall be installed in accordance with the manufacturer's installation instructions before applying shingles. Valley linings of the following types shall be permitted:

1. For open valleys (valley lining exposed) lined with metal, the valley lining shall be at least 16 inches (406 mm) wide and of any of the corrosion-resistant metals in table 1507.2.9.2.
2. For open valleys, valley lining of two plies of mineral surface roof roofing shall be permitted. The bottom layer shall be 18 inches (457 mm) and the top layer a minimum of 36 inches (914 mm) wide.
3. For closed valleys (valley covered with shingles), valley lining of one ply of smooth roof roofing complying with ASTM D 224 and at least 36 inches (914 mm) wide or types (1) and (2) above shall be permitted. Specialty underlayment shall comply with ASTM D 1970.

(g) *Section 1507.3.3* is deleted and in its place is approved to read as follows:

*1507.3.3 Underlayment.* Unless otherwise noted, required underlayment shall conform with ASTM D 226, type II; ASTM D 2626, or ASTM D 249, type I mineral-surfaced roof roofing. An ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet, shall be used in lieu of normal underlayment and extend from the eave's edge to a point at least 24 inches (610 mm) inside the exterior wall line of the building.

(h) *Section 1507.3.9* is deleted and in its place is approved to read as follows:

*1507.3.9 Flashing.* At the juncture of the roof and vertical surfaces, flashing and counter-flashing shall be provided in accordance with the manufacturer's installation instructions, and where of metal, shall not be less than 0.019-inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion-resistant metal. The valley

flashing shall extend at least 11 inches (279 mm) from the centerline each way and have a splash diverter rib not less than one inch (25.4 mm) high at the flow line formed as part of the flashing. Sections of flashing shall have an end lap of not less than four inches (102 mm). For roof slopes of three units vertical in 12 units horizontal (24 percent slope) and over, the valley flashing shall have a 36-inch-wide (914 mm) underlayment. An ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet shall be used in lieu of normal underlayment and shall extend the entire length of the valley. The metal valley flashing underlayment shall be solid cemented to the ice barrier for slopes under seven units vertical in 12 units horizontal (58 percent slope).

- (i) *Section 1507.5.3* is deleted and in its place is approved to read as follows:

*1507.5.3 Underlayment.* Underlayment shall conform to ASTM D226, type I. An ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet, shall be used in lieu of normal underlayment and extend from the eave's edge to a point at least 24 inches (610 mm) inside the exterior wall line of the building.

- (j) *Section 1507.5.7* is deleted and in its place is approved to read as follows:

*1507.5.7 Flashing.* Roof valley flashing shall be provided of corrosion-resistant metal of the same material as the roof covering or shall comply with the standards in table 1507.4.3. The valley flashing shall extend at least 8 inches (203 mm) from the centerline each way and shall have a splash diverter rib not less than 0.75 inch (19.1 mm) high at the flow line formed as part of the flashing. Sections of flashing shall have an end lap of not less than four inches (102 mm). A minimum 36-inch-wide (914 mm) ice barrier that consists of at least two layers of underlayment cemented together or of self-adhering polymer modified bitumen sheet shall be used in lieu of normal underlayment and shall extend the entire length of the valley. The metal valley flashing underlayment shall be solid cemented to the ice barrier for roof slopes under seven units vertical in 12 units horizontal (58 percent slope).

- (k) *Section 1507.7.3* is deleted and in its place is approved to read as follows:

*1507.7.3 Underlayment.* Underlayment shall conform to ASTM D226, type I. An ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet, shall be used in lieu of normal underlayment and extend from the eave's edge to a point at least 24 inches (610 mm) inside the exterior wall line of the building.

- (l) *Section 1507.7.7* is deleted and in its place is approved to read as follows:

*1507.7.7 Flashing.* Flashing and counter flashing shall be made with sheet metal. Valley flashing shall be a minimum of 15 inches (381 mm) wide. Valley and flashing metal shall be a minimum uncoated thickness of 0.0179-inch (0.455 mm) zinc-coated thickness of 0.0179-inch (0.455 mm) zinc-coated G90. Chimneys, stucco or brick walls shall have a minimum of two plies of felt for a cap flashing consisting of a four-inch-wide (102 mm) strip of felt set in plastic cement and extending one inch (25.4 mm) above the first felt and a top coating of plastic cement. The felt shall extend over the base flashing two inches (51 mm). A minimum 36-inch-wide (914 mm) ice barrier that consists of at least two layers of underlayment cemented together or of self-adhering polymer modified bitumen sheet shall be used in lieu of normal underlayment and shall extend the entire length of the valley. The metal valley flashing underlayment shall be solid cemented to the ice barrier for roof slopes under seven units vertical in 12 units horizontal (58 percent slope).

- (m) *Section 1507.8.3* is deleted and in its place is approved to read as follows:

*1507.8.3 Underlayment.* Underlayment shall conform to ASTM D226, type I. An ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet, shall be used in lieu of normal underlayment and extend from the eave's edge to a point at least 24 inches (610 mm) inside the exterior wall line of the building.

- (n) *Section 1507.8.8* is deleted and in its place is approved to read as follows:

*1507.8.8 Flashing.* At the juncture of the roof and vertical surfaces, flashing and counter-flashing shall be provided in accordance with the manufacturer's installation instructions, and where of metal, shall not be less than 0.019-inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion-resistant metal. The valley flashing shall extend at least 11 inches (279 mm) from the centerline each way and have a splash diverter rib not less than one inch (25.4 mm) high at the flow line formed as part of the flashing. Sections of flashing shall have an end lap of not less than four inches (102 mm). For roof slopes of three units vertical in 12 units horizontal (24 percent slope) and over, the valley flashing shall have a 36-inch-wide (914 mm) underlayment. An ice barrier that consists of at least two layers of underlayment cemented together or of self-adhering polymer modified bitumen sheet shall be used in lieu of normal underlayment and shall extend the entire length of the valley. The metal valley flashing underlayment shall be solid cemented to the ice barrier for slopes under seven units vertical in 12 units horizontal (58 percent slope).

- (o) *Section 1507.9.3* is deleted and in its place is approved to read as follows:

*1507.9.3 Underlayment.* Underlayment shall conform to ASTM D226, type I. An ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet, shall be used in lieu of

normal underlayment and extend from the eave's edge to a point at least 24 inches (610 mm) inside the exterior wall line of the building.

(p) *Section 1507.9.9* is deleted and in its place is approved to read as follows:

*1507.9.9 Flashing.* At the juncture of the roof and vertical surfaces, flashing and counter-flashing shall be provided in accordance with the manufacturer's installation instructions, and where of metal, shall not be less than 0.019-inch (0.48 mm) (No.26 galvanized sheet gage) corrosion-resistant metal. The valley flashing shall extend at least 11 inches (279 mm) from the centerline each way and have a splash diverter rib not less than one inch (25.4 mm) high at the flow line formed as part of the flashing. Sections of flashing shall have an end lap of not less than four inches (102 mm). For roof slopes of three units vertical in 12 units horizontal (24 percent slope) and over, the valley flashing shall have a 36-inch-wide (914 mm) underlayment. An ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet shall be used in lieu of normal underlayment and shall extend the entire length of the valley. The metal valley flashing underlayment shall be solid cemented to the ice barrier for slopes under seven units vertical in 12 units horizontal (58 percent slope).

Sec. 5-33. Chapter XVI, Structural Design:

*Section 1608.2* is deleted and in its place is approved to read as follows:

*1608.2 Ground snow loads.* Ground snow load,  $P_g$ , to be utilized in determining the design snow load for roofs shall be 30 psf (1436 Pa).

Sec. 5-34. Chapter XVIII, Soils and Foundations:

(a) *Section 1805.1.3* is deleted.

(b) *Section 1805.4.3* is deleted and in its place is approved to read as follows:

*1805.4.3 Drainage discharge.* The floor base and foundation perimeter drain shall discharge by gravity or mechanical means into an approved drainage system that complies with chapter 5, article V of the Code of Ordinances of the Village of Vernon Hills.

*Exception:* Where a site is located in well-drained gravel or sand/gravel mixture soils, a dedicated drainage system is not required.

(c) *Section 1807.1* is deleted and in its place is approved to read as follows:

*1807.1 Foundation walls.* Concrete foundation walls shall be designed in accordance with chapter 19. A minimum of two # 4 reinforcement bars shall be

placed continuously at the top and bottom of all concrete foundation walls unless provided otherwise by a structural design.

- (d) *Section 1807.1.4* is deleted.
- (e) *Section 1809.9* is deleted.
- (f) *Section 1809.12* is deleted.
- (g) *Section 1811* is created and approved to read as follows:

*1811 Design:* A minimum of two #4 reinforcement bars shall be placed continuously at top and bottom of all concrete foundation walls unless provided otherwise by a structural design.

Sec. 5-35 Chapter XXIII Wood:

- (a) *Section 2303.8* is created and approved to read as follows:

*2303.8 Protection:* When light weight metal or engineered wood structural members are used in floor and ceiling assemblies, they shall be protected by one of the following methods:

1. 1/2" gypsum board, taped, with openings limited to heat registers and light fixtures.
2. Suspended ceiling listed by an approved agency as a component of a one-hour fire rated assembly.
3. An approved automatic sprinkler system (see Section 906.0 and Sec. 907.0).

- (b) *Section 2308.9.2.3* is deleted and in its place is approved to read as follows:

*2308.9.2.3 Nonbearing walls and partitions:* In nonbearing walls and partitions, studs shall be spaced not more than 24" o.c. and are permitted to be set with the long dimension parallel to the wall. Interior nonbearing partitions shall be capped with no less than a double wall plate designed to provide overlapping at corners and at intersections with other walls and partitions.

- (c) *Section 2309* is created and approved to read as follows:

*2309 Flooring material limitations:* An underlayment of 1/4-inch minimum thickness or 1 1/2 inches (38 mm) of approved cellular or lightweight concrete shall be installed over floor sheathing under all types of floor covering.

*Exceptions:*

1. Finish floor of 3/4-inch wood strip.

2. Plywood combination sub-floor underlayment is used under a finish floor.

Sec. 5-36. Chapter XXVII Electrical:

- (a) *Chapter 27 Electrical* is deleted.

Sec. 5-37. Chapter XXIX Plumbing Systems:

- (a) *Chapter 29 Plumbing* is deleted.

Sec. 5-38. Chapter XXX Elevators and Conveying Systems:

- (a) *Section 3002.4* is amended and approved to read as follows:

*3002.4 Elevator car to accommodate ambulance stretcher.* In buildings three stories in height or more, at least one elevator shall be provided for fire department emergency access to all floors. Such elevator car shall be of such a size and arrangement to accommodate a 24-inch by 84-inch (610 mm by 2134 mm) ambulance stretcher in the horizontal, open position and shall be identified by the international symbol for emergency medical services (star of life). The symbol shall not be less than three inches (76 mm) high and shall be placed inside on both sides of the hoist way doorframe.

Sec. 5-39 Chapter XXXI Special Construction:

- (a) *Section 3102.0 Membrane Structures* is deleted.
- (b) *Section 3107.0 Signs* is deleted.

Sec. 5-40. Chapter XXXIII Safeguards During Construction.

- (a) *Section 3308.1* is deleted and in its place is approved to read as follows:

*3308.1 Storage and handling of materials.* The temporary use of streets or public property for the storage or handling of materials or of equipment required for construction or demolition, and the protection provided to the public shall comply with the provisions of the authority having jurisdiction and this chapter. All curbs, gutters, public sidewalks and the public parkways shall be protected by planks, dirt or other suitable approved materials before trucks, heavy equipment or earth-moving equipment may cross from the street to private property. After all operations have been completed, all construction materials shall be removed and all private and public property restored. Any cracked curb, gutter or sidewalk shall be replaced at the contractor's/owner's expense.

- (b) *Section 3308.3* is created and approved to read as follows:

*3308.3 Moving buildings.* No person shall move any building on, through or over any street, alley, sidewalk or other public place without having obtained a permit. The applications shall include the proposed route and the number of days required for the move.

*3308.3.1 Cash bond.* A cash bond in the amount specified in chapter 5, article XI of the Code of Ordinances of the Village of Vernon Hills, executed with a lawful corporate surety, approved by the building official, conditioned upon the applicants compliance with all of the provisions of this section, and agreeing to pay and hold the village harmless from any claim which may be made against it by reason of occupation of any street, alley, sidewalk or other public place by the building or structure moved shall be submitted with the application.

*3308.3.2 Disconnection of and reconnection of utility wires.* Wherever it shall be necessary to interfere with wires or cables of a public utility in moving a building, the terms of any special or franchise ordinance governing shall apply, and the bond therein specified shall be given. If no such terms apply, then the building official shall estimate the expense of relocation and/or repairing the wires and the amount of the bond to be given to cover the expense.

Sec. 5-41. Chapter XXXIV Existing Structures:

a) *Section 3401.3* is deleted and in its place is approved to read as follows:

*3401.3 Compliance..* Alterations, repairs, additions and changes of occupancy to existing structures shall comply with the provisions for alterations, repairs, additions and changes of occupancy in the International Fire Code, International Fuel Gas Code, International Property Maintenance Code, International Mechanical Code, International Residential Code as amended and chapter 5, articles V and X of the Code of Ordinances of the Village of Vernon Hills.

b) *Section 3401.6* is created and approved to read as follows:

*3401.6 Existing building or structures.* Additions, alterations or repairs to any building or structure shall conform to the requirements of the code for new construction. Additions or alterations shall not be made to existing buildings or structures, which shall cause the existing building, or structure to be in violation of any provision of this code. An existing building plus additions shall comply with height and area provisions if chapter 5. If the alteration costs 50 percent or more of the reproduction cost of the building or structure, the entire building or structure shall comply with the requirements of new construction as defined in this code.

For the purpose of calculating percentages of reproduction cost, the cost of alteration shall be construed as the total actual combined cost of all alterations made within any period of 30 months.

*Exception:* For buildings and structures in flood hazard areas established in section 1612.3, any additions, alterations, or repairs that constitute substantial improvement of the existing structure, as defined in section 1612.2, shall comply with the flood requirements for new construction and all aspects of the existing structure shall be brought into compliance with the requirements for new construction for flood design.

c) *Section 3412.2* is deleted and in its place is approved to read as follows:

*3412.2 Applicability.* Structures existing prior to July 16, 1958 in which there is work involving additions, alterations or changes of occupancy shall be made to conform to the requirements of this section or the provisions of sections 3402 through 3406. The provisions in sections 3409.2.1 through 3409.2.5 shall apply to existing occupancies that will continue to be, or are proposed to be, in groups A, B, E, F, M, R, S and U. These provisions shall not apply to buildings with occupancies in group H or I.

**SECTION II.** That Chapter 5, Article III, One and Two Family Dwelling Code, of the Village of Vernon Hills Code of Ordinances is hereby repealed and amended to read as follows:

**Sec. 5-56. Adoption:**

The regulations of the 2012 edition of the International Code Council (ICC) International Residential Code for One and Two Family Dwellings as published by the International Code Council Incorporated are hereby adopted as the regulations governing the design, installation, maintenance, alteration, and inspection of one and two family dwellings in the Village of Vernon Hills, Illinois, with such amendments as hereafter set forth. Where any provision of the international code as adopted, conflicts with the provisions of the Code of Ordinances of the Village of Vernon Hills, the Code of Ordinances shall prevail and shall be applied as the applicable law of the village.

**Sec. 5-57. Chapter I Administration**

(a) *Section R101.1* is deleted and in its place is approved to read as follows:

*R101.1 Title:* These provisions shall be known as the Residential Code for One and Two Family Dwellings of the Village of Vernon Hills, Illinois, and shall be cited as such and will be referred to herein as "this code".

(b) *Section R103.2* is deleted and in its place is approved to read as follows:

*R103.2 Appointment:* The Building Commissioner shall be appointed by the chief appointing authority of the jurisdiction. For the purposes of this code, the building commissioner is the same as the building official.

(c) *Section R105.2* is deleted and in its place is approved to read as follows:

*R105.2 Work exempt from permit.* Permits shall not be required for the following. Exemption from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

*Building:*

1. Painting, papering, tiling, carpeting, replacement of existing cabinets and counter tops, and similar finish work.
2. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
3. Swings and other playground equipment accessory to a one- or two-family dwelling.
4. Window awnings supported by an exterior wall.

*Electrical:*

*Repairs and maintenance:* A permit shall not be required for minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.

*Gas:*

*Repairs and maintenance:* A permit shall not be required for minor repair work.

1. Portable heating, cooking or clothes drying appliances.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

*Mechanical:*

*Repairs and maintenance:* A permit shall not be required for minor repair work.

1. Portable heating appliance.
2. Portable ventilation appliances.
3. Portable cooling unit.
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
5. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.
6. Portable evaporative cooler.

7. Self-contained refrigeration systems containing 10 pounds (4.54 kg) or less of refrigerant or that are actuated by motors of one horsepower (746 W) or less.

Plumbing:

The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.

The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

(d) *Section R105.5* is deleted and in its place is approved to read as follows:

*R105.5 Expiration:* Any permit issued shall become invalid if the authorized work is not commenced within six months after issuance of the permit, or if the authorized work is suspended or abandoned for a period of six months after the time of commencing the work or if the authorized work is not completed within one year after commencing construction.

If a permit expires by failure to begin construction within six months of the date of issuance of the permit, the permit holder must repeat the application process and pay all fees as required for a new permit. A new permit will not be issued if zoning variances or other variations and/or approvals have expired.

If a permit expires by failure to complete construction within one year after the date of commencing construction, the permit holder must renew the permit within the succeeding two months. A renewal fee of 20 percent of the original permit fee shall be paid to the village and the permit shall be renewed for a one-year period, commencing from the date of payment of the renewal fee or the date which is two years after the issuance date of the original permit, whichever is later. No additional renewals shall be made, except by the action of the village president and the board of trustees.

If the permit is not renewed as provided herein, all previous construction, if any, shall be removed and the property restored as required by the section of this code governing demolition of structures. All fees paid theretofore shall be forfeited to the village and any zoning or other approvals or any variances from the zoning ordinance or other ordinances or codes, if any, shall become null and void.

Further, if the permittee does not remove all previous construction and restore the property as required by this code, the village, through its employees or agents, shall remove same and restore the property and recover its expenses by filing a lien against the property, or by any other legal action permitted by law.

(e) *Section R106.1.1* is deleted and in its place is approved to read as follows:

*R106.1.1 Information on Construction documents:* The application for the permit shall be accompanied by plans drawn to scale, with sufficient clarity, detail and dimensions to clearly show the nature and character of the work to be performed. No drawings shall be larger than 30" x 42" (762 [mm] x 1067 mm). When quality of materials is essential for conformity to this code, specific information shall be given to establish such quality; and this code shall not be cited, or the term "legal" or its equivalent be used, as a substitute for specific information.

(f) *Section R106.1.2.1* is created and approved to read as follows:

*R106.1.2.1 Manufacturer's instructions and recommendations:* Where the code does not provide specific installation details or instructions and/or the code does not specifically address the proper application or prohibition of use of specific materials, devices, equipment and assemblies of components, the manufacturer's installation instructions, and recommendations for the proper installation and use of the specific materials, devices, equipment and assemblies of components shall govern.

(g) *Section R106.2* is deleted and in its place is approved to read as follows:

*R106.2 Permit plat.* A plat of survey prepared, signed and sealed by an Illinois Registered Land Surveyor, showing all boundaries of the property, setback lines, the size and location of new construction, all existing buildings and improvements, easements of record, and other information deemed necessary by the village to issue a permit shall accompany a permit application. This requirement may be waived for the projects involving interior work only.

(h) *Section R106.2.1* is created and approved to read as follows:

*R106.2.1 As-built surveys.* After construction of the foundation, an as-built plat of survey, prepared by a State of Illinois Registered Land Surveyor shall be submitted to the building division for review and approval. This survey shall show the location of the foundation on the lot, including distances to lot lines, the elevation(s) of the top of foundation and all steps and brick ledges in reference to USGS datum, the existing and proposed grading plan elevations, slope of proposed driveway and shall clearly show that no part of the foundation is encroaching upon any public and/or utility easements or required front, rear and side yards. Upon completion of the work authorized by the building permit and prior to issuance of a certificate of occupancy a final as-built survey shall be submitted to the building division. This survey shall show the building or structure location on the lot with reference to all lot lines, all recorded easements, top of foundation elevation and the lot's topographical information.

(i) *Section R106.3* is deleted and in its place is approved to read as follows:

*R106.3 Examination of documents:* The building commissioner shall examine or cause to be examined the accompanying construction documents and shall ascertain by such examinations whether the construction indicated and described is in accordance with the requirements of this code and other pertinent laws or ordinances. The building commissioner may, at his discretion, employ services of outside consultants to review construction documents in whole or in part to determine compliance with this code. Such outside review services may involve structural review, fire protection review, elevator review and any other type of review as determined necessary by the building commissioner. The cost of such reviews shall be paid to the village by the applicant prior to the permit being issued.

(j) *Section R108.2* is deleted and in its place is approved to read as follows:

*R108.2 Fees, bonds, insurance:* Permit fees and cash property restoration bonds shall be paid in accordance with chapter 5, article XI of the Village of Vernon Hills Code of Ordinances. Evidence of an adequate liability and workman's compensation insurance shall be presented as required in article XI.

(k) *Section R108.5* is deleted and in its place is approved to read as follow:

*R108.5 Refunds:* The building commissioner may authorize a refund when based on exceptional or unusual circumstances.

(l) *Section R110.1* is deleted and in its place is approved to read as follows:

*R110.1 Certificate of occupancy:* Final and temporary certificates of Occupancy shall be issued in accordance with article 21 of the Village of Vernon Hills Zoning Ordinance.

(m) *Section R110.2 Change in use* is deleted.

(n) *Section R110.3 Certificate issued* is deleted.

(o) *Section R 110.4 Temporary occupancy* is deleted.

(p) *Section R110.5 Revocation* is deleted.

(q) *Section R112.1* is deleted and in its place is approved to read as follows:

*R112.1 General.* Any person shall have the right to appeal a decision of the building commissioner. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted there under have been incorrectly interpreted, the provisions of this code do not apply, or an equivalent form of construction is to be used.

The appeals shall be heard by a hearing officer appointed by the village manager. The hearing officer shall not be an employee of the building division or otherwise be subordinate to the building commissioner.

The board of trustees shall have the right to sustain, overrule or modify the decision or interpretation as made by the building commissioner upon recommendation of the hearing officer after a hearing. The board of trustees shall have no authority to waive the requirements of this code, except upon the review of the hearing officer's recommendation and a determination that the requested waiver is functionally equivalent to the code and will pose no threat to public health and safety.

(r) *Section R113.4* is deleted and in its place is approved to read as follows:

*R113.4 Violation penalties:* Any person, firm, corporation or entity who shall violate any of the provisions of this code or shall fail to comply with any of the requirements thereof, or who disobeys, omits, neglects or refuses to comply with, or who resists the enforcement of any provisions of this code, or who shall refuse or neglect to remedy a violation of this code, or who shall erect, construct, alter, repair or occupy a building or structure in violation of an approved plan or directive of the building commissioner, or a permit, or a certificate issued under the provisions of this code, shall be guilty of a misdemeanor, punishable by a fine as specified in Chapter 25, Comprehensive Fees and Penalties. Each day that a violation continues shall be deemed a separate offense. In addition, the corporate authorities of the village may institute an action in any lawful court in the State of Illinois for such additional legal and/or equitable relief as may be deemed fit in accordance with the statutes of the State of Illinois.

(s) *Section R114.2* is deleted and in its place is approved to read as follows:

*R114.2 Unlawful continuance:* Any person who shall continue any work in or about the structure after having been served with a "stop work order", except such work as that person is directed to perform to remove a violation or unsafe conditions, shall be stopped and/or subject to arrest by the police of the village, and charged with violation of this section and shall be liable for a fine in accordance with this code. No person shall remove a "stop work order" unless authorized by the building commissioner or their designee.

(t) *Section R114.3* is created and approved to read as follows:

*R114.3 Removal of "stop work order":* The "stop work order" shall only be removed upon authorization by the building commissioner and only after all conditions for which the "stop work order" has been issued were corrected and all requirements of this code were satisfied.

(u) *Section R115* is created and approved to read as follows:

*R115 Prefabricated construction:* No prefabricated housing construction shall be allowed, where both interior and exterior walls are assembled in such a way prior to their erection that the inspectors would not be able to perform all the required inspections.

Sec. 5-58. Chapter III Building Planning

(a) *Table R301.2 (1)* is amended and approved to read as follows:

*Table R301.2 (1):* Within the table; insert the following design criteria for each category as follows:

Ground Snow Load	30 lbs/sq.ft.
Wind Speed	90 mph
Seismic Design Category	B
Weathering	Severe
Frost Line Depth	42"
Termite	Moderate to Heavy
Winter Design Temp.	-4 Degrees Fahrenheit
Ice Barrier Required	Yes
Flood Hazards	1972
Air Freezing Index	1800 BF-Days/100 Years
Mean Annual Temp.	48 Degrees Fahrenheit

(b) *Section R309.6* is created and is approved to read as follows:

*R309.1 Opening protection:* Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/4 inch (44 mm) in thickness, solid or honeycomb core steel doors not less than 1 3/4 inch (44 mm) in thickness or a minimum one-hour fire-rated door.

(c) *Section R309.7* is created and is approved to read as follows:

*R309.2 Separation required.* The garage shall be separated from the residence and its attic area by not less than 5/8-inch (15.9 mm) type X fire-rated gypsum board applied to the garage side. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than 5/8-inch (15.9 mm) type X fire-rated gypsum board or equivalent.

- (d) *Section R310.1* is deleted and in its place is approved to read as follows:

*R310.1 Emergency escape and rescue required.* Basements and every sleeping room shall have at least one openable emergency escape and rescue window or exterior door opening for emergency escape and rescue. Where openings are provided as a means of escape and rescue, they shall have a sill height of not more than 44 inches (1,118 mm) above the floor. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with section R310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the window or door opening from the inside. Escape and rescue window openings with a finished sill height below the adjacent ground elevation shall be provided with a window well in accordance with section R310.2.

*Exception:* For other than sleeping rooms, the Building Official may allow less than the minimum opening requirements prescribed in section R310.1 in connection with basement remodeling.

- (e) *Section R311.3* is deleted and in its place is approved to read as follows:

*R311.3 Floors and Landings at exterior doors:* There shall be a floor or landing on each side of each exterior door. Landings shall have intermediate supports or have structural reinforcement adequate for spanning between the supports. Exterior landings must be supported on wing walls reinforced with 2 - #4 [two #4] bars or a minimum eight-inch (203 mm) wide concrete foundation wall. The width of the landing shall not be less than the door served. Every landing shall have a minimum dimension of 36" in the direction of egress travel.

*Exception:* At the exterior side of sliding doors the floor or landing at a door shall not be more than 7 3/4 inches (196 mm) lower than the top of the threshold.

*Exception:* The landing at an exterior doorway shall not be more than 7 3/4 inches (196 mm) below the top of the threshold, provided that the door, other than an exterior storm or screen door, does not swing over the landing.

- (f) *Section R311.7.8* is deleted and in its place is approved to read as follows:

*R311.7.8 Handrails:* Handrails shall be provided on at least one side of each continuous run of treads or flight with three or more risers.

- (g) *Section R313.1* is deleted and in its place is approved to read as follows:

*R313.1 Townhouses:* Each townhouse shall be considered a separate building/unit and shall be separated by fire-resistive rated assemblies meeting the requirements of section R321.1. Except as provided, all newly constructed two family dwelling units shall be equipped throughout with a fire sprinkler system installed in accordance with NFPA 13R. Dwelling units shall be separated from each other by a wall and/or floor-ceiling assemblies of not less than 1-hour fire-resistive rating when tested in accordance with ASTM E 119 and constructed of concrete and/or masonry. Fire-resistance rated floor-ceiling and wall assemblies shall extend to and be tight against the exterior wall, and wall assemblies shall extend to the underside of the roof sheathing. Existing townhouse buildings damaged by fire or other causality, where the restoration cost exceeds 50 percent of the current value, shall comply with the fire sprinkler requirement.

- (h) *Section R313.2* is deleted and in its place is approved to read as follows:

*R313.2 Two family Dwellings:* Except as provided, all newly constructed two family dwelling units shall be equipped throughout with a fire sprinkler system installed in accordance with NFPA 13R. Dwelling units shall be separated from each other by a wall and/or floor-ceiling assemblies of not less than 1-hour fire-resistive rating when tested in accordance with ASTM E 119 and constructed of concrete and/or masonry. Fire-resistance rated floor-ceiling and wall assemblies shall extend to and be tight against the exterior wall, and wall assemblies shall extend to the underside of the roof sheathing. Existing two-family dwellings damaged by fire or other causality, where the restoration cost exceeds 50 percent of the current value, shall comply with the fire sprinkler requirement.

- (i) *Section R317.5* is created and approved to read as follows:

*R317.5 Vapor retarder:* The vapor retarder shall be six-mil polyethylene lapped not less than six inches (152 mm), Kraft-faced insulation or other approved material.

- (j) *R319.1* is deleted and in its place is approved to read as follows:

*R319.1 Premises identification:* Buildings shall have approved address numbers placed in a position to be plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be a minimum of four (4) inches (102 mm) high with a minimum stroke width of 0.5 inch (12.7 mm).

1. *Applicability.* This section shall apply to all structures within the village; provided, that the owners or occupants of existing structures shall not be deemed guilty of a violation hereunder unless they shall fail to comply with this section within 30 days after such time as the numbering sign or designation of street address on the property shall be replaced, changed or redesigned. Compliance with this section shall be a condition for the issuance of a certificate of occupancy in addition to all other ordinances pertaining thereto.

2. *Effect of sign regulations.* In the event of conflict between this section and chapter 19 of the Village of Vernon Hills Code of Ordinances, pertaining to building street number signs, the provisions of this section shall control.

(k) *Section R324* is created and approved to read as follows:

#### SECTION R324 ACCESSORY STRUCTURES

*R324.1 Accessory storage sheds and modular units.* Accessory storage sheds (greater than forty (40) square feet in floor area) and modular storage units (forty (40) square feet in floor area or less) erected on residentially zoned property shall be subject to the following conditions:

1. *Number and size.* Unless otherwise restricted by a subdivision development agreement, every residentially zoned property shall be limited to one (1) storage shed, with a maximum floor area of 120 square feet, and/or two (2) modular storage units as described herein.

2. *Exterior finishes.* The exterior siding material of storage sheds shall be of similar type (i.e. cedar, masonry, aluminum, or vinyl) to the primary exterior material of the principal dwelling unless a weather-resistant plastic resin shed is erected. Metal sheds are not allowed. The siding and roof covering of wood-frame storage sheds shall be similar or complimentary in color and style to the exterior materials of the principal dwelling.

3. *Location.* Storage Sheds (greater than forty (40) square feet in floor area) shall comply with the provisions set forth in Appendix B--Zoning Ordinance. Modular storage units (forty (40) square feet in floor area or less) may be erected adjacent to the principal dwelling in the side and rear yards only.

4. *Anchoring.* All storage sheds shall be securely anchored either to a foundation or to the ground. Anchoring to the ground shall be

accomplished by means of metal ground screws and straps or, other approved method.

5. *Permit Required.* Any person, firm, corporation or any other entity that plans to erect a storage shed that exceeds forty (40) square feet in floor area, shall obtain a permit and pay a permit fee as specified in Chapter 25--Comprehensive Fees and Penalties prior to commencing work.

(l) *Section R325* is created and approved to read as follows:

*SECTION R325 WINDOW WELL COVERS.*

*R325.1 Window well covers.* All window wells shall have a protective cover capable of supporting a 250-pound (113.5 kg.) load, to prevent people and animals from falling into the well. Window well covers for emergency escape and rescue openings shall be installed in accordance with section R310.

(m) *Section R326* is created and approved to read as follows:

*SECTION 326 SPECIAL ARCHITECTURAL PROVISIONS.*

*R326.1 Materials:* Unless otherwise approved by the Board of Trustees, all structures in the Village of Vernon Hills shall be constructed of high-quality permanent materials designed to be durable, colorfast, and easily maintained. All buildings and structures shall have exterior walls constructed of attractive materials such as, face brick, natural or cultured stone, glass, EFIS, or other approved non-combustible materials. Soffit, fascia and exterior trim work shall be constructed of cedar material. All wood materials shall be primed on all sides prior to installation. Pole barn construction and light steel type buildings are expressly prohibited.

*Exception:* For buildings taller than one story, the exterior materials above the first floor may be of cedar siding, or textured fiber-cement siding in addition to those materials noted above. Other premium materials may be approved for use by the building commissioner. All wood materials shall be primed on all sides prior to installation. Upon application, the board of trustees may modify these provisions to allow for other materials (cedar siding, fiber-cement siding, stucco, etc.) below the 2nd floor.

*R326.2 Monotony of residential dwellings:* All architectural plans for residences or dwelling units which are not custom built and singly unique in their design to be constructed in any subdivision shall be submitted to the planning and zoning committee for a review and recommendation to the board of trustees. Such plans shall include the plans for models for residences or dwellings commonly referred to as tract or production homes. The board of trustees shall approve all such plans before a building permit shall be issued. In making their recommendation to the

board of trustees the planning and zoning committee shall consider such factors as the building(s) appearance, exterior building materials, roof lines, color choices, dwelling unit size and compatibility with surrounding buildings. No single-family detached residence or single-family dwelling unit shall be erected in the village which is of the same or similar design as the dwelling units or residences located on the same side of the street unless there is a minimum separation of six lots between each similar design. The intervening streets shall be disregarded. No residence or dwelling unit shall be erected which would be of the same or similar design as the residence or dwelling unit across the street and within 100 feet (30,480 mm) from it as measured horizontally from property line to property line. When, in the opinion of the building commissioner, such residences or dwelling units are not of sufficiently dissimilar design, the particular residence or dwelling unit in question shall be varied in elevation and with the use of exterior building materials.

- (n) *Section R401.2* is deleted and in its place is approved to read as follows:

*R401.2 Requirements:* Foundation construction shall be capable of accommodating all loads according to section R301 and of transmitting the resulting loads to the supporting soil. Fill soils that support footings and foundations shall be designed, installed and tested in accordance with accepted engineering practice. In any event footings shall not be installed on soils having bearing capacity of less than 3,000 psf (143.7 kN/m<sup>2</sup>) without being engineered by a State of Illinois Registered Structural Engineer.

- (o) *Section R402.1 Wood foundations* is deleted.

- (p) *Section R403.1* is deleted and in its place is approved to read as follows:

*R403.1 General.* All exterior walls shall be supported on continuous solid concrete footings or other approved structural systems which shall be of sufficient design to accommodate all loads according to section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils or engineered fill. Footings shall not be installed on vegetation or frozen soil.

- (q) *Section R403.1.4* is deleted and in its place is approved to read as follows:

*R403.1.4 Minimum depth* All exterior footings and foundation systems shall extend below the frost line specified in table R301.2 (1). All exterior footings shall be placed at least 12 inches (305 mm) below the undisturbed ground. In seismic design categories D1 and D2, interior footings supporting bearing or bracing walls and cast monolithically with a slab on grade shall extend to a depth of not less than 18 inches (457 mm) below the top of slab.

- (r) *Section R403.2 Footings for wood foundations* is deleted.

(s) *Section R403.3 Frost protected shallow foundations* is deleted.

(t) *Section R404.1.1 Masonry foundation walls* is deleted.

(u) *Section R404.1.2* is deleted and in its place is approved to read as follows:

*R404.1.2 Concrete foundation walls.* Concrete foundation walls shall be constructed as set forth in table 404.1.1(5), and shall also comply with the provisions of section R404 and the applicable provisions of section R402.2. In seismic design categories D0, D1 and D2, concrete foundation walls shall comply with section R404.1.4. A minimum of two #4 steel reinforcement bars shall be placed continuously at top and bottom of all concrete foundation walls unless otherwise provided by a structural design.

(v) *Section 404.1.6* is deleted and in its place is approved to read as follows:

*R404.1.6 Height above finished grade.* Concrete foundation walls shall extend above the finished grade adjacent to the foundation at all points a maximum of 12 inches (305 mm) and a minimum of four inches (102 mm) where masonry veneer is involved and a minimum of six inches (152 mm) elsewhere. Where existing conditions warren, the building official may allow less than the minimum prescribed dimension.

(w) *Sections R404.1.8 Rubble stone masonry* is deleted.

(x) *Section R404.2 Wood foundation walls* is deleted.

(y) *Section R405.1* is deleted and in its place is approved to read as follows:

*R405.1 Concrete foundations:* Drains shall be provided on the outside of all basement foundations, on the outside of all crawl space foundations, in all window wells, and around all concrete foundations that retain earth. A minimum four-inch (102-mm) diameter perforated drainage pipe or other approved system or materials shall be installed at or below the area to be protected and shall discharge by gravity or mechanical means into the storm sewer or if none is available to a drainage ditch. The perforated pipe shall be placed on a minimum of two inches (51 mm) of washed gravel or crushed rock at least one sieve size larger than the tile joint opening or perforation and be covered with not less than six inches (153 mm) of the same material. The crushed stone fill shall extend a minimum of one foot (305mm) beyond the outside edge of the footing and six inches (153 mm) above the top of the footing and be covered by an approved filter membrane. The inside and outside drainage tile systems shall not be interconnected.

Where the water table, topography, building configuration, or other unusual conditions prevail, additional drain tile may be required or additional cross lines, connections or other safeguards against water infiltration into the building may be required by the building commissioner to protect the health, safety or welfare of the occupants.

When a sump pump is not connected to the storm sewer, it shall be discharged at a point located no closer to the abutting property line than one-half the overall distance as measured between the building and the abutting property line. The discharged water shall not be allowed to flow across walking or driving surfaces. When the point of discharge is located within five feet from the abutting property line, the discharge pipe shall be directed to the front or rear of the property. The building commissioner, or their designee, may vary the requirements of this section if warranted by site conditions.

(z) *Section R405.2 Wood foundations* is deleted.

(aa) *Section R406.3 Dampproofing for wood foundations* is deleted.

(bb) *Section R408.4* is amended and approved to read as follows:

*R408.4 Access:* An access opening of 22 inches by 30 inches (558.8 mm by 762 mm) shall be provided to the under-floor space. See section M1305.1.4 for access requirements where mechanical equipment is located under floors.

(cc) *Section R502.1.4.1* is created and approved to read as follows:

*R502.1.4.1 Protection:* When light-weight engineered wood structural members are used in floor and ceiling assemblies, they shall be protected by one of the following methods:

1. One-half-inch gypsum board, taped, with openings limited to heat registers and light fixtures.
2. An approved automatic sprinkler system (see IBC 903).

(dd) *Section R504 Pressure preservative treated-wood floors (on ground)* is deleted.

(ee) *Section 506.2* is deleted and in its place is approved to read as follows:

*R506.2 Site preparation:* The area within the foundation walls shall have all vegetation, topsoil and foreign material removed. Concrete floors shall not be installed on frozen soil.

(ff) *Section R506.2.3* is deleted and in its place is approved to read as follows:

*R506.2.3 Vapor retarder:* A six-mil polyethylene vapor retarder with joints lapped not less than six inches (153 mm) shall be placed between the concrete floor slab and the base course or the prepared sub-grade where no base course exists.

*Exception:* The vapor retarder may be omitted from:

1. Detached garages, utility buildings and other unheated accessory structures.
2. Driveways, walks, patios and other flatwork not likely to be enclosed and heated at a later date.
3. Where approved by the building commissioner, based on local site conditions.

(gg) *Section R602.5* is deleted and in its place is approved to read as follows:

*R602.5 Interior nonbearing walls:* Interior nonbearing walls shall be permitted to be constructed with two-inch by four-inch (51 mm by 102 mm) studs spaced not more than 24 inches (610 mm) on center. Interior nonbearing walls shall be capped with at least a single top plate. Interior nonbearing walls shall be fireblocked in accordance with section R602.8.

(hh) *Section R602.8* is deleted and in its place is approved to read as follows:

*R602.8 Fireblocking required.* Fireblocking shall be provided to cut off all concealed draft openings (both vertical and horizontal) and to form an effective fire barrier between stories, and between a top story and the roof space. Fireblocking shall be provided in wood frame construction in the following locations:

1. In concealed spaces of stud walls and partitions, including furred spaces, at the ceiling and floor level and at ten-foot (3048 mm) intervals both vertical and horizontal.
2. At all interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings and cove ceilings.
3. In concealed spaces between stair stringers at the top and bottom of the run. Enclosed accessible space under stairs shall have walls, under stair surface and soffits protected on the enclosed side with ½" gypsum board.
4. At openings around vents, pipes, and ducts at ceiling and floor level, with an approved material to resist the free passage of flame and products of combustion.
5. For the fireblocking of chimneys and fireplaces, see Sections R1001.12 and R1003.19.

6. Fireblocking of cornices is required at the line of dwelling unit separation for two-family and townhouse buildings.

(ii) *Section R602.8.1* is created and is approved to read as follows:

*R602.8.1 Materials:* Except as provided in section R602.8, item 4, fireblocking shall consist of two-inch (51 mm) nominal lumber, or two thicknesses of one-inch (25.4 mm) nominal lumber with broken lap joints, or one thickness of 23/32-inch (19.8 mm) wood structural panels with joints backed by 23/32-inch (19.8 mm) wood structural panels or one thickness of 3/4-inch (19.1 mm) particleboard with joints backed by 3/4-inch (19.1 mm) particleboard, 1/2-inch (12.7 mm) gypsum board, or 1/4-inch (6.4 mm) cement-based millboard. Under certain conditions and when securely retained in place, unfaced batts or blankets of mineral wool insulation, or other approved materials may be used when approved by the Building Commissioner.

(jj) *Section R703.1* is deleted and in its place is approved to read as follows:

*R703.1 General.* Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in section R703.8. The exterior wall envelope shall be designed and constructed in such a manner as to prevent the accumulation of water within the wall assembly by providing a water-resistive barrier behind the exterior veneer as required by section R703.2.

*Exception:* Aluminum and vinyl siding may only be allowed for use on the existing buildings and only in the subdivisions where such materials have already been installed. Except for textured fiber-cement siding, aluminum soffit and fascia, aluminum and vinyl siding shall not be used in the subdivisions where only solid cedar and masonry have been used in original construction.

The use of aluminum and vinyl siding in new construction can be authorized only by the Village of Vernon Hills Board of Trustees.

(kk) *Section R703.2* is amended and approved to read as follows:

*R703.2 Water-resistive barrier:* Asphalt-saturated felt free from holes and breaks, weighing not less than 14 pounds per 100 square feet (0.683 kg/m<sup>2</sup>) and complying with ASTM D 226 or other approved weather-resistant material shall be applied over studs or sheathing of all exterior walls as required by table R703.4. Such felt or material shall be applied horizontally, with the upper layer lapped over the lower layer not less than two inches (51 mm). Where joints occur, felt shall be lapped not less than six inches (152 mm).

*Exception:* Such felt or material is permitted to be omitted when used in the construction of detached accessory buildings.

(ll) *Table R703.4* is amended and approved to read as follows:

*Table R703.4.* Under the heading "Sheathing Paper Required" replace "No" with the word "Yes" for all listed siding materials.

*Table R703.4.* Under the heading "Nominal Thickness" replace ".035" with ".044" under Vinyl Siding.

*Table R703.4.* Delete the entire row "Horizontal Aluminum, Without Insulation, 0.019mm Thickness.

(mm) *Section R801.3* is deleted and in its place is approved to read as follows:

*R801.3 Roof drainage/gutters and downspouts:* Roofs of all buildings shall have the means of concentrating storm water. Residential downspouts not connected to the storm sewer shall discharge directly onto splash blocks located no closer to the abutting property line than one-half the overall distance as measured between the building and the abutting property line. The discharged water shall not be allowed to flow across walking or driving surfaces. When the point of discharge is located within five feet (1,524 mm) from the abutting property line, the discharge pipe shall be directed to the front or rear of the property. If this cannot be achieved, the downspouts shall be directly connected to a storm sewer. The building commissioner, or their designee, may vary the requirements of this section if warranted by site conditions.

(nn) *Section R902.1* is deleted and in its place is approved to read as follows:

*R902.1 Roofing covering materials:* Roof covering shall be architectural laminated random-tab type shingles (30-year warranty minimum) or wood shakes and comply with the standards and requirements as set forth in sections R904 and R905. Class A roofing shall be installed in areas designated by law as requiring their use or when the edge of the roof is less than three feet (914 mm) from a property line. Class A roofing is required to be listed by this section shall be tested in accordance with UL 790 or ASTM E 108. Roof assemblies with coverings of brick, masonry, slate, clay or concrete roof tile, exposed concrete roof deck, ferrous or copper shingles or sheets, and metal sheets and shingles, shall be considered class A roof coverings. With the approval of the building commissioner, alternative class A roofing materials may be substituted for architectural shingles or wood shakes.

(oo) *Section R905.2.7.1* is deleted and in its place is approved to read as follows:

*R905.2.7.1 Ice protection:* An ice barrier that consists of a self-adhering polymer modified bitumen sheet, shall be used in lieu of normal underlayment and extend from the eave's edge to a point at least 24 inches (610 mm) inside the exterior wall line of the building and a minimum of six feet (1,829 mm) up all valleys.

(pp) *Section R907.1* is deleted and in its place is approved to read as follows:

*R907.1 General.* Materials and methods of application used for recovering or replacing an existing roof covering shall comply with the requirements of this chapter. Roof covering shall be architectural laminated random-tab type shingles (25-year warranty minimum) or wood shakes. Roof repairs to existing roofs and roof coverings shall comply with the provisions of chapter 34 of the International Building Code, but more than 25 percent of the roof covering of any building shall not be removed and replaced within a 12-month period unless the entire roof covering is made to conform to the requirements for new roofing.

*Exception:* Re-roofing shall not be required to meet the minimum design slope requirement of one-fourth vertical in 12 units horizontal (two percent slope) in section R905 for roofs that provide positive roof drainage.

(qq) *Section R1001.1* is deleted and in its place is approved to read as follows:

*R1001.1 General.* Masonry fireplaces shall be constructed in accordance with this section and the applicable provisions of chapters 3 and 4. The narrowest portion of a masonry fireplace chimney shall not be less than two-thirds of its widest portion. All attachments to the clay liner, such as rain caps or spark arrestors, shall be black in color.

(rr) *Section R1003.3* is deleted and in its place is approved to read as follows:

*R1003.3 Reinforcing:* Masonry chimneys shall be constructed, anchored, supported and reinforced as required in this chapter. In seismic design categories D0, D1 and D2, masonry and concrete chimneys shall be reinforced and anchored as detailed in Section R1003.3.1, R1003.3.2 and R1003.4. In seismic design category A, B or C, reinforcement and seismic anchorage is not required. Chimneys shall be structurally sound, durable, smoke-tight and capable of conveying flue gases to the exterior safely. The narrowest portion of a masonry chimney shall not be less than two-thirds of its widest portion. All attachments to the clay liner, such as rain caps or spark arrestors, shall be black in color.

(ss) *Section R1004.1.1* is created and approved to read as follows:

*R1004.1.1 Chimney termination enclosure:* All factory-built chimneys shall be enclosed in accordance with Section M1801.1.1.

(tt) *Section R1005.1.1* is created and approved to read as follows:

*R1005.1.1 Chimney termination enclosure:* All factory-built chimneys shall be enclosed in accordance with Section M1801.1.1.

Sec. 5-59 Chapter XVI Mechanical:

(a) *Section M1601.1.1* is deleted and in its place is approved to read as follows:

*M1601.1.1 Above-ground duct systems:* Above-ground duct systems shall conform to the following:

1. Equipment connected to duct systems shall be designed to limit discharge air temperature to a maximum of 250°F (121°C).
2. Factory-made air ducts shall be constructed of class 0 or class 1 materials as designated in table M1601.1.1(1).
3. Fibrous duct construction shall conform to the SMACNA "Fibrous Glass Duct Construction Standards" or NAIMA "Fibrous Glass Duct Construction Standards."
4. Minimum thicknesses of metal duct material shall be as listed in table M1601.1.1(2). Galvanized steel shall conform to ASTM A 525.
5. Gypsum products are permitted to be used to construct return air ducts or plenums, provided that the air temperature does not exceed 125°F (52°C) and exposed surfaces are not subject to condensation.
6. Duct systems shall be constructed of materials having a flame-spread index not greater than 200.

(b) *Section M1601.1.2* is deleted and in its place is approved to read as follows:

*M1601.1.2 Underground duct systems:* Underground duct systems shall be constructed of approved plastic. The maximum duct temperature for plastic ducts shall not be greater than 150°F (66°C). Nonmetallic ducts shall be installed in accordance with the manufacturer's installation instructions. Plastic pipe and fitting materials shall conform to cell classification 12454-B of ASTM D 1248 or ASTM D 1784 and external loading properties of ASTM D 2412. All ducts shall slope to an accessible point for drainage. Where encased in concrete, ducts shall be sealed and secured prior to pouring any concrete.

(c) *Section M1601.5 Under-floor plenums* is deleted.

(d) *Section M1602.1* is deleted and in its place is approved to read as follows:

*M1602.1 Return air:* Return air shall be taken from inside the dwelling. Dilution of return air with outdoor air shall not be prohibited. In all habitable rooms the amount of cold air returned or exhausted shall be approximately equal to the amount of air supplied to the room. Air shall be returned through ducts or

approved plenums. Hallway or other open spaces shall not be used as plenums. This, however, shall not be construed to prohibit the use of a common return for rooms which are not separated by walls.

(e) *Section M1801.1.1* is created and approved to read as follows:

*M1801.1.1 Chimney and vent enclosures and caps:*

1. All chimneys and vents used for venting wood-burning appliances shall be enclosed in a chimney chase. Exterior finish materials shall match or compliment the predominant exterior finish material of the dwelling. All portions of the venting system, including termination spark arrestors and rain caps, that penetrate through the chimney chase shall be black in color.
2. All intake and exhaust vents used for venting water heaters, furnaces and similar appliances that penetrate through the roof shall be installed at the minimum height allowed by the manufacturer specifications. Ideally, vents shall be installed below the ridge of the roof so the vent is not visible when viewed from the front property line and grouped within the same enclosure when more than one is present. All portions of the venting system, including termination rain caps, may remain their natural color when installed through the roof.
3. If manufacturer specifications require an intake or exhaust vent to terminate more than three feet above the roof, said vent shall be enclosed in a chimney chase. All portions of the vents, including termination rain and spark arrestor caps that penetrate a chimney chase shall be black in color.

(f) *Section M1804.2* is deleted and in its place is approved to read as follows:

*M1804.2 Termination enclosure:* Vent termination shall comply with sections M1804.2.1 through M1804.2.6. All vents shall be enclosed in accordance with section M1801.1.1.

(g) *Chapter 22--Special Piping and Storage Systems* is deleted.

Sec. 5-60. Chapter XXIV Fuel Gas:

(a) *Section G2414.5 Metallic tubing* is deleted.

(b) *Section G2427.5.3.1* is created and approved to read as follows:

*G2426.5.3.1 Chimney termination enclosure:* All chimneys shall be enclosed in accordance with section M1801.1.1.

(c) *Section G2427.4.2* is deleted and in its place is approved to read as follows:

*G2427.4.2 Gas vent termination enclosure.* Special gas vents shall be listed and installed in accordance with the special gas vent manufacturers installation instructions. All chimneys shall be enclosed in accordance with section M1801.1.1.

(d) *Section G2427.6.5.1* is created and approved to read as follows:

*G2427.6.5.1 Single-wall metal pipe enclosure:* All chimneys shall be enclosed in accordance with section M1801.1.1.

(e) *Section G2429.2* is created and approved to read as follows:

*G2429.2 Direct-vent termination enclosure:* All vents shall be enclosed in accordance with section M1801.1.1.

(f) *Section G2430.3* is created and approved to read as follows:

*G2430.3 Factory-Built chimney termination enclosure:* All chimneys shall be enclosed in accordance with section M1801.1.1.

Sec. 5-61. Chapters 25 through 32, Plumbing:

*Chapters 25 through 32* are deleted.

Sec. 5-62. Chapters 33 through 42, Electrical:

*Chapters 34 through 39* are deleted.

Sec. 5-63. Appendices:

(a) *Appendix A--Sizing and Capacities of Gas Piping* is hereby adopted.

(b) *Appendix B--Sizing of Venting Systems Serving Appliances Equipped With Draft Hoods, Category I Appliances, and Appliances Listed for Use and Type B Vents* is hereby adopted.

(c) *Appendix C--Exit Terminals of Mechanical Draft and Direct-Vent Venting Systems* is hereby adopted.

(d) *Appendix G--Swimming Pools, Spas and Hot Tubs* is hereby adopted.

**SECTION III:** That Chapter 5, Article VI, International Mechanical Code, of the Village of Vernon Hills Code of Ordinances is hereby repealed and amended to read as follows:

Sec. 5-111. Adoption.

The regulations of the 2012 edition of the International Mechanical Code as published by the International Code Council are hereby adopted as the regulations governing the design, installation, maintenance, alteration and inspection of mechanical systems in the village with such amendments as are hereafter set forth in this article. Where any provision of the International Mechanical Code as adopted, conflicts with the provisions of the Code of Ordinances of the Village of Vernon Hills, the Code of Ordinances shall prevail and shall be applied as the applicable law of the village.

Sec. 5-112. Administration:

a) *Section 101.1* is deleted and in its place is approved to read as follows:

*101.1 Title.* These regulations shall be known as the Mechanical Code of the Village of Vernon Hills, hereinafter referred to as "this code."

b) *Section 103.2 Appointment* is deleted and in its place is approved to read as follows:

*103.1 Appointment.* The building commissioner shall be appointed by the chief appointing authority of the jurisdiction. For the purposes of this code, the building commissioner is the same as the code official.

Sec. 5-113. Ventilation:

a) *Section 403.3* is deleted and in its place is approved to read as follows:

*403.3 Outdoor Airflow rate.* Ventilation systems shall be designed to have the capacity to supply the minimum outdoor airflow rate determined in accordance with table 403.3 based on the occupancy of the space and the occupant load or other parameters as stated therein. The occupant load utilized for the design of the ventilation system shall not be less than the number determined from the estimated maximum occupant load rate indicated in table 403.3. Ventilation rates for occupancies not represented in table 403.3 shall be determined by an approved engineering analysis. The ventilation system shall be designed to supply the required rate of ventilation air continuously during the period the building is occupied, except as otherwise stated in other provisions of the code. The following changes to table 403.3 are added:

1. Ten air changes in bars and cocktail lounges.
2. Eight air changes in restaurant dining rooms.
3. That no recirculation shall be allowed from private kitchens and bathroom, note b of table 403.3. Air shall be exhausted by mechanical means.

4. All occupancies with separate utility rooms, bathrooms, powder rooms, telephone equipment rooms, electrical vaults and other similar use rooms shall have a positive pressure HVAC opening supplying at least 0.05 cfm/ft<sup>2</sup>.

*Exception:* The occupant load is not required to be determined, based on the estimated maximum occupant load rate indicated in table 403.3, where approved statistical data document the accuracy of an alternate anticipated occupant density.

b) *Section 404.4* is created and is approved to read as follows:

*404.4 Loading docks.* Loading docks shall be separate[d] from other spaces by a partition extending to the underside of the floor above or roof deck. A mechanical exhaust system shall be designed to maintain the levels of contaminants below those listed in table 403.4.

Sec. 5-114. Duct systems.

a) *Section 602.3 Stud cavity and joist space plenums* are deleted.

b) *Section 602.5* is created and is approved to read as follows:

*602.5 Access.* All plenums, under-floor and attic equipment installations shall be accessible through an opening, which shall be a minimum 22 inches by 36 inches.

c) *Section 603.12* is deleted and approved to read as follows:

*603.12 Condensation.* Provisions shall be made to prevent the formation of condensation on the exterior of any duct. At least two feet of any duct below a roof shall be insulated to prevent condensation.

d) *Section 603.18.3* is created and approved to read as follows:

*603.18.3 Location of registers.* There shall be no floor registers installed in kitchens, bathrooms and other areas where there exists a potential of water entering the duct through such register.

e) *Section 603.18.4* is created and approved to read as follows:

*603.18.4 Cold air returns.* In all habitable rooms the amount of cold air returned or exhausted shall be approximately equal to the amount of air supplied to the room. Air shall be returned through ducts or approved plenums. Hallways or other open spaces shall not be used as plenums.

f) *Section 606.4.1* is deleted and in its place is approved to read as follows:

*606.4 Supervision.* The smoke detectors shall be connected to a fire alarm system. The actuation of a smoke detector shall activate a visible and audible trouble signal at a constantly attended location.

Sec. 5-115. Chimneys and Vents:

a) *Section 801.21* is created and is approved to read as follows:

*801.21 Multiple flues.* Where more than one flue is located in the same chimney one of the following methods shall be used to prevent the spillage of flue gases:

1. The flue tops shall be staggered vertically at not less than 12 inches (305 mm).
2. The chimney shall be terminated with a concrete cap and the venting shall be through the opening in the chimney on two sides only and in the prevailing wind direction.
3. Other approved means.

b) *Section 805.7* is created and is approved to read as follows:

*805.7 Enclosure.* In outside walls and above roofs factory-built chimneys shall be enclosed by a chase. The chase shall be fire stopped at not more than eight feet above the fire box and at all floor and roof penetrations. The chase shall be constructed in accordance with section 5-61 of the Village of Vernon Hills Code of Ordinances.

c) *Section 805.8* is created and is approved to read as follows:

*805.8 Enclosure.* The vent termination shall be located not less than five feet away from air conditioning condensers and electrical services.

**SECTION IV:** That Chapter 5, Article VII, National Fuel Gas Code, of the Village of Vernon Hills Code of Ordinances is hereby repealed and amended to read as follows:

Sec. 5-126. Adoption:

The regulations of the 2012 edition of the International Fuel Gas Code, as published by the International Code Council, are hereby adopted as the regulations governing the installation of fuel gas piping systems, fuel gas utilization equipment and related accessories in the village with such amendments as are hereafter set forth in this article. Where any provision of the International Fuel Gas Code as adopted conflict with any provisions of the Code of Ordinances of the Village of Vernon Hills as adopted, the Code of Ordinances shall be prevail as the applicable law of the village.

Sec. 5-127. International Fuel Gas Code amendments:

a) *Section 101.1* is deleted and in its place is approved to read as follows:

*101.1 Title.* These regulations shall be known as the Fuel Gas Code of the Village of Vernon Hills hereafter referred to as "this code".

b) *Section 103.2* is deleted and in its place is approved to read as follows:

*103.2 Appointment.* The building commissioner shall be appointed by the chief appointing authority of the jurisdiction. For the purposes of this code, the building commissioner is the same as the Code Official.

Sec. 5-128. Piping Installations

a) *Section 403.4.3 Copper and brass* is hereby deleted in its entirety

b) *Section 403.4.4 Aluminum* is hereby deleted in its entirety

c) *Section 403.5 Metallic tubing* is hereby deleted in its entirety

d) *Section 403.5.2 Copper and brass tubing* is hereby deleted in its entirety.

e) *Section 403.5.3 Aluminum tubing* is hereby deleted in its entirety.

f) *Section 403.5.4 Corrugated stainless steel tubing* is hereby deleted in its entirety.

Sec. 5-129. Chimneys and Vents:

a) *Section 502.5* is deleted and in its place is approved to read as follows:

*502.5 Installation.* Vent systems shall be sized, installed and terminated in accordance with the vent and appliance manufacturer's instructions and Section 503. Side wall terminations shall be located not closer than five (5) feet to any air conditioner condensing unit, electric meter, gas meter, dryer vent, or similar device.

**SECTION V:** That Chapter 5, Article VIII, Fire Prevention Code, of the Village of Vernon Hills Code of Ordinances is hereby repealed and amended to read as follows:

Sec. 5-136. Adoption:

The regulations of the 2012 edition of the International Fire Code as published by the International Code Council are hereby adopted as the regulations governing the safeguard of life and property from the hazards of fire and explosion arising from the storage, handling and use of hazardous substances, materials and devices; and from conditions hazardous to life or property in the use or occupancy of buildings or premises in the Village of Vernon Hills with such amendments as are hereafter set forth. Where any provision of the Fire Prevention Code as adopted, conflicts with the provisions of the Code of Ordinances of the Village of Vernon Hills, the Code of Ordinances shall prevail as the applicable law of the village.

Sec. 5-137. Administration:

a) *Section 101.1* is deleted and in its place is approved to read as follows:

*101.1 Title.* These regulations shall be known as the fire code of the Village of Vernon Hills, hereafter referred to as the "this code"

b) *Section 103.1* is deleted and in its place is approved to read as follows:

*103.1 General.* The department of fire prevention is established within the village under the direction of the Building Commissioner. The function of the department shall be the implementation, administration and enforcement of the provisions of this code.

c) *Sections 103.2* is deleted and in its place is approved to read as follows:

*103.2 Appointment.* The building commissioner shall be appointed by the chief appointing authority of the jurisdiction. For the purposes of this code, the building commissioner is the same as the code official.

Sec. 5-138. Fire code amendments:

a) *Section 503.2.1* is deleted and in its place is approved to read as follows:

*503.2.1 Dimensions.* Fire apparatus access roads shall have an unobstructed width of 20 feet edge of pavement to edge of pavement and an unobstructed vertical clearance of not less than 15 feet.

b) *Section 503.2.3* is deleted and in its place is approved to read as follows:

*503.2.3 Surface.* Fire apparatus access roads shall be designed to a structural index of IBR of 3.0 or greater and shall be either a concrete or asphalt. It shall be the responsibility of the property owner to maintain the surface in a usable condition at all times, including the removal of snow.

c) *Section 503.2.7* is deleted and in its place is approved to read as follows:

*503.2.7 Grade.* Fire apparatus access roads shall be pitched in such a manner as to allow the runoff of water and eliminate the potential of standing water.

d) *Section 506.1* is deleted and in its place is approved to read as follows:

*506.1 Where required.* A minimum of one key box is required to be installed at a location to be determined by the code official. Additional key boxes may be required.

e) *Section 506.1.1* is deleted and in its place is approved to read as follows:

*506.1.1 Locks.* The code official shall first approve any lock installed on gates or similar barriers.

f) *Section 507.5.1* is deleted and in its place is approved to read as follows:

*507.5.1 Where required.* Fire hydrants: fire hydrants shall be installed as specified in Village of Vernon Hills Engineering Specifications, section G.2 of appendix II of article I of the Development Ordinance of the Village of Vernon Hills, said ordinance being appendix B of the Code of Ordinances of the Village of Vernon Hills, Lake County, Illinois. A water-supply system shall be capable of supplying the hydrants prior to the construction of structures. When warranted by site conditions and/or availability of other water sources, and upon written recommendation from fire department and the village engineer, the code official may waive the requirement of locating the fire hydrants no farther than 300 feet apart. Additional fire hydrants shall be located within 100 feet of any fire department connections to building sprinkler or standpipe. Hydrants shall not be installed on a water main less than six inches in diameter.

g) *Section 507.5.7* is created and is approved to read as follows:

*507.5.7 Identification.* All fire hydrants public or private shall be marked with a hydrant flag that is approved by the code official.

h) *Section 511.1* is created and is approved to read as follows:

*511.1 Elevator car requirements:* Elevator cars are to accommodate the ambulance stretcher. In buildings three stories in height or more, at least one elevator shall be of a size and arrangement to accommodate a 24-inch by 84-inch ambulance stretcher in the horizontal, open position and shall be identified by the international symbol for emergency medical services (Star of life). The symbol shall be not less than 3-inched in height and shall be placed inside on both sides of the hoist way doorframe. The inside handrail shall be located at the maximum 36-inch height allowed under ADA standards to better accommodate the stretcher.

The cab size is to be a minimum 5'x7' platform having a minimum 2500 lb capacity with a minimum 42" side slide door.

- i) *Section 901.4.1.1* is created and approved to read as follows:

*901.4.1.1 Hydraulic Calculations.* Flexible type sprinkler head connections are not approved for sprinkler installations unless special permission is granted by the code official.

- j) *Section 903.1.1* is deleted and in its place is approved to read as follows:

*903.1.1 Alternative protection.* Alternative automatic fire extinguishing systems complying with section 904 may be permitted in lieu of automatic sprinkler protection where recognized by the applicable standard and approved by the code official.

- k) *Section 903.2* is deleted and in its place is approved to read as follows:

*903.2 Where required.* Approved automatic sprinkler systems in new buildings and structures shall be provided in all use groups described in this code that exceeds 1,000 square feet.

*Exception:* Real estate sales and construction trailers utilized during the development of property when approved by the code official.

- l) *Section 903.2.1 Group A* is hereby deleted in its entirety.
- m) *Section 903.2.1.1 Group A-1* is hereby deleted in its entirety.
- n) *Section 903.2.1.2 Group A-2* is hereby deleted in its entirety.
- o) *Section 903.2.1.3 Group A-3* is hereby deleted in its entirety.
- p) *Section 903.2.1.4 Group A-4* is hereby deleted in its entirety.
- q) *Section 903.2.1.5 Group A-5* is hereby deleted in its entirety.
- r) *Section 903.2.2 Ambulatory care facilities* is hereby deleted in its entirety.
- s) *Section 903.2.3 Group E* is hereby deleted in its entirety.
- t) *Section 903.2.4 Group F-1* is hereby deleted in its entirety.
- u) *Section 903.2.4.1 Woodworking Operations* is hereby deleted in its entirety.
- v) *Section 903.2.5 Group H* is hereby deleted in its entirety.

- w) *Section 903.2.6 Group I* is hereby deleted in its entirety.
- x) *Section 903.2.7 Group M* is hereby deleted in its entirety.
- y) *Section 903.2.7.1 High piled storage* is hereby deleted in its entirety
- z) *Section 903.2.8 Group R* is hereby deleted in its entirety.
- aa) *Section 903.2.9 Group S-1* is hereby deleted in its entirety.
- bb) *Section 903.2.9.1 Repair Garages* is hereby deleted in its entirety.
- cc) *Section 903.2.10 Group S-2* is hereby deleted in its entirety.
- dd) *Section 903.2.10.1 Commercial Parking Garages* is hereby deleted in its entirety.
- ee) *Section 903.2.11.1* is deleted and in its place is approved to read as follows:

*903.2.11.1 Stories and basements without openings.* An automatic sprinkler system shall be installed throughout every story or basement of all buildings where the gross floor area of the building exceeds 1,000 square feet and where there is not provided at least one of the following types of exterior wall openings.

1. Openings below grade that lead directly to ground level by an exterior stairway complying with section 1003.3 of an outside ramp complying with section 1003.4. Openings shall be located in each 50 linear feet, or fraction thereof, of exterior wall in the story on at least one side.
2. Openings entirely above the adjoining ground level totaling at least 20 square feet in each 50 linear feet, or fraction thereof, of exterior wall in the story on at least one side.

- ff) *Section 903.3.1.1.1 Exempt Locations* is hereby deleted in its entirety.
- gg) *Section 903.4.3* is deleted and in its place is approved to read as follows:

*903.4.3 Floor control valves.* Approved supervised indicating control valves with water flow switches shall be installed in the following:

1. New buildings and structures two or more stories above or below grade. Provide at the point of connection to the riser on each floor.
2. New single story buildings with six or more tenants, or where there are fire areas of 6,000 square feet or more. Provide in each tenant space or area at the point of connection to the riser.

- hh) *Section 903.6* is deleted and in its place is approved to read as follows:

*903.6 Existing buildings.* If the alteration costs 50 percent or more of the reproduction cost of the building or structure, the entire building or structure shall comply with the requirements of new construction as defined in this code. For the purpose of calculating percentages of reproduction cost, the cost of alteration shall be construed as the total actual combined cost of all alterations made within any period of 30 months.

ii) *Section 903.7* is created and is approved to read as follows:

*903.7 Hydraulic Calculations.* Provide a minimum 10% or minimum 5 PSI safety factor in the fire protection system hydraulic calculation. The system demand shall be a minimum 5 PSI below the seasonal low water flow test supply. By each hydraulic calculated area, on each drawing, provide a copy of the hydraulic nameplate.

jj) *Section 903.8* is created and is approved to read as follows:

*903.8 Fire hose valves – Warehouse and/or storage fire areas.* In all warehouse storage areas exceeding 50,000 square feet, and where storage exceeds 12 feet in height, provide (Inside) 2-1/2” fire hose valves with 1-1/2” reducer to a 1-1/2” connection. Locate the valves at each door entrance to the warehouse and/or storage area. Provide additional 2-1/2” fire hose valves so that no portion of the warehouse and/or storage is more than 120’ maximum travel distance to a fire hose valve. Show location of all obstructions and/or racks on the drawings.

Fire hose Valves system piping shall be:

1. A separate riser piping system
2. The 2-1/2” valves shall be supplied by a minimum 4” piping with 2-1/2” drops to each valve.
3. Where system pressures exceed 100 PSI, provide Potter manufacturer reduced pressure field adjustable type valves.

kk) *Section 903.9* is created and is approved to read as follows:

*903.9 Large warehouse system check valves.* Provide a check valve for each sprinkler riser on large warehouse systems.

ll) *Section 905.3.1* is deleted and in its place is approved to read as follows:

*905.3.1 Building height.* Class III standpipe systems shall be installed throughout all building or structures more than two stories in height.

*Exceptions:*

1. Class I standpipes are allowed in buildings equipped with an automatic sprinkler system in accordance with section 903.1 or 903.1.1.

2. Class I manual standpipes are allowed in open parking garages where the highest floor is located not more than 150 feet (45,720 mm) above the lowest level of fire department vehicle access.
3. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures.
4. Class I standpipes are allowed in basements equipped throughout with an automatic sprinkler system.

mm) *Section 905.12* is created and approved to read as follows:

*905.12 Piping design.* The riser piping, supply piping and the water service piping shall be sized to maintain a residual pressure of at least 65 psi (448 kPa) at the top most outlet of each riser while the minimum quantities of water is flowing. The pipe size shall be based on the capacity of the automatic water supply system or, where as automatic water supply is neither required nor provided to maintain the residual pressure of 65 psi (448 kPa), the pipe size shall be based on a pressure of 150 psi (1,034 kPa) available at the fire department connection.  
*Exception:* The residual pressure of 65 psi (448 kPa) is not required in buildings equipped throughout with an automatic sprinkler system in accordance with section 903.3 and where the highest floor level is not more than 150 feet (45,720 mm) above the lowest level of fire department vehicle access.

nn) *Section 905.12.1* is created and approved to read as follows:

*905.12.1 Riser sizing.* The riser size shall be based on the hydraulic calculations for a minimum flow of 500 gallons per minute (gpm) (1,892L/min.).

*Exceptions:*

1. Where only 1 1/2-inch valves are provided, the riser(s) shall be sized to provide a minimum flow of 100 gpm (378 L/min.).
2. In buildings where limited area sprinkler systems are supplied with water from a common standpipe riser, the riser shall be sized to satisfy total demand.
3. For occupancies use group B, I, R1, or R2 in buildings that equipped throughout with an automatic sprinkler system in accordance with section 903.3, each riser shall be sized for a minimum flow of 250 gpm (945 L/min.).
4. Risers that are sized in accordance with the pipe schedule requirements of NFPA 14 listed in chapter 35 are not subject to this requirement.

oo) *Section 905.12.2 System pipe sizing* is created and approved to read as follows:

*905.12.2 System pipe sizing.* The system piping, including the horizontal or common feeder lines, shall be sized for a minimum flow of 500 gpm (1,892 L/min.). Where more than one standpipe riser is required or provided, all common system piping shall be sized for a minimum flow of 500 gpm (1892 L/min.) for the first riser plus 250 gpm (945 L/min.) for each additional riser, and the total shall not be required to exceed 1,250 gpm (4,731 L/min.).

*Exceptions:*

1. Where only 1 1/2-inch valves are provided, the supply piping shall be sized for a minimum flow of 100 gpm (378 L/min.) for each riser, and the total shall not be required to exceed 500 gpm (1,892 L/min.).
2. In buildings where limited area sprinkler systems are supplied with water from a common standpipe riser, the supply piping shall be sized for a minimum flow of 500 gpm (1892 L/min.) plus the sprinkler demand for first riser, plus 250 gpm (945 L/min.) for each additional riser, and the total shall be required to exceed 1,250 gpm (4,731 L/min.).
3. For occupancies in use group B, I, R-1, or R-2 in buildings that are equipped throughout with an automatic sprinkler system in accordance with section 903.3, all common supply piping shall be sized for a minimum flow of 250 gpm (945 L/min.) for the first riser plus 250 gpm (945 L/min.) for each additional riser, and the total shall not be required to exceed 750 gpm (2,838 L/min.).

pp) *Section 907.1.3* is deleted and in its place to read as follows:

*907.1.3 Equipment.* Systems and components shall be listed and approved for the purpose for which they are installed. New fire alarm control panels shall be addressable unless otherwise approved by the code official. The equipment shall be capable of having the audio signal silence without resetting the fire alarm control panel.

qq) *Section 907.2* is deleted and in its place is approved to read as follows:

*907.2 Where required New and existing buildings and structures.* An approved manual, automatic, or manual and automatic fire alarm system shall be provided in new or existing buildings and structures in accordance with sections 907.2.1 through 907.2.23. Where automatic sprinkler protection installed in accordance with section 903.3.1.1 is provided and connected to the building fire alarm system, automatic heat detection required by this section shall not be required. An approved automatic fire detection system shall be installed in accordance with the provisions of this code and NFPA 72. Devices, combinations of devices, appliances and equipment shall comply with section 907.1.2 the automatic fire detectors shall be smoke detectors, except that an approved alternative type of detector shall be installed in spaces such as boiler rooms where, during normal operation, products of combustion are present in sufficient quantity to actuate a smoke detector. If the alteration costs 50 percent or more of the reproduction cost of the building or structure, the entire building or structure shall comply with the requirements of new construction as defined in this code. For the purpose of calculating percentages of reproduction cost, the cost of alteration shall be construed as the total actual combined cost of all alterations made within any period of 30 months.

rr) *Section 907.2.1* is deleted and in its place is approved to read as follows:

*907.2.1 Group A.* A manual fire alarm system shall be installed in accordance with NFPA 72 in use group A occupancies.

ss) *Section 907.2.1.3* is created and approved to read as follows:

*907.2.1.3 Group A-2:* An automatic fire alarm detection system shall be installed in accordance with NFPA 72 in group A-2 occupancies that have an occupant load of 50 or more persons.

tt) *Section 907.2.2* is deleted and in its place is approved to read as follows:

*907.2.2 Group B.* A manual fire alarm system shall be installed in accordance with NFPA 72 in group B occupancies.

uu) *Section 907.2.3* is deleted and in its place is approved to read as follows:

*907.2.3 Group E.* A manual fire alarm system shall be installed in group E occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

vv) *Section 907.2.4* is deleted and in its place is approved to read as follows:

*907.2.4 Group F.* A manual fire alarm system shall be installed in accordance with NFPA 72 in group F occupancies.

ww) *Section 907.2.6* is deleted and in its place is approved to read as follows:

*907.2.6 Group I.* A manual fire alarm fire system and an automatic fire detection system shall be installed in group I occupancies. An electrically supervised, automatic smoke detection system shall be provided in waiting areas that are open to corridors.

xx) *Section 907.2.6.3* is deleted and in its place is approved to read as follows:

*907.2.6.3 Group I-3 occupancies.* All required fire protective signaling systems shall transmit alarm, supervisory and trouble signals to the main dispatch center for the fire district in accordance with NFPA 72 by one of the methods listed in 907.15 of this code.

*Exceptions:*

1. Smoke detectors in buildings of groups R-3 and R-4.
2. Single-station smoke detectors as required by 907.2.9.
3. Smoke detectors in building group I-3.
4. Smoke detectors in patient sleeping areas of group I-2.

yy) *Section 907.2.7* is deleted and in its place is approved to read as follows:

907.2.7 *Groups M and S.* A manual fire alarm system shall be installed in accordance with NFPA 72 in group M and S occupancies.

zz) *Section 907.2.8* is deleted and in its place is approved to read as follows:

907.2.8 *Group R-1.* A manual fire alarm system and an automatic fire detection system shall be installed in group R-1 occupancies.

Exceptions:

1. A manual fire alarm system is not required in buildings over two stories in height where all individual guestrooms and contiguous attic and crawl spaces are separated by at least one-hour fire partitions and each individual guestroom has an exit directly to a public way, exit court or yard.
2. An automatic fire detection system is not required in buildings that do not have interior corridors serving guestrooms and where guestrooms have a means of egress door opening directly to an exterior exit access that leads directly to the exits.
3. A separate fire alarm detection system is not required in buildings that are equipped throughout with an approved supervised automatic sprinkler system and a manual fire alarm system.

aaa) *Section 907.2.9* is deleted and in its place is approved to read as follows:

907.2.9 *Group R-2.* A manual and an automatic fire detection system shall be installed and maintained in common areas in all occupancies in use group R-2 such as corridors, hallways, stairwell, boiler or furnace rooms, laundry rooms, community rooms, meeting rooms, offices, attics and all other similar common areas within buildings. The automatic fire detection system must include occupant notification.

bbb) *Section 907.2.11.4* is deleted and in its place is approved to read as follows:

907.2.11.4 *Power source.* In new construction, required smoke alarms shall receive their [their] primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for over-current protection.

Exceptions:

1. Smoke alarms are not required to be equipped with battery backup in group R-1 where they are connected to an emergency electrical system.
2. Group R-3 smoke alarms are to be 120-volt with a battery backup.

ccc) *Section 907.2.11.4.1* is created and is approved to read as follows:

907.2.11.4.1 *Power source.* In existing buildings or structures, required smoke alarms shall receive their [their] primary power from the building wiring where

such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for over-current protection. If the alteration costs 50 percent or more of the reproduction cost of the building or structure, the entire building or structure shall comply with the requirements of new construction as defined in this code. For the purpose of calculating percentages of reproduction cost, the cost of alteration shall be construed as the total actual combined cost of all alterations made within any period of 30 months.

*Exceptions:*

1. Smoke alarms are not required to be equipped with battery backup in group R-1 where they are connected to an emergency electrical system.
2. Group R-3 smoke alarms are to be 120-volt with a battery backup.

ddd) *Section 907.3.1* is deleted and in its place is approved to read as follows:

*907.3.1 Duct smoke detectors.* Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Installation shall be in accordance with the manufacturer's instructions and shall be located within the building space in ambient conditions consistent with the listing of the duct detector. Activation of a smoke duct detector shall initiate an approved signal at a constantly attended location and shall perform the intended fire safety function in accordance with this code and the International Mechanical Code. Duct smoke detectors shall receive their power directly from an initiating device circuit or signal line circuit from the building fire alarm control unit. Duct smoke detectors shall be provided with remote alarm indicators located as directed by the code official. Duct smoke detectors shall not be used as a substitute for required open area detection.

eee) *Section 907.4.2* is deleted and in its place is approved to read as follows:

*907.4.2 Manual fire alarm boxes.* Manual fire alarm boxes shall be installed in each use group described in this code; they shall be installed in accordance with sections 907.4.2.1 through 907.4.2.4

fff) *Section 907.5.2.3* is deleted and in its place is approved to read as follows:

*907.5.2.3 Visible alarms.* Visible alarm notification appliances shall be provided in accordance with sections 907.5.2.3.1 through 907.5.2.3.4

ggg) *Section 907.6.5* is deleted and in its place is approved to read as follows:

*907.6.5 Monitoring.* All required fire protective signaling systems shall transmit alarm, supervisory, and trouble signals to the main dispatch center and shall be made with a two-way radio transmitter installed at each location. All required fire

protective signaling systems shall transmit alarm and trouble signals to the Fire Districts Communication Center in accordance with NFPA 72.

*Exceptions:*

1. Smoke detectors in buildings of use groups R-3 and R-4 not including common areas and attics.
2. Single-station smoke detectors as required by section 920.0.
3. Smoke detectors in buildings of use group 1-3 (see section 918.7.1).
4. Smoke detectors in patient sleeping rooms in buildings of use group 1-2.

**SECTION VI:** That Chapter 5, Article IX, Property Maintenance Code, of the Village of Vernon Hills code of ordinances is hereby repealed and amended to read as follows:

Sec. 5-141. Adoption:

The regulations of the 2012 edition of the International Property Maintenance Code as published by the International Code Council Incorporated are hereby adopted as the regulations governing the minimum standards for conditions and maintenance of all property, buildings, and structures in the Village of Vernon Hills, Illinois, with such amendments as hereafter set forth. . Where any provision of the International Property maintenance Code as adopted, conflicts with the provisions of the Code of Ordinances of the Village of Vernon Hills, the Code of Ordinances shall prevail as the applicable law of the village.

Sec. 5-142. International Property Maintenance Code amendments:

(a) *Section 101.1* is deleted and in its place is approved to read as follows:

*101.1 Title.* These regulations shall be known as the Property Maintenance Code of the Village of Vernon Hills, hereinafter referred to as "this code."

(b) *Section 102.3* is deleted and in its place is approved to read as follows:

*102.3 Application of other codes.* Repairs, additions or alterations to a structure, or changes of occupancy, shall be done in accordance with the procedures and provisions of the Village of Vernon Hills Building Code, Code of Ordinances, and Zoning Ordinance.

(c) *Section 103.1* is deleted and in its place is approved to read as follows:

*103.1 General.* The Community Development Department--Building Division shall be known as the Department of Property Maintenance Inspection and the Building Commissioner shall be known as the code official when referenced herein.

(d) *Section 103.5* is deleted and in its place is approved to read as follows:

*103.5 Fees.* The fee to appeal a decision of the code official, a notice of violation, or order issued under this code shall be as specified in Chapter 25, Comprehensive Fees and Penalties. Said fee may be returned to the applicant, in whole or part, if the hearing officer determines circumstances justify a refund.

(e) *Section 106.4* is deleted and in its place is approved to read as follows:

*106.4 Violation penalties.*

1. Any person, firm, or corporation who shall violate any provision of this code shall, upon conviction thereof, be subject to a fine as specified in Chapter 25, Comprehensive Fees and Penalties. Each day that a violation continues to exist after due notice has been served, in accordance with the terms and provisions hereof, shall be deemed a separate offense.
2. Any person who defaces or removes a condemnation placard without the approval of the code official shall be subject to a fine as specified in Chapter 25, Comprehensive Fees and Penalties in addition to the penalties as provided by this code.
3. Any person, firm, or corporation who fails to comply with any order to cut long grass and weeds or trim trees and shrubs within the time specified shall be liable for the Village incurred cost to abate the nuisance in addition to a administrative processing charge as specified in Chapter 25, Comprehensive Fees and Penalties in addition to the penalties as provided by this code.

(f) *Sections 111.1 through 111.3* is deleted and in its place is approved to read as follows:

*111.1 Means of Appeal.* Any person directly affected by a decision of the code official or a notice or order issued under this code shall have the right to appeal to the Village Hearing Officer provided that a written application for appeal and fee (see Section 103 of the International Property Maintenance Code) is filed within ten (10) days after the day the decision, notice, or order was served. An application for appeal shall be based on a claim that the true intent of this code or rules adopted hereunder have been incorrectly interpreted, do not apply, are adequately satisfied by other means, or that the strict application of any requirement of this code would cause an undue hardship.

*111.2 Notice of Meeting.* The code official shall schedule a hearing before the Village Hearing Officer within twenty (20) days from the date an application for appeal is received.

*111.3 Hearing Officer Decision.* The Village Hearing Officer may uphold, modify, or reverse the decision or order of the code official. The hearing officer shall provide the code official and applicant with a written decision to the appeal that shall be promptly administered by the code official or their designee. Any person, firm, or corporation aggrieved by the decision of the Hearing Officer may seek relief there from in any court having jurisdiction as provided by the laws of the State of Illinois.

(g) *Section 302.3.1* is created and approved to read as follows:

*302.3.1--Parking Lot and Private Roadways:* It is the intent of this ordinance to provide a uniform guideline of submittal requirements for permits of maintenance of existing private roadways, parking lot/loading dock resurfacing and reconstruction projects.

1. *Definition of Parking Area:* The parking area is to be defined as the pavement required for the number of parking stalls needed to accommodate the business customers and employees. The parking area covers striping, signage, lighting, drainage, and the ingress/egress areas to the business. The parking area also includes delivery and loading dock pavement.

2. *Application:* The parking area will be evaluated in unison with the property owner. After inspection, if the following items are determined to exist the owner will be notified in writing of the deficiencies.

a. When the pavement begins to fail (i.e., potholes severe settlement or heaving, tripping hazards, asphalt failure due to sub base failure, severe cracking) as determined by the Village Engineer or the Village Code Enforcement Officer.

b. When the pavement condition presents a hazard to vehicular and pedestrian traffic.

c. When curb and gutter, sidewalks, and utility structures have failed.

d. When the striping and signage become unrecognizable or do not meet the current standards.

e. When there is a change in use, or additions are being made.

f. All pavements are to meet the minimum requirements of the Village of Vernon Hills Development Regulations, the IDOT Standard Specifications for Road and Bridge Construction, the International Property Maintenance Code, and the Illinois Accessibility Code, current editions.

3. *Enforcement:* After an inspection of the property deficiencies, a written notice of the deficiencies will be provided to the property owner for response.

4. *Submittal for Permit:*

a. *Plans*

(i) A copy of the original approved design plan should be used for reference, where practical. The plan submittals are to delineate the proposed improvements including repair strategy, extent of repairs or

modifications, and location. Four copies of the repair plans are to be submitted for review and comments, including a cost estimate.

b. *Pavement*

(i) When pavement removal has been determined to be necessary (i.e.: severe alligating, potholes, etc.), the pavement is to be repaired in accordance to the Village Development Ordinance and the IDOT standard Specifications for Road and Bridge Construction, Section 440 Pavement Rehabilitation, or current editions. The pavement shall be neatly saw cut before removal. The asphalt is to be removed and replaced with the required pavement cross-section. Should the sub base be determined to be unstable, a proof roll may be required to determine the scope of repairs. If the sub base is determined to be failing after the asphalt has been removed, then the appropriate repairs will be required.

(ii) All patching areas will be re-graded and compacted. The saw cut asphalt edges require prime before the asphalt is replaced. For areas where the complete asphalt surface has been removed, aggregate prime coat shall be installed per the current specifications.

(iii) All necessary milling to maintain drainage is to be shown in plan.

(iv) Milling is required around any structure that is not to be adjusted or repaired.

(v) Milling is required where asphalt surface meets concrete surfaces.

(vi) Milling is required along all B-6.12 type curbs. Asphalt overlays within gutters are not permitted without the Village Engineers approval.

(vii) Milling is required along all "B" type curb, if the height of the curb will be 3 inches or less after the overlay.

(viii) Milling of large cracks and sealing, the use of geotextile fabric for alligatored areas and longitudinal cracks may be considered by the Village Engineer for less severe failures.

(ix) A butt joint is required where existing pavement meets new pavement.

(x) Pavement area is to be mechanically swept clean before prime coat is applied at the required application rate. Apply prime, in advance of paving, following the Village of Vernon Hills and IDOT specifications, current editions. The use of aggregate (sand) for prime is recommended if traffic will be allowed through the construction area.

(xi) A geotechnical engineer is recommended to be present for all paving operations to verify that the proper compaction is being obtained. Paving is to be installed per the Village of Vernon Hills and IDOT specifications, current editions.

(xii) Concrete pavement is to be patched in accordance to the IDOT Standard Specifications for Road and Bridge Construction, Section 442 Pavement Patching, or current edition.

c. *Manhole Structures (storm, sanitary, water)*

(i) All structures in the paved areas shall be reconstructed as necessary to maintain planned drainage and integrity of the structure. All repairs are to conform to the current Village Standards No. 3, 4, 7, 9, and 16.

(ii) Broken or deteriorated adjusting rings are to be replaced. Two (2) adjusting rings totaling eight (8) inches maximum is required.

(iii) All broken castings and lids are to be replaced.

(iv) Adjustments to any valve vaults or sanitary sewer structures are to get the approval of the Lake County Public Works Department.

(v) Use of frame insets is permitted

(vi) Structures and manhole lids are to be cleaned after paving.

d. *Curb and Sidewalks*

(i) All curb that is broken, not allowing proper drainage, missing, or creates a tripping hazard is to be replaced.

(ii) All sidewalk that is broken, missing, or creates a trip hazard is to be replaced.

(iii) Stalled or deteriorated sidewalk shall be replaced when it fails to meet the standards of the adopted edition of the International Property Maintenance Code.

(iv) Curb and sidewalk is to be replaced in accordance to the current Village Standards No. 28, 28A, 29, and 30.

e. *Lighting*

(i) Lighting is to be verified after reconstruction of the parking lot to assure that damage has not occurred.

f. *Signage and Striping*

- (i) Shall be updated to the current standards.
- (ii) The originally approved striping plans, including the exact amount of handicapped parking stalls will be used. Any changes to the plan must be approved by the Building Division.
- (iii) Handicapped parking spaces and signs shall meet the requirements of the current Illinois Accessibility Code.
- (iv) Two (2) coats of paint are required for re-stripping applications.
- (v) All signposts are to conform to the current Village Standards No. 44 and 45 and will be plumb and securely embedded into the pavement.
- (vi) All sign panels missing, not legible or reflective are to be replaced to meet the current Village codes.

g. *Grading within the Parking Lot (Islands)*

- (i) All areas within the parking lot shall be graded to drain, and settled areas filled in.
- (ii) Any alterations to the existing parking lot islands are to be submitted for approval.

h. *Traffic Control*

- (i) It is the responsibility of the permit applicant to provide advance warning and safe access to the adjacent businesses during construction.
- (ii) Proper notification is to be provided prior to the start of construction.
- (iii) The construction area will be properly barricaded, and any required informational signs shall be provide and maintained.
- (iv) The storage of equipment and construction material will be confined to areas that are well lit and properly barricaded. At no time shall the area block drainage areas, fire hydrants, fire lanes, or entrance/exits.

(h) *Section 302.4* is deleted and in its place is approved to read as follows:

*302.4 Long Grass and Weeds.*

1. Except as provided, all premises and exterior property shall be maintained free from long grass and weed growth in excess of six (6) inches on lots improved with a building or structure and eighteen (18) inches on unimproved (vacant) lots.

All noxious weeds are prohibited. Grasses and weeds include all species of grass and weeds, annual plants, and vegetation. Cultivated flowers, gardens, wooded areas, and other natural-type landscaping, as approved by the Board of Trustees, are not included. Trees and shrubbery shall be maintained so not to present a hazard or nuisance to adjoining properties or to persons or vehicles traveling on the public right-of-way.

Exceptions:

a. Vacant land located within one-hundred (100) feet from an occupied residentially-zoned parcel shall not have grass or weed growth over six (6) inches in height.

b. Vacant land shall not have grass or weed growth over six (6) inches in height within ten (10) feet from any public sidewalk or public right-of-way.

2. Any person, firm, or corporation who fails to comply with any order to cut long grass, weeds, or trim trees and shrubs within the time specified shall be liable for the village incurred cost to abate the nuisance in addition to a processing charge and penalties as provided by this code.

(i) *Section 302.9* is deleted and in its place is approved to read as follows:

*302.9 Defacement of property.* No person shall willfully damage, mutilate or deface any exterior surface of any structure or building on any private or public property by placing thereon any marking, carving, or graffiti.

It shall be unlawful for the owner of any property not to remove or cause to remove from the exterior surface of any building or structure any display of vandalism or graffiti, including but not limited to, any damage, defacing, marring, or discoloring of the normal exterior surface condition. All such displays of vandalism or graffiti shall be removed within seven (7) days of being notified by the code official or their designee.

(j) *Section 304.3* is deleted and in its place is approved to read as follows:

*304.3 Premises identification.* All buildings shall have approved street address numbers placed on the building in accordance with chapter 5 of the Village of Vernon Hills Code of Ordinances--Buildings and Building Regulations.

(k) *Section 304.14* is deleted and in its place is approved to read as follows:

*304.14 Insect screens:* During the period from June 1 to September 30, every door, window, and other outside opening required or used for ventilation of habitable rooms, food preparation areas, food service areas, or any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged or stored, shall be supplied with approved tightly fitting screens of not less than 16 mesh per inch (16 mesh per 25 mm) or other Village

approved device. Every swinging door that is mounted on an exterior building wall shall have a self-closing device in good working condition.

**SECTION VII:** That chapter 5, Article X, Electrical Code, of the Village of Vernon Hills Code of Ordinances is hereby repealed and amended to read as follows:

Sec. 5-151. Adoption:

The National Electrical Code, 2011 edition, and including Annex G, as published by the National Fire Protection Association (NFPA 70) and approved by the American National Standards Institute, is hereby adopted as the Electrical Code of the Village of Vernon Hills, Illinois with such amendments as hereafter set forth. Where any provision of the National Electric Code as adopted, conflicts with the provisions of the Code of Ordinances of the Village of Vernon Hills, the Code of Ordinances shall prevail as the applicable law of the village.

Sec. 5-152. National Electrical Code amendments:

(a) *Annex H Section 80.2* is deleted and in its place is approved to read as follows:

*80.2 Definitions.*

*Authority Having Jurisdiction:* The organization, office, or individual responsible for approving equipment, material, an installation, or procedure.

*Electrical Inspector:* The Building Commissioner and his/her designee meeting the requirements of 80.27 and authorized to perform electrical inspections.

(b) *Annex H Section 80.13(13)* is deleted and in its place is approved to read as follows:

*80.13(13) Inspection notification:* Whenever any installation subject to inspection prior to use is covered or concealed without having first been inspected, the authority having jurisdiction shall be permitted to require that such work be exposed for inspection. The authority having jurisdiction shall be notified 24 hours in advance for inspection.

(c) *Annex H Section 80.19(F)* is deleted and in its place is approved to read as follows:

*90.11 Inspection and Approvals:*

(1) Upon the completion of any installation of electrical equipment that has been made under a permit other than an annual permit, it shall be the duty of the person, firm, or corporation making the installation to notify the Community Development Department twenty four (24) hours in advance for an inspection of the work.

(2) Where the Inspector finds the installation to be in conformity with the statutes of all applicable local ordinances and all rules and regulations, the Inspector shall issue to the person, firm, or corporation making the installation a certificate of approval.

(3) When any portion of the electrical installation within the jurisdiction is hidden from view by the permanent placement of parts of the building, the person, firm, or corporation installing the equipment shall notify the Electrical Inspector, such equipment shall not be concealed until it has been approved by the Electrical Inspector.

(4) At regular intervals, the Electrical Inspector shall visit all buildings and premises where work may be done under annual permits and shall inspect all electric equipment installed under such permit since the date of the previous inspection. The Electrical Inspector shall issue a certificate of approval for such work that is found to be in conformity with the provisions of Article 80 and all applicable ordinances, orders, rules, and regulations.

(5) If, upon inspection, any installation is found not to be fully in conformity with the provisions of Article 80, and all applicable ordinances, rules, and regulations, the Inspector making the inspection shall at once forward to the person, firm, corporation making the installation a written notice stating the defects that have been found to exist.

(d) *Annex H Section 80.27* is deleted and in its place is approved to read as follows:

*80.27 Inspector's qualifications*

(A) Certificate. All electrical inspectors shall be certified by a nationally recognized inspector certification program accepted by the Village of Vernon Hills. The certification program shall specifically qualify the inspector in electrical inspections. No person shall be employed as an Electrical Inspector unless that person is the holder of an Electrical Inspector's certificate of qualification issued by a nationally recognized inspector certification program, except that any person who on the date on which this law went into effect was serving as a legally appointed Electrical Inspector of Vernon Hills shall, be allowed to continue to serve as an electrical inspector in the Village.

(B) Experience. Electrical Inspector applicants shall demonstrate the following:

(1) Have a demonstrated knowledge of the standard materials and methods used in the installation of electrical equipment.

(2) Be well versed in the approved methods of construction for safety to persons and property.

(3) Be well versed in the ordinances related to Electrical work and the National Electrical Code, as approved by the American National Standards Institute.

(4) Have had at least 5 years experience as an Electrical Inspector or 5 years in the supervision of the installation of electrical equipment. In lieu of such experience, the applicant shall be a graduate in electrical engineering or of a similar curriculum of a college or university considered by the village as having a suitable requirement for graduation and shall have had two year's practical experience.

(C) Recertification. Electrical inspectors shall be re-certified as established by the provisions of the applicable certification program.

(e) *Annex H Section 80.29* is deleted and in its place is approved to read as follows:

*90.13 Liability for Damages.* This code shall not be construed to affect the responsibility or liability of any party owning, designing, operating, controlling, or installing any electrical equipment for damages to persons or property caused by a defect therein, nor shall the Village of Vernon Hills or any of its employees be held as assuming any such liability by reason of the inspection, re-inspection or other examination authority.

(f) *Article 100* is amended by adding the following definitions:

*100 Definitions*

*Electrical contractor:* The term means any person, firm or corporation engaged in the business of installing or altering, by contract, electrical equipment for the utilization of electricity supplied for light, heat or power, not including radio apparatus or equipment for wireless reception of sounds and signals, not including common carriers, which are under the jurisdiction of the Illinois Commerce Commission, for use in their operations as public utilities. The term "electrical contractors" does not include employees of such contractor to do or supervise such work.

*Electrical equipment:* The term means any conductor and/or equipment installed for the utilization of electricity for light, heat and power, but does not include radio apparatus or equipment for wireless reception of sounds and signals and does not include apparatus, conductors and other equipment installed for or by public utilities, including common carriers, which are under the jurisdiction of the Illinois Commerce Commission, for use in their operation as public utilities.

*Licensed contractor:* The term means a contractor granted permission by competent authority within the State of Illinois to engage in a business or occupation.

*Registered contractor:* The term means a contractor who has been qualified formally or officially by a testing procedure Based on the current year edition of the National Electrical Code. (NFPA 70)

(g) *Section 210.52(D)* is deleted and in its place is approved to read as follows:

*210.52(D) Bathrooms.* In dwelling units, at least one wall receptacle outlet shall be installed in bathrooms or powder rooms within 900 mm (3 ft.) of the outside edge of each basin. The receptacle outlet shall be located on a wall or partition that is adjacent to the basin or basin countertop. Each bathroom or powder room requires a minimum of one (1) 20-amp receptacle circuit.

(h) *Section 225.10* is deleted and in its place is approved to read as follows:

*225.10 Wiring on Buildings:* All conduits installed on the exterior of any building, sign or pole shall be rigid galvanized metal conduit, galvanized intermediate metal conduit or rigid aluminum conduit. However, rigid aluminum conduit shall not be used where exposed to mechanical damage. At no time shall rigid aluminum conduit be installed between grade level and six (6) feet above grade level where vehicular traffic is present or where vehicular could be present (rear of buildings, in alleyways, delivery areas, etc.). In these areas, the use of rigid galvanized metal conduit shall be approved.

(i) *Section 230.22 through 230.29, Overhead Service-Drop Conductors,* is hereby deleted in its entirety.

(j) *Section 230.30* is deleted and in its place is approved to read as follows:

*230.30 Insulation:* Service-lateral conductors shall be insulated for the applied voltage.

(k) *Section 230.31(B)* is deleted and in its place is approved to read as follows:

*230.31(B) Minimum Size:* The conductors shall not be smaller than 3/0 AWG copper.

(l) *Section 230.41* is deleted and in its place is approved to read as follows:

*230.41 Insulation of Service-Entrance Conductors:* Service-entrance conductors entering or on the exterior of buildings or other structures shall be insulated.

(m) *Section 230.42(C)* is deleted and in its place is approved to read as follows:

*230.42(C) Grounded Conductors.* The grounded conductor must be the same size as the ungrounded conductors.

(n) *Section 230.42(D)* is created and approved to read as follows:

*230.42(D) Residential Services:* New single-family homes shall have a minimum two hundred (200) amp main disconnect, with an adequate number of branch circuits. The service shall be installed underground, entrance to be in two (2) inch heavy wall galvanized conduit and the conductors are to be not less than two (2) #3/0 copper cable and one (1) #3/0 copper neutral (Two hundred (200) amp capacity). This panel is to be open for the rough inspection.

- (o) *Section 230.42(E)* is created and approved to read as follows:

*230.42(E) Residential Service Revisions:* All residential service revisions shall be one hundred (100) amp or larger. Panel revisions shall have a main disconnecting means and a minimum of twenty (20) branch circuit capability.

- (p) *Section 230.43* is deleted and in its place is approved to read as follows:

*230.43 Wiring Methods for 600 Volts, Nominal, or Less.* Heavy wall galvanized conduit is required for all service entrances.

- (q) *Section 240.24(B)(1)* is created and approved to read as follows:

*240.24(B)(1) Occupancy.* Main disconnecting means shall be located in each unit or space.

- (r) *Section 240.88* is created and approved to read as follows:

*240.88 Circuit Breakers for Other than Dwelling Units.* All electrical panels shall be bolt-on type circuit breakers.

- (s) *Section 240.89* is created and approved to read as follows:

*240.89 Tandem Type Breakers.* Tandem type breakers are not approved for use except as approved by the Building Commissioner in connection with alterations and renovations.

- (t) *Section 250.112(N)* is created and approved to read as follows:

*250.112(N), Central Air Conditioning:* A separate equipment grounding conductor shall be installed for all central air conditioning units. Conductors shall be installed in liquid-tight flexible metal conduit to avoid vibrations from the building to the unit. Electrical plastic tape shall not be used to fasten low voltage wiring to conduit or refrigerant lines. Plastic ties approved for the purpose shall be used.

- (u) *Section 300.4(I)* is created and approved to read as follows:

*300.4(I) Protection Against Physical Damage:* Conductors shall not be pulled in conduit until wall finishes are applied or all mechanical work is completed, without the consent of the electrical inspector.

(v) *Section 300.24* is created approved to read as follows:

*300.24 Abandoned Raceways, Cables and Wiring.* All abandoned conduit, low voltage wiring, fire alarm wiring and electrical equipment shall be removed from all ceilings, walls and floor areas unless otherwise approved by the Building Commissioner.

(w) *Section 310.106(B)* is deleted and in its place is approved to read as follows:

*310.106(B) Conductor Material:* Conductors in this article shall be of copper and capable of withstanding the load connected.

(x) *Section 314.16(A)(1)* is deleted and in its place is approved to read as follows:

*314.16(A)(1) Standard Boxes:* The minimum size box that can be used is a 1 1/2 by 4 in. square/octagonal. The volumes of standard boxes that are not marked shall be as given in Table 314.16(A). All conductors shall be copper and capable of withstanding the connected load.

(y) *Section 314.27(A)* is deleted and in its place is approved to read as follows:

*314.27(A) Boxes at Luminaire (lighting fixture) Outlets.* Boxes used at luminaire (lighting fixture) or lampholder outlets shall be designed for the purpose. At every outlet used exclusively for lighting, the box shall be designed or installed so that a lighting fixture may be attached.

*Dwelling Units:* All junction boxes roughed in for ceiling openings in bedrooms, family rooms, living rooms, dining rooms, kitchens, dens, foyers and other rooms or areas where ceiling fans are commonly installed shall be installed so as to provide adequate support for ceiling fans and shall be listed for this purpose.

(z) *Section 320 Armored Cable Type AC* is deleted in its entirety.

(aa) *Section 322 Flat Cable Assemblies: Type FC* is deleted in its entirety.

(bb) *Section 324 Flat Conductor Cable: Type FCC* is deleted in its entirety.

(cc) *Section 332 Mineral-Insulated, Metal-Sheathed Cable: Type MI* is deleted in its entirety.

(dd) *Section 334 Non-Metallic-Sheathed Cables: Types NM, NMC, and NMS* is deleted in its entirety.

(ee) *Section 338 Service Entrance Cable, types SE and USE* is deleted in its entirety.

(ff) *Section 340 Underground Feeder and Branch Circuit Cable, type UF* is deleted in its entirety.

(gg) *Section 348.10* is deleted and in its place is approved to read as follows:

*348.10 Uses Permitted.* Flexible metal conduit may be permitted for use in exposed locations where permitted by the code official to serve equipment and fixture installations. Flexible metal conduit may be permitted in concealed locations where permitted by the code official to feed outlets in connection with remodeling.

(hh) *Section 348.60* is deleted and in its place is approved to read as follows:

*348.60 Grounding and Bonding.* An equipment grounding conductor shall be installed no matter what length is to be used. When required and installed, equipment grounding conductors shall be installed in accordance with 250.134(B). When required and installed, equipment bonding jumpers shall be installed in accordance with 250.102.

(ii) *Section 350.60* is deleted and in its place is approved to read as follows:

*350.60 Grounding and Bonding.* An equipment grounding conductor shall be installed no matter what length is to be used. When required and installed, equipment grounding conductors shall be installed in accordance with 250.134(B). When required and installed, equipment bonding jumpers shall be installed in accordance with 250.102.

(jj) *Section 358.10(D)* is created and approved to read as follows:

*358.10(D) Uses Permitted.* All wiring changes or additions to electrical systems in existing residences shall be of rigid galvanized, intermediate metal conduit, or electrical metallic tubing unless otherwise approved by the code official in connection with remodeling and renovations.

(kk) *Section 360.60* is deleted and in its place is approved to read as follows:

*360.60 Grounding and Bonding.* An equipment grounding conductor shall be installed no matter what length is to be used. When required and installed, equipment grounding conductors shall be installed in accordance with 250.134(B). When required and installed, equipment bonding jumpers shall be installed in accordance with 250.102.

(ll) *Section 382 Nonmetallic Extensions* is deleted in its entirety.

(mm) *Section 394 Concealed Knob and Tube Wiring* is deleted in its entirety.

(nn) *Section 396 Messenger Supported Wiring* is deleted in its entirety.

(oo) *Section 398 Open Wiring on Insulators* is deleted in its entirety.

(pp) *Section 406.4(G)* is created and approved to read as follows:

*406.4(G) Exterior Receptacles:* The spacing between and interior and exterior receptacles must be 18 inches. (No back to back)

(qq) *Section 700.16* is deleted and in its place is approved to read as follows:

*700.16 Emergency Illumination.* Emergency illumination shall include all required means of egress lighting, illuminated exit signs, and all other lights specified as necessary to provide required illumination. Emergency lighting systems shall be designed and installed so that the failure of any individual lighting element, such as the burning out of a light bulb, cannot leave in total darkness any space that requires emergency illumination. Where high-intensity discharge lighting such as high- and low-pressure sodium, mercury vapor, and metal halide are used as the sole source of normal illumination, the emergency lighting system shall be required to operate until normal illumination has been restored. Emergency (battery pack) lighting shall be installed in each electrical room, closet or vault, wherever an electrical service is located, or adjacent to any electric service panel.

(rr) *Section 725.53(A)* is created and approved to read as follows:

*725.53(A) Installation of Conductors and Equipment in Cables, Compartments, Cable Trays, Enclosures, Manholes, Outlet boxes, Device boxes, and Raceways for Class 2 and Class 3 Circuits.* Except as provided, low voltage wiring for signaling or control systems, which are enclosed in building partitions, walls, or in any way made inaccessible by the building construction, shall be encased in a raceway wherever they are so enclosed. The above raceways need not terminate in a box or fitting as long as normal precautions are taken to protect the conductors against injury.

*Exception:* In new single-family dwellings a minimum 1 1/4-inch continuous convenience raceway shall be installed between the attic and the basement or to another approved location when no basement exists.

(ss) *Section 760.54(A)* is created and approved to read as follows:

*760.54(A) Installation of Conductors and Equipment in Cables, Compartments, Cable Trays, Enclosures, Manholes, Outlet boxes, Device boxes, and Raceways for Power Limited Circuits.* Expect [Except] as provided, low voltage wiring for signaling or control systems, which are enclosed in building partitions, walls, or in any way made inaccessible by the building construction, shall be encased in a

raceway wherever they are so enclosed. The above raceways need not terminate in a box or fitting as long as normal precautions are taken to protect the conductors against injury.

Exception: In new and existing single-family dwellings a minimum 1 1/4-inch continuous convenience raceway shall be installed between the attic and the basement or to another approved location when no basement exists.

(tt) *Section 770.133(E)* is created and approved to read as follows:

*770.133(E) Installation of Optical Fibers and Electrical Conductors:* Except as provided, optical fibers, which are enclosed in building partitions, walls, or in any way made inaccessible by the building construction, shall be encased in a raceway wherever they are so enclosed. The above raceways need not terminate in a box or fitting as long as normal precautions are taken to protect the conductors against injury.

Exception: In new and existing single-family dwellings a minimum 1 1/4-inch continuous convenience raceway shall be installed between the attic and the basement or to another approved location when no basement exists.

(uu) *Section 800.133(C)* is created and approved to read as follows:

*800.133(C) Installation of Communication Wires, Cables, and Equipment:* Except as provided, low voltage wiring for signaling or control systems, which are enclosed in building partitions, walls, or in any way made inaccessible by the building construction, shall be encased in a raceway wherever they are so enclosed. The above raceways need not terminate in a box or fitting as long as normal precautions are taken to protect the conductors against injury.

Exception: In new and existing single-family dwellings a minimum 1 1/4-inch continuous convenience raceway shall be installed between the attic and the basement or to another approved location when no basement exists.

(vv) *Section 820.113* is deleted and in its place is approved to read as follows:

*820.113 Installation and marking of Coaxial Cables:* Except as provided, low voltage wiring for signaling systems, which are enclosed in building partitions, walls, or in any way made inaccessible by the building construction shall be encased in a raceway wherever they are so enclosed. The above raceways need not terminate in a box or fitting as long as normal precautions are taken to protect the conductors against injury.

Exception: In new single-family dwellings a minimum 1 1/4-inch continuous convenience raceway shall be installed between the attic and the basement or to another approved location when no basement exists.

(ww) *Section 830.133(C)* is created and approved to read as follows:

*830.133(C): Installation of Network-Powered Broadband Communications Cables and Equipment.* Except as provided, low voltage wiring for Network Powered Broadband Communication Cables, which are enclosed in building partitions, walls, or in any way made inaccessible by the building construction shall be encased in a raceway wherever they are so enclosed. The above raceways need not terminate in a box or fitting as long as normal precautions are taken to protect the conductors against injury.

*Exception:* In new single-family dwellings a minimum 1 1/4-inch continuous convenience raceway shall be installed between the attic and the basement or to another approved location when no basement exists.

**SECTION VIII:** That Chapter 5 of the Village of Vernon Hills Code of Ordinances is hereby amended by the addition of Article XVI, Energy Conservation Code, to read as follows:

**Sec. 5-330. Adopted:**

The regulations of the 2012 edition of the International Energy Conservation Code as published by the International Code Council Incorporated are hereby adopted as the regulations governing the energy efficient building envelopes and installations of energy efficient mechanical, lighting and power systems in the Village of Vernon Hills, Illinois, with such amendments as hereafter set forth. Where any provision of the International Energy conservation Code as adopted, conflicts with the provisions of the Code of Ordinances of the Village of Vernon Hills, the Code of Ordinances shall prevail as the applicable law of the village.

**Sec. 5-331. Amendments:**

(a) *Section 101.1* is deleted and in its place is approved to read as follows:

*101.1 Title.* This code shall be known as the International Energy Conservation code of the Village of Vernon Hills and shall be cited as such. It is referred to herein as, "This Code".

(b) *Section 101.2* is deleted and in its place is approved to read as follows:

*101.2 Scope.* This code applies to residential and commercial structures where interior spaces are either heated or cooled.

**SECTION IX:** That Chapter 5 of the Village of Vernon Hills Code of Ordinances is hereby amended by the addition of Article XVII, International Existing Building Code, to read as follows:

Sec. 5-340. Adopted:

The regulations of the 2012 edition of the International Existing Building Code as published by the International Code Council Incorporated are hereby adopted as the regulations governing the repair, alteration, change of occupancy, addition and relocation of existing buildings, including historic buildings, in the Village of Vernon Hills, Illinois, with such amendments as hereafter set forth. Where any provision of the International Existing Building Code as adopted, conflicts with the provisions of the Code of Ordinances of the Village of Vernon Hills, the Code of Ordinances shall prevail as the applicable law of the village.

Sec. 5-341. Amendments:

(a) *Section 101.1* is deleted and in its place is approved to read as follows:

*101.1 Title:* These regulations shall be known as the Existing Building Code of the Village of Vernon Hills, hereinafter referred to as, “This Code”.

**SECTION X:** That Chapter 5 of the Village of Vernon Hills Code of ordinances is hereby amended by the addition of Article XVIII, International Wildland-Urban Interface Code, to read as follows:

Sec. 5-350. Adopted:

The regulations of the 2012 edition of the International Wildland-Urban Interface Code as published by the International Code Council Incorporated are hereby adopted as the regulations governing the mitigation of hazard to life and property from the intrusion of fire from wildland exposures , fire from adjacent structures and prevention of structure fires from spreading to wildland fuels as herein provided. Where any provision of the International Wildland-Urban Interface Code as adopted, conflicts with the provisions of the Code of Ordinances of the Village of Vernon Hills, the Code of Ordinances shall prevail as the applicable law of the village.

Sec. 5-351. Amendments:

(a) *Section 101.1* is deleted and in its place is approved to read as follows:

*101.1 Title:* These regulations shall be known as the Wildland Urban Interface Code hereinafter referred to as, “This Code”.

(b) *Section 401.1* is deleted and in its place is approved to read as follows:

*401.1 Scope:* Wildland-Urban Interface areas shall be provided with emergency vehicle access and water supply in accordance with this chapter and the fire protection district having jurisdiction.

**SECTION XI. SEVERABILITY.** In the event that any section, clause, provision, or part of this ordinance shall be found and determined to be invalid by a court of competent jurisdiction, all valid parts that are severable from the invalid parts shall remain in full force and effect. If any part of this ordinance is found to be invalid in any one or more of its several applications, all valid applications that are severable from the invalid applications shall remain in effect.

**SECTION XII. REPEAL AND SAVINGS CLAUSE.** All ordinances or parts of ordinances in conflict herewith are hereby repealed; provided, however, that nothing herein contained shall affect any rights, actions or causes of action which shall have accrued to the Village of Vernon Hills prior to the effective date of this ordinance.

**SECTION XIII. EFFECTIVE DATE.** This ordinance shall be in full force and effect from and after its passage, approval and publication as provided by law.

**SECTION XIV. ORDINANCE NUMBER.** This ordinance shall be known as Ordinance Number 2012-057

Adopted by roll call vote as follows:

AYES: 6 – Koch, Marquardt, Schultz, Schwartz, Williams, Hebda

NAYS: 0 - None

ABSENT AND NOT VOTING: 0 - None

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Roger L. Byrne, Village President

PASSED: 10/16/2012

APPROVED: 10/16/2012

PUBLISHED IN PAMPHLET FORM: 10/18/2012

ATTEST:

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Michael S. Allison, Village Clerk