DU PAGE COUNTY

BUILDING CODE

THE CODE

OF

DUPAGE COUNTY

_____

General Enactments

of the

County

_____

Amended, November 14, 2023

Effective January 1, 2024

CHAPTER 1 BUILDING CODE

Art. I. Building Code, Sections 8-100
Art. II. Minimum Planning Requirements, Sections 8-200
Art. III. Minimum Construction Requirements, Sections 8-300
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Art. VII. International Building Code 2021, Section 8-700
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Art. XII. International Existing Structures Code 2021, 8-1200
Art. XIII. International Swimming Pool and Spa Code 2021, 8-1300

BUILDING CODE

Unlike the other codification numbers, the Building Code is numbered on a one hundred (100) section number basis. An eight (8) has been added to each section of the Building Code to denote "Chapter 8". In addition, each section is divided into a subsection, which is numbered on a decimal basis or alphabetical basis (i.e. 8-100.1, 8-100.2, 8-220.A, 8-200.B. etc.) The hundred series has been established by the Building Division of the Building & Zoning Department and is preserved in the DuPage County Code.

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CHAPTER 8
BUILDING CODE

ARTICLE I. BUILDING CODE

8-100: SCOPE:

8-100.1: Title:

These regulations shall be known as the DuPage County Building Code hereinafter referred to as "this Code".

1. Additional County regulations frequently referenced within this Code include the DuPage County Zoning Ordinance and the DuPage Countywide Stormwater and Floodplain Ordinance (CSFPO)

8-100.2: Purpose of Code:

The purpose of this Code is to provide safety, health and public welfare through structural strength and stability, means of egress, adequate light and ventilation, energy conservation and protection to life and property from fire and hazards incidental to the use, design, construction, alteration, relocation, removal or demolition of buildings and structures.

8-100.3: Scope:

These regulations shall control all matters concerning the construction, alteration, addition, repair, relocation, removal, demolition, use, location, occupancy and maintenance of all buildings and structures, and shall apply to existing or proposed buildings and structures: except as such matters are otherwise provided for in other ordinances or statutes, or in the rules and regulations authorized for promulgation under the provisions of this Code.

8-100.4: Referenced Codes and Standards:

The codes and standards referenced in this Code shall be considered part of the requirements of this Code to the prescribed extent of each such reference. Where differences occur between provisions of this Code and referenced codes and standards, the provisions of this Code shall apply.

8-100.5: Code Remedial:

This Code shall be construed to secure its expressed intent, which is to ensure public safety, health and welfare insofar as they are affected by building construction, through structural strength, adequate egress facilities, sanitary equipment, light and ventilation, and fire safety: and, in general, to secure safety to life and property from all hazards

incident to the design, erection, repair, removal, demolition or use and occupancy of buildings, structures or premises.

8-101: APPLICABILITY:

8-101.1: General:

The provisions of these regulations shall cover all matters affecting or relating to buildings and structures, within unincorporated DuPage County and as set forth in section 8-100 of this article.

8-101.2: Exemptions:

Exemptions: A building or structure shall not be constructed, added to, extended, repaired, removed, relocated, demolished, or altered, or the occupancy or use thereof changed in violation of these provisions. The following activities, buildings and structures shall be deemed exempt from the application of this Code as hereafter provided for:

1. Ordinary repairs and maintenance.

2. Re-roofing and/or residing where the installation of the new roofing and/or siding is over existing roofing and/or siding. Maximum of two (2) overlay roofs permitted for a total of three (3) roofs permitted.

3. Buildings and structures used for or intended for use for agricultural purposed on tracts of land with an agricultural use.

4. Nonconforming buildings and structures provided that such buildings or structures are not further added to, altered, repaired, moved or relocated.

8-101.3: Matters Not Covered:

Any requirement essential for structural, fire or sanitary safety of an existing or proposed building or structure, or essential for the safety of the occupants thereof, and which is not specifically covered by this Code, shall be determined by the Building Official.

8-101.4: Continuation of Unlawful Use And Occupancy:

The continuation of the occupancy or use of a building or structure, or part thereof, contrary to the provisions of this Code, or to maintain, use or occupy any building or structure, or part thereof, constructed, built, altered, added to, relocated, repaired or moved in violation of this Code, shall be deemed a violation and subject to the penalties prescribed in section 8-117.4 of this article.

8-101.5: Other Regulations:

When the provisions herein specified for health, safety and welfare are more restrictive than other regulations, this Code shall control; but in any case, the most restrictive requirements of either the Building Code or other regulations shall apply whenever they may be in conflict.

8-102: VALIDITY:

8-102.1: Partial Invalidity:

In the event any part or provision of this Code is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions thereof, which may or shall be determined to be legal; and it shall be presumed that this Code would have been passed without such illegal or invalid parts or provisions.

8-102.2: Segregation of Invalid Provisions:

Any invalid part of this Code shall be segregated from the remainder of the Code by the court holding such part invalid, and the remainder shall remain effective.

8-102.3: Decisions Involving Existing Structures:

The invalidity of any provision in any section of this Code as applied to existing buildings and structures shall not be held to affect the validity of such section in its application to buildings and structures hereafter erected.

8-103: EXISTING BUILDINGS AND STRUCTURES:

8-103.1: Continuation of Nonconforming Use:

The legal use and occupancy of any nonconforming building or structure existing on the date of adoption of this Code or for which it has been heretofore approved, may be continued without change, except as may be specifically covered in this Code, or as may be deemed necessary by the Building Official for the general health, safety and welfare of the occupants and the public.

8-103.2: Change in Use:

It shall be unlawful to make any change in the use, occupants or occupancy of any structure or portion thereof which would subject it to any special provisions of this Code without approval of the Building Official, and the Building Official's certification that such structure meets the intent of the provisions of law governing building construction for the proposed new use and occupancy, and that such change does not result in any greater hazard to public safety or welfare.

8-103.3: Alterations or Repairs:

Existing buildings or structures altered or repaired, either by voluntary or by involuntary act that meets any of the criteria below, as determined by the Building Official, shall

upgrade all life-safety systems and features, building components, assemblies, equipment, and be made to conform to the current requirements of this Code. Alterations and/or repairs shall not cause an existing building or structure to become unsafe or adversely affect the performance of the building or structure.

1. Commercial:

a. Any repair, reconstruction, rehabilitation, addition, or improvement of a structure taking place during a ten (10) year period in which the cumulative percentage of improvements equals or exceeds twenty-five percent (25%) of the market value of a structure before the improvement or repair is started as determined by the Building Official

b. A project that increases or decreases the number of tenant spaces in a building.

c. Any change in use group.

d. A change in the operations of a use group that poses a greater risk to life-safety.

2. One and Two-family Dwellings:

Where fifty percent (50%) or more of the existing floor area is being remodeled, altered or demolished or where the square footage of the existing structure is increased by fifty percent (50%) or more, the entire structure shall be constructed as new construction and shall meet all the requirements for such as set forth in this Code. Where one hundred fifty square feet (150 sq.ft.) or more of the existing roofing or siding on the exterior is damaged the entire exterior shall be constructed as new construction as determined by the Building Official.

8-103.4: Increase in Size:

If the building or structure is increased in gross floor area or number of stories, the entire building or structure shall be made to conform with the requirements of this Code in respect to means of egress, fire protection, fire suppression, light and ventilation and life-safety. (Exception: one and two-family dwellings.)

8-104: PERFORMANCE STANDARDS:

Any new construction, reconstruction, interior or exterior alteration, modification or addition or similar type building alteration shall be reviewed for building and zoning compliance including the Conditional Use zoning review process as established in the County Zoning Ordinance as part of the building permit application process where such work involves any development of buildings, structures and/or uses related to air pollutants, toxic substances and explosive materials storage.

8-104.1: Particulate Matter Emissions:

A. In the R-1, R-2, R-3, R-4, R-5, R-6, R-7 residence districts, the B-1, B-2 business districts, the O office district, the O-R office research and I-1 light industrial districts, no persons shall cause or allow the emission of particulate matter, through one or more stacks, vents, ducts, or chimneys into the atmosphere in excess of one pound per hour per acre of property or five (5) tons per year per acre of property, whichever is less.

B. In the I-2 general industrial district, no persons shall cause or allow the emission of particulate matter, through one or more stacks, vents, ducts, or chimneys into the atmosphere in excess of five (5) pounds per hour per acre of property or ten (10) tons per year per acre of property, whichever is less.

C. Tests for particulate matter shall be conducted in accordance with state of Illinois air pollution control regulations.

8-104.2: Fugitive Particulate Matter Emissions:

A. In the R-1, R-2, R-3, R-4, R-5, R-6, R-7 residence districts, the B-1, B-2 business districts, the O office district, the O-R office research and I-1 light industrial districts, no persons shall cause or allow the emission of fugitive particulate matter, across lot lines which is visible by an observer looking generally toward the zenith, beyond the property line. Total suspended particulate concentrations across lot line shall not exceed twenty-five (25) micrograms per cubic meter above background. No outdoor stockpiling of powdered or granular material subject to dusting is permitted.

B. In the I-2 general industrial district, no persons shall cause or allow the emission of fugitive particulate matter, across lot lines which are visible by an observer looking generally toward the zenith, beyond the property line. Total suspended particulate concentrations across district boundary lines shall not exceed fifty (50) micrograms per cubic meter above background.

C. As part of any new construction, reconstruction, interior or exterior alterations, modifications or additions or similar type building alterations shall be reviewed for building and zoning compliance including Conditional Use review process as established in the County Zoning Ordinance as part of the building permit application process where such work involves any development of buildings, structures and/or uses related to air pollutants, toxic substances and explosive materials storage including but not limited to the following:

(1) Facilities emitting more than one hundred (100) tons per year, or five hundred fifty (550) pounds per operating day of carbon monoxide, ethylene oxide, nitrogen oxides, particulate matter, organic material, Sulphur dioxide or any other air contaminant designated by the State of Illinois as harmful to human health.

8-104.3: Storage, Handling, Transport:

A. The use, storage, handling, or transport of toxic substances shall comply with the requirements of applicable State of Illinois rules and regulations.

8-104.4: Explosive Materials Storage; Conditional Use:

A. Except by conditional use any building permit application involving the use and/or storage, utilization or manufacture of materials or products in quantities exceeding five (5) pounds which decompose by detonation shall be permitted.

(1) Such materials shall be stored, utilized, and manufactured in accordance with applicable rules and regulations of the DuPage County Building Code and Zoning Ordinance.

(2) Materials which decompose by detonation include, but are not confined to, all primary explosives such as lead azide, lead styphnate, fulminates and tetracene; all high explosives such as TNT, TNX, EMM, PETN and picric acid; propellants and components thereof, such as dry nitrocellulose, black powder, boran hydrides, hydrazine and its derivatives; pyrotechnics and fireworks such as magnesium powder, potassium chlorate and potassium nitrate; blasting explosives such as dynamite and nitroglycerine; unstable organic compounds such as acetylides, tetrazoles and ozonides including but not limited to ethylene oxide, nitrogen oxide, particulate matter, organic material, Sulphur dioxide; unstable oxidizing agents such as perchloric acid, perchlorates, chlorates, and hydrogen peroxide in concentrations greater than thirty five percent (35%); and nuclear fuels, fissionable materials and products, and reactor elements such as Uranium 235 and Plutonium 239.

8-105: RESERVED:

8-106: MOVED STRUCTURES:

8-106.1: Compliance:

Buildings and structures moved into or within the jurisdiction shall comply with the provisions of this Code for new buildings and structures and shall not be used or occupied in whole or in part until the Certificate of Use and Occupancy shall have been issued by the Building Official.

8-107: APPROVAL:

8-107.1: Approved Materials and Equipment:

All materials, equipment and devices approved for use by the Building Official shall be constructed and installed in accordance with such approval.

8-107.2: Performance-Based Design:

When there are practical difficulties involved in carrying out structural or mechanical provisions of this Code or of an approved rule, the Building Official may vary or modify such provision upon application of the owner or the owner's representative, provided that

the spirit and intent of the law shall be observed, and public welfare and safety be assured.

8-107.2:1. Records:

The application for modification and the final decision of the Building Official shall be in writing and shall be officially recorded with the application for the permit in the permanent records of the Building & Zoning Department.

8-107.3: Used Materials and Equipment:

Used materials, equipment and devices may be used provided they have been reconditioned, tested and placed in good and proper working condition and approved for use by the Building Official.

8-107.4: Alternative Materials and Equipment:

The provisions of this Code are not intended to prevent the use of any material or method of construction not specifically prescribed by this Code, provided any such alternative has been approved. The Building Official may approve any such alternative provided the Building Official finds that the proposed design is satisfactory and complies with the intent of the provisions of this Code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this Code in quality, strength, effectiveness, fire resistance, durability and safety.

8-107.4:1. Research and Investigations:

The Building Official shall require that sufficient technical data be submitted to substantiate the proposed use of any material or assembly, and if it is determined that the evidence submitted is satisfactory proof of performance for the use intended, the Building Official may approve its use subject to the requirement of this Code. The costs of all tests, reports and investigations required under these provisions shall be paid by the applicant.

8-107.4:2. Research Reports:

The Building Official may accept as supporting data to assist in the determination duly authenticated research reports from approved sources for all materials or assemblies proposed for use which are not specifically provided for in this Code.

8-108: PROFESSIONAL ARCHITECTURAL AND ENGINEERING SERVICES:

8-108.1: Special Professional Services:

Where applications for unusual design or magnitude of construction are filed or where code reference standards in appendix A of this chapter require special architectural or engineering inspections, the Building Official may require full time project representation

by an architect or engineer. This project representative shall keep daily records and submit reports as required by the Building Official.

8-108.1:1. Building Permit Requirement:

This special professional service requirement shall be determined prior to the issuance of the building permit and shall be requisite for the permit issuance.

8-108.1:2. Fees and Costs:

All fees and costs related to the performance of special professional services shall be borne by the owner.

8-109: ENFORCEMENT:

8-109.1: Building Official:

The Building Official shall be the Director of Public Works & Operations or other such person as the Director may designate. The Building Official shall administer and enforce the provisions of this Code. The Building Official may employ such managers, deputies, officers and assistants as provided for by the County Board in the implementation, administration and enforcement of this Code as necessary and may designate such persons to perform various duties provided for in this Code.

8-109.2: Relief from Personal Responsibility:

The Building Official, officer or employee charged with the enforcement of this Code, while acting for the jurisdiction, shall not thereby be rendered liable personally, and the Building Official, officer or employee is hereby relieved from all personal liability for any damage that may accrue to persons or property as a result of any act required or permitted in the discharge of the official duties. Any suit instituted against any officer or employee because of an act performed by that person in the lawful discharge of duties and under the provisions of this Code shall be defended by the legal representative of the jurisdiction until the final termination of the proceedings. The Building Official or any subordinates shall not be liable for costs in any action, suit or proceeding that may be instituted in pursuance of the provisions of this Code; and any officer of the Public Works and Building & Zoning Departments, acting in good faith and without malice, shall be free from liability for acts performed under any of its provisions or by reason of any act or omission in the performance of official duties in connection therewith.

8-109.3: Applications and Permits:

The Building Official shall receive applications and issue permits for the erection and alteration of buildings and structures, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this Code.

8-109.4: Building Notices and Orders:

The Building Official shall issue all necessary notices or orders to remove illegal or unsafe conditions, to require the necessary safeguards during construction, to require adequate exit facilities in existing buildings, and structures, and to ensure compliance with all the code requirements for the health, safety and general welfare of the public.

8-109.5: Inspections:

The Building Official shall make all the required inspections, or the Building Official may accept reports of inspection by approved agencies or individuals; and all reports of such inspections shall be in writing and certified by a responsible officer of such approved agency or by the responsible individual. The Building Official may engage such expert opinion as may be deemed necessary to report upon unusual technical issues that may arise subject to the approval of the appointing authority.

8-109.6: Credentials:

The Building Official and authorized representatives shall carry proper credentials for their respective office for the purpose of inspecting any and all buildings and premises in the performance of duties under this Code.

8-109.7: Rule Making Authority:

The Building Official shall have power as may be necessary in the interest of public health, safety and general welfare, to adopt and promulgate rules and regulations to interpret and implement the provisions of this Code to secure the intent thereof and to designate requirements applicable because of local climatic or other conditions; but such rules shall not have the effect of waiving working stresses or fire resistive requirements specifically provided in this Code, or violating accepted engineering practice involving public safety.

8-109.8: Department Records:

The Building Official shall keep official records of applications received, permits and certificates issued, fees collected, reports of inspections, and notices and orders issued. Such records shall be retained in compliance with the State of Illinois Records Act (ILCS 160) requirements.

8-110: RESERVED:

8-111: MAINTENANCE OF UTILITIES, FIRE ALARM AND FIRE SUPPRESSION SYSTEMS:

8-111.1: Maintenance of Utilities:

During new construction, repairs or alterations, whether or not a building permit has been issued, the owner shall be responsible for maintaining all existing utility lines on his/her property including those which may serve other properties.

8-111.2. Maintenance Of Fire Alarm And Fire Suppression Systems:

During construction, repairs or alterations and/or vacancies, whether or not a building permit has been issued, the owner shall be responsible for maintaining all existing fire alarm and fire suppression systems in proper working order.

8-112: PERMITS:

8-112.1: Permit Required:

It shall be unlawful to change the occupancy of, construct, add to, alter, relocate, remove or demolish a building or structure, or excavate and or fill any tract of land, or to commence the construction, addition, alteration, relocation, residing, re-roofing, removal or demolition of a building or structure or install equipment for the operation of a building or structure including, but not limited to, water heaters, water softeners, water filtration systems, furnaces, air conditioning equipment, heat pumps, solar panel arrays, EV charging stations, window replacement, or commence the excavation and/or filling of any tract of land without first filing with the Building Official an application in writing and obtaining a formal permit. The term "structure" shall also include various items such as accessory structures, decks, patios, swimming, therapeutic and decorative pools, decorative ponds, hot tubs, spas and hydromassage bathtubs~~,~~ whether permanently installed or storable, arbors, trellises, sidewalks whether concrete or of decorative materials, fences, signs, altogether items that are built or constructed except those exempted in Section 8-101.2.

8-112.2: Completion Of Work Heretofore Authorized:

Nothing in this Code shall require changes in the plans, construction or designated use of a building or structure of portion thereof for which a lawful permit has been heretofore issued or which has been actually begun within one hundred eighty (180) days after this Code becomes effective.

8-112.3: Continuation of Permit:

Where no work has been started within one hundred eighty (180) days after the issuance of a permit, such permit shall be void. A new permit, known as an amendment permit, must be obtained before any work may begin. The amendment permit must reflect the current provisions of this Code. A fee according to the adopted Building & Zoning Schedule of Fees shall be charged for the amendment permit. Where work has been started and more than one hundred eighty (180) days lapses between required inspections, such permit shall be void. An amendment permit will be required before any work may be resumed. Fees according to the adopted Building & Zoning Schedule of Fees shall be charged for the amendment permit. A permit may not be transferred by the person to whom it is issued, to another person, without the written approval of the Building Official. A fee according to the adopted Building & Zoning Schedule of Fees shall be charged when such a transfer is affected. Where it is shown that a hardship would occur in the foregoing requirements of this rule, the Building Official may renew or extend the permit without payment of the fee. The Building Official may revoke any permit or deny

or condition the issuance of an amendment permit, whenever the Building Official determines that a party has not progressed with the completion of the permitted work in a reasonable and timely manner.

8-112.4: Recorded Property:

At the time of applying for a permit for erection of, alteration of, installation of, addition to, or moving of any building or structure, the applicant shall submit to the Building Official a current Plat of Survey of the lot bearing the seal of an Illinois Registered Land Surveyor, or other Illinois licensed professional who has authority and certification to seal such surveys, showing the dimensions of the same and the position to be occupied by the proposed building or structure, or by the building or structure to be altered or added to, or by the building or structure to be moved thereon, and the position of any other building(s) or structure(s) that may be on the lot, including swimming pools, decks, patios, sheds, sidewalks/decorative walks, trellises, retaining walls, seat walls, built or constructed items not exempted in Section 8-101.2, etc. The plat of survey shall indicate all recorded easements and all attachments that could impact the proposed construction along with such other information and descriptive material as may be required by the Building Official to judge compliance with this chapter.

8-112.4:1. Required Scales:

Plats of surveys submitted shall be one of the following scales: one inch equals ten feet (1" = 10'); one inch equals twenty feet (1" = 20'); one inch equals thirty feet (1" = 30'); one inch equals forty fee (1” = 40’); one inch equals fifty feet (1” = 50’).

8-112.5: Water Supply and Sewage Treatment:

No permit shall be issued until satisfactory proof has been submitted that approved water supply and sewage treatment facilities are available.

8-112.6: Access Drive and Culvert:

No permit shall be issued for work requiring the posting of a highway or culvert bond until satisfactory proof has been submitted that approved cash bonds have been posted or a waiver thereof has been given by the highway authorities having jurisdiction.

8-112.7: Application Form:

An application for a permit shall be submitted in such form as the Building Official may prescribe. Such application shall contain the full names and addresses of the applicant and of the owner, and if the owner is a corporate body, of its responsible officer. The application shall also briefly describe the proposed work and shall give such additional information as may be required by the Building Official for an intelligent understanding of the work proposed.

8-112.8: Those Authorized to Make Application:

1. Applications shall be made by the owner or owners authorized agent.

~~undertake the activity for which a permit is sought and, further, stating good cause why the applicant is unable to comply with the owner authorization requirement.~~

8-112.9: Information Required:

For an electronic submittal, a complete set of plans, drawings, specifications and calculations meeting the architectural, mechanical, structural, electrical, energy conservation and fire protection requirements of the Building Code and drawn to scale shall be presented to the Building Official for his approval before permit will be granted. Plans shall specifically show design live loads and occupant capacities for all spaces and floors.

8-112.10: Licensed Professionals:

No plans shall be approved for permit unless such plans are signed and sealed either by an architect licensed to practice architecture, as provided by the Illinois Architectural Act, or by a Structural Engineer licensed to practice structural engineering, as provided by the Illinois Structural Engineer Act, or by a registered Professional Engineer licensed to practice professional engineering as provided by the Illinois Professional Engineering Act, provided, however, that a person who signs and seals such plans shall be permitted to do so within the limitations of the particular act under which he is licensed to practice, and provided further, that plans for installations which involve the design of or changes in the supporting structure or which materially affect the structural loadings must be signed and sealed by an architect or structural engineer duly licensed as aforesaid.

Exception: Buildings and structures exempted by Illinois Revised Statutes, Chap. 111, Par. 1303. Notwithstanding this exception to the statute construction documents shall be prepared by an Illinois Licensed Architect, Structural Engineer, or Professional Engineer in the following conditions. The construction of new one and two-family homes, residential additions or alterations effecting fifty percent (50%) or more of the existing floor area and considered new homes on existing foundations, residential additions, alterations, or renovations where the combined area of construction is five hundred square feet (500 sq. ft.) or greater.

8-112.11: Certificate of Compliance with Code:

It shall be unlawful for any architect or structural engineer, or professional engineer or other person permitted under the laws of the State to make drawings and plans, to prepare or submit to the Building Official, for his approval, any final drawings or plans for a structure which does not comply with the requirements in building provisions of this Code. It shall be the duty of the Building Official to require that all drawings and plans submitted to him for approval, for any building or structure, shall be accompanied by a certificate of such architect or structural engineer or professional engineer preparing such drawings and plans, that said drawings and plans comply with the requirements in the building provisions of this Code.

8-112.12: Plans and Permit Required On-site:

In all construction work for which a permit is required, the approved and stamped drawings and plans shall be kept on file at the construction site while the work is in progress. Approved plans must be printed full size and in color so identifying approved stamps are seen in red. Additionally, the permit shall be posted on the site in a conspicuous location visible to the inspector and general public. Failure to meet these requirements shall result in the issuance of a violation notice.

8-112.13: Alteration of Plans:

It shall be unlawful to erase, alter, or modify any lines, figures or coloring contained upon drawings or plans bearing the approval stamp of the Building Official, or filed with him for reference. If during the progress of the execution of such work, it is desired to deviate in any manner affecting the construction or other essentials of the building from the terms of the application or drawing, notice of such intention to alter or deviate shall be given to the Building Official and an approval for the amended plan showing such alteration or deviation shall be obtained before such alteration or deviation shall be made.

8-112.14: Demolition of Buildings or Structures:

1. Before a building or structure may be demolished, the owner or agent shall notify all utilities having service connections within the building or structure such as water, electric, gas, sewer, and other connections and is responsible for their respective service connections and appurtenant equipment, such as meters and regulators being removed or sealed and plugged in a manner acceptable to the Building Official.

2. The plot plan or suitable documentation as approved by the Building Official shall show the buildings or structures to be demolished and the buildings or structures on the same lot that are to remain. After demolition, the premises will be placed in a satisfactory condition free from all unsafe or hazardous conditions.

3. Demolition of buildings or structures shall include the removal of all footings, foundations, floor slabs, debris, concrete, and other debris and the restoration of established grades with clean fill only.

8-112.15: Action on Application:

The Building Official shall examine applications for permits, within a reasonable time after filing. If, after examination for applicable County regulations, he finds no objections to the same and it appears that the proposed work will be in compliance with the laws and ordinances applicable thereto, and the proposed construction or work will be safe, he shall approve such application and issue a permit for the proposed work as soon as practicable. If his examination reveals otherwise, he shall reject such application and notify the applicant.

8-112.16: Revocation of Permit:

The Building Official may revoke a permit or approval issued in any case where there has been a false statement or misrepresentation in the application or plans on which the permit or approval was based, upon notification of insufficient funds received for payment of fees or in any case where a permit or approval is issued in error such that it would result in nonconformance with applicable law.

8-112.17: Approval of Permit In Part:

Nothing in this Code shall be construed to prevent the Building Official from issuing a permit for the construction of part of a building or structure before the entire plans and detailed statements of said building or structure have been submitted or approved, provided adequate information and detailed statements have been submitted for the same and have been found to comply with this Code.

8-112.18: Permit for Moving Building Or Structure:

1. Before a building or structure may be moved, the owner or agent shall notify all utilities having service connections within the building or structure such as water, electric, gas, sewer, and any other connections and is reasonable for their respective service connections and appurtenant equipment, such as meters and regulators being removed or sealed and plugged in a manner acceptable to the Building Official.

2. The application shall contain a good and sufficient performance bond in accordance with the fee schedule that the building or structure will be moved and the premises will be placed in a satisfactory condition free from all unsafe or hazardous conditions.

8-112.19: Easement Areas:

1. No permit shall be issued for work in an easement until the required easement affidavit has been submitted and approved.

8-113: CONDITIONS OF PERMIT:

8-113.1: Payment of Fees:

A permit shall not be issued until all required fees have been paid.

8-113.2: Compliance with Code:

The permit shall be a license to proceed with the work and shall not be construed as authority to violate, cancel, or set aside any of the provisions of this Code, except as specifically stipulated by modification or legally granted variation as described in the application.

8-113.3: Compliance with Permit:

All work shall conform to the approved application and plans for which the permit has been issued and any approved amendments thereto.

8-113.4: Compliance with Plot Plan:

All new work shall be located strictly in accordance with the approved plot plan.

8-113.5: Change in Site Plan:

A lot shall not be changed, increased or diminished in area from that shown on the official plot site plan, unless a revised plan showing such changes accompanied by the necessary affidavit of the owner or applicant shall have been filed and approved; except that such revised plan will not be required if the change is caused by reason of an official street opening, street widening or other public improvement.

8-114: FEES:

8-114.1: General:

A permit to begin work for new construction, alteration, removal, demolition or other building operation shall not be issued until the fees prescribed in this section shall have been paid to the Building Division or other authorized agency of the jurisdiction, nor shall an amendment to a permit necessitating an additional fee be approved until the additional fee shall have been paid.

8-114.2: Special Fees:

The payment of the fee for the construction, alteration, removal or demolition for all work done in connection with or concurrently with the work contemplated by a building permit, shall not relieve the applicant or holder of the permit from the payment of other fees that may be prescribed by law or ordinance for water taps, sewer connections, electrical permits, erection of signs and display structures, marquees or other appurtenant structures, or fees of inspections, Certificates of Use and Occupancy or other privileges or requirements, both within and without the jurisdiction of the Building Official.

8-114.3: New Construction and Alterations:

The fees for plan examination, building permit and inspections shall be prescribed in subsection 8-114.3.1 of this section and the Building Official is authorized to establish by approved rules, a schedule of unit rates for buildings and structures of all use groups and types of construction.

8-114.3:1. Fee Schedule:

A fee shall be paid in accordance with the current applicable fee schedule.

8-114.4: Accounting:

The Building Official shall keep an accurate account of all fees collected; and such collected fees shall be deposited monthly in the jurisdiction treasury, or otherwise disposed of as required law.

8-114.5: Refunds:

In the case of a revocation, abandonment or discontinuance of a valid building permit and no work has begun, building fees may be refunded except for the following. All plan examination and permit processing fees and all penalties that may have been imposed on the permit holder pursuant to this Code shall first be collected.

8-114.6: Fee Reduction and Waiver:

An applicant may request for cause or in extraordinary situations a reduction of or waiver from paying all or part of the fees required by this Code. Such request must be in writing and presented to the Building Official for review and decision. In the event the applicant disagrees with the Building Officials decision the Building Board of Appeals shall consider such requests and may grant a fee reduction or waiver in whole or in part.

8-115: INSPECTIONS:

8-115.1: Preliminary Inspection:

Before issuing a permit, the Building Official may examine or cause to be examined all buildings, structures and sites for which an application has been filed for a permit to construct, enlarge, alter, repair, remove, demolish or change the use thereof.

8-115.2: Required Inspections:

1. Inspections required under the provisions of this Code shall be made by the Building Official or his duly appointed assistants. The Building Official may accept reports of inspection of recognized services, after investigation of their qualifications and reliability. No certificate called for by any provision of this Code shall be issued on such reports unless the same are in writing and certified to by a responsible officer of such service.

If an inspection has been scheduled and, in the opinion of the Building Official after arrival on the inspection site, the job is not ready or has not progressed to a point where an inspection can be made properly or access is not possible to perform the inspection, a re-inspection fee per the fee schedule may be charged. No further inspections shall be made until such time as the re-inspection fee has been paid.

2. Owner or contractor is required to contact the Building Official at least one day in advance for all required inspections. The following inspections shall be required:

a. Erosion Control: Before any excavation occurs and after all required soil erosion control measures have been installed.

b. Footing: Before concrete is poured and after footing excavation has been completed and access drive and culvert is installed.

Foundation Walls: Before concrete is poured and all forms and reinforcement is in place. This inspection is only required if reinforcement is identified and required on the approved plans.

c. Backfill: Before backfilling and after footing drain tile and gravel have been placed and walls have been damp-proofed or waterproofed. No backfill inspection shall even be scheduled until a spotted plat of survey showing the exact location of the foundation on the lot and the elevation of the top of the foundation has been submitted to and approved by the Building Official for all new buildings or when required.

d. Pre-Pour Concrete Inspection: Before any concrete is placed for flat work including driveways, patios, service walks, etc.

e. Under Slab: Before any concrete floor slabs are poured and after insulation, vapor barriers and/or wire mesh are installed.

f. Under Slab Plumbing: After under slab plumbing is installed and before concrete floor slabs are poured.

g. Under Slab Radon: After under slab radon system is installed and before concrete floor slabs are poured.

h. Under Slab Electrical: After under slab electrical is installed and before concrete slabs are poured.

i. Framing: Before any insulation, vapor barrier, or wall finish is applied and after the framing fire-stopping is completed.

j. House Wrap: After house wrap is applied, taped, and sealed and before installation of any exterior cladding.

k. Plumbing: Before any insulation, vapor barriers, or wall finish is applied and after the rough plumbing is completed to be scheduled by the licensed plumbing contractor or plumber listed on the permit.

l. Electrical: Before any insulation, vapor barriers, or wall finish is applied and after the rough electric is completed.

m. HVAC: Before any insulation, vapor barriers, or wall finish is applied and after the rough HVAC work is completed.

n. Radon: Before any insulation, vapor barriers or wall finish is applied and after radon piping system is complete.

o. Electrical Service: At the time the electrical service is to be energized or re-energized.

p. Insulation: Before any interior wall finish is applied after insulation and vapor barriers are completed and after required State of Illinois Energy Efficient Building Code requirements are met.

q. Fireplace (Masonry): After firebox is constructed and before construction of chimney.

r. Fireplace (Prefab): After firebox, chimney and fire stopping is installed and before concealing.

s. Grading: After property has been graded in compliance with the approved grading plans. After grading is achieved and prior to requesting a final grading inspection, an as-built record drawing prepared and sealed by a registered Land Surveyor or Illinois Professional Engineer shall be submitted for approval.

t. Plumbing Final: After all plumbing is completed.

u. Final Inspection: After all work is completed as proposed on approved plans, Illinois energy requirements, and all other conditions of the permit.

3. Inspections shall be arranged on regular workdays between 8:00 A.M. and 4:00 P.M. Call for inspections at least one day in advance.

4. Any notices, stickers or tags affixed to the site or structure(s) by the Building Official shall not be removed until authorized to do so by the Building Official.

8-115.2:1. Approved Inspection Agencies:

The Building Official may accept reports of approved inspection agencies which satisfy the requirements as to qualifications and reliability.

8-115.2:2. Plant Inspection:

When required by the provisions of this Code or by the approved rules, materials or assemblies shall be inspected at the point of manufacture or fabrication in accordance with subsection 8-115.2.3 of this article, and any other applicable sections.

8-115.2:3. Inspection Reports:

All inspection reports shall be in writing and shall be certified by the licensed authority, or responsible officer of the agency or the individual when expert inspection services are accepted. An identifying label or stamp permanently affixed to the product indicating that factory inspection has been made shall be accepted in lieu of the aforesaid inspection report in writing if the intent or meaning of such identifying label or stamp is properly substantiated.

8-115.3: Final Inspection:

Upon completion of the building or structure, and before issuance of the Certificate of Use and Occupancy required in section 8-119 of this article, a final inspection shall be made. All violations of the approved plans and permit shall be noted and the holder of the permit shall be notified of the discrepancies.

8-115.4: Right of Entry:

In the discharge of duties, the Building Official or authorized representative shall have the authority to enter at any reasonable hour any building, structure or premises in the jurisdiction to enforce the provisions of this Code.

8-115.5: Jurisdictional Cooperation:

The assistance and cooperation of police, fire, and health departments and all other officials shall be available as required in the performance of duties.

8-116: WORKMANSHIP:

8-116.1: General:

All work shall be conducted, installed and completed in a workmanlike and acceptable manner so as to secure the results intended by this Code.

8-117: VIOLATIONS:

8-117.1: Unlawful Acts:

1. It shall be unlawful for any person, firm or corporation to build, erect, construct, alter, extend, repair, remove, relocate, demolish, use or occupy any building or structure or equipment or component thereof regulated by this Code, or to cause or allow same to be done, in conflict with any provision of this Code or in conflict with any permit or order issued by the Building Official or any plan or specification approved, or without the appropriate permit having been first issued or revised.

2. It shall be unlawful for any person, firm or corporation owning, having possession of, or exercising control over any property, or building or structure located thereon, to permit, allow or consent to the use or occupancy of any building or structure or equipment or component thereof that has been built, erected, constructed, altered, extended, repaired, removed, relocated, or demolished in conflict with any permit or order issued by the Building Official or any plan or specification approved thereby or in violation of any provision of this Code.

3. It shall be unlawful for any person, firm or corporation owning property to permit or allow any building or structure or equipment or component thereof that has been

built, erected, constructed, altered, extended, repaired, removed, relocated, or demolished without a permit, or in conflict with any permit or order issued by the Building Official or any plan or specification approved thereby, or in violation of any provision of this Code, to continue to exist in such status or condition.

8-117.2: Notice of Violation:

1. The Building Official shall issue a Notice of Violation of this Code or of any order herein authorized in any manner reasonably calculated to give the property owner actual notice, or in any of the following manners: 1) by posting a copy on the subject property in a conspicuous place, or 2) by personally delivering a copy to the person, firm, or corporation responsible for the unlawful act or omission or condition which forms the basis for the violation, or 3) by personally delivering a copy to any adult who resides at, occupies, uses, leases, manages or maintains the property on which the violation is located, or 4) personally delivering a Notice of Violation to any owner in title to the property on which the violation is located, or 5) mailing a copy of the violation notice to the "owner of record" at the last address to which a tax bill was mailed, as indicated by the most recent Tax Assessor's records. If a notice, or order, is issued in accord with subsection 1 of this paragraph, or if the party the Notice of Violation was issued to in accord with subsections 2 and/or 3 of this paragraph is not the property owner, the Building Official shall also mail a copy of the notice to the "owner of record" as indicated the latest Tax Assessor's records at the last address to which a tax bill was mailed by certified mail, receipt requested. In cases where the violation involves an unsafe building or structure that is in risk of collapse, or which poses a fire hazard, as determined by the Building Official, the Building Official need not comply with Notice of Violation requirements as a condition for seeking emergency relief from a court of competent jurisdiction. In the event that a piece of certified mail sent under this section is refused, rejected, or fails to be delivered, but is not rejected based on an incorrect address, notice may be achieved by mailing a copy of the violation notice, first class mail, postage prepaid, to the last address to which a tax bill was mailed, as indicated by the most recent Tax Assessor's records. Should such first class mail not be returned, this manner of service shall be said to give the property owner actual notice of the violation.

2. A Notice of Violation shall contain the following:

a. The name of the party to whom it was issued to, if known; and

b. The name of the property owner and, if applicable, the tenant and/or occupant, and/or party exercising control over the subject property; and

c. A brief statement setting forth the type and nature of the violation; and

d. The section, or sections, of the Code violated and, if applicable, the identity of any order, permit, plan or statement of specifications violated; and

e. The date and time the violation was observed; and

f. The address of the property on which the violation was observed; and

g. A statement directing the discontinuance the illegal action or condition and abatement of the violation; and

h. A statement informing the violator, and owner, that he/she/it may contest the Notice of Violation by requesting in writing and within fourteen (14) days of issuance of the notice, an administrative appeal before a Hearing Officer or an administrative appeal board; and

i. A statement directing the violator to undertake the following acts within fourteen (14) days, excepting instances when an administrative appeal has been requested.

(i) To pay a fee for a requested inspection to the Building & Zoning Department in an amount of one hundred dollars ($100.00); and

(ii) To apply to the Building Official for any necessary permit(s), or revise or amend any previously issued permit, or previously approved plan, drawing or specifications, as applicable; or

(iii) To undertake appropriate repairs and/or maintenance to correct a property maintenance code violation and, upon completion thereof, to contact the Building Division to schedule a repair verification inspection.

j. A warning that if the violator fails to comply with the Code and perform as directed by the Notice of Violation, within the time therein specified, the County will institute appropriate legal proceedings against the violator including a statement that the Code authorizes the court to assess fines of up to one thousand dollars ($1,000.00), plus additional court costs, per day, for each day a violation remains uncorrected, which fines and costs may be assessed in addition to other remedies at law including a court enjoining further violations and ordering the offender to cease, correct, repair, abate or otherwise remedy the offending condition.

3. If a party to which a Notice of Violation has been issued requests an extension of time to comply with the Code, or perform any act set forth in the notice, the Building Official may allow an extension of time for such compliance or act, which extension shall not be less than fourteen (14) days, nor more than forty five (45) days. The Building Official may not extend the period of time in which a party may request an administrative hearing.

8-117.3: Prosecution of Violation:

If the Notice of Violation is not complied with, or an administrative appeal is not sought within the time period herein specified, the Building Official may request the County's legal counsel to institute the appropriate proceeding at law or in equity to restrain, correct or abate such violation to enforce any provision of this Code or any order issued pursuant thereto, to require the removal or termination of the unlawful use or occupancy of any building or structure, or equipment or component thereof, or to require the remediation of any condition to or of, any building or structure, or equipment, or component thereof

existing in violation of any provision of this Code or of any order made pursuant thereto, and to seek the assessment of a fine and court costs as authorized by this Code.

The Building Official may request that the County's legal counsel immediately institute an appropriate legal proceeding without first issuing a Notice of Violation, or awaiting its compliance or the bringing of an administrative appeal by its recipient when the legal action is to restrain, correct or abate any of the following:

1. An unsafe building condition presenting an immediate risk to the public's health, safety or welfare; or

2. The failure to comply with a "Stop Work" order issued by the Building Official; or

3. When the accused violator has been previously cited for the same violation on at least two other occasions during the previous three hundred sixty five (365) days, and the time for bringing an appeal in those earlier matters has lapsed; or

4. If in a prior legal proceeding to enforce a provision of the code the court made a finding that an ongoing condition or act has not been brought into compliance with the Code; or

5. Whenever the offending condition or act violates the Illinois Criminal Code; or

6. Whenever the offending condition or act constitutes a public nuisance, or violates some other County regulation, for which the alleged violator has been given notice of but failed to rectify, or cease, within the time specified by the other notice, if any.

8-117.4: Violation Penalties:

Any person who violates any provision of this Code or fails to comply with any of the requirements thereof, or who shall erect, construct, alter or repair a building or structure in violation of an approved plan or directive of the Building Official, or a permit or certificate issued under the provisions of this code shall be guilty of an offense punishable by a fine of not less than one hundred dollars ($100.00) nor more than one thousand dollars ($1,000.00). Each day that a violation continues shall be deemed a separate offense. The imposition of any sentence shall not exempt the offender from compliance with the requirements of this Code.

8-117.5: Abatement of Violation:

1. The imposition of the penalties herein prescribed shall not preclude the County's legal counsel from instituting appropriate action to prevent unlawful construction or to restrain, correct, or abate a violation, or to prevent illegal occupancy of a building, structure or premises or to stop an illegal act, conduct business or use of a building or structure on or about any premises.

2. Whenever the Building Official determines that a party seeking a permit, approval or amendment under this Code is in violation of some other provision of this Code, or of any other County Ordinance, or and approved plan or statement of specifications of

the County, or any County issued permit or license, or has not paid a previously charged fine, cost or fee, the Building Official may withhold grant any such permit to such party until all county violations have been corrected or fines, costs or fees paid.

8-118: STOP WORK ORDER:

8-118.1: Notice to Owner:

Upon notice from the Building Official that work on any building or structure is being prosecuted contrary to the provisions of this Code, or in an unsafe and dangerous manner, such work shall be immediately stopped. The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent, or to the person doing the work, or posted on the subject property; and shall state the appropriate code section(s) in violation.

8-118.2: 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 condition, shall be liable to a fine of not less than one hundred dollars ($100.00) or more than one thousand dollars ($1000.00) per day.

8-119: CERTIFICATE OF USE AND OCCUPANCY:

8-119.1: New Buildings:

A building or structure hereafter erected, shall not be used or occupied or furnished in whole or in part until the Certificate of Use and Occupancy shall have been issued by the Building Official.

8-119.2: Buildings Hereafter Altered:

A building or structure hereafter enlarged, extended or altered to change from one use group to another, or to a different use within the same use group, in whole or in part, and a building or structure hereafter altered for which a Certificate of Use and Occupancy has not been heretofore issued, shall not be occupied or used until the certificate shall have been issued by the Building Official, certifying that the work has been completed in accordance with the provisions of the approved permit.

8-119.3: Nonconforming Buildings or Structures:

Upon written request from the owner of a nonconforming building or structure existing on the date of adoption of this code, the Building Official shall issue a Certificate of Use and Occupancy, provided there are not violations of law or orders of the Building Official pending, and it is established after inspection and investigation that the alleged use of the building or structure has heretofore existed. This Code shall not require the removal, alteration, or abandonment of, or prevent the continuance of, the use and occupancy of a

nonconforming building or structure unless such use is deemed to endanger public safety and welfare.

8-119.4: Changes in Use and Occupancy:

After a change of use has been made in a building or structure, the reestablishment of a prior use that would not have been legal in a new building of the same type of construction is prohibited unless the building complies with all applicable provisions of this Code. A change from one prohibited use, for which a permit has been granted, to another prohibited use shall be deemed a violation of this Code.

8-119.5: Temporary Occupancy:

Upon the request of the holder of a permit, the Building Official may issue a Temporary Certificate of Use and Occupancy for a building or structure, or part thereof, before the entire work covered by the permit shall have been completed, provided such portion or portions may be occupied safely prior to full completion of the building or structure without endangering life or public welfare. Said temporary certificate shall expire on a date certain to be determined by the Building Official.

8-119.6: Contents Of Certificate:

When a building or structure is entitled thereto, the Building Official shall issue a Certificate of Use and Occupancy. The certificate shall certify compliance with the provisions of this Code and the purpose for which the building or structure may be used in its several parts.

8-120: UNSAFE STRUCTURES:

8-120.1: Unsafe Structures or Buildings:

All buildings or structures that are or hereafter become unsafe, as defined in section 8-127.4 of this article, shall be taken down and removed or made safe and secure, as the Building Official may deem necessary and as provided in this section.

8-120.2: Notice of Unsafe Structure:

If an unsafe condition is found in a building or structure, the Building Official shall serve on the owner, agent or person in control of the building or structure, a written notice describing the building or structure deemed unsafe.

8-120.3: Restoration of Unsafe Structure:

A building or structure deemed unsafe by the Building Official may be restored to safe condition provided change of use or occupancy is not contemplated nor compelled by reason of such reconstruction or restoration, except that if the damage or cost of reconstruction or restoration is taking place during a ten (10) year period in which the cumulative percentage of improvements equals or exceeds twenty-five percent (25%) of

the market value of the structure before the improvement or repair is started as determined by the Building Official for commercial, for commercial, and fifty percent (50%) for residential, of the floor area as deemed by the Building Official, such structure shall be made to comply in all respects with the requirements for materials and methods of construction of structures hereafter erected.

8-120.4: Posting Unsafe Notice:

Notice of unsafe structure shall be sent by registered or certified mail to the last known address of the owner of the property involved or to the owner's agent, and a copy of the unsafe notice shall be posted in a conspicuous place on the premises. Such procedure shall be deemed the equivalent of personal notice.

8-120.5: Disregard of Unsafe Notice:

Upon refusal or neglect of the person served with an unsafe notice to comply with the requirements of the order to abate the unsafe condition, the legal counsel of the jurisdiction shall be advised of all the facts and shall institute the appropriate action.

8-120.6: Cost of Corrective Work:

All costs incurred by the County in the performance of corrective work to rectify the violation shall be paid from the treasury of the County on certification of the Building Official. The state's attorney shall institute appropriate action against the owner of the premises where the unsafe building or structure is or was located for the recovery of such costs to render such building or structure safe and secure.

8-121: EMERGENCY MEASURES:

8-121.1: Vacating Structures:

When, in the opinion of the Building Official, there is actual and immediate danger of hazardous conditions or materials in a building or structure failure of collapse of a building or structure or any part thereof which would endanger life or when any structure or part of a structure has fallen and life is endangered by the occupation of the building or structure, the Building Official is hereby authorized and empowered to order and require the inmates and occupants to vacate the same forthwith. The Building Official shall cause to be posted at each entrance to such building or structure a notice reading as follows:

Not Approved for Occupancy

It shall be unlawful for any person to enter such building or structure except for the purpose of making the required repairs or demolishing the same.

8-121.2: Temporary Safeguards:

When, in the opinion of the Building Official, there is actual and immediate danger of collapse or failure of a building or structure or any part thereof, or a condition which

would otherwise endanger life, the Building Official may cause the necessary work to be done to render such building or structure or part thereof temporarily safe, whether or not the legal procedure herein described has been instituted.

8-121.3: Access Restriction of Structures And The Public Way:

When necessary for the public safety, the Building Official may temporarily close sidewalks, streets, structures, and places adjacent to such unsafe structures and prohibit the same from being used.

8-121.4: Emergency Repairs:

For the purposes of this section, the Building Official shall employ the necessary labor and materials to perform the required work as expeditiously as possible.

8-121.5: Costs of Emergency Repairs:

Costs incurred in the performance of emergency work shall be paid from the treasury of the jurisdiction on certification of the Building Official. The legal counsel of the jurisdiction shall institute appropriate action against the owner of the premises where the unsafe building or structure is or was located for the recovery of such costs.

8-121.6: Temporary Repair Due to Natural Disaster:

In the event of a natural disaster the homeowner may make temporary repairs to a residential structure to insure property conservation and occupant safety. The temporary repair shall be followed by an application for permit within seventy-two (72) hours of the event and no further work may commence until such time that a construction permit is issued.

8-122: SUPERVISION:

8-122.1: Requirements:

Each building, other than single-family residential construction, shall be constructed under the supervision of an architect or engineer who meets the requirements set forth in section 8-108 of this article, and who shall be responsible for its erection in accordance with the building codes and the approved plans and specifications.

8-123: RESERVED:

8-124: APPEAL OF BUILDING OFFICIAL'S DECISION:

8-124.1: Appeal of Building Official's Decision:

Application for appeal may be made when an aggrieved party feels that the intent of the Code has been met, a code requirement has been incorrectly interpreted, or that substitute

design, protective assemblies and/or systems will provide an equally good or better form of construction. At no time shall an appeal request a full or partial waiver of any life safety system that is prescribed by this Code.

8-124.2: Procedure:

1. The aggrieved party shall make an appeal to the Building Official in writing clearly stating the reason(s) for the appeal request.

2. The County Development Committee of the DuPage County Board shall serve as the Building Board of Appeals, and application for appeal shall be made to the Chairman of this Committee within ten (10) days of the Building Official's decision.

3. Both the aggrieved party and the Building Official shall be permitted to give testimony, call witnesses and present evidence to the Building Board of Appeals.

4. The chairman shall administer all oaths and may, at his discretion, place a time limit on all testimony.

8-125: OFF SITE CONSTRUCTION:

8-125.1: Requirements:

Off-site construction of components, sections, modules, modular structures and assemblies, and buildings may be permitted for installation within DuPage County if the following criteria has been met:

1. The individual manufacturing plant has been approved for this purpose by the Building Official.

2. The manufacturer submits detailed plans and specifications on each component of the total assembly in accordance with the section concerning information for permit application including appropriate fees.

3. The manufacturer will provide a certificate that the approved plans were followed.

4. Each building will be inspected as necessary by the Building Official. Excess costs for inspections outside DuPage County will be borne by the manufacturer. If desired by the Building Official, in lieu of his inspections, the manufacturer shall provide a certificate from an independent organization approved by the Building Official indicating that the construction did in fact, follow the plans submitted and approved.

5. The manufacturer agrees upon request to open wall sections or other concealed areas as necessary for inspection by the Building Official on the site.

6. The manufacturer agrees to in plant inspections at any time deemed desirable by the Building Official. There will be no additional cost to that enumerated above.

7. Method for on-site installation shall be approved by the Building Official. The building official will observe all on site installations.

8-126: RECYCLING AND REFUSE CONTAINERS:

8-126.1: Recycling and Refuse Containers:

All new or existing multi-family units or commercial/industrial facilities expanded beyond twenty five percent (25%) of the present physical value shall provide space for the placement of separate and clearly marked refuse and recyclable materials containers located adjacent to one another and said shall be indicated on site plans.

Recyclable materials containers shall provide sufficient capacity for the weekly collection of recyclable materials which may include, but are not limited to, glass, aluminum, tin, newspaper, cardboard, and plastics.

8-127: DEFINITIONS:

8-127.1: Scope:

The terms herein defined shall be used to interpret all the applicable provisions of this Code.

8-127.2: Rules:

Unless otherwise expressly stated, the following terms shall, for the purpose of this Code, be interpreted in accordance with the following rules:

A. Words in the singular number shall include the plural number and the plural shall include the singular.

B. Words used in the present tense shall include the past tense and the future tense.

C. The word "shall" is mandatory while the word "may" is permissive.

D. The masculine gender includes the feminine and neuter.

E. The word "person" shall include a firm, association, organization, partnership, trust, company or corporation as well as an individual.

8-127.3: Terms Not Defined:

Where terms are not defined, they shall have their common dictionary definition except when such term is defined in other codes in which case the meanings ascribed in the other codes shall apply.

8-127.4: General Definitions:

ACCESSORY BUILDING OR STRUCTURE: A building or structure which:

1. Is subordinate in floor area and use to the principal building or structure; and

2. Contributes to the comfort, convenience, or necessity of occupants in the principal building or structure; and

3. Is located on the same zoning lot, parcel or land as the principal building or structure; and

4. An accessory building, structure or use may be either detached or attached from/to the principal building or structure.

ACCESSORY BUILDING, ATTACHED: An accessory building which is connected to a principal building by a party wall or a linkage building, and which is constructed pursuant to all applicable building, zoning and drainage regulations for a principal building.

ACCESSORY BUILDING, DETACHED: An accessory building, which is surrounded by open space on the same lot as a principal building and which is not connected to the principal building. For purposes of this Code, an accessory building which is connected to a principal building by a breezeway or other open-air passageway structure shall be considered detached.

ADDITION: An extension or increase in floor area or height of a building or structure.

ALTERATION: As applied to a building or structure means a change or rearrangement in the structural parts or in the means of egress; or an enlargement, whether by extending on a side or by increasing in height; or the moving from one location or position to another.

APPROVED: Approved by the Building Official or other authority having jurisdiction.

APPROVED AGENCY: Is an established and recognized agency regularly engaged in conducting tests or furnishing inspection services when such agency has been approved by the Building Official.

AREA (Floor Surface Measurement): The horizontal projected floor area inside of exterior enclosure walls or between exterior walls and fire walls.

AREAWAY (Form of Construction): An uncovered subsurface space adjacent to a building.

ATTIC: The space between the ceiling beams and the roof rafters.

ATTIC, HABITABLE: A habitable attic is an attic which has a means of access and egress and in which the ceiling area has a height of seven and one-third feet (7 1/3') above the attic floor and is not more than one-third (1/3) the area of the floor next below.

BASEMENT: That portion of a building having one half (1/2) or more of its' height below the average grade of the adjoining ground.

BERM: An earthen mound designed to provide screening of undesirable views, noise reduction, etc.

BREEZEWAY: A roofed over open-air passageway connecting a building, structure or use to another building, structure or use.

BUILDING: A structure enclosed within exterior walls or fire walls, built, erected and framed of component structural parts, designed for the housing, shelter, enclosure and support of individuals, animals or property of any kind. This definition shall also include signs, fences, retaining walls, swimming pools and other recreational facilities.

BUILDING, DETACHED: A building surrounded by open space on the same lot as a principal building.

BUILDING, PRINCIPAL: A non-accessory building in which the primary use is conducted on the lot.

CHANGE OF USE: An alteration by change of use in a building heretofore existing to a new use group which imposes other special provisions of law governing building construction, equipment or means of egress.

COVER CROP: Plant species included in a seed mix that become established quickly and prevent soil erosion and weed infestation until more permanent plants can become established. The plants may be annuals or short-lived perennials.

DEAD LOAD: Means the weight of all permanent construction including walls, floors, roofs, partitions, stairways and of fixed service equipment.

DECK: An exterior floor platform supported by piers, post, and beams either attached to the structural members of a structure or free-standing.

DWELLING UNIT: A dwelling unit includes a group of rooms arranged, designed, used or intended for the exclusive use as living quarters for one family and which includes a complete kitchen and bath facilities permanently installed. A garage for the sole use of the occupants of the dwelling unit shall be considered part of the dwelling unit when properly separated with fire resistive construction as required elsewhere in this Code.

DWELLING UNIT, MULTIPLE-FAMILY: A dwelling unit which has another dwelling unit, or any other occupancy attached on either side, located above or below it in whole or in part and properly separated by fire resistive wall, floor, or ceiling assemblies respectively shall be classified as a multiple-family building or as multiple-family dwelling occupancy in a mixed-use building. A multiple-family building shall also include a building which has a common entrance which opens onto a common hall or passageway by which the occupant may gain access to their individual units.

DWELLING UNIT, SINGLE-FAMILY: A dwelling unit detached from any other building or, where attached, separated by a structurally independent two (2) hour minimum fire resistance rated wall without openings or penetrations.

ELECTRIC VEHICLE CHARGING SYSTEM: Means a device that is: used to provide electricity to an electric vehicle; designed to ensure that a safe connection has been made between the electric grid and electric vehicle; and able to communicate with the vehicles control system so that electricity flows at an appropriate voltage and current level. An electric vehicle charging system may be wall mounted or pedestal style, may provide multiple cords to connect with electric vehicles and shall be certified by Underwriters Laboratories or have been granted an equivalent certification.

ELECTRIC VEHICLE SUPPLY EQUIPMENT OR "EVSE": Means a conductor, including an ungrounded, grounded, and equipment grounding conductor, and electric connectors, attachment plugs, and all other fittings, devices, power outlets, and apparatuses installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

EV-CAPABLE: Means parking spaces that have the electrical panel capacity and conduit installed during construction to support future implementation of electric vehicle charging with 208-volt or 240-volt or greater, 40 ampere or greater circuits. Each EV-capable space shall feature a continuous raceway installed between an enclosure or outlet located within three feet (3') of the EV-capable space and a suitable panelboard or other onsite electrical distribution equipment. The electrical distribution equipment to which the raceway connects shall have sufficient dedicated space and spare electrical capacity for a 2-pole circuit breaker or set of fuses. Reserved capacity shall be no less than 40A 208/240V for each EV-capable space. The distribution equipment directory shall be marked "For future electric vehicle supply equipment".

ELEVATION CERTIFICATES: A form published by the Federal Emergency Management Agency (FEMA) or its equivalent, that is used to certify the base flood elevation and the lowest elevation of usable space to which a building has been constructed.

EXCAVATION/FILLING: Except as hereinafter provided, excavation and/or filling shall mean any changing of the grade or sub-grade of a tract of land by cutting, scraping, grading, trenching, digging, filling in or otherwise reshaping the natural contour of the ground. The following shall not be construed as excavation/filling:

A. Any cutting, grading, trenching, digging or backfilling of any foundation of a building or structure for approved construction.

B. Top dressing in an area of existing homes, where the top dressing does not change the drainage patterns. Does not disturb an area greater than five percent (5%) of the lot area or two thousand (2,000) square feet, whichever is smaller and does not exceed five (5) cubic yards of fill.

C. Repairs to existing septic sites under the supervision of the DuPage County Health Department, in which the area of ground disturbed is less than five thousand (5,000) square feet, shall not require the issuance of a Stormwater Management permit.

D. Cutting, grading, trenching, digging or backfilling of any septic site as part of new construction shall be reviewed for drainage as part of the building permit application, but shall not require a drainage review by the Building & Zoning Department where the area of ground disturbed is two thousand (2,000) square feet or less.

EXISTING BUILDING OR STRUCTURE: A building or structure lawfully constructed, built, or erected for which a Certificate of Use and Occupancy has been issued. A preexisting building or structure shall be deemed an "existing building or structure".

EXITWAY: That portion of a means of egress which is separated from the area of the building from which escape is to be made, by walls, floors, doors, or their means which provide the protected path necessary for the occupants to proceed with reasonable safety to the exit way discharge or exterior of the building.

FIRE RESISTANCE RATING: The time in hours or fractions thereof that materials or their assemblies will resist fire exposure as determined by fire tests conducted in compliance with recognized standards.

GAZEBO: A structure with a permanent roof, intended for shelter, its sides can be open or closed with screens. The roof is intended to provide shade and shed water.

GROSS FLOOR AREA: The complete floor area within the inside perimeter of the exterior walls.

HABITABLE SPACE: Space in a structure for living, sleeping, eating or cooking. Bathrooms, toilet compartments, closets, halls, storage or utility spaces and similar areas are not considered habitable space.

HARDSHIP: That situation or circumstance that causes or entails suffering or privation.

LANDSCAPE SCREEN: A visual and physical buffer consisting of plant materials, berms, fences and/or walls, or any combination thereof which obscure a higher intensity zoning district or use from a lower intensity zoning district or use.

LANDSCAPE YARD: An area of ground contained within a required yard of a zoning lot including paved areas required for pedestrian or vehicular access, which is required to be landscaped for the purposes of screening and buffering a development site from a less intensive zoning district or use.

LINKAGE: Any portion of an attached accessory building which connects an attached accessory building to a principal building and meets the following requirements:

A. Is constructed pursuant to all applicable building, zoning and drainage regulations for a principal building; and

B. Is less than twenty feet (20') in length; and

C. Is less than six feet (6') in width.

NATIVE PLANTS: Plants that are inherent and original to an area or ecological region. Plants which have not been introduced from another region or continent. Naturalized species from area outside the region are not considered native.

NONCONFORMING BUILDING OR STRUCTURE: Any lawfully established building or structure on the effective date of this Code or any amendment thereto which does not conform to the applicable provisions established by this Code or the amendments thereto.

OCCUPANCY AND/OR USE: Occupying and/or using a building or structure including decorating, furnishing, inhabiting, using for storage or otherwise utilizing in the manner intended for such building or structure, excluding any occupancy or use incidental to construction or the installation of permanent fixtures and equipment or storage thereof.

OCCUPANT: Any person who inhabits, resides in, works in, or uses a particular building or structure shall be deemed an occupant of said building or structure, excluding those persons who enter into a building or structure incidental to the construction thereof.

ORDINARY, REPAIR AND MAINTENANCE: Routine or basic repairs, maintenance, upkeep, replacement, and servicing required due to the normal use of a building or structure and necessary to sustain a level of efficiency and/or appearance. Such work shall not include the cutting of any wall, partition or portion thereof, the removal or cutting of any structural beam or bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the exit requirements, or the replacement of more than twenty five percent (25%) of a building or structure's roofing or siding; nor shall ordinary repairs and maintenance include the addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, soil, waste, vent or similar piping, electrical wiring or mechanical or other work affecting public health, safety and welfare.

ORNAMENTAL TREE: A deciduous tree planted primarily for its ornamental value, or for screening. May be any size at maturity but will tend to be smaller than a shade tree.

PARKING LOT ISLAND: An area of ground within the boundary of any parking lot that has curbing adjacent to all paved areas. Parking lot islands are used for traffic control and provide space for landscaping which helps screen and shade parking lots.

PARTY WALL: A wall on an interior lot line used or adapted for joint service between two (2) buildings.

PERGOLA: An open sided structure that supports some type of overhead nominal lumber or other material meant to provide shade. It is not intended to shed water or protect from any other weather phenomenon.

PLANT AVERAGE FUNCTIONAL SIZE: The mature height and spread typical of a category of plants, such as low shrubs, evergreen tree, shade trees etc.

PLANT PRESERVATION CREDIT: Credit given for the preservation of existing vegetation meeting the functional requirements of this Code, in lieu of required new landscaping.

RADON GAS: A naturally occurring chemically inert, radio-active gas that is not detectable by human senses.

RAMP: A sloping platform used to access or exit a landing, structure, or deck.

REPAIR: All repairs not herein defined as "Ordinary Repairs and Maintenance".

REPETITIVE LOSS: Flood related damages sustained by a structure on two (2) separate occasions during a ten (10) year period for which the cost of repairs at the time of each such flood event, on the average, equaled or exceeded twenty five percent (25%) of the market value of the structure before the damage occurred, in accordance with the Building Code and the Countywide Stormwater and Flood Plain Ordinance (CSFPO).

REQUIRED: Shall be construed to be mandatory by provisions of this ordinance.

ROOF COVERING: The covering applied to the roof for weather resistance, fire resistance or appearance.

SEMI-CRAWL SPACE: The crawl space portion of a building where the depth below the above floor joists to inside finished grade is less than twenty-four inches (24") and the difference between the inside finished grade and adjoining ground is twelve inches (12") or less.

SHADE TREE: A deciduous (or, rarely, an evergreen) tree planted primarily for its high crown of foliage or overhead canopy.

SHED: A structure built for shelter or storage and capable of being entered.

SHRUB, LOW: Any shrub that attains a mature height of less than five feet (5') when left unpruned.

SHRUB, TALL: Any shrub that attains a mature height of five feet (5') or more when left unpruned.

SIDEWALK: A walking surface for pedestrian use typically constructed of concrete, pavers, decorative stone, gravel, etc.

STORMWATER BASIN: A manmade pond or impoundment designed to detain, store and release stormwater.

1. A dry basin is designed to release stormwater.

2. A wetland basin is designed to retain less than three feet (3') of water or maintain saturated soils on the bottom, which are suitable for wetland plants.

3. A wet basin or pond is designed to maintain surface water areas of three (3) or more feet in depth. A basin can be designed to have both dry and wet features.

STORY: That part of a building comprised between a floor and the floor or roof next above.

SUBSTANTIAL DAMAGE: Damage of any origin sustained by a structure whereby the cumulative percentage of damage during the life of the building equals or exceeds fifty percent (50%) of the market value of the structure before the damage occurred regardless of actual repair work performed elevated pursuant to the Building Code and the CSFPO. The actual value of any labor, services and materials provided at cost or donated shall be included in this determination elevated pursuant to the Building Code and the CSFPO. This term includes repetitive loss buildings elevated pursuant to the Building Code and the CSFPO. (See definition of Repetitive Loss.)

SUBSTANTIAL IMPROVEMENT: Any repair, reconstruction, rehabilitation, addition, or improvement of a structure taking place during a ten (10) year period in which the cumulative percentage of improvements equals or exceeds fifty percent (50%) of the market value of the structure before the improvement or repair is started pursuant to the Building Code and the CSFPO.

- "Substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. This term includes structures, which have incurred repetitive loss or substantial damage, regardless of the actual work done pursuant to the Building Code and the CSFPO.

- Exemption: Projects for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions pursuant to the Building Code and the CSFPO.

TEMPORARY EASEMENT AGREEMENT: A document allowing DuPage County or its agent access to property for the purpose of completing the required landscaping in the event that the owner or petitioner does not install required plant material or does not replace dead plants as required by this Code.

TRANSITION YARD: A required yard on a zoning lot which usually acts as a buffer between two (2) land uses of different types or intensities, and which shall provide a landscape yard in accordance with section 37-4.19, "Landscaping", of the DuPage County Zoning Ordinance. A transition yard shall be located on the zoning lot with the higher intensity use.

TRELLIS: Generally, a frame of latticework used as a screen or as a support for climbing plants and constructed chiefly of latticework.

TURF GRASS: Grass as planted, by seeding or sodding, to establish a lawn that is usually maintained by mowing.

UNSAFE STRUCTURE: Any building or structure which constitutes a fire hazard, or is in danger of collapse, explosion, or otherwise threatens the public health, safety or welfare, or which has become deficient in adequate exit facilities, or which involves an illegal or improper use, occupancy or maintenance, or any vacant building or structure unguarded, unsecured or open and accessible to the public at door or window. Any excavation, fill or accumulation of debris shall be deemed a structure within the meaning of section 8-120.

8-128: DRAINAGE REGULATIONS:

8-128.1: General Requirements:

A. Development on a lot or parcel of land including but not limited to new principal buildings or structures, additions thereto or new or existing accessory buildings or structures including for same buildings and structures or lot or parcel grading changes shall meet all requirements of the Building Code and the CSFPO.

B. Sump pump, downspout and gutter discharges:

1. Sump pump, downspout and gutter discharge lines shall be directed to a vegetated swale of sufficient length to allow dissipation before discharge exits site and a minimum of ten feet (10') from any property line and shall not directly tie into a storm sewer except as allowed under Section 128.1.B.2.

2. Sump pump, downspout and gutter discharge lines may be tied to storm sewers if sewer drains to a stormwater detention facility serving the subdivision.

3. In all instances, sump pump, downspout and gutter discharge lines shall not be directed in a manner that negatively impacts drainage on a neighboring property.

C. All required erosion control measures specified on grading plans approved and certified are to be installed and maintained in accordance with procedures and standards for urban soil erosion and sedimentation control in the Illinois Urban Manual as amended by the CSFPO.

D. Stripped surface areas shall be protected from soil erosion within fifteen (15) days after final grade is reached. Stripped areas not at final grade that will remain undisturbed for more than fifteen (15) days after initial disturbance shall be protected from erosion. Temporary cover shall be maintained continuously until permanent cover is established.

8-128.2: Grading Plan Requirements:

A. Minimum Plan Requirements:

1. Title block that includes the project name, sheet number, date of preparation, and, and latest revision date.

2. North arrow.

3. Graph or bar scale.

4. Legal description and tax parcel number (PPN or PIN).

5. Legend identifying all standard symbols used on the plan sheet.

6. Plan must be prepared by an Illinois Registered Professional Engineer. Include name, address, telephone number and seal of registered engineer.

7. Delineation of all existing and proposed easements for utilities, drainage, and conservation.

8. Benchmark tied to the North American Vertical Datum of 1988 (NAVD88) of the National Spatial Refence System (NSRS) as maintained by the United States National Geodetic Survey (NGS). For sites located in flood hazard areas, tie benchmark to the FIRM datum.

9. Existing and proposed contour lines at one foot (1') interval tied to bench mark.

10. Drainage arrows along lot lines and wherever else appropriate.

11. The topographic survey shall extend one hundred feet (100') beyond all property lines.

12. Finished grades at least 0.5 feet below top of foundation.

13. Side and rear lot line swales at a minimum 1% slope. Drainage swales require a one percent (1%) minimum slope along property lines. These swales shall be contained on the lot being developed, or where applicable, a defined mutual (shared) swale may be used (with the lowest point of the swale being contained on the lot being developed).

a. Four (4) cross-section drawings will need to be provided along with both main property lines that reference the following: All existing and proposed foundations, spot elevations at the top and bottom of the swales (lowest point being contained on the property being developed) and spot elevations at the property line and onto the neighboring property. In addition, these cross-sections need to include the existing grade through the area.

b. Any grading being proposed on a neighboring property will require a letter both signed and notarized by the legal owner(s) of the property allowing grading changes. Depending on the amount of grading changes being proposed on that property, a separate grading permit may be required. 14. Maximum earth slopes – three (3) horizontal to one (1) vertical.

15. Proposed top of foundation elevation (and lowest opening elevation), including the top of foundation elevations (and the lowest opening) of existing structures within one hundred feet (100') of the project site.

16. The location and direction of all proposed sump pump and downspout discharge lines. Sump pump and downspout discharge lines shall be directed to a vegetated swale and shall not directly tie into a storm sewer. This requirement may be waived by the Building Official where the storm sewer discharges directly into an on-site stormwater facility. In all instances, sump pump and downspout discharge lines shall not be directed in a manner that negatively impacts drainage on a neighboring property. The outlet for every sump pump and downspout shall be located at least ten feet (10') from any property line.

17. Top and bottom elevations of the proposed retaining wall, along with a cross-section detail for the proposed design. Walls twenty-four inches (24") or more in height require the certification of a registered Illinois Architect or Structural Engineer. Manufacturer's specification sheets are required for walls that are pre-engineered (e.g. pre-cast inter-locking wall system, etc.). Depending on type of wall system, height, etc. the above certification may also be required, along with as-built drawings of the installation.

18. The locations and elevations (as defined by the Federal Emergency Management Agency National Flood Insurance Map) of all Zone A floodplains within one hundred feet (100') of the proposed development.

19. The delineation line with wetland submittals for properties containing wetlands or properties within one hundred feet (100') of wetlands. Delineation of off-site properties will not be required. Wetland submittals must be prepared in accordance with the standards found in the CSFPO.

20. The location of all easements for the proposed development.

21. Driveway slope may not exceed eight percent (8%).

22. Location of soil stockpiles remaining on the site for more than three (3) days.

23. Sediment and erosion control plan designed using the procedures and standards for urban soil erosion and sedimentation control in the Illinois Urban Manual as amended by the CSFPO.

24. The location and elevation of all existing and proposed stormwater/drainage facilities within one hundred feet (100') of the property (e.g., swales, ditches, catch basins, inlets, storm sewers, field tiles, culverts).

25. Indicate pipe, slope, length, elevations and type of material for all proposed storm lines.

B. In addition, development on a lot or parcel of land including but not limited to new principal buildings or structures and additions thereto or new accessory buildings or

structures and additions thereto or lot or parcel grading changes shall meet shall comply with the following sediment and erosion control plan requirements:

1. Site development that requires stormwater detention facilities or has potential impacts to a special management area (includes but not limited to the following: floodplain, riparian areas, wetlands or developments within one hundred feet (100') of a wetland) will require additional information as found in the CSFPO.

2. The plan shall indicate sedimentation controls for all existing and proposed storm water structures.

3. The plan shall indicate erosion control measures designed to protect adjacent properties and public rights of way. Such measure to be installed before any earth movement and/or groundbreaking.

4. The plan shall indicate erosion control measures designed to protect ditches, swales, and other sloped areas where storm water velocity can cause erosion.

5. The plan shall indicate sediment and erosion control provisions for soil stockpiles.

C. The sediment/erosion control plan will need to include the following:

1. Proper sediment protection (e.g., silt fencing) to be properly installed along the downslopes of the site. Other acceptable and practical methods may be used.

2. The location of the construction entrance.

3. The location of the topsoil stockpile, including the backfill stockpile location. This is to be located as to not create a negative impact on the neighboring properties. Provide a notation if no stockpile is to remain.

4. Proper storm inlet and street inlet protection. Geotextile filter fabric required to be installed under all inlets.

5. Culvert sedimentation protection.

6. Temporary and permanent stabilization method(s) (e.g., erosion control matting/blanket installed on steep slopes, sod, hydro-seed, seed/mulch combination) where the mulch has been cultivated into the soil.

7. Riprap should be used on the outlet side of flared end sections in order to dissipate flows.

8. Ditch checks of rock or straw/haybales should be considered within swales of excessive drop.

9. Sediment basin/traps should be considered as a settlement area before a storm structure/facility.

10. The location of cement wash-off areas shall be placed away from special management areas (floodplains/floodways, riparian, wetlands and wetland buffers), stormwater facilities and other related conveyance systems.

D. Requirements for Final Grading Approval and Security Bond Release:

1. Four (4) copies of a record drawing showing the as-built topography to be submitted to the Building & Zoning Department. The site will be inspected within three (3) to five (5) working days after the drawing is received.

2. The record drawing must be prepared, signed and sealed by a registered Illinois Land Surveyor (Professional Engineer when required) and should be prepared to the same standards as the approved topographic/grading plan.

3. The record drawing grading shall match the approved grading plan.

4. Submitted record drawing as-built topographic shall reflect the actual finished grading. This is to include the location of all downspouts and sump pump discharge lines and reference the benchmark used in the approved grading plan.

5. Swales/berms shall be properly installed as per the approved grading plan.

6. All storm lines (driveway culverts, storm inlets and outlets, catch basins and flared-end sections) shall be free of debris and sediment.

7. All vegetation shall be established (e.g., sod, hydro-seed, or seed with an acceptable matting blanket material). Should a final grading inspection be scheduled without vegetation being established, a re-inspection will be required for the vegetation prior to any approvals being issued.

E. Development on Properties Within the Floodplain and Floodway Requirements:

1. The director or his designee shall be responsible for the general administration and enforcement of this section including but not limited to the following:

a. To make determinations on Floodplain and Floodway designation and check all new development sites to determine whether the sites are in a special flood hazard area (SFHA) per the standards and requirements of the Building Code and the CSFPO.

b. To make determinations as required by FEMA to determine if any structure has substantial damage and ensure that any modification of those structures comply with the requirements of the Building Code and the CSFPO.

c. To make determinations relative to a substantial improvement and ensure that those structures comply with the requirements of the Building Code and the CSFPO.

d. To make determinations relative to repetitive loss on a property and ensure that the property complies with the requirements of the Building Code and the CSFPO.

2. Pursuant to the requirements of FEMA, any development in the floodplain must obtain an Elevation Certificate.

3. Where a development, structure or property has substantial damage, has or will have substantial improvement or is the subject of repetitive loss regulations, the director or his designee shall require that the development, structure or property comply with the requirements of the Building Code and the CSFPO, including but not limited to the following:

a. Elevate, relocate, demolish or floodproof. Floodproof only non-residential structures.

b. Obtain an Elevation Certificate.

4. The director or his designee shall be responsible to maintain for public inspection in the permit files any documentation including Elevation Certificates relative to all determinations made by the director or his designees relative to development in the floodplain and or floodway including substantial damage, substantial improvement and repetitive loss to said structures and property per the requirements of the Building Code and the CSFPO.

8-129: LANDSCAPE REGULATIONS:

8-129.1: General:

1. To require landscaping for screening and buffering of subdivisions, planned developments, developments granted zoning relief, and all developments other than single-family residences to reduce the impact of such developments on adjacent properties.

2. To encourage the preservation of existing trees and other vegetation which are in healthy condition, especially mature plant material and plants indigenous to the region, which are an important element characterizing the high quality of life in the County.

3. To encourage the design and location of buildings, parking lots, drainage facilities and other improvements in such a way as to maximize the preservation of existing trees and other desirable vegetation.

4. To grant plant preservation credits for existing trees and other desirable vegetation which meet landscaping requirements.

5. To regulate the clearing and disturbing of land during the planning and site development process so as to preserve existing trees and other desirable vegetation when a tree preservation plan has been approved and plant preservation credits have been given.

6. To require the use of native vegetation in and around stormwater basins to help filter stormwater runoff, reduce basin erosion and sedimentation, aid in the removal of nutrient and other contaminants from stormwater, and discourage large numbers of nuisance waterfowl in and around stormwater basins.

8-129.2: Applicability:

1. The requirements shall apply to the following projects requiring a permit in unincorporated DuPage County.

a. All applications for subdivision approval or zoning relief.

b. All projects having been granted zoning relief.

c. All projects having one or more transition yards.

d. All projects having parking lot areas of ten thousand (10,000) square feet or larger.

e. All projects, other than projects on lots that contain single-family residences, having existing trees of at least three inches (3") in diameter measured four and one-half feet (4 1/2') above the ground.

f. All projects granted reduction of required yards by conditional use procedure with shared parking facilities.

g. All projects that utilize up to twenty percent (20%) yard reduction for parking, circulation or loading.

h. All projects having parking lots of four (4) or more spaces located less than forty feet (40') from a residential property or street right of way line.

i. All projects having open off street loading areas less than forty feet (40') from a residential property or street right of way line.

j. All projects having outdoor storage areas of goods, products, materials, supplies, machinery, equipment or commercial vehicles.

k. All automobile service stations.

l. All projects having outdoor trash containers.

m. All projects having stormwater basins.

n. All principal arterial office use projects.

o. All private school play areas that are adjacent to residential properties.

2. The following projects are exempt from the requirements:

a. All projects on lots that contain single-family residences that do not have any transition yards, or existing zoning relief.

b. All projects (other than lots which contain single-family residences) that do not have any circumstances in subsection 8-129.2 (section 1) of this section.

3. Existing conditions on developed sites that are not in conformance with the requirements of the DuPage County Zoning Ordinance, section 37-419, "Landscaping", that are otherwise lawful on August 13, 1991, may be continued as a matter of right. Any lawful exceptions of nonconforming uses that involve any of the circumstances in subsection 8-129.2 (section 1) of this section shall be subject to the requirements of this Code.

4. Alternative compliance. Certain project conditions may justify approval of alternative methods of compliance within these requirements. Conditions may arise where normal compliance is impractical or impossible or where maximum achievement of the County objectives can only be obtained through alternative compliance.

a. Requests for alternative compliance will be considered for any application to which the requirements of the ordinance apply when one or more of the following conditions are present:

(1) Existing topography, soil, vegetation or other site conditions are such that full compliance is impossible or impractical; or improved environmental quality would result from the alternative compliance.

(2) Space limitations, unusually shaped lots or prevailing design practices in the surrounding neighborhood may justify alternative compliance for infill sites and for improvements or redevelopment in older developed areas.

(3) A change of use on an existing site increases the screening required to more than is feasible to provide.

(4) Safety considerations make alternative compliance necessary.

b. Requests for alternative compliance shall be accompanied by sufficient explanation and justification, written and graphic, to allow appropriate evaluation and decision.

c. A proposed alternative compliance measure must be equal to or better than normal compliance in terms of quality, effectiveness, durability, hardiness and ability to meet the landscape standards of the Code.

d. Alternative compliance shall be limited to the specific project under consideration and shall not establish precedents for acceptance in other cases.

8-129.3: Submittal Requirements:

1. A tree survey of the site to be developed shall be submitted prior to site plan review and concurrent with the submittal of any permit or project application for zoning relief, a subdivision, or when a transition yard exists on the property, or a transition yard is created through allowed yard reduction on the property.

a. Tree Survey Preparation.

(1) For a single-family detached lot or two lot subdivision: The tree survey may be prepared by the property owner on a site survey, identifying the trees and other prominent vegetation on the site.

(2) For all nonresidential development and subdivisions: all single-family subdivisions of three (3) or more lots; all two-family developments and all multiple-family developments: The tree survey shall be prepared by an arborist, forester, horticulturalist, landscape architect, landscape designer, landscape contractor, or other professional able to correctly locate and identify trees and other prominent vegetation on the site.

b. The plan shall include the following:

(1) All existing trees of three inches (3") or larger in diameter measured four and one-half feet (4 1/2') above the ground, their species and condition.

(2) The outline of existing masses of other vegetation which may include trees less than three inches (3") in diameter and shrubs.

(3) All trees of twelve inches (12") or larger in diameter measured at four and one-half feet (4 1/2') above the ground, on all adjacent properties within twenty-five feet (25') of the property line.

2. The landscape plans is to be prepared and stamped by a registered Landscape Architect, licensed in the State of Illinois, for all nonresidential development and subdivisions; all single-family subdivisions of three (3) or more lots; all two-family developments and all multiple-family developments.

The landscape plan shall be submitted on a separate sheet and shall include the following information:

a. Site Elements: The landscape plan shall show:

(1) Title block including the name and street address of the project, designer's name, scale of the plan (no smaller than 1" = 50' for plans with trees only; and no smaller than 1" = 20' for plans with shrubs and smaller plants), north arrow and date of the plan.

(2) Property lines.

(3) Name, location, right of way and paving widths of all abutting streets.

(4) Note zoning and use of all abutting properties; location of buildings on abutting properties within two hundred feet (200') of property lines.

(5) Natural features such as ponds, lakes and streams; delineation of 100-year floodplain and wetland boundaries.

(6) Existing and proposed stormwater basins.

(7) Required landscaped yard widths.

(8) Location, height, dimensions, and use of all existing and proposed buildings and other structures, including parking lots, sidewalks, and other paved areas, fences, walls, and recreational equipment.

(9) On sites where trees and other vegetation are to be preserved, the plans shall identify construction access, storage areas, work areas, and protective fencing around trees and other vegetation. These elements shall also be shown on the site grading plan.

b. Planting Elements: The landscape plan shall show:

(1) Existing trees and areas of other vegetation to be removed, locations noted, trees three inches (3") or larger in diameter measured at four and one-half feet (4 1/2') above the ground, and a list of species.

(2) Existing trees of three inches (3") or larger in diameter measured at four and one-half feet (4 1/2') above the ground, to be preserved, including locations noted, diameter, and a list of species.

(3) Outline of existing masses of other vegetation, which may include trees less than three inches (3") in diameter and shrubs, to be preserved,

(4) Show on submittals the methods and details for protection of existing vegetation during construction.

(5) Location and keyed labels of all proposed plants.

(6) Location of all proposed areas to be seeded and/or sodded.

(7) Plant list or schedule to include key symbols, quantity, correct botanical and common names, size and condition of all proposed plants.

(8) Location and description of other landscape improvements, such as earth berms, screens, sculptures, fountains, street furniture, signs, lighting and paved areas.

(9) General and specific notes to indicate or explain the design and construction procedures to be used.

c. Specifications, maintenance and management plans for stormwater basins.

(1) Provide written specifications for planting procedures.

(2) Provide a written landscape management and maintenance plan for the three (3) year native planting establishment period.

(3) A written perpetual maintenance and management plan shall be incorporated into subdivision covenants or stormwater basin easement language outlining practices required to properly maintain native plantings.

8.129.4: Review Procedure:

1. The plan will be reviewed for compliance with the DuPage County Zoning Ordinance and with any ordinance approved by the County Board that grants specific zoning relief on the subject property.

2. Any subsequent alteration of the approved grading plan that affects existing or proposed landscaping shall require that a new landscape plan be submitted highlighting specific landscape changes from the previous plan.

3. Upon satisfying the landscape plan conditions of this Code, the DuPage County Zoning Ordinance and any ordinance granting specific zoning relief on the subject property, a detailed cost estimate prepared by a recognized landscape architect or landscape contractor shall be submitted for approval. The estimate shall include the cost of all new landscaping, and replacement value of trees and other vegetation being preserved. Replacement value shall be determined by the cost of replacing each tree or shrub with a new tree or shrub to meet the required landscape points.

4. The applicant shall also be required to sign a temporary easement agreement prior to the issuance of any permits.

5. Upon the receipt of the landscape bond, the signed temporary easement agreement, and the approval of the tree preservation measurements on the site by the County when tree preservation is required, the applicant will have completed the landscape submittal requirements of the ordinance.

6. Inspection of the applicant's property will be conducted by the County after the installation of all materials by the applicant and again after at least one year has passed.

8-129.5: General Landscape Requirements:

1. All plants shall conform to the "American Standards For Nursery Stock", latest edition, and shall be installed according to the current standards of the American Association of Nurserymen.

2. Plant Availability and Hardiness: All plants used in landscape plans shall be hardy in USDA zone 5.

3. Deciduous shade and street trees shall be fully branched and have a minimum caliper of three inches (3"), except for single lot residential development, which shall have a minimum caliper and two and one-half inches (2 1/2") as measured six inches (6") above ground level. Specimens shall be properly pruned to maintain a natural form.

4. Ornamental trees shall be fully branched and have a minimum caliper of two and one-half inches (2 1/2") for single lot residential development, which shall have a minimum caliper of two inches (2"), as measured six inches (6") above ground level. Specimens shall be properly pruned to maintain a natural form and effective screening.

5. Evergreen trees shall have a minimum height of eight feet (8'), except for single lot residential development, which shall have a minimum height of six feet (6'). Trees shall be fully branched to the ground.

6. Columnar evergreens shall have a minimum height of four feet (4') and shall be fully branched to the ground.

7. Tall shrubs shall be supplied in five (5) gallon or larger containers or balled and burlapped. Plants shall measure at least thirty-six inches (36") in height and shall be fully branched to the ground. Shrubs shall be properly pruned to maintain effective screening.

8. Low shrubs shall be supplied in two (2) gallon or larger containers for residential development, or five (5) gallon or larger containers for nonresidential development. Plants shall measure at least eighteen inches (18") in height or spread for residential development and at least twenty-four inches (24") in height or spread for nonresidential development.

9. Ground cover plants shall be planted so that an effective covering is obtained within two (2) growing seasons, or a maximum spacing of one foot (1') on center, in all directions.

10. Plant materials, including deciduous trees and evergreen trees, shall not cause a hazard. Landscape plant material overhanging walks, pedestrian or bicycle paths and

seating areas shall be pruned to a minimum height of eight feet (8'); and to a minimum height of twelve feet (12') over streets and highways, and above parking lot aisles and spaces.

11. Parking Lot Plantings:

a. No shrub or tree shall be planted closer than two feet (2') from any curb.

b. Low shrubs planted in parking lot islands shall be maintained at a height not exceed three feet (3'), in order to keep sight lines clear.

12. Plantings shall conform with section 37-4.5-3, of the Zoning Ordinance to keep the vision triangle clear at all vehicle intersections.

13. Maintenance Responsibility:

A. The owner of the property, or subsequent owners, shall be responsible for the maintenance of all landscape materials. Any plant materials which die shall be replaced forthwith in compliance with the approved landscape plan.

B. Fences, walls and other barriers shall be maintained in good repair.

8-129.6: Preservation of Trees And Other Vegetation:

Trees and other vegetation which will be preserved as part of an applicant's approved landscape preservation plan shall be subject to the following requirements:

1. Clearing and Tree Removal:

a. Upon approval of the landscape preservation plan for a permit or a development, the applicant shall refrain from clearing and removing trees and other vegetation from the site until all required approvals and permits have been applied for and received from the County.

b. Exemption, Notification And Plan Revision.

(1) Trees identified for preservation on the landscape preservation plan which pose an immediate safety hazard to pedestrian or vehicular traffic, buildings, other site improvements or utility lines, including damage caused by storm, fire, or other injury, may be removed at any time.

(2) The applicant shall notify the County within forty-eight (48) hours of the tree removal work.

(3) The landscape preservation plan shall be revised, and new trees required to meet the landscape screening requirements of this section shall be added to replace any plant preservation credits formerly provided by the removed trees.

2. Protection: Root area, trunks and branches of trees and other vegetation identified for preservation shall be protected during any work activity on the site. The applicant and his contractor shall conform to the following requirements:

a. All grading, storage of materials and trash, parking or equipment or vehicles, dumping of liquids, and direction of construction runoff shall be prohibited within five feet (5') of any existing tree drip line or shrub/ground vegetation line.

b. A sturdy, continuous, temporary fence of at least four feet (4') in height shall be erected prior to site clearing and grading operations. The fencing shall be secured to posts driven into the ground. The fence lines shall be five feet (5') or more from all existing vegetation drip lines and shall be maintained until all construction work has been completed.

c. The applicant or developer/contractor shall hire a professional arborist to prune trees identified to be saved to compensate for root loss during conservation, remove dead or damaged branches, and remove low hanging branches which conflict with access into the site.

3. Replacement: Trees identified on the approved landscape plan for preservation which are inadvertently or intentionally destroyed, or are dying or dead, as determined by the County at any time up to and including the second landscape inspection, shall be removed, and replaced with new plantings in the following manner:

a. Replace the total caliper of dead or dying trees with trees of the minimum size as specified by this Code or in accordance with subsection 8-129.2.4, "Alternative Compliance", of this article.

b. Replacement trees shall be located in the areas identified for preservation on the approved landscape plan or as allowed by subsection 8-129.2.4, "Alternative Compliance", of this article.

4. Plant Preservation Credits: Plant preservation credits (PPC) may be applied for when plants in the required landscape yards are retained to perform required screening and buffering. The landscape requirement will be waived to the extent that the plants meet the requirements of the specific case as determined by the County.

a. Each tree or masses of trees and shrubs preserved in the areas of a required landscape yard shall meet the following requirements:

(1) The tree masses of trees and shrubs shall be alive and in a healthy condition.

(2) Trees three inches (3") to five inches (5") in diameter measured four and one-half feet (4 1/2') above the ground shall receive one hundred (100) landscape points.

(3) Trees six inches (6") to eight inches (8") in diameter measured four and one-half feet (4 1/2') above the ground shall receive one hundred thirty five (135) landscape points.

(4) Trees nine inches (9") to eleven inches (11") in diameter measured four and one-half feet (4 1/2') above the ground shall receive one hundred seventy (170) landscape points.

(5) Trees twelve inches (12") or larger in diameter measured four and one-half feet (4 1/2') above the ground shall receive two hundred (200) landscape points.

(6) Masses of trees under three inches (3") in diameter and shrubs in landscape yards may receive up to one hundred percent (100%) of the points required for that portion of the landscape yard if one-third (1/3) of the landscape points in all landscape yards are evergreens.

(7) Trees or masses of trees or shrubs shall perform the required screening function for the landscape yards as determined by the County.

b. Procedure for Obtaining Credits: All areas to be preserved shall be labeled on the landscape plan. Include photographs to verify existing vegetation areas. Note any pruning or other work on the plan. The applicant will be notified in writing as to the extent of the credit. As a condition of the PPC, all plants shall be protected during construction, as required in subsection 8-129.6.2. of this article.

c. Existing landscaping on the site of a principal arterial office use project shall be preserved and maintained.

8-129.7: Landscape Screening:

Landscape screening is required in all transition yards and other areas as follows:

1. A partial landscape screen is required where:

a. A nonresidential use or district abuts a nonresidential use or a nonresidential district if the adjacent lot is vacant.

b. A two-family or multi-family use abuts a non-single-family detached residential use or non-single-family detached residential district if the adjacent lot is vacant.

c. A use in a nonresidential district utilizes the fifty percent (50%) yard reduction by conditional use abuts a nonresidential district.

d. A non-single-family detached use that utilizes the twenty percent (20%) yard reduction for parking, circulation or loading abuts a non-single-family detached use or a non-single-family district if the adjacent lot is vacant.

e. A single-family detached zoning lot is granted a variation or conditional use, when abutting any nonresidential use or any nonresidential district if the adjacent lot is vacant.

f. There is a principal arterial office use. Screen around the structures on the property.

2. A full landscape screen is required where:

a. A nonresidential use or district abuts a residential use or any residential district if the adjacent lot is vacant.

b. A two-family or multifamily use abuts a single-family detached use or a single-family detached district if the adjacent lot is vacant.

c. A use in a nonresidential district that utilizes the fifty percent (50%) yard reduction by conditional use abuts a residential district.

d. A non-single family detached use that utilizes the twenty percent (20%) yard reduction for parking, circulation or loading abuts a single-family detached use or a single-family detached district if the adjacent lot is vacant.

e. A single-family detached zoning lot is granted a variation or conditional use, when abutting any residential use or any residential district if the adjacent lot is vacant.

f. There is a principal arterial office use. Screen driveways, parking areas and outdoor trash containers on the property.

g. A yard reduction of up to twenty percent (20%) is utilized for parking, circulation, or loading.

h. Parking lots of four (4) or more spaces are located less than forty feet (40') from a residential property or street right of way line.

i. Open off street loading areas are located less than forty feet (40') from a residential property or street right of way line.

j. Outdoor storage areas of goods, products, materials, supplies, machinery, equipment or commercial vehicles, other than sales yards, are located.

k. Outdoor trash containers are located.

l. Play area of private schools are adjacent to residential properties.

3. Planned use or conditional use developments with mixed uses shall provide the minimum required landscape yard between areas of differing uses as defined above.

4. Landscape Yards: Required landscaping may include fences, walls and berms in addition to plant materials. Determine the type and number of plants and other features required by the following:

a. Number Of Points Required for:

(1) A Partial Landscape Screen: Points required = the length of the landscape yard in linear feet multiplied by 5.

(2) A Full Landscape Screen: Points required = the length of the landscape yard in linear feet multiplied by 8.

b. Number Of Plants Required: Trees and shrubs have been given a point value as follows:

Low shrubs:	10 points
Tall shrubs:	15 points
Columnar evergreens:	25 points
Ornamental trees:	50 points
Evergreen trees:	100 points
Shade trees:	100 points

5. Plant Selection:

a. The proposed landscaping shall function so that maximum effective screening is provided. Both overhead and lower screening and buffering are required to meet the requirements.

b. Plant selection shall include a variety of plant types where possible.

c. Fences, walls and berms, where allowed, shall be used to increase effective screening. Trees and shrubs should be used on berms and in front of fences and walls.

d. Plant selection shall include evergreens for at least one-third (1/3) of the total required points in each landscape yard.

6. Solid Screening Fences or Walls:

a. Solid screening fences or walls of at least six feet (6') in height, where allowed, may contribute up to fifty percent (50%) of the required landscape points for a full or partial landscape screen on non-single-family residential lots and up to one hundred percent (100%) of the required points on single-family residential lots.

b. Screening fences or walls of less than six feet (6') in height but no less than four feet (4') in height, which are at least fifty percent (50%) open, where they are allowed, may contribute up to twenty five percent (25%) of the required landscape points for a partial or full screen.

7. Berms:

a. Berms are required in all front and corner side landscape yards for all non-single-family residential developments when adjacent to parking lots, storage and loading areas, except where in conflict with required drainage, detention/retention areas, wetland preservation and mitigation areas, tree preservation areas or vision clearance easements.

b. Continuous or staggered berms may contribute up to fifty percent (50%) of the total landscape points for that portion of a landscape yard. Berm heights of at least two and one-half feet (2.5') will receive credit based on the following:

(1) Berm height in feet x 10 = % of points credited (0.5' increments)

EXAMPLE: 100' Long Berm @ 2.5' high x 10 = 25% of points credited for that landscape yard.

(2) Berm heights of five feet (5') or more shall be credited a maximum of fifty percent (50%) of the points required for that portion of the landscape yard.

(3) When berms are used in combination with fencing for required screening, credit will be given for either the berm or the fence, but not for both.

8. Outdoor Storage Areas And Outdoor Trash Containers: Except for open sales lot, all outdoors storage areas of goods, products, materials, supplies, machinery, equipment or commercial vehicles, and outdoor trash containers, shall be enclosed with a fence, masonry walls or landscape screen or any combination thereof, which shall result in a full landscape screen to a height of not less than six feet (6') above grade.

8-129.8: Parking Lot Landscaping:

The following requirements apply to all parking lot landscaping:

1. Parking lot interior landscaping shall be provided for all parking lots of ten thousand (10,000) square feet or larger.

2. Interior landscaping shall occupy at least ten percent (10%) of the area of the parking lot, and shall be evenly distributed within the parking lot.

3. Shared parking facilities on two lots granted by conditional use procedure shall provide a minimum of ten percent (10%) interior landscaping on both lots.

4. Planting islands shall be placed in all parking lots as follows:

a. End islands shall be provided at each end of all parking bays, except where corner islands are provided.

b. Intermediate islands shall be spaced evenly and distributed throughout the parking area in order to meet the ten percent (10%) landscaping requirement.

c. Center islands may be provided between head-in parking for the full length of every other parking bay, unless there are three (3) or fewer parallel aisles of parking, to meet the ten percent (10%) landscaping requirement.

d. Corner islands shall be provided at the end of two (2) perpendicular parking bays when these bays are at the edge of the parking lot.

e. Drive islands may be provided between circulation drives and parking bays to meet the ten percent (10%) landscaping requirements.

5. Minimum dimensions of planting islands, including a six-inch (6") curb:

a. End islands shall be a minimum width of nine feet (9') and minimum length of thirty-six feet (36) (45 feet with a center island) for a double bay of parking.

b. Intermediate and half end islands shall be a minimum width of nine feet (9') and minimum length of eighteen feet (18'). In the case of angle parking, the perpendicular from the center of the parking bay to the aisle shall be the minimum length.

c. Corner islands shall be a minimum of eighteen feet (18') square, except in the case angle parking, where the perpendicular length of the stall from the centerline of the parking bay shall be the minimum dimension.

d. Center islands between head-in parking and drive islands shall be a minimum width of nine feet (9'), and the same length as the parking bay.

6. A curb shall be provided for all parking spaces adjacent to planting or pedestrian areas to prevent vehicle overhang, except in the case of handicapped access ramps.

7. Landscaping is required in parking lots for screening, reduction of glare and to provide shade, which prevents heat buildup. Shade trees, high branched ornamental trees and ground cover plants and/or turf grass shall be used. Low shrubs may be required for additional screening. The minimum requirements are as follows:

a. Nine foot (9') wide intermediate islands: At least one tree, and ground cover plants and/or turf grass.

b. Eighteen-foot (18') corner islands: At least one tree, and ground cover plants and/or turf grass.

c. Nine-foot (9') wide center and drive islands: At least three (3) trees per one hundred (100) linear feet, and ground cover plants and/or turf grass.

d. Nine foot (9') wide half end islands: At least one tree, and ground cover plants and/or turf grass. Provide at least seven (7) low shrubs when the islands is not adjacent and is forty feet (40') or more from a landscape yard.

e. Nine-foot (9') wide end islands: At least two (2) trees, and ground cover plants and/or turf grass. Provide at least fifteen (15) low shrubs when the islands is not adjacent and is forty feet (40') or more from a landscape yard.

f. Nine-foot (9') wide end plus center island: At least two (2) trees, and ground cover plants and/or turf grass. Provide at least twenty (20) low shrubs when the islands is not adjacent and is forty feet (40') or more from a landscape yard.

8-129.9: Prohibited Plants:

The following plants shall not be planted as a part of meeting the screening and parking lot landscaping requirements:

1. TREES:

Botanical Name	**Common Name**	**Remarks**
Acer negundo	Box-elder	Weak wood, invasive roots, self-seeds, Box-elder bug
Acer saccharum	Silver Maple	Weak wood, invasive roots, self-seeds, disease
Ailanthus altissima	Tree-of-Heaven	Weak wood, twig litter, self-seeds, invasive root
Betula pendula	European Birch	Disease, fatal borer insects
Catalpa species	Catalpa	Weak wood, leaf & twig litter, self-seeds, disease
Eleagnus species	Russion, Autumn Olive	Weak wood, short lived
Fraxinus americana	White Ash, Autumn Purple Ash, Rosehill White Ash, Skyline White Ash	Emerald Ash Borer
Fraxinus pennsylvanica	Green Ash, Clump Green Ash, Marshall Seedless Green Ash, Sherwood Glen Green Ash, Summit Green Ash	Emerald Ash Borer
Ginkgo bilboa	Ginkgo (female)	Offensive smelling fruit, seeds (Male varieties acceptable)

Gleditsia triacanthos	Thorny Honeylocust	Large thorns, seed pods (Thornless & seedless varieties acceptable.)
Juglans species	Butternut, Black Walnut	Large fruit, difficult to grow plants under
Maclura pomifera	Osage-Orange	Large fruit, thorns
Morus species	Mulberry	Weak wood, fruit, self-seeds, Invasive
Malus domestica	Apple	Large fruit, disease, insects
Platanus acerifolia	London Plane Tree	Aggressive roots, crowds out native under story plants, heavy litter with oversized leaves, fruit and twigs
Platanus occidentalis	Sycamore	Aggressive roots, heavy litter with oversized leaves, fruit and twigs
Populus species	Poplar , Aspen, Cottonwood.	Weak wood, short-lived, litter, Poplar self-seeds, disease
Prunus species	Cherry, Peach, Plum	Large fruit, disease, insects, short-lived
Pyrus calleryana	Callery Pear, Bradford, Cleveland, Aristocrat, etc.	Self-seeds, litter, weak wood and branch structure, short lived, very invasive
Pyrus communis	Pear	Large fruit, disease, insects
Quercus palustris	Pin Oak	Intolerant of alkaline soils
Rhamnus frangula	Buckthorn	Weak wood, fruit, seed spread by birds, very invasive
Robinia species	Black Locust	Weak wood, twig litter, self-seeds, invasive
Salix species	Willow	Weak wood, invasive roots, short-lived

Sorbus aucuparia	European Mountain ash	Disease, fatal borer insects
Ulmus americana	American Elm	Fatal diseases, insects, self-seeds, invasive
Ulmus pumila	Siberian Elm	Weak wood, disease, insects, self-seeds, invasive

Shrubs/Herbaceous Plants:

Coronilla varia	Crownvetch	Invasive, intolerant of other plants
Lonicera japonica	Japanese Honeysuckle	Very invasive, crowds out native understory plants
Lythrum salicaria	Purple Loosestrife	Very invasive, crowds out native plants
Fallopia japonica	Japanese Knotwood, false or Mexican bamboo	Very invasive, crowds out native plants
Rosa multiflora	Multiflora Rose	Very invasive, thorns
Phalaris arundinaceous	Reed Canary Grass	Very invasive, crowds out native plants
Phytolacca amerincana	Pokeweed, American Pokeweed	Very invasive, crowds out native plants, are poisonous to pets and other animals

8-130: BUILDING OPERATIONS:

A. Night Operations: No construction or alteration operations shall be carried on prior to seven o'clock (7:00) A.M. or after nine o'clock (9:00) P.M., if such produces loud or annoying noises. Construction and/or alteration operations shall not be permitted on Sundays if such produces loud or annoying noises.

B. Sidewalks: No sidewalk shall be obstructed in course of building operations and whenever a removal of a sidewalk is required, such work shall not be done until a special permit is secured from the authority having jurisdiction.

C. Street Use: It shall be unlawful upon any street, parkway, or sidewalk within the county to deposit or store any building materials, tools, apparatus, or structure

designed or intended to be used in the erection, construction, alteration, or repair of buildings.

1. It shall be unlawful to mix mortar, concrete or any other material upon the surface of any sidewalk or pavement in the County, or to wash any vehicle or machine incidental to construction on any street right of way.

2. Except as otherwise provided in the ordinance of this County, the person to whom a building permit is issued shall at all times during the life of the permit, maintain that portion of the street, parkway and sidewalk and a sidewalk abutting upon and adjacent to the lot or tract upon which such building is erected, in a safe condition and clear of all building materials, rubbish, dirt or snow. He shall at no time obstruct the gutter, or waterway of any lot or street so as to prevent the passage of water along the same, and if the gutter shall be shaded or covered so that ice accumulates therein, he shall clear the gutter so as to allow water to pass freely at all times.

D. Temporary Restroom Facilities: The owner or the owner's representative of a temporary building or building under construction, which is not yet occupied for its intended purpose, shall ensure that employees working on the construction site have access to restroom facilities which meet the following requirements:

1. Toileting facilities shall be enclosed and discharged into a sanitary sewer. In lieu of connecting to a sewer, the sanitary facility may be a portable, enclosed, chemically-treated tank-tight unit.

2. If individual portable units are used, separate toileting facilities are not required for males and females. Toileting facilities shall be provided based on the Occupational Safety and Health Administration Construction Sanitation Standards, which are as follows:

a. For twenty (20) employees or less, one toilet facility shall be provided.

b. For twenty (20) employees or more, one toilet facility and one urinal per forty (40) workers shall be provided.

c. Hand cleansing units shall be provided.

d. All units shall be pumped and cleansed regularly to ensure adequate working facilities.

e. For nonresidential temporary buildings or non-residential buildings, the restroom facilities shall be located within three hundred feet (300') of the entrance of the building under construction.

f. For residential temporary buildings or residential buildings, the restroom facilities shall be made readily available in nearby areas.

8-131: BUILDING ADDRESSES:

Prior to the issuance of a Certificate of Use and Occupancy each structure which has been assigned an address shall permanently affix such address to the building so that the address is visible from the main street. Address characters shall be in Arabic numerals and shall be at least six inches (6") in height and mounted on a contrasting background other than glass. Such address shall be maintained visible and legible.

8-132: NOISE STANDARDS:

Regulations concerning noise are hereby adopted by reference pursuant to Illinois Administrative Code Title 35 Subtitle H entitled "Noise" chapter II entitled "Environmental Protection Agency Part 951" and measurement procedures for the enforcement of 35 Illinois Code 900 and 901.

8-133: Plans Requirements:

A. Minimum Plan Requirements:

1. Title block that includes the project name, project street address, name of design professional, date of preparation, revision dates, and sheet numbers.

2. North arrow on plans & foundation plan.

3. Delineation of all existing and proposed components for addition & remodel projects.

4. Exterior elevations, wall section, building code edition, and any relevant details

5. In One-and Two-Family Dwellings for new construction or existing structures being added to or remodeled and such alterations modify fifty percent (50%) or more of the existing structure the entire structure shall meet all the requirements for new construction. Projects meeting these requirements must be prepared by an Illinois Registered Architect or Structural Engineer.

a. Cover sheets shall include the name of the design professional, address, telephone number and email address, be stamped, signed, and sealed. Subsequent pages must also be stamped.

b. When applied for in PDF or other electronic format must be in a minimum dimension of seventeen inches by eleven inches (17”x11”) and a maximum of thirty- six inches by twenty-four inches (36”x24”). Except for the site plan.

8-134: RESERVED

ARTICLE II. MINIMUM PLANNING REQUIREMENTS

8-200: LIGHT AND VENTILATION:

A. General:

1. Install windows in outside walls to provide natural light and ventilation in all habitable rooms.

2. Windows in habitable rooms, whose areas provide the light and ventilation necessary to comply with the following requirements are considered required windows. All windows in addition to these, and also windows in rooms other than habitable rooms, are considered non-required windows.

3. The area of glazed portions of doors located in exterior walls may be included when necessary, in determining compliance with the above requirements.

4. Where window or drain openings are provided below grade, protect with metal window wells.

5. Where duct type range hoods are provided, ducts shall be constructed with nonflexible galvanized steel or stainless steel and shall discharge to outside air. An attic or crawl space shall not be considered outside air.

B. Habitable Rooms: Rooms designed to be used for living, sleeping, eating or cooking, including basement areas with the finished floor three feet six inches (3'6") or less below grade.

1. Required light and ventilation in each habitable room include windows, sliding glass doors and other exterior doors with glass area.

2. Total glass area: Not less than eight percent (8%) of floor area of room.

3. Ventilating area: Not less than four percent (4%) of floor area of room.

C. Borrowed Light and Ventilation Between Rooms:

1. Unless separately lighted and ventilated by windows which provide the required area, the floor area of two (2) habitable rooms may be combined in computing required light and ventilation area.

2. The common wall between such rooms shall contain an opening or openings which shall provide enough light and ventilation to meet the requirements for habitable rooms.

D. Bathrooms And Water Closet Compartments: Provide ventilation by one of the following means:

1. Window or skylight. Openable windows or skylights located in exterior walls or roofs with the light and vent areas, not less than three (3) square feet.

2. Vents in or near ceilings with continuous duct connection to outside air in an approved method, with mechanical exhaust, one CFM per square foot.

E. Open Basements: Provide light and ventilation by windows or door, in exterior walls with both glazed and ventilating area not less than two percent (2%) of the floor area.

F. Crawl Spaces:

1. All crawl spaces under houses and other unexcavated spaces under porches, breezeways and patios or other appendages shall be ventilated by openings in the foundation walls. A minimum of one square foot of vent opening per one hundred fifty (150) square feet of crawl space floor shall be provided. The vents shall be located so as to provide cross ventilation and shall be separated no less than one-half (1/2) the distance of the longest diagonal of the crawl space.

2. No vents required for crawl spaces if open to the ventilated basement, provided the net total area of ventilation openings is one square foot ventilation for each one hundred fifty (150) square feet of the crawl space area and arranged for cross ventilation.

G. Attic and Other Enclosed Spaces:

1. To eliminate the problem of moisture condensation on roof framing in cold weather and to permit the escape of heat in hot weather, ventilation of all spaces is required.

2. For gable roofs, where screened louvers are provided in the gables ends, the net area of the opening shall be one square foot of vent per one hundred fifty (150) square feet of area of the area of the ceiling below. Gable roofs shall also be provided with soffit vents. In no installation shall the net area of ventilation be less than one square foot of vent per three hundred (300) square feet, distributed equally between the gables, soffits, and the ridge.

3. Hip roofs shall be provided with soffit vents and shall have either roof vents near the peak or shall have a ridge vent if the ridge is long enough to provide the required ventilation. The net area of ventilation shall be one square foot of vent per three hundred (300) square feet, distributed equally between the soffits and the ridge.

4. For flat roofs or cathedral ceilings, blocking and bridging shall be arranged to prevent interference with movement of air. Such roofs may be ventilated along overhanging eaves on the basis of net area of opening equal to one square foot per two hundred (200) square feet of the area of the ceiling below.

5. In all cases where soffit or eave vents are installed, approved deflectors shall be used to ensure that insulation does not cover or reduce the effectiveness of the soffit vents.

H. Furnace Rooms: Heater room, enclosed room, or area where the central heat and water heating devices are located.

1. All fuel fired heating units shall be installed in strict compliance with the manufacturer's specifications or installation requirements. Installation of gas units and the installation of oil burning units shall comply with the International Fuel Gas Code as adopted. Manufacturer installation manuals shall be available on sites at time of inspection.

2. Combustion air in unconfined spaces may be provided by normal infiltration if the volume of the space is no less than fifty (50) cubic feet per thousand (1,000) Btu/h of the total input rating of all appliances.

3. Combustion air in confined spaces may be provided by openings to adjacent areas as long as the adjacent areas meet the requirements of unconfined spaces. At least two (2) openings shall be provided and shall be located within twelve inches (12") of the top and twelve inches (12") of the bottom of the space. Each opening must provide a minimum of one square inch per thousand (1,000) Btu/h of the total input rating of all appliances and shall be no less than one hundred (100) square inches in area.

Exception: Where fuel fired heating units are located in attic spaces, required combustion air shall be provided directly from the outside, not the adjacent attic space.

4. Fuel fired heating units located in attic spaces shall be enclosed in a minimum one (1) hour rated enclosure, sufficiently insulated to prevent the freezing of condensate lines, drains, etc.

I. Artificial Light and Ventilation: In place of the means for natural light and ventilation, alternate arrangements of windows, louvers or other methods and devices may be used if approved by the Building Official (see section 8-107 of this chapter)

J. Safety Glazing: Safety glazing shall be provided for glass located in the following areas:

1. Swinging or sliding ingress and egress doors (including storm doors).

2. Fixed or openable panels located within twenty-four inches (24") of a door and whose bottom panel is located less than sixty inches (60") above the floor.

3. Fixed or openable windows or panels with a surface area larger than nine (9) square feet, with a bottom edge less than eighteen inches (18") above the floor and a top edge greater than thirty-six inches (36") above the floor.

4. All windows in stairways.

5. Doors and enclosures for bathtubs, showers, hot tubs, spas, pools, whirlpools, saunas or steam rooms. This shall include exterior windows within these

compartments where the bottom edge of the window is located less than sixty inches (60") above the drain inlet.

a. Exceptions To Safety Glazing.

Leaded, faceted or decorative glass panels.

Panels in doors or adjacent panels through which a three-inch (3") sphere is unable to pass.

Louvered windows or jalousies no thinner than three sixteenths inch (3/16") and no longer than forty-eight inches (48").

8-201: SPACE REQUIREMENTS:

A. Living Unit: Each unit, except an efficiency apartment, shall provide at least one bedroom, one bathroom, and space for living, dining, cooking, storage, utility and heating as follows:

1. Living, dining, cooking:

	Minimum Area Square Feet
a. Living, dining when in 1 room	220
b. Living, only in 1 room when dining space is provided in kitchen or separate room	190
c. Kitchen, cooking only (including space occupied by equipment)	72

Provide at least 30 square feet of additional area, usable for dining purposes when dining space is included in the kitchen.

2. Sleeping:

	Minimum Area Square Feet
a. When only 1 bedroom is provided	144
b. When 2 or more bedrooms are provided, the major bedroom shall contain	120
c. All other bedrooms	100

3. Bathroom:

a. Size: Adequate for water closet, lavatory and tub or shower. The water closet may be in a separate compartment adjoining the bathroom.

4. Utility Rooms:

a. Utility room without water heater and furnace. Each such utility room must be of sufficient size so that a clear, unobstructed space of not less than three feet (3') can be maintained in front of both the washer and the dryer. No water softener, laundry tub or other fixture shall be installed so as to obstruct the required clear space.

b. Utility room with water heater and furnace. Each such utility room must be of sufficient size to meet the requirements set out in subsection A.4.a. of this section and in addition, each such utility room must be of sufficient size so that a clear, unobstructed space of not less than three feet (3') can be maintained in front of the water heater and a separate clear, unobstructed space of not less than three feet (3') can be maintained in front of the furnace. The water heater and furnace must each be not less than three feet (3') from the front of any appliance located in the utility room. No water softener, laundry tub or other fixture shall be installed so as to obstruct the required clear space. The requirements in subsection D., "Space For Heating Units", of this section must also be satisfied.

5. Hallways: Minimum width three feet (3').

B. Additional Habitable Rooms: See subsection 8-200 B. of this article.

1. Minimum floor area one hundred (100) square feet.

C. Bedroom Closets:

1. Provide each bedroom with at least one closet or wardrobe having a minimum:

a. Depth: One foot ten inches (1'10").

b. Floor Area: Five (5) square feet.

c. Height: Six feet (6').

D. Space For Heating Units:

1. Provide a separate, uninhabited space within the building for the heating unit or system.

2. Provide three feet (3') working space in front of unit for maintenance and repair.

3. All equipment must be installed in strict compliance with manufacturer's installation requirements and applicable standards.

8-202: HABITABLE BASEMENT ROOMS:

Comply with requirements for habitable rooms with respect to privacy, light, ventilation and floor area.

8-203: PORCHES, DECKS, TERRACES, AND LANDINGS:

Minimum dimensions shall be at least eighteen inches (18") larger than the arc described by the door or doors which open onto a porch, deck, terrace or landing. In the case of exterior doors, it shall be assumed that a storm door or screened door will be installed. Where interior doors open over landings, the landing shall be a minimum width and depth to the door it serves.

8-204: PRIVACY AND ACCESS:

A. Access:

1. Egress:

a. Exits Required: Not less than two (2) exits opening directly to the outside at grade level shall be provided from each dwelling unit. Exiting through a garage and/or below-grade man doors shall not be included in the exit door calculation.

b. Emergency egress openings: Every sleeping room shall have at least one operable window or exterior door approved for emergency egress or rescue. The units must be operable from the inside to a full clear opening without the use of separate tools. Where windows are provided as a means of egress or rescue they shall have a sill height of not more than forty-four inches (44") above the floor.

All egress or rescue windows from sleeping rooms must have a minimum net clear opening of 5.7 square feet. The minimum net clear opening height dimensions shall be twenty-four inches (24"). The minimum net clear opening width dimension shall be twenty inches (20").

Exception: Grade floor window may have a minimum net clear opening of five (5) square feet.

(1) Attics: Provide access to attics having a clear height of over thirty inches (30") by means of scuttles, minimum twenty inches (20”) by thirty inches (30”) disappearing or built-in stairways. (Attic access in attached garage ceilings must maintain the required 1-hour fire resistive rating.) Scuttles permitted in walk-in closets ceilings, provided scuttle is free from obstructions.

(2) Basement less Spaces: Provide access from inside or outside, opening size not less than twenty inches (20") by thirty inches (30").

(3) Basements: Provide direct access to outside at grade by a door, or an escape window having an openable area at least two feet (2') wide and thirty inches (30") high, sill not more than forty-four inches (44") above floor. Escape windows to be provided with exterior metal window well with a thirty-six-inch (36”) projection from foundation and at least as wide as escape window. Provide

egress ladder in window well required for all basement bedroom egress windows or were deemed necessary by the Building Official. (Escape windows may be provided with approved security protection.)

B. Privacy:

1. Bedroom Privacy.

a. At least two (2) bedrooms to have access to a bathroom without passing through another habitable room.

b. Each bedroom to have access to bathroom without passing through another bedroom.

c. Each habitable room to have access to each other habitable room without passing through a bedroom unless approved by the Building Official.

2. Non-acceptable Bathroom Arrangements.

a. Bathroom opening directly into a kitchen.

b. Bathroom providing sole access to any other room.

c. Bathroom in the basement as the only one serving a living unit.

8-205: CEILING HEIGHTS:

A. Minimum Ceiling Heights: (Measured from top of finished floor to underside of finished ceiling.)

1. Basement: Seven feet zero inches (7'0") clear under joists.

2. Habitable Basement Rooms: Seven feet zero inches (7'0") clear under joists.

3. Main Floor Of Any Living Unit: Seven feet six inches (7'6") clear under joists for at least seventy five percent (75%) of the floor area.

4. Areas Other Than Main Floor Of Any Living Unit: Seven feet six inches (7'6") clear; under sloping roofs, seven feet six inches (7'6") for not less than fifty percent (50%) of floor area having five feet (5') or more headroom.

8-206: DOORS:

A. Exterior Doors:

1. Minimum Sizes:

a. Main Entrance Doors: Three feet zero inches (3'0") wide openable area.

b. Service Entrance Doors: Two feet eight inches (2'8") wide; includes other exterior doors other than main entrance.

c. Height: Six feet eight inches (6'8").

B. Interior Doors:

1. Provide a door for each opening to a bedroom, bathroom and toilet compartment.

2. Minimum Sizes:

a. All Habitable Rooms: Two feet six inches (2’6”) wide by six feet eight inches (6’8”) high.

b. Bathrooms: Two feet four inches (2’4”) wide by six feet eight inches (6'8") high.

c. Powder rooms: Two feet zero inches (2’0”) wide by six feet eight inches (6’8”) high.

8-207: STAIRWAYS:

A. Design and Location: Provide for safety of ascent and descent; install proper artificial light in addition to any natural light; and provide an easy run by proper proportioning of tread width to riser height.

1. Headroom: Continuous clear headroom measured vertically from front edge of tread to a line parallel with stair run, minimum six feet eight inches (6'8").

2. Width:

a. Main Stairs: Minimum two feet nine inches (2'9") clear of handrail.

b. Other Stairs: Minimum, two feet eight inches (2’8”) clear of handrail.

3. Treads: Minimum width, ten inches (10”), clear or tread above.

4. Rise: seven and three quarters inches (73/4”) maximum. All riser heights to be same in any one story.

5. Winders: Tread width eighteen inches (18") from converging end shall at least equal tread width on straight stair run unless width of tread at converging end is six inches (6") or more.

6. Spiral Stairways: Spiral stairways are permitted, provided the minimum width shall be twenty-six inches (26") with each tread having a seven and one-half inch (7 ½”) minimum tread depth at twelve inches (12") from the narrower edge. All treads shall be identical, and the rise shall be no more than nine and one-half inches (9 ½”). A minimum headroom of six feet (6') six inches (6") shall be provided.

Exception: Spiral stairways shall not be permitted for use as the main stairs or sole stairway to a basement.

7. Handrail: Install continuous handrail with return to wall on at least one side of each run on all stairways extending at grasp level on lower floor or landing to grasp level on upper floor or landing without interruption by any means necessitating a change in handhold while traversing said stairway run. The grasp level shall not be less than thirty inches (30") or more than thirty-six inches (36") tread and shall remain a constant height paralleling the stair run and any side directional change shall not be greater than thirty (30) degrees from the direction of the stair run viewed vertically. Maximum width and depth of handrails shall be two and one-half inches (2 ½") unless shaped to provide a secure handhold, provide clearance of not less than one and one-half inches (1 ½") between handrail and the wall, partition, or guardrail to which they are attached.

8. Guardrail: Provide around all stairways of more than two (2) risers. Porches, balconies or raised floor surfaces located more than twenty-four inches (24") above the floor or grade below shall have guardrails not less than thirty-six inches (36") in height. Handrails and guardrails on open side of stairways, porches, decks and balconies shall have intermediate rails or ornamental closures which will not allow passage of an object four inches (4") or more in diameter.

9. Stair Stringers:

a. Provide solid bearing at top and bottom and cripple in mid-span of stairs more than five (5) risers.

b. Effective depth of wooden stringers, minimum three and one-half inches (3 ½").

c. Open Basement Stairs: Minimum stringer thickness, two inches (2").

d. Third Stringer: Install if treads are less than one and one eighth inches (1 1/8") thick and stair is more than two feet (2') six inches (6") wide.

10. Provide exterior stairs when the sill of any first floor exterior door is more than twelve inches (12") above finished grade. Wood construction shall be pressure treated or rot resistant species and supported by concrete piers, wing walls or foundation a minimum of forty two inches (42") below grade.

11. Under stair protection: Enclosed accessible space under stairs shall have walls, under stair surface and any soffits protected in the enclosed side with ½ inch (1/2") gypsum board.

8-208: FIRE WALLS BETWEEN ATTACHED DWELLING UNITS:

Each duplex or townhouse dwelling unit shall be separated from adjoining dwelling units by a two (2) hour solid masonry fire wall or constructed by means of a listed design as approved by the Building Official. Said wall shall contain no openings or penetrations

and shall be sufficiently structurally independent so that a failure of structural members on either side will not allow collapse of the fire wall.

On duplex or townhouse buildings with roofs of combustible construction, parapets are required on fire walls, shall be similar construction to the fire wall and shall extend eighteen inches (18") above the highest point of any roof within ten feet (10') of the fire wall.

Exception: The fire wall may terminate even with the roof sheathing if approved fire-treated roof sheathing is used on each side of the fire wall for a distance of not less than four feet (4').

8-209: MINIMUM WIDTH:

The width of any duplex or town house dwelling measured between the interior finished surfaces of party walls or end walls shall be not less than twenty feet (20').

8-210: RADON CONTROL:

A radon control system capable of lowering the emission of radon gas in a dwelling shall be required for all new one and two-family dwellings. Design and installation methods shall be acceptable to the Building Official.

8-211: AUTOMATIC FIRE AND CARBON MONOXIDE DETECTION:

A. Smoke Detectors Required: Smoke detectors shall be installed in each bedroom, outside of each separate sleeping area in the immediate vicinity of the bedrooms, in all furnace rooms and on each additional story of the dwelling, including basements and cellars but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split-levels, a smoke detector need be installed only on the upper level, provided the lower level is less than one full story below the upper level, except that if there is a door between levels, then a detector is required on each level. All detectors shall be connected to a sounding device or other detectors to provide, when actuated, an alarm which will be audible in all sleeping areas. All detectors shall be approved and listed and shall be installed in accordance with the manufacturer's instructions. When additions, repairs or substantial alterations requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the entire building shall be provided with smoke detectors located as required for new dwellings.

B. Carbon Monoxide Detectors Required: A carbon monoxide detector shall be installed within fifteen feet (15') of every room used for sleeping purposes.

C. Power Source: Power source for required detectors to be 110 volt with battery back-up.

D. Residential Fire Sprinkler Systems: Applicant must supply a letter from the local fire department/fire district, prior to the issuance of any new residential home or addition permit, indicating compliance with their fire codes or ordinances.

8-212: HEATING REQUIREMENTS:

A. Provide heating unit capable of heating dwelling from minus ten (-10) degrees to seventy-two (72) degrees Fahrenheit at fifteen (15) miles per hour outside wind with heat loss calculated in accord with American Society of Heating and Ventilating Engineers Standards.

B. Heating unit shall be constructed and installed in strict accordance with the applicable current published standard requirements and recommendations of the National Fire Protection Association, National Board of Fire Underwriters, American Standards Association, and the American Society of Mechanical Engineers. Labeling and listing by the following shall be accepted as conforming with equipment design standards: Underwriters Labs, Inc., American Gas Association, or American Society of Mechanical Engineers.

C. Meet all requirements of the Illinois Energy Efficient Building Code.

8-213: RESERVED

8-214: ELECTRIC VEHICLE CHARGING SYSTEMS:

A. Compliance with Public Act 103-0053 effective January 1, 2024, requires access to home charging and Electric Vehicle (EV) capable readiness for one and two- family dwellings, and multi-unit residential buildings. This also includes small multifamily (2 to 4 units), condominium units, and renters.

B. All new one and two-family dwellings and dwellings where fifty percent (50%) or more are modified and constructed as new construction, multi-unit residential buildings, small multifamily, and condominiums must have an EV-capable parking space

C. EV-capable: means parking spaces that have the electrical panel capacity and conduit installed during construction to support future implementation of electric vehicle charging with 208-volt or 240-volt or greater, 40 ampere or greater circuits. Each EV-capable space shall feature a continuous raceway installed between an enclosure or outlet located within three feet (3') of the EV-capable space and a suitable panelboard or other onsite electrical distribution equipment. The electrical distribution equipment to which the raceway connects shall have sufficient dedicated space and spare electrical capacity for a 2-pole circuit breaker or set of fuses. Reserved capacity shall be no less than 40A 208/240V for each EV-capable space. The distribution equipment directory shall be marked "For future electric vehicle supply equipment".

D. If the EV-charging station is installed at the time of the new construction it shall include all electric vehicle supply equipment or "EVSE" including an ungrounded,

grounded, and equipment grounding conductor, and electric connectors, attachment plugs, and all other fittings, devices, power outlets, and apparatuses installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle**.**

ARTICLE III. MINIMUM CONSTRUCTION REQUIREMENTS

RULES AND REGULATIONS FOR THE CONSTRUCTION, ALTERATION, REPAIR AND CONVERSION OF BUILDINGS FOR SINGLE-FAMILY RESIDENTIAL PURPOSES INCLUDING DUPLEX AND TOWNHOMES

8-300: GENERAL:

A. Construction Materials And Methods: These requirements specify minimum acceptable construction materials and methods. Other materials and methods not specified herein may be approved for use by the Building Official upon the submission of satisfactory evidence that their performance in use will be at least equivalent to that of the materials and methods specified herein. It may be required that such evidence include adequate reports and test data from a recognized testing laboratory, or proven and authoritative service records, or analysis of performance made in accordance with well-established principles of mechanics. When special conditions exist or arise during construction, which necessitate additional precautions, the Building Official may require work more than these requirements. The Building Official may require tests in accordance with acceptable standards at expense of owner.

B. Loads:

1. All parts of dwellings and accessory buildings and structures shall be designed, constructed and maintained to support safely their own weight and all other loads and forces to which they may be subjected. When special conditions exist or arise during the construction, which necessitate additional precautions, the Building Official may require work in excess of these requirements.

2. Assumed minimum live loads (uniformly distributed) for design purposes.

a. Floor Joists: Design deflection - L/360. Design to support at least a forty (40) pound live load and a ten (10) pound dead load.

b. Ceiling Or Attic Floor Joists: Design deflection - L/240. When the roof pitch is steeper than three (3) in twelve (12), and the clear height in the attic is greater than thirty inches (30"); the ceiling joists must be designed to support at least a twenty (20) pound live load and a ten (10) pound dead load.

c. Roof Rafters: Design deflection - L/180, cathedral ceilings – L240. Design to support at least a thirty (30) pound live load and a seven (7) pound dead load when not supporting a ceiling load. When supporting a ceiling load (cathedral), design

for at least a thirty (30) pound live load and a fifteen (15) pound dead load. Roofs that are subject to snow drift loads shall require more stringent design values.

3. Wind Loads:

a. Basic wind speed design: ninety (90) miles per hour (mph).

b. On vertical faces: twenty (20) pounds per square foot horizontally, any direction.

c. Roof or parts with slopes greater than thirty (30) degrees: twenty (20) pounds per square foot design wind load.

d. Lifting Force: Individual rafters and structural members shall be attached to supporting wall assemblies by connections capable of resisting uplift forces as determined by accepted engineering practice.

4. Ground Snow Load: Thirty (30) pounds per square foot.

C. Reserved:

D. Thermal Insulation and Vapor Barriers:

1. Minimum Insulation Requirements:

a. Reference the current Illinois Energy Efficient Building Code for insulation requirements as adopted in Article V of this ordinance.

b. General: Flexible insulation (blanket and batt), loose fill insulation, reflective insulation, rigid insulation (structural and nonstructural), foamed or sprayed insulation, or other types of approved insulating material, including vapor barriers and breather papers or other coverings which are a part of the insulation, incorporated in construction elements shall be installed and used in a manner that will not increase the fire hazard characteristics of the building of any part thereof. Insulation and component parts of ceiling, roof, wall, and floor assemblies shall be installed in accordance with manufacturer's recommendation.

c. Unheated Crawl Spaces: Provide vapor barrier ground cover with a perm value of less than 1.0 extend up exterior perimeter foundation walls a minimum of four inches (4") and lap twelve inches (12"). Insulated all heating supply and return ducts and fittings, domestic hot and cold-water piping with materials having a minimum R-value of eight (8).

d. Heated Crawl Spaces: Provide vapor barrier ground cover with a perm value of less value of less than 1.0, extend up exterior perimeter foundation walls a minimum of four inches (4") and lap twelve inches (12").

2. Vapor Barriers:

a. Perm Value Water Vapor Transmission: Perm value is a measure of the ability of a material to retard the flow of vapor transmission to less than 1.0 perm.

b. Materials: Install independent vapor barrier or one integral with insulating materials. All vapor barriers installed shall be a perm value of less than 1.0 perm.

Effective vapor barrier materials are:

(1) Six (6) mil thick polyethylene.

(2) Foil back gypsum lath or gypsum board.

(3) Paint coatings, approved for the purpose, may be substituted for membrane types of vapor barrier, where other types of vapor barriers were not installed during construction when permitted by the Building Official.

c. Where Required: All ceilings, roofs, walls, basement floors, attached garage floors, crawl spaces, semi-crawl spaces and floors that separate heated spaces from unheated spaces. All vapor barriers shall be installed on the warm side in winter of insulating materials. The vapor barrier shall be fitted tightly around electrical outlet boxes, registers, or framed openings, repair rips or tears in the vapor barrier.

8-301: EXCAVATION:

A. Foundations, Trench Walls, and Piers:

1. Extend to solid ground. Do not place on filled ground unless approval is granted by building official based upon accepted engineering practices.

2. Excavated material shall not be placed in seepage field area.

3. Excavated material shall not obstruct the flow of natural drainage.

4. Subsurface drains encountered shall be joined to affect uninterrupted flow.

5. Bottom of footings: Not less than three feet six inches (3'6") below finished grade, except where placed on solid rock with the approval of the Building Official.

6. Remove all debris, sod, tree stumps and other organic matter within area occupied by dwelling.

7. Extend bottom of footing to undisturbed, inorganic earth or place footings on a controlled, engineered fill. If deemed necessary by the Building Official, an independent testing laboratory shall provide the specifications and testing

8. Protect against freezing. No concrete shall be placed on frozen ground.

B. Crawl Spaces: All crawl space areas shall have a minimum clearance of at least twenty-four inches (24") below bottom of floor joists and inside grade. The grade

inside shall be leveled and covered with a vapor barrier and four-inch (4") layer of crushed stone or gravel. Semi-crawl spaces may be permitted when approved by the Building Official.

8-302: GRADING AND BACKFILL:

A. Backfill:

1. Excavated materials are not permitted for backfill within the building foundation walls, except as approved by the Building Official.

2. Foundations and structures must be protected from damage during backfill.

3. Use of construction or organic debris is prohibited for backfilling material.

4. No frozen material to be used as backfill.

B. Damp-proofing And Waterproofing:

1. Damp-proof basement and crawl space walls on exterior from finish grade to outside edge of footing before placing footing tile and gravel.

a. Concrete Walls Cast in Place: Apply at least one heavy coat of undiluted hot tar, asphalt, or method acceptable to the Building Official.

b. Waterproofing compound mixed in concrete acceptable when approved by Building Official.

c. Or other methods as approved by the Building Official.

C. Grading: Grading or drainage or both shall be performed so that water will drain away from the building on all sides and off the lot in a manner which will provide reasonable freedom from erosion and pocketed surface water. Construction such as walks, driveways and retaining walls shall be installed so that they will not interfere with drainage. All sidewalks, driveways, patios, and other flat work shall have the top of the finished surface four inches (4") minimum below the top of the foundation wall and be pitched one-quarter inch (1/4") per foot away from the building.

D. Trees: Where applicable, street trees shall be installed in accordance with the DuPage County Subdivision Regulations. (See chapter 31.)

8-303: MASONRY MATERIALS:

Masonry materials described below apply to all masonry and concrete work.

A. Cement:

1. Portland cement.

2. Prepared masonry cement for mortar.

3. Pozzolanic materials, such as fly ash, will not be substituted for any portion of cement without the knowledge and consent of the Building Official. When used as a replacement for cement, manufacturer's recommendations will be followed and subjected to testing by an approved laboratory.

4. Portland cement, air entraining.

5. Portland blast furnace slag cement.

B. Aggregate:

1. Sand: Clean, hard and sharp, free from harmful materials, graded according to intended use.

2. Coarse Aggregate:

a. Crushed stone or gravel: Hard, strong crystalline rock, properly graded, clean and free from shale or other soft material.

b. Lightweight aggregate.

C. Water: Clean and free from harmful material.

D. Lime:

1. Hydrated lime.

2. Quick lime, slake thoroughly.

E. Brick:

1. Face brick: Hard burned, quality at least equal to grade B.

2. Common brick:

a. Selected hard burned common brick may be used for facing or exterior and interior walls.

b. Salmon or soft brick may be used in interior walls when not exposed and for backup work.

3. Fire brick: See appendix A of this article.

4. Concrete brick: See appendix A of this article.

F. Structural Hollow Clay Tile:

1. Sound, kiln burned units, free from defects.

2. Load bearing tile.

3. non-load bearing tile.

G. Concrete Masonry Unit: Sound and thoroughly cured.

H. Stone:

1. Rubble and cut stone: good quality building stone.

2. Cast stone.

I. Flue Lining: Glazed fire clay and vitrified tile, free from cracks and other defects.

J. Glass Block: See appendix A of this article.

8-304: CONCRETE WORK:

A. General: Concrete shall reach a minimum compressive strength of three thousand (3,000) PSI within twenty-eight (28) days.

1. Materials: See section 8-303 of this article.

2. Maximum slump: six inches (6").

3. Calcium chloride may be used as an accelerator and shall be introduced in solution as part of the mixing water. Calcium chloride shall not exceed one percent (1%) mixed at the plant per ASTM D98-87.

4. All concrete shall be air entrained, six percent (6%) plus or minus one percent (1%). Air entraining admixtures shall conform to ASTM C260-86.

B. Quality of Concrete:

1. Job Mix: minimum cement proportions, by volume. One part Portland cement, two and one-half (2 1/2) parts sand, three (3) parts coarse aggregate (3/4" to 1" maximum size).

2. Commercial Ready Mix:

a. Minimum Portland cement content: Five (5) bags/cubic yard.

b. Mixing period shall not exceed beyond one and one-half (1 1/2) hours per batch.

3. Exposed Concrete (Driveways, Sidewalks, Curbs and Gutters, Patios, Stoops, Etc.):

a. Minimum Portland Cement Content: Six (6) bags/cubic yard for three-quarter inch (3/4") to one inch (1") maximum size aggregate.

b. Maximum Slump: Four inches (4").

c. Maximum Water Content: Including moisture in the aggregate: six (6) gallons per bag of cement.

C. Forms:

1. Double forms required for all basement concrete foundation walls.

2. Side forms required for footings.

3. Build tight, straight, plumb, and brace rigidly.

4. Forms to be oiled prior to placement.

5. Stepped foundations - forms shall not cantilever more than six inches (6") beyond the excavation below to allow for proper bearing.

6. Wood footing forms, form ties and braces shall be removed prior to backfill.

D. Placing:

1. Place continuously unless otherwise allowed by the Building Official.

2. When not placed continuously, provide a bulkhead with keyway and dowels. Clean, score, and wet the top surface of the concrete before continuing.

3. Spade, rod or vibrate thoroughly. Concrete shall not be pulled with a vibrator.

4. Concrete shall not be placed on standing water, frozen ground or snow. Bottom of footing shall be cleaned of all soft soils and organic materials.

5. Where ambient outside air temperature is twenty (20) degrees and rising as determined by the Building Official, placed concrete shall be protected from freezing until cured by methods acceptable to the building official. Where ambient outside air temperature is between zero (0) degrees and twenty (20) degrees placed concrete shall be adequately protected with an external heat source until cured. No concrete shall be placed where the ambient outside air temperature is zero (0) or below.

E. Curing and Protection: Concrete shall be protected from drying or freezing and shall be cured in accordance with ASTM C309-89.

F. Loading: Allow sufficient time for strength of concrete to develop before subjecting to loads or traffic.

G. Reserved:

H. Footings:

1. General:

a. Design for proper distribution of superimposed loads.

b. Material: Cast in place concrete.

c. Bear on solid, unfilled ground.

d. Reinforce with steel bars where footings cross or bear on filled trenches or other unstable soil.

e. Footing dimensions listed below are based upon soils or average bearing capacity three thousand (3,000) pounds per square foot. For soils of lesser bearing capacity where unusual loading conditions exist, larger footings will be required. A soil investigation report is to be submitted along with plans stamped by Illinois Registered Architect or a Structural Engineer.

2. Wall Footings: Minimum dimensions for spread footings shall be eight inches (8") deep by sixteen inches (16") wide, except that masonry veneer on frame and solid masonry walls shall be ten inches (10") deep by eighteen inches (18") wide.

a. Omission of footings for one or two story buildings of frame or frame with brick veneer or one story solid masonry containing no basement or crawl space is permitted where soils permit.

b. Footing must be keyed a minimum of two inches (2") into undisturbed soil, or shall be interlocked to the soil by other approved methods.

c. Provide two-inch (2”) by two inch (2") keyway in the top of the footing underneath the centerline of the wall.

3. Pier, Post and Column Footings (Interior):

a. Minimum area: 6.25 square feet (30" x 30"), thickness: twelve inches (12") minimum.

4. Chimney Footings:

a. Dwellings; minimum thickness, twelve inches (12"); minimum projection each side, six inches (6”).

b. Pour integral with wall footing when chimney occurs in outside wall or inside bearing wall.

c. Material: Concrete cast in place.

I. Footing Drain Tile:

1. Required on the outside of all footings, minimum diameter, four inches (4"), where there is a basement or crawl space.

2. Cover tile with twelve inches (12") gravel or crushed stone containing no fine particles.

3. Connect to an approved outlet.

4. Provide drains in all window wells and below grade stair landings. Connect drains to drain tile with T-joints.

J. Concrete Foundation Walls Cast In Place: (For masonry unit foundation walls. See subsection 8-305 B. of this article.)

1. General:

a. Materials: See section 8-303 of this article.

b. Walls Supporting Frame Construction: Extend concrete not less than six inches (6") above adjoining outside finished grade.

c. Walls Supporting Masonry Veneered Wood Frame: Extend foundation of that wood portion of wall is not less than six inches (6") above outside finished grade.

2. Minimum Thickness:

a. Not less than eight inches (8"), or that of wall supported, whichever is greater for wood frame structures without masonry veneer.

b. Supporting porch slabs, steps and one-story accessory wood frame structures without basement; minimum eight inches (8").

c. Interior walls not subject to lateral pressure six inches (6") minimum.

d. All other walls, ten inches (10") minimum.

3. Girder Pockets: Provide four inches (4") end bearing on main wall for girder. Form pocket for wood girder one inch (1") wider than girder.

4. Sill anchor bolts to be installed.

a. Diameter, one-half inch (1/2") minimum.

b. Minimum length, ten inches (10") (minimum of 7 inches embedded in concrete).

c. Provide washer under nuts on bolts.

d. Spacing, not more than eight feet (8') on center; minimum two (2) bolts in each piece.

5. Anchorage For Intersecting Walls And Slabs: Provide dowel bar anchorage for porch and terrace slabs, concrete or masonry steps and wing walls, which adjoin foundation walls. For basementless portions and attached garages, embed four (4) 1/2-inch round hooked bars four feet (4') long in main wall, two (2) near top and two (2) near bottom of attached wall. Where new foundation walls adjoin existing foundation walls, they shall be attached with a minimum of four (4) 1/2-inch round dowel bars at each point of attachment.

6. Chimney Foundations: Start at level of lowest foundation wall footings.

7. If special or unforeseen soil conditions warrant, the Building Official may require either reinforcement of wall or increased thickness.

8. Damp proofing and waterproofing.

K. Concrete Floor Slabs on Ground:

1. Construction:

a. Fill Under Slabs: Gravel, sand, screenings, or crushed rock, minimum thickness four inches (4"). Earth under-fill thoroughly leveled and free from organic matter thoroughly tamped. No floor slab to be placed in water or on a soft, wet sub-grade.

Basements must be pumped dry at least twenty-four (24) hours before floor is poured.

b. Wire Mesh Reinforcing: Six inch (6”) by six inch (6") #10 required in all slabs used for driveways, patios, garage floors, and sheds. Overlap joints and tie every four feet (4').

c. Bottom of Slab: Not lower than top of footing. Provide at least four inch (4") bearing on footing.

2. Cement Floor Finish:

a. Finish basement slab with steel trowel.

b. Integral finish on concrete slab.

3. Slabs on ground used as base for floors or as a finish floor in habitable rooms:

a. Minimum thickness, four inches (4").

b. Provide vapor barrier directly under slab, at least six (6) mil thick polyethylene.

4. Basement Floor Slabs: Minimum thickness, four inches (4"). Provide vapor barrier directly under slab, at least six (6) mil thick polyethylene. All seams must be taped, overlapping the footing and vapor barrier secured to foundation walls.

5. Required Garage Floor, Sidewalks and Driveway Slabs: Minimum thickness, four inches (4").

6. Stoops, Terraces and Porch Floor Slabs:

a. Minimum thickness, four inches (4").

b. Install flashing between slabs and all wood construction. (See subsection 8-311 F. of this article.)

c. Wing wall support with #4 rebar required for concrete stoops.

7. Slabs on ground used to support interior bearing walls or partitions: Thicken to at least ten inches (10") for a width of twenty inches (20").

8. Pea gravel shall not be used for fill under unconfined slabs such as sidewalks, stoops, etc.

L. Pre-engineered Foundation Systems:

1. Pre-engineered foundation systems shall be permitted where acceptable to the Building Official. Required detailed plans and design specifications shall bear the seal and signature of a registered Illinois Architect or Structural Engineer.

8-305: MASONRY WORK:

A. General:

1. Construction Methods and Materials: See section 8-303 of this article.

2. Mortar:

a. All mortar must conform to the requirements of ASTM C270-89.

b. All grout must conform to the requirements of ASTM C476-83.

c. Re-tempering mortar: Mortar that has stiffened on the mortar board due to evaporation should be re-tempered to restore its workability by thorough remixing and by the addition of water as required. All mortar shall be used within two (2) hours after initial mixing.

3. Joints:

a. Maximum thickness five eighths inch (5/8"). Joints for decorative stonework may be increased by one-quarter inch (1/4").

b. Solid masonry units: Fill joints solid.

c. Hollow masonry units: No through mortar joints.

d. Fill all joints solid both sides of wall.

4. Bonding:

a. Walls of solid masonry units. Solid masonry bearing and nonbearing walls shall be bonded in accordance with one of the following methods:

(1) Bonding With Headers: The facing and backing shall be bonded with a header course consisting of alternate through header and stretcher every seventh course, or one through header in every two hundred forty (240) square inches, uniformly placed throughout wall.

(2) Bonding With Metal Ties: The facing and backing shall be bonded with corrosion resistant metal ties conforming to requirements of subsection F4 of this section for cavity walls. There shall be one metal tie for not more than each four and one-half (4 1/2) square feet of wall area. Ties in alternate courses shall be staggered. The maximum vertical distance between ties shall not exceed sixteen inches (16"), and the horizontal distance shall not exceed thirty-two inches (32"). Walls so bonded shall conform to the thickness (excluding cavity), height, and mortar requirements for cavity walls.

b. Masonry Walls of Hollow Units: Where two (2) or more hollow units area used to make up the thickness of a wall, bonding shall be in accordance with the recommendations of ACI 530-88/ASCE 5-88.

c. Stone Walls:

(1) Ashlar Masonry: Ashlar masonry, bond stones uniformly distributed shall be provided to the extent of not less than ten percent (10%) of exposed faces.

(2) Rubble Stone Masonry: Rubble stone masonry twenty-four inches (24") or less in thickness shall have bond stones with a maximum spacing of three feet (3') vertically and three feet (3') horizontally, and if the masonry is of greater thickness than twenty-four inches (24"), shall have one bond stone for each six (6) square feet of wall surface on both sides.

d. Intersecting concrete and masonry walls shall be anchored and bonded together in an approved manner.

5. Closed Cell Hollow Units: Use for rough openings, corners, and wall intersections. Filling exposed ends of cells shall not be an acceptable means of finishing.

6. Protection: Provide frost protection acceptable to the Building Official when temperature falls below freezing, except that no masonry work shall be done in temperatures below twenty (20) degrees Fahrenheit. (Protection as outlined by ACI 530.1-88/ASCE 6-88 for hot or cold weather shall be considered acceptable practice.)

7. Loading: Allow sufficient time for strength of mortar to develop before subjecting to loads.

8. Wetting Clay Masonry Units: All clay brick having absorption rates (determined in accordance with ATM specifications C67-73) in excess of 0.025 ounce per square inch per minimum shall be wetted sufficiently so that the rate of absorption does not exceed this amount.

B. Piers:

1. Exterior Walls: Piers supporting exterior walls acceptable only for detached accessory buildings, carports, open or screened (no glazing) porches and decks with or without roof and other non-habitable spaces.

2. Materials: Masonry units or cast in place concrete. (See section 8-303 of this article.)

3. Minimum Sizes In Inches:

a. Masonry: Twelve inches (12”) by twelve inches (12").

b. Plain concrete: Twelve inches (12”) by twelve inches (12") or twelve inches (12") round.

4. Maximum Spacing:

a. Exterior walls piers supporting floor joists: Maximum spacing based on dimensions of beam or girder material span capacity.

b. Exterior wall piers in line parallel to joists and interior piers: on center. Maximum spacing based on dimensions of beam or girder material span capacity.

5. Height: Minimum height above grade, six inches (6").

6. Hollow Masonry Units: When of hollow masonry units, cap with at least four inches (4") solid masonry or concrete.

7. Support: Anchor bolts or dowels, approved brackets or equivalent to be installed for post support.

8. Exceptions: Piers may be omitted from detached, freestanding, unroofed decks when approved by Building Official.

9. Support Posts: Support posts shall not be embedded in concrete.

C. Exterior Masonry Walls Above Grade: (See section 8-303)

1. Materials: Masonry or cast in place concrete.

2. Minimum thickness, eight inches (8"), except that walls in one story dwelling and one-story private garages may be six inches (6") thick when not over nine feet (9') in height, except that the height to the peak of a gable may be fifteen feet (15').

3. Maximum height for eight inches (8") thickness: twenty-two feet (22') from grade to eaves; or thirty feet (30') from grade to ridge in gable ends. For greater heights, minimum thickness twelve inches (12") except top twenty-two feet (22').

4. Backing, when used, solid or hollow masonry units, minimum thickness.

a. Bonded to facing, four inches (4").

b. Tied to facing with sheet metal ties, eight inches (8").

5. Furring when interior finish is applied, one inch (1") nominal wood strips. Spacing as permitted for interior finish. (See section 8-313.) Bituminous waterproofing materials on masonry not acceptable for plaster base. Install horizontal furring strips at ceiling and floor to form fire stops and prevent convection.

6. Lintels: Size to be determined by span in each case. No concentrated loads over non-reinforced lintels.

a. Lintels may be:

(1) Pre-cast concrete and brick reinforced.

(2) Stone.

(3) Masonry arch.

(4) Steel.

b. Support on minimum four inches (4') of solid masonry.

7. Rafter plate anchor bolts to be installed.

a. Diameter, one-half inch (1/2") minimum. Length, fifteen inches (15") embedded at least twelve inches (12") in wall.

b. Provide washer under nuts on bolts.

c. Spacing, not more than eight feet (8') on center.

8. Radiator recesses.

a. Construct at time wall is built.

b. Maximum recess depth, four inches (4") in eight-inch (8") walls, eight inches (8") in twelve-inch (12") walls.

c. Back and side of recess to be waterproofed and insulated.

d. Width under windows not greater than rough opening.

9. Vertical Chases:

a. Construct at time wall is built.

b. Maximum length for chases where net wall thickness is eight inches (8") or less, four feet (4').

c. Maximum chase depth, four inches (4").

d. Back and side of chase to be plastered with one-half inch (1/2") of Portland cement mortar.

10. Horizontal Chases:

a. Not acceptable unless wall thickness is at least four inches (4") greater than thickness required under subsection E.2. of this section.

b. Maximum depth, four inches (4").

D. Masonry Veneer:

1. Minimum Thickness of Material:

a. Architectural terra cotta (cellular)	3 inches
b. Architectural terra cotta (flat slabs)	1 1/4 inch
c. Brick	2 inches
d. Stone (natural)	2 inches
e. Stone (cast artificial)	1 1/2 inches
f. Clay tile (structural)	1 3/4 inches
g. Clay tile (flat slabs)	1/4 - 1 inch
h. Marble slabs	1 inch
i. Pre-cast stone facing	5/8 inch
j. Structural glass	11/32 inch

2. Masonry veneered wood frame construction. Veneer applied over sheathing with air space between.

a. Air Space: One inch (1") minimum between masonry veneer and sheathing.

b. Base Flashing: Copper or approved equal extending over top of foundation wall from outside face of wall and not less than twelve inches (12") up on sheathing. Felt paper not acceptable as base flashing.

c. Sheathing Cover: Apply water resistant building paper or saturated asphalt felt over sheathing. Lap base flashing at least four inches (4").

d. Bonding: Corrosion resistant metal ties spaced not more than sixteen inches (16") on center vertically and thirty-two inches (32") on center horizontally: When other than wood board sheathing is used, secure ties through to studs with corrosion resisting nails of length sufficient to penetrate wood at least one inch (1").
e. Lintels: Size to be determined by materials and span in each case. Bearing, at least four inches (4"). Arches permitted.

f. Weep Holes: See subsection F.6. of this section.

E. Cavity Walls:

1. Thickness: The minimum thickness of the inner and outer wythes of cavity walls shall not be less than a nominal four inches (4"), and the nominal out to out dimension of the wall shall not be less than ten inches (10").

2. Height: The maximum height of ten-inch (10") cavity walls and the width of the cavity shall conform to the requirements of subsection E. of this section.

3. Mortar Joints: All masonry units shall be laid in a full head and bed mortar joint. The mortar used in cavity wall construction shall conform to the requirements of "Portland cement mortar" or "cement lime mortar". (See subsection A.2.a. and b. of this section)

4. Bonded Facing: The facing and backing of cavity walls shall be bonded with three sixteenths inch (3/16") diameter non-corrosive steel rods or metal ties of equivalent stiffness embedded in the horizontal joints. There shall be one metal tie for not more than each four and one-half (4 1/2) square feet of wall area. Ties in alternate courses shall be staggered, the maximum vertical distance between ties shall not exceed twenty-four inches (24”), and the maximum horizontal distance shall not exceed thirty-six inches (36”). Rods or ties bent to rectangular shape shall be used with hollow masonry units laid with the cells vertical; in other walls the ends of ties shall be bent to ninety (90) degree angles to provide hooks not less than two inches (2") long. Additional bonding ties shall be provided at all openings, spaced not more than three feet (3') apart around the perimeter and within twelve inches (12") of all openings.

5. Flashing: Non-corrodible flashing shall be placed over the top of all openings, at windowsills and at the bottom of the cavity. Felt paper not acceptable as base flashing.

6. Weep Holes: Weep holes shall be provided in the head joint in the first course immediately above all flashing. The weep holes shall be spaced not more than thirty-

three inches (33”) on centers and every effort shall be made to keep the cavity clean of mortar droppings. When wicks of one-quarter inch (1/4") fiberglass rope or similar materials are used, weep holes shall be spaced not more than twenty-four inches (24") on centers.

7. Furring: See subsection D.5.of this section.

F. Masonry Chimneys:

1. Construction:

a. Masonry chimneys for residential type appliances shall be constructed of solid masonry units or reinforced concrete with walls not less than four inches (4") thick in addition to lining or rubble stone masonry not less than twelve inches (12") thick.

b. Chimneys shall be designed, anchored, supported and reinforced as required in this article. Chimneys shall not support any structural load other than their own weight unless designed to act as supporting members. Chimneys in wood frame buildings shall be anchored laterally at the ceiling lines and at each floor line which is more than six feet (6') above grade, except when entirely within the framework of the building.

2. Effective Flue Area:

a. Minimum diameter for house heating flue, eight inches (8"). For fireplaces, effective area not less than one-tenth (1/10) of fireplace opening.

b. Exceptions in flue sizes and combination of flues are allowed for listed appliances installed in accordance with manufacturer's specifications.

3. Liners, Wythes, Walls:

a. Masonry chimneys for residential type appliances shall be lined with fireclay flue lining not less than five-eighths (5/8) of an inch thick, or with liner of other approved material that will resist corrosion, softening or cracking from flue gases.

b. Fireclay flue liner shall be installed ahead of construction of the chimney as it is carried up and carefully bedded one on the other in refractory mortar, or the equivalent, with close fitting joints left smooth on the inside (bell ends up).

c. Liners shall be separate from the chimney wall and the space between the liner and masonry shall not be filled; only enough mortar shall be used to make a good joint and hold the liners in position.

d. Where two (2) adjoining flues in the same chimney are separated only by flue liners, the joints of the adjacent flue liners shall be staggered at least seven inches (7").

e. Where more than two (2) flues are located in the same chimney, masonry wythes (partitions) at least four inches (4") wide and bonded into the masonry walls of the chimney shall be built at such points between adjacent flue linings that there are not more than two (2) flues in any group of adjoining flues without such wythe separation.

4. Corbeling: Masonry chimneys shall not be corbeled from a wall more than six inches (6") nor shall a masonry chimney be corbeled from a wall which is less than twelve inches (12") in thickness, unless it projects equally on each side of the wall. In the second story of a two-story building of single-family occupancy, corbeling of masonry chimneys on the exterior of the enclosing walls may equal the exterior wall thickness. In any case, the corbeling shall not exceed one inch (1") projection for each course of brick.

5. Inlets: Every connector inlet to any masonry chimney shall enter the side thereof and shall be of metal net less than no. 24 manufacturer's standard gage (0.024 inch) or five-eighths inch (5/8") thick refractory material.

6. Cleanout Openings: Cleanout openings shall be provided in chimneys connected to appliances burning solid fuel. Cleanout openings shall be equipped with ferrous metal doors designed and constructed to be closed when not open for cleaning purposes.

7. Termination (Height):

a. Masonry chimneys for residential type appliances shall extend at least three feet (3') above the highest point where they pass through the roof of a building and at least two feet (2') higher than any portion of a building within ten feet (10').

b. Flue lining shall project four inches (4") above the top of the chimney cap. Chimney cap to be a minimum of two inches (2") thick and sloped to the outside edge.

c. Rain cap and spark arrestor required at point of termination.

8. Factory Built Chimneys: Factory built chimneys are factory made, approved, listed chimneys and shall be installed in strict accordance with the terms of their approval and listing and the manufacturer's instructions.

G. Fireplaces:

1. General: Fireplaces, barbecues, smoke chambers and fireplace chimneys shall be of solid brick or reinforced concrete or other approved materials and shall conform to requirements of this section and section 8-303 of this article. Filled concrete block or cinder block shall be considered unacceptable.

2. Construction:

a. The firebox of the fireplaces shall be at least eight inches (8") thick solid masonry, filled block shall be considered unacceptable, in addition to a lining of

low duty refractory brick at least two inches (2") thick laid in fire clay mortar with three-sixteenths inch (3/16") maximum joints, or the equivalent, or other approved lining as provided.

b. When ash dump is provided, empty into moisture resistive concrete or masonry chamber provided with metal cleanout door.

c. The firebox shall be twenty inches (20") in depth and will be permitted to be open on all sides provided all fireplace openings are located entirely within one room.

Exception: Rumford fireplaces are permitted, provided that the depth of the fireplace be at least twelve inches (12") and at least one-third (1/3) of the width of the fireplace opening, and that the throat be at least twelve inches (12") above the lintel and be at least one-twentieth (1/20) the cross-sectional area of the fireplace opening.

d. Each fireplace shall have an independent flue free from other openings or connections, and the first section of flue lining must start at the centerline of the fireplace opening.

3. Lining: The lining shall extend from the throat of the fireplace to a point at least four inches (4") above the top of the enclosing masonry walls.

4. Clearance: The distance between fireplace and combustibles shall be at least four inches (4"), and such combustibles shall not be placed within six inches (6") of the fireplace opening. Wood facings or trim normally placed around the fireplace openings may be permitted when conforming to the requirements of this section; however, such facing or trim shall be furred out from the fireplace wall at least four inches (4') and attached to noncombustible furring strips. The edges of such facings or trim shall be covered with a noncombustible material. Where the walls of the fireplace are twelve inches (12") thick, the facings or trim may be directly attached to the fireplace.

5. Smoke Chamber: All walls including back walls shall be at least eight inches (8") in thickness.

6. Areas Of Flues, Throats And Dampers: The net cross sectional area of the flue and of the throat between the firebox and the smoke chamber of a fireplace shall be at least that required by subsection G.2. of this section. Damper openings shall be at least, when fully opened, equal to the required flue area and shall be of not less than No. 12 manufacturers' standard gauge (0.105 inch) metal.

7. Lintel: Masonry over the fireplace opening shall be supported by a noncombustible lintel.

8. Hearth: Every fireplace shall be constructed with a hearth of brick, stone, tile or other noncombustible material. For fireplaces with an opening of less than six (6) square feet, the hearth shall extend not less than sixteen inches (16") in front and not

less than eight inches (8") on each side of the fireplace opening. For fireplaces with an opening of six (6) square feet of more, the hearth shall extend not less than twenty inches (20") in front and not less than twelve inches (12") on each side of the fireplace opening. Such hearth shall be supported on trimmer arches of brick, stone, tile or concrete not less than four inches (4") thick or other equally strong and fire resistive materials. All combustible forms or centering shall be removed after completion of the supporting construction.

9. Exterior Air: Masonry chimneys shall include an air intake capable of providing a sufficient amount of combustion air from the exterior of the dwelling. The exterior air intake shall be covered with a corrosion-resistant screen of one-quarter (1/4) inch mesh and shall be located at the base of the firebox.

10. Other Type Fireplaces: Other fireplaces not conforming to the requirements of this section shall be subject to approval by the building official prior to installation. Imitation fireplaces shall not be used for the burning of gas, solid, or liquid fuel.

11. Approved Factory-Built Fireplaces: May be installed and shall conform to the applicable portions of this code. Factory-built fireplaces shall bear the seal of a nationally recognized testing or inspection agency and be installed in accordance with manufacturers' recommendations. Firebox enclosures and chimney chase enclosures shall be lined with minimum five-eighths inch (5/8") drywall.

H. Glass Block:

1. May does not use a load bearing units.

2. Maximum Size Of Un-subdivided Panel: Area one hundred forty four (144) square feet; length twenty five feet (25'); height twenty feet (20').

3. Provide for expansion.

8-306: STRUCTURAL STEEL AND IRON:

A. Structural Steel Construction:

1. The design, fabrication, and erection of structural steel for building shall conform to the requirements of the "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings" of American Institute of Steel Construction.

2. Bearing:

a. Concrete walls, minimum bearing four inches (4").

3. Bearing Plates:

a. Design to distribute load, minimum thickness, five-sixteenths inch (5/16").

b. Bed in non-shrink mortar.

c. Plates may be omitted under wide flange type steel beams if width of flange provides sufficient bearing area so that allowable compressive stress of supporting materials is not exceeded.

B. Columns:

1. Material:

a. Standard shape, steel or cast iron.

b. Concrete filled steel pipe, new material, standard weight or heavier.

c. Other column materials as approved.

2. Bases and Caps: Steel or cast iron.

a. Caps: Rivet, bolt or weld to steel girders; spike or lag screw to wood girders.

b. Bases: Anchor by bolts or embed column in concrete.

3. Shims, metal, maximum height two and one-half inches (2 1/2") (loose shims not acceptable).

C. Light Gauge Cold Formed Steel Construction:

1. The design of light gauge cold formed steel construction shall conform to the "Specification for The Design of Light Gauge Cold-Formed Steel Structural Members", of American Iron and Steel Institute, 1962 edition.

D. Open Web Steel Joist Construction:

1. The design, fabrication and erection of open web steel joist construction shall conform to the "Load Tables And Weight Table For Steel Joists And Joist Girders", adopted by the Steel Construction and Steel Joist Institute, 1988 edition.

E. Welding:

1. Details of welding technique, inspection of welding and qualification of welding operators shall conform to the recommendations of the "Standard Code For Arc And Gas Welding In Building Construction", of the American Welding Society, AWS D1.1. All structural welding to be performed by a certified welder.

8-307: WOOD CONSTRUCTION:

A. Lumber:

1. Stress Grade Lumber: Except as otherwise specifically provided in this Code, "National Design Specifications for American Forest and Paper Association"

(AFPA), shall be accepted as good engineering practice covering design and use of stress grade lumber, of manufactured lumber and of their fastenings.

2. All plywood used structurally shall bear the identification of an approved testing agency as to type and grade of plywood, and species of lumber.

3. Lumber Dimensions:

a. Wood structural members shall be of sufficient sizes to carry the dead and live loads without exceeding the allowable working stresses hereinafter specified.

b. Computations to determine the required sizes of lumber members shall be based on the actual size of the lumber. Where manufactured lumber is used, follow the design criteria of the manufacturer for load computations.

c. Where minimum sizes of lumber members are required by this Code, they shall be construed as meaning nominal sizes. For sawn lumber, the dressed sizes established in (AFPA) shall be accepted as the minimum net sizes conforming to such nominal sizes. For manufactured lumber, the net sizes established in the specification shall be accepted as the minimum sizes conforming to such nominal sizes.

d. The Building Official may require the sizes and the allowable unit stress, of the species and the grade of lumber, used for structural design purposes to be shown on the plans or given in a statement filed therewith.

e. All wood framing members in direct contact with concrete or used in damp or wet locations to be pressure treated rot resistant or rot resistant species.

4. Pre-engineered Floor and Roof Systems:

a. Wood Floor Trusses: The use of open-web or perforated members are permitted provided required design specifications bear the seal of a registered Illinois Architect or Structural Engineer. These sealed specifications shall be submitted at the time of initial permit submission.

b. Wood Roof Trusses: The use of open-web or perforated members are permitted provided required design specifications bear the seal of a registered Illinois Architect or Structural Engineer. Plans may be submitted without the sealed specifications, however, must be submitted prior to permit issuance.

c. Other pre-engineered components such as I-joist type framing members, engineered beams, girders, or other similar products are permitted provided the plans are sealed by an Illinois registered Architect or Structural Engineer.

B. Framing; General: Except as specifically provided for herein, compliance with AFPA shall be acceptable as good engineering practice.

1. Structural Framing Members:

a. Splicing between bearing points not permitted.

b. When structural strength is impaired by cutting, drilling, or by inherent defects, replace or reinforce members in manner prescribed by a design professional and acceptable to the Building Official.

2. Framing at Chimneys:

a. Bearing of framing members on chimney masonry not acceptable. When pier support for girders or beams are required adjacent to chimneys, combustible framing must be at least two inches (2") away from chimney masonry.

b. Framing members: Not closer than two inches (2") to chimney masonry.

3. Fire blocking:

a. Fire block all furring, partitions (including soffits and drop ceilings) and outside stud walls at level of each floor or ceiling, and at juncture of roof rafters and wall.

b. Fire block all balloon framing at intervals not to exceed eight feet (8') in height.

c. Wood or masonry, tightly fitted, or other methods acceptable to the Building Official may be used.

d. Where open-web, perforated members or wood, I-joists are used they shall be protected from fire with one-half (1/2) inch gypsum board on the underside of the joist, taped and sealed or equivalent.

e. Open web trusses and similar open floor and ceiling assemblies as determined by the Building Official shall be fire-stopped both sides of the truss by one-hour fire-resistant construction. Maximum spacing of fire stopping shall be six feet (6’0”).

f. Wherever further required by the Building Official.

C. Floor Framing:

1. Columns and Posts:

a. Structural steel or iron. See section 8-306 of this article.

b. Wood Posts: Must be designed to carry the loads imposed. Support below must carry through to adequate foundation bearing. When wood posts are used in basement or crawl space, bear on concrete base resting on footing, top of base three inches (3") above finished floor; securely fasten top and bottom of post.

2. Girders:

a. Material: Laminated beams, solid wood, or built-up wood. Must be designed to carry the loads imposed.

b. Spans for Wood Girders: Determine in accordance with sound engineering practice and subject to approval of the Building Official.

c. Joints: Joints of solid and built-up wood girders to be made over pier or column supports only, unless specifically engineered and approved.

d. Air Space: Provide at least one-half inch (1/2") air space on each side of wood girders framed into masonry.

3. Sills:

a. Must be pressure treated water resistant or rot resistant species.

b. Minimum size - two-inch (2”) by four-inch (4") nominal.

c. Level and grout with Portland cement mortar. Organic or compressible shims are not allowed for permanent usage. All temporary shims must be removed prior to grouting.

4. Maximum Spans for Wood Joists: Except for stress grade lumber of an assured quality, designed in accordance with the national design specifications, AFPA, all wood joists shall be limited as follows:

a. Lumber must be properly identified as to species and grade and approved by the American lumber standards committee and shall be limited to the spans given in the current AFPA publication "Span Tables For Joists And Rafters.

b. Wood Floor Trusses: Allowable spans for wood floor trusses shall be designed in accordance with accepted engineering practices and shall conform to the manufacturer's specifications.

See table in appendix A, "Maximum Spans for Joists and Rafters", of this article.

c. Framing into headers or side of girders. Use steel joist hangers or wood ledger board at least two inches (2”) by two inches (2"), nominal. Notching of joist for ledger board more than one-fourth (1/4) of depth not permitted. Joists must have full bearing on support.

d. Framing into side of steel girders. Supply architectural detail for design. Allow one-half inch (1/2") minimum clearance over top of top flange. Secure to girder or to opposite joists, or bridge joists firmly at girder ends if other ends are fixed. Notch for bearing not more than one-fourth (1/4) of joist depth.

e. Framing Into Masonry:

(1) Minimum bearing, three inches (3").

(2) Fire cut or bevel top two inches (2").

(3) Second story floor joists parallel with masonry. Tie to masonry with metal straps extending over and secured to at least one joist and not more than eight feet (8') on center.

f. Butt or lap joists over girders and bearing partitions.

(1) Butting: Center and tie with metal straps or one inch (1") thick wood ties at least two feet (2') long.

(2) Lapping: At least four inches (4"), spike together; maximum projection beyond bearing, one foot (1').

g. Double Joists:

(1) Under all bearing partitions and under plaster finished nonbearing partitions when parallel to floor joists.

(2) Double joists which are separated to permit the installation of piping or vents shall be solid blocked spaced a maximum of four feet (4') on center.

(3) Double the floor joists framing each side of floor opening for plenum of furnace, spike joists together.

(4) Double floor joists supporting hot water heaters, washing machines, whirlpool bathtubs, kitchen islands or special loading conditions.

(5) Double joists on both sides of unsupported stairway openings.

(6) Loading conditions may require more support than doubling of joists.

h. Headers and Trimmers:

(1) Where more than one joist is cut for an opening, double headers and trimmers must be installed.

(2) Holes bored or cut into joist for piping or electrical work shall not be closer than two inches (2") to the top or bottom of the joist and the diameter of the hole shall not exceed one-third (1/3) the depth of the joist. Where headers span six feet (6') or more, headers must be supported by joist hangers, or by a ledger board not less than two inches (2”) by two inches (2"), nominal.

i. Cutting of Floor Joists:

(1) Notching top of bottom for piping and duct work is permitted to not more than one-sixth (1/6) minimum required joist depth except no notching in middle third of span; otherwise install header.

(2) Holes bored or cut through joist shall not be closer than two (2) inches to the top or bottom of the joist and the diameter of the hole shall not exceed one-third

(1/3) the depth of the joist, or larger than one inch (1”) within the two feet (2’) of the end of the joist.

j. Cross Bridging:

(1) Maximum spacing, eight feet (8'), minimum size, one inch (1”) by three inches (3") double nail at each end; bridging split by nailing not acceptable. Solid blocking, full depth, two inches (2") nominal acceptable.

(2) Rigid metal bridging may be used when acceptable to Building Official.

k. Cantilevered Construction: Submit detailed drawing bearing the seal of a registered Illinois Architect or Structural Engineer when required by the Building Official.

5. Sub-Flooring:

a. Plywood or Approved Equivalent:

(1) Apply with face grain perpendicular to support and panels continuous over two (2) or more spans.

(2) Minimum Thickness: Three-quarter inch (3/4") rated, tongue and groove plywood shall be installed.

(3) Install solid blocking under all edges at right angles to floor joists, or tongue and groove plywood approved by the Building Official may be used.

(4) Nailing: Nail securely to joists and blocking with nails six inches (6") on center on edges and ten inches (10") on center at intermediate framing members. Use 6d common nails for one-half inch (1/2") plywood, 8d for five-eighths inch (5/8") and three-quarters inch (3/4") and 10d common or 8d ring shank for one and one eighths inch (1 1/8") 3-ply.

(5) As underlayment, when used for leveling purposes over sub-flooring, minimum thickness one-eighth inch (1/8") 3-ply.

b. Wood Boards:

(1) The minimum thickness of floor sheathing shall be three-quarters inch (3/4") with a maximum joist spacing of twenty-four inches (24") on center.

(2) No two (2) adjoining boards shall break joints over the same joist space.

(3) Other spacings may be used when sub-flooring is designed according to loads to be imposed.

c. Clearance: Provide one-half inch (1/2") clearance between all sub-flooring and all masonry walls, chimneys and partitions.

d. Other Materials: Floors finished with any material other than hardwood.

e. Combination Sub-floor Underlayment: Combination sub-floor underlayment shall be installed in accordance with the "fastening schedule", in appendix B of this article.

D. Ceiling Framing:

1. Joists:

a. Maximum Spans for Wood Joists: Except for stress grade lumber of an assured quality, designed in accordance with the national design specifications, AFPA, all wood joists shall be limited as follows and see subsection C.4. of this section.

b. Rafter Ties: Use ceiling joists as ties for rafters whenever possible.

c. Bridging: Solid, two inches (2") thick full depth of joists, staggered for end nailing. Joists eight inches (8") and over, one inch (1”) by three inch (3") cross bridging or rigid metal bridging may be used; when acceptable to the Building Official; maximum spacing, eight feet (8') on center.

d. Splicing Requirements: Splicing of framing of ceiling joists over girders and bearing partitions shall follow the requirements for floor joists.

2. False Ceilings:

a. Minimum size two inches (2”) by four inches (4") on edge supported by wood or metal hangers, not more than six feet (6') on center.

b. Ceiling joists bridging not required.

E. Roof Framing:

1. Spans: (See design load requirement in subsection 8-300 B.2.c. of this article.)

a. Truss Roofs: Provide temporary bracing during erection, and permanent lateral and cross bracing as specified by manufacturer.

b. Manufactured Rafters: Follow manufacturer's specifications for installation.

c. Nominal Lumber: For species of lumber not listed in table below, refer to the "Span Tables For Joists And Rafters", published by the NFPA. (See appendix B of this article.)

d. Individual rafters or trusses shall be attached to wall assembly top plate by connections capable of resisting uplift forces. Hurricane ties shall be installed at forty-eight inches (48”) on center.

2. Pitched Roof Construction:

a. Rafter Seat Cuts: Cut for level bearing no more than one-quarter (1/4) depth of rafter at inside intersection. Toe-nail rafter into top plate. (For anchorage of top plate on masonry walls see subsection 8-305 D.7. of this article).

b. Collar Ties: Minimum size - one inch (1”) by six inches (6") or two inches (2”) by four inches (4"). Maximum spacing - four feet (4') on center. Vertical height - one-third (1/3) down from ridge beam or rafter intersection.

c. Ridge Beams: Ridge board must be two inches (2") thick, nominal, and minimum one size larger than rafters.

d. Hip Rafters: Must be two inches (2") thick, nominal, and minimum one size larger than rafters.

e. Valley Rafters:

(1) Must be two inches (2") thick, nominal, and have a depth not less than the cut end of the jack rafters.

(2) Maximum unsupported length of single valley rafters - eight feet (8'). Maximum unsupported length of double valley rafters - twelve feet (12').

f. Roof Openings: Provide double headers and trimmers when more than one rafter is cut, and when dormer windows are installed without additional support.

g. Chimney Saddles: Required at upper side of all chimneys whose upper side is not in contact with the ridge.

h. Wood Roof Trusses: The use of open-web or perforated members are permitted provided the required design specifications bear the seal of a registered Illinois Architect or Structural Engineer.

3. Flat Roof Construction:

a. Provide cross bridging at maximum spacing of eight feet (8') on center. Minimum size of bridging - one inch (1”) by three inches (3").

b. Splicing of framing of roof joists over girders and bearing walls shall follow the requirements for floor joists.

F. Exterior Wall and Bearing Partition Framing:

1. Studs:

a. Continuous lengths without splicing.

b. Minimum size, two inches (2”) by four inches (4") - nominal.

c. Maximum spacing for all construction, sixteen inches (16") on center.

Exception: Wall stud spacing may be increased to twenty-four inches (24") on center provided minimum of two-inch (2”) by six inch (6") studs are used with double top plates.

d. Maximum length for balloon frame, twenty feet (20'), notch studs at second floor to receive one inch (1”) by four-inch (4") ribbon. Nail joists to studs.

e. Provide fire blocking at eight feet (8') on center when height of wall exceeds eight feet (8').

2. Corner Posts: Not less than three (3) 2-inch by 4-inch set to receive interior finish.

3. Corner Bracing:

a. Full sheet plywood or structural rated sheathing at both sides of all external corners.

b. One inch (1”) by four inches (4") let into outside face of studs and plates set approximately at forty five (45) degrees extend from sill to plate.

c. Metal wall bracing may be used provided it is installed in accordance with manufacturer's recommendations.

(1) Exception: Except for knee wall construction other approved lateral braces may be installed.

4. Sill Construction:

a. Sill Anchorage: (See section 8-304 J.4.)

b. Sills and Girders On Top Of Foundation Walls And Piers: Level and grout with Portland cement mortar; wood not to be used for permanent shims. Sills to be pressure treated water resistant or rot resistant wood.

c. other methods may be used if detailed on drawings submitted with application and acceptable to Building Official.

5. Window and Door Openings:

a. Cripple Stud on Jambs: Extend in one piece from header to bearing and nail to outer stud.

b. One story building where header carries roof load only

Spans less than 4'	Two 2" x 4" on edge
Spans 4' to 6'	Two 2" x 6" on edge
Spans 6' to 8'	Two 2" x 8" on edge

Spans 8' to 10'	Two 2" x 10" on edge
Spans 10' to 12'	Two 2" x 12" on edge

Two story or bi-level where header carries one floor and roof loads assuming 1200 F and double top plate.

Spans less than 4'	Two 2" x 6" on edge
Spans 4' to 6'	Two 2" x 8" on edge
Spans 6' to 8'	Two 2" x 10" on edge
Spans 8' to 10'	Two 2" x 12" on edge

For garage door header:

Spans 12' to 16'	Three 2" x 12" on edge, or two 2" x 14" on edge, or two 2" x 12" on edge with 1/4" x 11" steel plate
Spans 16' to 18'	Three 2" x 14" on edge, or two 2" x 14" on edge with 1/4" x 13" steel plate

For garage door header where header carries one floor and roof loads:

Spans 12' to 16'	Three 2" x 14" on edge, or two 2" x 14" on edge with 3/8" x 13" steel plate

c. Where headers support concentrated loads or are subjected to other unusual loading conditions, the header shall be specifically designed.

d. Pre-engineered headers may be used when acceptable to the Building Official.

6. Plates:

a. Top plates, two (2) 2 x 4s. Lap at corners and intersecting partitions. When plates are but for piping or duct work, provide doubled studs at both sides of opening and tie top plates together with a metal strap. Splices of bottom plate must be made over stud. The maximum number of top plates used together shall be four (4).

b. Where headers support concentrated loads or are subjected to other unusual loading conditions, header shall be specifically designed.

c. Sill plates, minimum thickness, two inches (2"); exterior wall studs may bear on the foundation sill plate or on a sill plate on top of sub-floor.

7. When bearing partitions connect to masonry walls, anchor wall to masonry with bolts or spikes.

8. Wood bearing partitions in cellars and basements are not allowed unless specifically designed for that use and approved by the Building Official.

G. Nonbearing Partition Framing:

1. Studs:

a. Use continuous lengths without splicing.

b. Minimum size - two inches (2”) by four inches (4"), sixteen inches (16") on center. Exception: mechanical wall to be two inches (2”) by six inches (6”), sixteen inches (16”) on center.

c. Masonry walls may be furred out with two inches (2”) by two inches (2") nominal lumber as a minimum.

2. Plates:

a. Minimum thickness, to inches (2").

b. Splices must be made at midpoint of stud.

H. Wall Sheathing: Sheathing may be omitted on detached accessory buildings.

1. Wood Board:

a. May be used under any exterior finish material.

b. Minimum thickness: one inch (1"); maximum width: eight inches (8") unless triple nailed; maximum stud spacing: twenty-four inches (24") on center.

c. Break joints over center of studs unless end matched (T&G) boards are used; no two (2) adjoining end matched boards to break joints over same stud space and each board to bear on at least two (2) studs.

d. Application: When laid diagonally extend at forty-five (45) degrees in opposite directions from each corner; apply horizontally under stucco finish.

2. Plywood or Approved Equivalent:

a. May be used under any exterior finish material.

b. Thickness/spacing:

Minimum Thickness: one-half inch (1/2") rated.

c. Types of finish which affect the minimum thickness of plywood used:

(1) Under Wood Shingles: If five-sixteenths inch (5/16") plywood is used, apply shingles over one inch (1”) by two inch (2") nailing strips using copper or galvanized nails for attaching the shingles. Nailing strips may be omitted if barbed nails are used for attaching the shingles.

3. Fiberboard: Structural. (See appendix B of this article)

a. Under Wood Shingle Siding: Apply one inch (1”) by two inch (2") nailing strips over sheathing, spaced according to shingle exposure.

b. Thickness/Spacing:

Minimum Thickness	Maximum Stud Spacing
1/2 inch	16 inches
3/4 inch	24 inches

I. Sheathing Paper:

1. Material:

a. Water resistant building paper.

b. Asphalt saturated felt.

c. Vapor resistance shall be less than that of vapor barrier provided on inside of wall.

d. Or other as acceptable by the Building Official

2. Application:

a. Use over all types of sheathing.

b. Apply shingle fashion, four-inch (4") lap. Lap four inches (4") over paper strips around openings.

c. Use six inch (6") wide strips behind exterior trim of all exterior openings.

d. Install tape on all overlaps.

e. Attachment with cap staples, cap nails, or equivalent as approved by the Building Official

3. Paper not required over fiberboard factory treated to be moisture resistant, (except when used behind masonry veneer and stucco) provided:

a. Necessary corner and opening cuts are caulked with elastic waterproof caulking material. Corner joints may be protected with eighteen-inch (18") widths of sheathing paper applied shingle fashion.

b. At heads of openings, bottom edge of board is located to permit head flashing to be extended under and turned up behind sheathing, and joint between head flashing and board is caulked.

J. Roof Sheathing:

1. Wood Boards:

a. May be used under any roofing material.

b. Minimum Thickness: one inch (1"); maximum width: eight inches (8"), maximum rafter spacing: twenty-four inches (24") on center.

c. Break joints over center of rafters unless end matched (tongue and groove) boards are used; no two (2) adjoining end-matched boards to break joints over same rafter space and each board to bear on at least two (2) rafters.

d. Application: Lay closed under all roof material. Under wood shingles or shakes one inch (1”) by four inches (4") or one inch (1”) by six inches (6") spaced sheathing may be used spaced according to the weather exposure of the shingle or shake.

2. Plywood or Approved Equivalent:

a. May be used under any roofing material.

b. Minimum Thickness: one-half inch (1/2”) rated for roof framing that is sixteen inches (16”) on center. All one-half (1/2”) sheathing shall have panel edge clips (H clips). H clips to be eighteen (18) or twenty (20) gauge. Minimum two (2) equally spaced on the board.

c. Five-eighths inch (5/8”) thick sheathing shall be used for roof framing that is twenty-four inches (24”) on center.

Exception: Plywood thickness for slate, tile, cement shingles should be in accordance with manufacturer's specifications.

d. Under Wood Shingles: Apply one inch (1”) by two inch (2") nailing strips over plywood less than one-half inch (1/2") thick, spaced according to shingle exposure.

e. Protect exposed edges of sheathing along eaves and rake of roof with moldings or sheet metal flashing. Flashing along eaves may be integral with gutters. If gutters are not installed, form the flashing to provide a drip.

3. Fiberboard is not acceptable for roof sheathing.

4. Engineered board may be used when installed in strict accordance with manufacturer's specifications and when acceptable to the Building Official.

5. Engineered board thicknesses shall be at least equal to those minimum thicknesses stated in subsection J.2.b. of this section for plywood or rated equivalent.

6. In no case shall plywood or engineered board sheathing exceed the span markings stamped on the material. (Panel Identification Index.)

7. Nail securely to rafters with 6d nails for one-half inch (1/2") thickness and less, 8d nails for five-eighths inch (5/8") thickness and greater. Space at six inches (6") on center at edges and twelve inches (12") on center at intermediate supports.

K. Caulking:

1. Caulk around exterior openings in masonry or masonry veneer walls.

2. Caulk at intersections of wood and masonry except when flashed. This does not apply to tops of foundations.

3. Caulking shall remain elastic, non-hardening and firmly adherent.

8-308: RESERVED:

8-309: EXTERIOR WALL FINISH:

A. Wood Siding:

1. Use well-seasoned material. Moisture content not to exceed fifteen percent (15%).

2. Nail at each bearing with hot dipped galvanized or cement coated nails.

3. Bevel Siding:

a. Finish dimensions to comply with the following limitations as to minimum top and butt thickness:

Nominal Width (Inches)	Thickness At Top (Inches)	Thickness At Butt (Inches)
4 to 6	3/16	7/16
8	3/16	9/16
10 to 12	3/16	11/16

b. Minimum Head lap: one inch (1") for four-inch (4") width; one and one-quarter inches (1 1/4") for widths over four inches (4").

c. Nail near butt only. Do not nail through board underneath.

4. Rustic And Drop Siding: Minimum thickness, three-fourths inch (3/4") (finished); maximum width eight inches (8") (nominal).

5. Shiplap Or Matched Siding:

a. Minimum thickness, three-fourths inch (3/4") (finished); maximum width, twelve inches (12") (nominal).

b. Triple nail all boards over eight inches (8") in width.

c. When boards are applied vertically, set edges in white lead.

B. Wood Shingle Siding:

1. Shingle Grades:

a. Single course siding, No. 1 or No. 2.

b. Double course siding, no.1 for exposed shingles; under course may be No.1 or No. 2.

2. Minimum Size:

Length (Inches)	Thickness
16	5 butts in 2 inches
18	5 butts in 2 1/4 inches
24	4 butts in 2 inches

3. Nailing:

a. Nails: Copper or hot dipped galvanized.

b. Butt Nail Double Coursing: Exposed nails may be small headed.

C. Plywood:

1. Material, sound.

2. Grade mark, for exterior use, on each sheet of plywood.

3. Plywood, three-eighths inch (3/8") thick, may be used on sheathed walls. If sheathing other than wood is used, install solid blocking between studding as provided in subsection C.4.of this section.

4. Installation:

a. Vertical Joints: To occur over studs.

b. Horizontal Joints: Install solid blocking between studding for nailing.

c. Butt joints of square edge material, whether exposed or covered by battens, fill with mastic.

d. Corner Boards: Apply over plywood or butt plywood against boards at all corners.

e. Nails: Cement coated or hot dipped galvanized, flat head. Minimum Spacing: on edge, six inches (6"); on center, at intermediate bearings, twelve (12") inches on center.

D. Metal Siding:

Siding	Thickness
1. Aluminum clapboard siding	0.024 inch minimum
Aluminum clapboard siding	0.019 inch may be un-backed only when the flat areas are 5 inches or less in the narrow dimension.
2. Formed steel siding	twenty-eight (28) gauge minimum
3. Vinyl siding	n/a

E. Protected Combustible Fiberboard Siding: Minimum thickness: one-half inch (1/2").

F. Hardboard And/or Masonite: Minimum thickness of one-quarter inch (1/4") and providing required outside sheathing is first installed on outside of studs.

G. Manufactured Brick Siding: Install as per manufacturer's specifications.

H. Other Materials: As approved by the Building Official.

8-310: ROOF COVERINGS:

A. General:

1. Roof Slope.

a. Wood shingle and tile roof, four (4) in twelve (12) minimum.

b. Asphalt shingle roof, two (2) in twelve (12) minimum.

c. Shingle roofs less than four (4) in twelve (12) but not less than two (2) in twelve (12) shall be applied in strict accordance with manufacturers' specifications.

d. Built up roofs (gravel or slag surface), two (2) in twelve (12) maximum.

e. Built up roofs with mineral surfaced cap sheet, three (3) in twelve (12) maximum.

f. When materials and method of application provide precautions in excess of these minimum requirements to assure a weather tight roof, the roof slopes may be altered subject to acceptance by Building Official. Application and materials as outlined by "Manufacturers Selection And Application Of Asphalt Roofing And Siding Products" published by ARIB shall be considered as acceptable good practice.

2. Either a nine inch (9") wide or wider strip of mineral surfaced roll roofing or a row of inverted shingles may be used a starter course.

3. Nails for Attaching Roof Covering: Copper or hot dipped galvanized nails. Staples not permitted.

B. Asphalt and Fiberglass Shingles:

1. Fire underwriters class C label on each bundle.

2. To be rated at ninety (90) mile per hour wind rating or greater.

a. Irregular shaped shingles manufactured in conformance with the Underwriters' Laboratories minimum weight requirements.

3. Exposure as required for Underwriters' Class C label.

4. Head lap as recommended by manufacturers; minimum two inches (2").

5. Underlay:

a. Asphalt saturated felt; weight approximately fifteen pounds (15#) per one hundred (100) square feet or equivalent.

b. One layer of fifteen-pound (15#) asphalt saturated felt shall be required under all double thickness shingles on roof slopes three (3) in twelve (12) or greater.

c. On roof slopes two (2) in twelve (12), install fifteen (15) pound asphalt saturated felt. A nineteen (19) inch width strip shall be laid along the eaves followed by a thirty-six-inch (36”) sheet completely overlapping the first nineteen inch (19”) sheet. Each successive thirty-six-inch (36”) sheet shall overlap the preceding nineteen inches (19”). A continuous layer of plastic roof cement shall be applied between the two (2) layer of asphalt felt on the roof area. Application shall start from the eaves to a point on the roof twenty-four inches (24”) inside the inside wall line of the building. The cement shall be applied with a comb trowel and the overlying sheet shall be pressed firmly into the cement over the entire cemented area.

d. An ice barrier that consists of at least two (2) layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet, shall be used in lieu of normal underlayment, and extend the lowest edges of all roof surfaces to a point at least twenty-four inches (24”) inside the heated wall line of the building.

6. Re-Roofing: No more than two (2) layers over existing original installation without architect's written approval.

C. Wood Shingles:

1. Edge-grain, tapered shingles (No. 1 grade).

2. Minimum Size:

Length (Inches)	Thickness
16	5 butts in 2"
18	5 butts in 2 1/4"
24	4 butts in 2"

3. Maximum Exposure:

SLOPE OF ROOF EXPOSURE FOR SHINGLE LENGTH (Inches)

Rise	Run	16	18	24
3 to 7	12	4	1 1/2	7 1/2
7 to 18	12	5	5 1/2	7 1/2

4. Minimum thirty-pound (30#) asphalt saturated felt required.

D. Tile Roofing:

1. Quality: Hard burned or cement type roofing tile.

2. Underlay: One layer asphalt saturated felt, approximately thirty pounds (30#) per one hundred (100) square feet.

3. Shingle Tile, per manufacturer’s recommendations.

4. Interlocking Tile and Curved Tile: Lay in accordance with manufacturer's recommendation.

E. Slate Shingles:

1. Quality: Free from knots or knurls and reasonably smooth cleavage.

2. Underlay: Asphalt saturated felt approximately thirty pounds (30#) per one hundred (100) square feet.

F. Built Up Roofs:

1. Asphalt or tar and gravel coverings; including flashings: comply with requirements of Underwriters' Laboratories, Inc.; built up roof coverings: minimum 3-ply.

2. Apply according to manufacturer's directions.

3. Each ply of felt: minimum weight - fifteen pounds (15#) per one hundred (100) square feet.

4. Surface with:

a. Roofing Gravel or Crushed Stone: approximately four hundred pounds (400#) per one hundred (100) square feet; or

b. Crushed Slag: approximately three hundred pounds (300#) per one hundred (100) square feet.

c. other material approved as to quality and weight by the Building Official.

5. Top ply of felt and crushed stone or slag surfacing may be replaced with one layer of mineral surfaced cap sheet, minimum weight - eighty-five pounds (85#) per square foot.

G. Metal Roofs:

1. Materials:

a. Galvanized Sheet Metal: 26-gauge sheets, 1.25-ounce (total weight both sides) zinc coating per square foot.

b. Copper: Sixteen ounce (16oz) soft (roofing temper).

c. Roofing Tin: Forty-pound (40#) coating.

d. Lead: Sheet lead, two and one-half pounds (2 ½#) per square foot.

2. Nails:

a. Hard copper or copper alloy, for copper roofs.

b. Hot dipped galvanized, for galvanized, sheet metal roofs.

3. Seams, flat or standing; flat seams, locked and soldered.

4. Provide for expansion.

H. Other Types of Roof Coverings: Roof coverings such as metal shingles, canvas, or roll roofing: may be used when the type and weight of material, and method of application are acceptable to the Building Official

8-311: FLASHING:

Flashings, a lap joint or a turned-up flange, usually of metal to make a watertight connection between two (2) different materials.

A. Material:

1. Copper: Sixteen ounce (16oz) soft (roofing temper).

2. Galvanized sheet metal: 26-gauge, 1.25-ounce (total weight both sides) zinc coating per square foot.

3. Lead: Hard lead, two pounds (2#); soft lead, four pounds (4#).

4. Tin: Forty (40) pound coating, painted both sides.

5. Membrane waterproofing material acceptable to Building Official.

6. Copper and zinc flashings, gutters and downspouts not to be used in conjunction with each other.

7. Aluminum of suitable weight to the Building Official.

B. Openings Not Protected by Overhang:

1. Heads of Openings, Wood Frame Walls:

a. Sheet metal extended behind finish siding material and turned down over outside edge of head trim unless drip cap extends behind and above bottom of finished material; or

b. Three-ounce (3oz) copper coated building paper may be used provided flashing is not exposed to weather more than two inches (2"). Extend behind siding. Blind tack at outside edge of drip cap, one inch (1") on center.

2. Heads and Sills Of Openings, Masonry Veneered Wood Frame Walls:

a. Material: Sheet metal or membrane waterproofing material acceptable to Building Official.

b. Head Flashing: Extend from front edge of lintel, up and over top of lintel and up on sheathing under building paper.

c. Sill Flashing: Extend under masonry sill, up on sheathing and under wood sill.

3. Heads and Sills Of Openings, Masonry Walls:

a. Material: Sheet metal or membrane waterproofing material acceptable to Building Official.

b. Head Flashing: Extend from front edge of lintel, up and over top of lintel, through wall and turn up one inch (1") on inside surface.

c. Sill Flashing: Extend under and behind masonry sill.

4. Heads Of Openings, Stuccoed Wood Frame Walls:

a. Material: Sheet metal.

b. Drip: From drip on front edge of drip cap and extend flashing up behind building paper underneath stucco.

C. Intersections:

1. Provide sheet metal flashing for all horizontal and vertical intersections of stucco with other materials.

2. All flashing in connection with masonry walls shall have flashing or counter flashing built into masonry not less than one inch (1").

D. Valleys:

1. Rigid shingle roof covering:

a. Flash with sheet metal or equivalent.

b. Flashing on:

(1) Roof slopes less than seven (7) in twelve (12), width eighteen inches (18").

(2) Roof slopes seven (7) in twelve (12) or more, width twelve inches (12").

(3) Single strips eighteen inches (18") wide may be used under closed valleys.

2. Asphalt shingles roof covering valley requirements to be in accordance with manufacturer's requirements.

E. Roof and Wall Intersections:

1. Sloping Roof: Sheet metal flashings.

2. Flat Roof: Sheet metal or same material as roof covering. When sheet metal is not used, install forty-five (45) degree cant strip at roof and wall intersection.

F. Terrace or Porch Slabs: Suspended (reinforced) type or bearing on the ground, which abut wood construction at exterior wall.

1. Flashing Material: Sheet metal.

2. Extend flashing at finish floors of terrace or porch from one-quarter inch (1/4") outside exterior face of finish, turn up four inches (4") behind exterior finish, then turn down and extend four inches (4") below top of outside of foundation.

G. Chimneys:

1. All chimney and roof intersections, sheet metal flashing.

2. Cricket or saddle covering: Sheet metal.

8-312: GUTTERS AND DOWNSPOUTS:

All dwellings shall be provided with gutters and downspouts. Downspouts shall properly discharge roof water at least twenty-four (24") inches away from foundation. Gutters and downspouts may be omitted with minimum twenty-four-inch (24”) roof overhang. See the following specifications:

A. Materials: See appendix B of this article.

1. Copper, sixteen (16) ounce, hard (cornice temper).

2. Galvanized sheet metal: 26-gauge sheets, 1.24-ounce (total weight both sides) zinc coating per square foot.

3. Solid wood gutters: Paint inside with two (2) coats pitch or three (3) coats lead and oil after installation.

4. Aluminum: Gutters shall be a minimum of 0.027-inch-thick metal and downspouts a minimum of 0.020-inch-thick metal.

5. Vinyl.

B. Roof Water Disposal: Provide outlet acceptable to the Building Official.

8-313: INTERIOR WALL AND CEILING FINISH:

None shall be applied when moisture content of framing lumber remains over nineteen percent (19%).

A. Lath And Plaster: See appendix B of this article.

1. Wood Lath:

   a. Maximum stud spacing, sixteen inches (16") on center.

   b. Lath, No. 1, five-sixteenths inch (5/16") thick.

   c. Space lath one-fourth (1/4) to three-eighths inch (3/8") apart. Break joints every seventh lath, nail to each bearing.

2. Expanded Metal Lath:

   a. Painted or galvanized lath.

   b. Minimum weights; maximum spacing of supports:

Use	Pounds Per Yard	Stud Spacing (inches)
Walls		
All dwellings	2.5	16
One story dwellings	X3.4	20
	X4.0	24
	XX3.0	24
		Joist Spacing (Inches)
Ceilings	X2.75	16
	X3.4	16
	XX3.4	24
X Flat rib		
XX High rib		

3. Insulating Fiberboard Lath:

   a. Minimum thickness, one-half inch (1/2").

   b. Lath size, sixteen inches (16”) by forty-eight inches (48"). Lath twenty-four inches (24”) by forty-eight inches (48") may be used provided all joints at right angles to the framing members are covered with continuous strips of metal lath and ends of lath are nailed to solid bearing (framing members) at approximately four inches (4") on center including intermediate supports.

   c. Maximum stud or joist spacing, sixteen inches (16") on center.

   d. Apply in accordance with manufacturer's directions.

4. Lathing:

   a. Heads of Openings: Install lath so vertical joints of first course of lath above head will not occur on jamb studs.

b. Corner Beads: Galvanized metal, for all external corners.

c. Corner and Joint Reinforcing: Metal lath two and one-half inch (2 1/2") lap on each surface.

d. Over Solid Wood Surfaces: Install metal lath on strips or use furring nails. Lap metal lath on adjoining lath surfaces.

5. Plaster:

a. Mix all plaster (lime and prepared) according to manufacturer's recommendations.

b. Quick lime, slake thoroughly.

c. Minimum thickness, one-half inch (1/2") over lath base. Finish all ceilings level and walls and corners, plumb and straight.

6. Drying Period: Allow sufficient time for plaster to dry thoroughly before application of trim.

B. Ceramic Tile: Waterproof all surfaces prior to the application of the setting coat of adhesive.

C. Bath - Shower Walls:

1. Surface Materials: Dense, smooth and water repellent. Walls of showers and bath enclosures with shower heads shall be so surfaced to height not less than six feet (6') above bases and not less than four feet (4') above lip of tubs.

2. Backing Materials: Backing materials shall be suitable for application of tile or other approved surfaces.

3. Installation: Installation of backing materials, and required waterproofing, shall be in accordance with manufacturer's recommendations. All joints and other openings shall be caulked or otherwise protected from infiltration of water.

D. Dry Wall Finish:

1. Minimum thickness: Actual inches.

Type Of Wall Finish	Spacing Of Studs of Furring (Actual Inches)		
	16	20	24
Wood boards	3/8	1/2	1/2
Plywood	1/4	3/8	3/8
Gypsum board	3/8	1/2	1/2
Fiberboard	1/2	3/4	3/4

2. Other types of boards, including compressed dense composition board less than one-half inch (1/2") thick, may be used when acceptable to the Building Official. Maximum stud spacing sixteen inches (16") on center.

3. There shall be three-eighths inch (3/8") drywall backer board behind all wood paneling less than twenty-five thirty seconds inch (25/32") thick. Fastening shall be: eight inches (8") on center on the edge, twelve inches (12") on center through field of board.

4. There shall be a three-eighths inch (3/8") drywall backer board behind all wood paneling less than three-fourths inch (3/4") thick.

8-314: FINISH FLOORS:

A. Cement Floors:

1. Mix. See subsections 8-304 B. and 8-304 K.2. of this article.

2. Heater room floors and wood construction where solid or liquid fuel is used:

a. Minimum thickness, four inches (4").

b. Use sheet metal over tops of joists for concrete forms or cut in one inch (1") boards flush with top of joists. If wood boards are used, remove after slab has set.

c. Reinforce slab with wire mesh weighing not less than thirty pounds (30#) per one hundred (100) square feet, or with one-quarter inch (1/4") bars spaced one foot (1') on center each way.

3. Heater room floors on wood construction where gas burning equipment raises temperature of floor to above one hundred sixty (160) degrees, comply with the provision of subsection 2 of this section. See American Gas Association specifications.

B. Wood Floors:

1. Materials:

a. Flooring: Kiln dried material.

b. Strip flooring, hardwood or softwood, installation to be in accordance with the National Wood Flooring Association.

c. Nails: Maximum spacing, sixteen inches (16") on center.

2. Installation:

a. Finish Flooring Over Sub-flooring: Apply at right angles to sub-flooring except when sub-flooring is laid diagonally, and except when on strips applied directly over floor joists.

b. Finish Flooring on Strips: Wood strips, minimum size, one inch (1”) by two inches (2"), maximum spacing, sixteen inches (16") on center. Apply strips over building paper or deadening felt on top of sub-flooring.

c. Strip Flooring on Concrete: Apply on not less than two inches (2”) by two inches (2") sleepers embedded in concrete.

d. Wood Block Floorings on Concrete: Set blocks in mastic and install in accordance with flooring manufacturer's directions.

e. Pre-engineered wood flooring systems are to be installed in strict accordance with manufacturers' specifications.

C. Ceramic Tile:

1. Materials: (See appendix A.)

2. Grade: Not less than standard grade.

3. Installation: Ceramic tile to be installed in strict accordance with manufacturers' specifications.

D. Resilient Floors:

1. Linoleum, asphalt, vinyl, rubber, cork and similar coverings, including wall to wall carpeting as manufactured in tile form or rolls, shall be installed in accordance with manufacturer's recommendations.

2. Resilient floors shall not be installed directly over wood board, plywood, or wood plank sub-floor. An underlayment grade of wood-based panels of plywood, particle board, or hardboard a minimum thickness of one-quarter inch (1/4"), shall be used over wood sub-floors under resilient floors, excluding wall to wall carpeting.

3. See subsection 8-307 C.5. of this article for combination sub-floor underlayment panels.

8-315: GARAGES AND ACCESSORY BUILDINGS:

A. Attached and Built-In Garages:

1. For purposes of this Code, an attached/built-in garage shall be permitted as follows:

a. An attached garage is a building which is connected to a principal structure by a party wall (built-in garage) or by a linkage building.

(1) Where a garage is connected to the principal building by a linkage building the following shall apply:

(a) The garage and linkage building shall be constructed pursuant to all applicable building, zoning and drainage regulations for a principal building; and

(b) The linkage building shall be less than twenty feet (20') in length and

(c) The linkage building shall be six feet (6') or less in width.

b. An attached garage shall be compatible with and subordinate in floor area and size to the principal building.

c. An attached garage shall be established at the same time or after the completion of a principal building.

d. Construction shall be the same as required for the dwelling.

e. If door opening occurs between garage and dwelling; provide six-inch (6") gas curb at the door or construct garage floor six inches (6") lower than the adjoining floor. This also applies to interior stairways leading to lower levels or basements from the garage.

f. Installation of house heating unit or other fuel-burning appliance in garage space not permitted unless specifically permitted by the Building Official. Install one-hour rated partition between space containing house heating unit and garage space. Doors are not permitted common to heater room and/or garage. Hot or cold air ducts not permitted in garage.

g. Garages shall be separated from the dwelling by one-hour fire resistive rated construction. Separation shall include: all walls, ceiling, attic access, supporting girders, columns and beams.

h. Doors shall be twenty (20) minute fire-rated and include a self-closing or automatic-closing device where common to dwelling.

i. Residential garage floor drains are prohibited unless approved by the Building Official.

B. Detached One Story Frame Garages, Including Private Aircraft Hangars:

1. Comply with construction requirements for one story dwellings with the following exceptions:

a. Pole type construction shall be permitted when constructed in compliance with accepted engineering practices.

b. Grade beam construction permitted consisting of a four-inch (4") concrete floor on a minimum four inches (4") of crushed stone, sand or gravel poured monolithically with a minimum ten inch (10") thickened outer edge a width of twenty inches (20") around perimeter of building, said twenty inch (20") grade beam to be of equal depth and on undisturbed soil. Six inch (6”) by six inch (6") #10 wire mesh shall also be installed.

c. Studs, maximum spacing twenty-four inches (24") on center. Doubling of studs not required on jambs of openings less than three feet five inches (3'5") wide.

d. Sheathing and building paper may be omitted.

e. Corner post may be two inch (2”) by 4 inch (4”), or a four inch (4”) by four inch (4").

f. Top plate may be single, provided rafters occur over studs and plate at corners is lapped to provide tie.

g. Rafter ties at eaves not less than two inches (2”) by four inch (4"), maximum spacing six feet (6').

h. Corner bracing is required, except where wood sheathing is used, and may be applied on the inside surface of studs, minimum one inch (1”) by four inch (4").

2. Where distance between the principal building (dwelling unit) and detached garage or private airplane hangar is less than ten feet (10'), provide minimum one hour fire resistive construction in garage or private airplane hangar as approved by the Building Official.

3. A detached garage or private airplane hangar separated from the principal building (dwelling) by a breezeway with a distance of less than ten feet (10') shall comply with subsection A of this section herein. However, a breezeway shall always be considered detached and part of the detached accessory building.

4. A detached garage or private aircraft hangar separated from the principal building (dwelling unit) by a breezeway with a distance of ten feet (10') or more may be of unprotected frame construction. The junction of the garage and the breezeway shall be fire-stopped. However, a breezeway shall always be considered detached and part of the detached accessory building.

5. Pre-engineered membrane structures intended for vehicle storage to be installed in accordance with manufacturer's plans and specifications and as approved by the building official. Such structures shall be erected on an approved concrete or asphalt surface to prevent the seepage of hazardous, toxic or combustible liquids into the ground. Such structures shall be securely anchored to the ground.

C. One Story Solid Masonry Detached Garages/Private Aircraft Hangars: One story solid masonry or masonry veneer detached garages and accessory buildings shall comply with the construction requirements for one story dwellings.

D. Accessory Buildings: Accessory buildings such as pool/garden sheds, stables, livestock shelters, cabanas, greenhouses, workshops, and similar uses where no vehicle storage will take place and where doors small enough to prohibit vehicle entry (approximately six feet (6') are installed shall comply with construction requirements for detached garages with the following exceptions:

1. Required concrete floor slabs may be omitted in those specific areas of livestock buildings or structures used by the livestock upon approval of the Building Official.

2. Other than subsection D.1. of this section, floors shall be concrete, asphalt or wood installed to prevent the seepage of hazardous, toxic, or combustible liquids into the ground.

3. All accessory buildings shall be securely anchored to the ground.

4. Pre-engineered accessory building kits shall be installed in accordance with manufacturer's specifications and plans.

E. Cargo Type Containers Retrofit for Residential Storage Use: Cargo containers are commercial equipment. To be used in a residential district for storage purposes they must be modified in their appearance to no longer represent commercial equipment. They must meet the following requirements: a foundation in compliance with Section 8-304 Concrete, Section 8-309 Exterior Wall and Finish, and Section 8-310 Roof Covering. Storage of vehicles and use as habitable space are prohibited. Additionally, they must meet all Zoning district, setback, and bulk regulations.

8-316. DECKS, GAZEBOS, PERGOLAS, and RAMPS

8-316.A: Attached and Free-Standing Decks:

1. A Deck shall be permitted as follows:

   a. An attached deck is an exterior floor platform supported with piers, posts, and beams on one side and attachment to the house structural framing members or foundation on other side.

   b. A free-standing deck is an independent floor platform supported with piers, posts, and beams without attachment to the house. This design may be permitted without piers with approval of the Building Official.

2. Attached decks:

   a. Ledger

      (1). Ledger is to be attached to the structural house framing members or foundation.

      (2). Attaching ledger solely to masonry veneer is prohibited.

      (3). Lateral tension device is required, minimum two.

(4). Ledger shall be flashed in accordance with section 8-311.

(5). Ledger shall be fastened to the structural framing members with one half-inch (1/2”) diameter lag screws or one-half inch (1/2”) lag bolts. Maximum spacing twenty-four inches on center (24”o.c.).

b. Minimum concrete pier to be 12” diameter- Bottom to be 42” below finished grade.

c. Post to pier connection to be with a galvanized post bracket only. Post embedment into concrete pier is prohibited.

d. Minimum post size to be six inches by six inches (6”x6”).

e. Beam should provide positive bearing on post by means of notching post and anchoring the beam to the post with the use of one-half inch (1/2”) lag bolts.

f. Maximum joist cantilever is twenty-four inches (24”) from edge of beam.

g. Joist spans over eight feet (8’) between bearing points require cross bridging or solid blocking at mid-span.

h. Guardrails are required for decks twenty-four inches (24”) and above grade.

i. Guardrails shall be a minimum of thirty-six inches (36”) high with spindle spacing that will not allow a four-inch (4”) sphere to pass between spindles.

j. Guardrails shall be provided on the open sides of stairs.

k. A graspable handrail shall be provided on at least one (1) side of stairs and return on each end.

l. Maximum stairs rise to be seven and three quarters inches (7-3/4”).

m. Minimum tread depth to be ten inches (10”) clear of tread above.

n. Stair stringer grade termination required to be on a hard surface and supported by concrete piers.

3. Free-Standing decks:

a. Minimum concrete pier to be 12” diameter- Bottom to be 42” below finished grade.

b. Post to pier connection to be with a galvanized post bracket only. Post embedment into concrete pier is prohibited.

c. Minimum post size to be six inches by six inches (6”x6”).

d. Beam should provide positive bearing on post by means of notching post and anchoring the beam to the post with the use of one-half inch (1/2”) lag bolts.

e. Maximum joist cantilever is twenty-four inches (24”) from edge of beam.

f. Joist spans over eight feet (8’) between bearing points require cross bridging or solid blocking at mid-span.

g. Guardrails are required for decks twenty-four inches (24”) and above grade.

h. Guardrails shall be a minimum of thirty-six inches (36”) high with spindle spacing that will not allow a four-inch (4”) sphere to pass between spindles.

i. Guardrails shall be provided on the open sides of stairs.

j. A graspable handrail shall be provided on at least one (1) side of stairs and return on each end.

k. Maximum stairs rise to be seven and three quarters inches (7-3/4”).

l. Minimum tread depth to be ten inches (10”) clear of tread above.

m. Stair stringer grade termination required to be on a hard surface and supported by concrete piers.

8-316.B: Gazebos:

1. A structure with a permanent roof, intended for shelter, its sides can be open or closed with screens. The roof is intended to provide shade and shed water.

a. Structures on piers are prohibited from enclosure with glass windows.

b. The structural components to be assembled in compliance with the applicable requirements of Section 8-307, Section 8-310, and Section 8-316.1.

8-316.C: Pergolas:

1. An open sided structure supporting overhead nominal lumber or other material meant to provide shade. It is not intended to shed water or protect from any other weather phenomenon.

a. Typically constructed using posts and lattice type materials generally intended to support vegetation.

8-316.D: Ramps:

1. A sloping platform used for access or egress from a structure, landing, or deck.

   a. The structural components to be assembled in compliance with the requirements of Section 8-316.1

   b. Illinois Accessibility Code requirements for ramps do not apply to residential ramps constructed in One & Two-Family dwellings.

8-316. E: Span Tables:

1. Table #1 for use with common deck joist spans

TABLE 1

DECK JOIST SPANS FOR COMMON LUMBER SPECIES[f] (ft. - in.)

SPECIES[a]	SIZE	SPACING OF DECK JOISTS WITH NO CANTILEVER[b] (inches)			SPACING OF DECK JOISTS WITH CANTILEVERS[c] (inches)		
		12	16	24	12	16	24
Southern pine	2 x 6	9-11	9-0	7-7	6-8	6-8	6-8
	2 x 8	13-1	11-10	9-8	10-1	10-1	9-8
	2 x 10	16-2	14-0	11-5	14-6	14-0	11-5
	2 x 12	18-0	16-6	13-6	18-0	16-6	13-6
Douglas fir-larch[d], hem-fir[d] spruce-pine-fir[d]	2 x 6	9-6	8-8	7-2	6-3	6-3	6-3
	2 x 8	12-6	11-1	9-1	9-5	9-5	9-1
	2 x 10	15-8	13-7	11-1	13-7	13-7	11-1
	2 x 12	18-0	15-9	12-10	18-0	15-9	12-10
Redwood, western cedars, ponderosa pine[e], red pine[e]	2 x 6	8-10	8-0	7-0	5-7	5-7	5-7
	2 x 8	11-8	10-7	8-8	8-6	8-6	8-6
	2 x 10	14-11	13-0	10-7	12-3	12-3	10-7
	2 x 12	17-5	15-1	12-4	16-5	15-1	12-4

a. No. 2 grade with wet service factor.
b. Ground snow load, live load = 40 psf, dead load = 10 psf, L/Δ = 360
c. Ground snow load, live load = 40 psf, dead load = 10 psf, L/Δ = 360 at main span, L/Δ = 180 at cantilever with a 220-pound point load applied to end.
d. Includes incising factor.
e. Northern species with no incising factor.
f. Cantilevered spans not exceeding the nominal depth of the joist are permitted.

2. Table #2 for use with common beam spans

TABLE 2
DECK BEAM SPAN LENGTHS[a, b, g] (feet - inches)

SPECIES[c]	SIZE[d]	DECK JOIST SPAN LESS THAN OR EQUAL TO: (feet)						
		6	8	10	12	14	16	18
Southern pine	1 - 2 x 6	4-11	4-0	3-7	3-3	3-0	2-10	2-8
	1 - 2 x 8	5-11	5-1	4-7	4-2	2-10	3-7	3-5
	1 - 2 x 10	7-0	6-0	5-5	4-11	4-7	4-3	4-0
	1 - 2 x 12	8-3	7-1	6-4	5-10	5-5	5-0	4-9
	2 - 2 x 6	6-11	5-11	5-4	4-10	4-6	4-3	4-0
	2 - 2 x 8	8-9	7-7	6-9	6-2	5-9	5-4	5-0
	2 - 2 x 10	10-4	9-0	8-0	7-4	6-9	6-4	6-0
	2 - 2 x 12	12-2	10-7	9-5	8-7	8-0	7-6	7-0
	3 - 2 x 6	8-2	7-5	6-8	6-1	5-8	5-3	5-0
	3 - 2 x 8	10-10	9-6	8-6	7-9	7-2	6-8	6-4
	3 - 2 x 10	13-0	11-3	10-0	9-2	8-6	7-11	7-6
	3 - 2 x 12	15-3	13-3	11-10	10-9	10-0	9-4	8-10
Douglas fir-larch[e], hem-fir[e], spruce-pine-fir[e], redwood, western cedars, ponderosa pine[f], red pine[f]	3 x 6 or 2 - 2 x 6	5-5	4-8	4-2	3-10	3-6	3-1	2-9
	3 x 8 or 2 - 2 x 8	6-10	5-11	5-4	4-10	4-6	4-1	3-8
	3 x 10 or 2 - 2 x 10	8-4	7-3	6-6	5-11	5-6	5-1	4-8
	3 x 12 or 2 - 2 x 12	9-8	8-5	7-6	6-10	6-4	5-11	5-7
	4 x 6	6-5	5-6	4-11	4-6	4-2	3-11	3-8
	4 x 8	8-5	7-3	6-6	5-11	5-6	5-2	4-10
	4 x 10	9-11	8-7	7-8	7-0	6-6	6-1	5-8
	4 x 12	11-5	9-11	8-10	8-1	7-6	7-0	6-7
	3 - 2 x 6	7-4	6-8	6-0	5-6	5-1	4-9	4-6
	3 - 2 x 8	9-8	8-6	7-7	6-11	6-5	6-0	5-8
	3 - 2 x 10	12-0	10-5	9-4	8-6	7-10	7-4	6-11
	3 - 2 x 12	13-11	12-1	10-9	9-10	9-1	8-6	8-1

a. Ground snow load, live load = 40 psf, dead load = 10 psf, L/Δ = 360 at main span, L/Δ = 180 at cantilever with a 220-pound point load applied to end.
b. Beams supporting deck joists from one side only.
c. No. 2 grade, wet service factor.
d. Beam depth shall be greater than or equal to depth of joists with a flush beam condition.
e. Includes incising factor.
f. Northern species. Incising factor not included.
g. Beam cantilevers are limited to the adjacent beam's span divided by 4.

ARTICLE IV-A. ILLINOIS PLUMBING CODE

8-400: ADOPTION BY REFERENCE:

A. Adoption: There is hereby adopted by reference, as if fully set out herein, that certain code known as The Illinois Plumbing Code as sponsored and published by the Illinois Department of Public Health, together with the following additions, insertions, deletions and amendments hereinafter set forth.

B. Amendments to The Illinois Plumbing Code:

a. Type M, L Copper for above ground domestic water supply piping.

b. Type K Copper for underground domestic water supply piping.

c. All service connections to sanitary sewer mains or septic systems must have an overhead sewer system within the building, with the only exception being slab on grade construction.

d. Pursuant to 17 ILL. Admin. Code 3730.307(c) (4) and subject to the Illinois Plumbing Code (77 ILL. Admin. Code 890) and the Lawn Irrigation Contractor and

Lawn Sprinkler System Registration Code (77 ILL. Admin. Code 892), be it hereby ordained that in the County of DuPage all new plumbing fixtures and irrigation controllers installed after the effective date of this ordinance shall bear the

WaterSense label (as designated by the U. S. Environmental Protection Agency WaterSense Program), when such labeled fixture are available.

ARTICLE IV-B. RESERVED

ARTICLE V. ILLINOIS ENERGY EFFICIENT BUILDING CODE

8-500: ADOPTION BY REFERENCE:

A. There is hereby adopted by reference, as if fully set out herein, that certain code known as the State of Illinois Energy Efficient Building Code.

B. The Code shall mean the latest published edition of the International Code Council's International Energy Conservation Code as adopted by the Capital Development Board, excluding published supplements but including the amendments and adaptations to the Code that are made by the Board.

ARTICLE VI. NATIONAL ELECTRICAL CODE 2020

8-600: ADOPTION BY REFERENCE:

A. There is hereby adopted by reference, as if fully set out herein, that certain code known as The National Electrical Code, 2020 edition, (NFPA 70-2020) as sponsored and published by the National Fire Protection Association, together with the following additions, insertions, deletions and amendments hereinafter set forth.

B. Amendments and deletions to the 2020 National Electrical Code:

1. The following articles, sections or subsections of the National Electrical Code 2020 have not been adopted:

Article 320	Armored Cable: Type AC
Article 322	Flat Cable Assemblies: Type FC
Article 324	Flat Conductor Cable: Type FCC

Article 326	Integrated Gas Spacer Cable: Type IGS
Article 330	Metal-Clad Cable: Type MC
Article 332	Mineral-Insulated, Metal-Sheathed Cable: Type MI
Article 334	Nonmetallic-Sheathed Cable: Types NM, NMC & NMS
Article 338	Service-Entrance Cable: Types SE & USE
Article 354	Nonmetallic Underground Conduit with Conductors: Type NUCC
Article 356	Liquid tight Flexible Nonmetallic Conduit: Type LFNC
Article 362	Electrical Nonmetallic Tubing: Type ENT
Article 378	Nonmetallic Wireways
Article 382	Nonmetallic Extensions
Article 388	Surface Nonmetallic Raceways
Article 394	Concealed Knob-and-Tube Wiring
Article 396	Messenger Supported Wiring
Article 398	Open Wiring On Insulators

2. Any reference in said code to the “authority having jurisdiction” shall mean the Building Official of the County of DuPage, Illinois.

3. The following chapters, articles, sections and subsections of the National Electrical Code 2020 to be amended as follows:

1. Chapter 2, “Wiring and Protection,” is amended as follows:

Table 210-21(B)(3) “Receptacle Ratings for Various Size Circuits” is hereby amended by adding:

Note: Only 20-Ampere receptacles to be used on 20-Ampere circuits.

a. Subsection 210-52 (G), "Basements and Garages," of Section 210.52, “Dwelling Unit Receptacle Outlets,” is amended as follows:

210.52(G)(3) A minimum of one ceiling receptacle outlet shall be installed at each overhead garage door in all attached garages and detached garages with electrical power.

b. Section 210-52, “Dwelling Unit Receptacle Outlets,” of Chapter 2, “Wiring and Protection,” is amended as follows:

210.52(I) Attics. In dwelling units required to have a radon control system, at least one receptacle outlet shall be installed in a location approved by the Building Official.

c. Subsection 210.70(A)(2), “Additional Locations,” of Section 210.70, “Lighting Outlets Required,” is amended as follows:

210.70(2)(a) At least one wall switch-controlled lighting outlet shall be installed in hallways, stairways, attached garages and detached garages with electric power. Said wall switch shall not be located beyond five feet (5') from the point of entry to a room, including cellars or basements.

210.70(A)(4) Switching or controls for lighting fixtures shall not be used as a switching or control means for exhaust fans.

d. Subsection 210-70(B), "Guest Rooms or Guest Suites," of Section 210.70, “Lighting Outlets Required,” is amended as follows:

Exception No. 3: Switches in bathrooms shall be at least five feet (5') from the inside edge of any bathtub or shower unless protected by ground-fault circuit-interrupter protection for personnel. All light and/or exhaust fixtures located above bathtubs or showers shall be protected by ground-fault circuit-interrupter protection for personnel and approved for this type location.

210.70(B)(1) Switching or controls for lighting fixtures shall not be used as a switching or control means for exhaust fans.

e. Section 230-79, “Rating of Service Disconnecting Means,” of Chapter 2, “Wiring and Protection,” is amended as follows:

230.79(C) One Family Dwelling. For a one and two-family dwelling, the service disconnection means shall have a rating of not less than 200-amperes, three (3) wire and be located on the principle structure, one (1) service per dwelling unit, unless otherwise approved by the Building Official.

f. Section 250.92, “Services,” of Chapter 2, “Wiring and Protection,” is amended as follows:

250.92(B)(5) All conduits larger than 1" (one inch) installed in concentric and eccentric knockouts shall have bonding-type locknuts with bonding jumpers.

2) Chapter 3, "Wiring Methods and Materials," is amended as follows:

a. Subsection 310.1, "Scope," of Section 310, "Conductors for General Wiring," is amended to read as follows:

310.1 "Scope," This article covers general requirements for conductors and their type designations, insulations, makings, mechanical strengths, ampacity ratings, and uses. These requirements do not apply to conductors that form an integral part of equipment, such as motors, motor controllers, and similar equipment, or to conductors specifically provided for elsewhere in this Code. All conductors and wiring should be copper conductors. Conductors made of any other material, including aluminum, shall not be permitted and all other references to conductors, other than copper, shall be deemed as deleted from this Code.

b. Subsection 310.2(B), "Conductor Material," of Section 310, "Conductors for General Wiring," is amended to read as follows:

310.2(B), "Conductor Material," Conductors in this Code shall be of copper only.

c.314.27(A) "Boxes at Luminaires or Lamp holder Outlets" is hereby amended by adding the following:

Any luminaire (light fixture) outlet box located such that a ceiling-suspended (paddle) fan may be installed shall meet the requirements of Subsections 314.27(D) and 422.18.

d. Section 352.10, "Uses Permitted," of Chapter 3, "Wiring Methods and Materials," is amended as follows:

352.10(A), (C), (D), (E), (F), & (H) are deleted.

352.10(G) Underground Installations.

352.10(J) For Residential Low-Voltage Systems.

352.10(K) Other Locations as Approved by Building Official.

e. Section 358.12, "Uses Not Permitted," of Chapter 3, "Wiring Methods and Materials," is amended as follows:

(7) Not allowed in contact with earth, within or under floor slabs.

ARTICLE 391
LOW VOLTAGE SYSTEMS

a. Subsection 391.1, "Scope," of Section 391, "Low Voltage Systems," is added to read as follows:

391.1 "Scope," This article covers all low voltage wire systems.

Exception: Burglar alarm systems and residential sound systems.

b. Subsection 391.2, "Installation," of Section 391, "Low Voltage Systems," is added and amended to read as follows:

391.2, "Installation," Circuits operating at less than 50 volts shall be installed in a neat and workmanlike manner. Cables shall be supported by the building structure in such a manner that the cable will not be damaged by normal building use.

1. Concealed low voltage-type wiring systems shall be installed in an approved metallic raceway system.

2. Rigid non-metallic raceway systems shall be allowed for residential use only.

3. Commercial concealed low voltage-type wiring systems to be installed in metallic raceways.

3) Chapter 4, "Luminaires, Lamp holders and Lamps" is amended as follows:

a. Subsection 410.10(D)(1) "Bathtub and Shower Areas," of Section 410.10 "Luminaires in Specific Locations," is amended as follows:

410.10(D) Bathtub and shower areas. No parts of cord-connecting luminaires, chain, cable, or cord-suspended luminaries, lighting tack, pendants or ceiling-suspended (paddle) fans shall be located within a zone measured 3' (three feet) horizontally and twelve feet (12') vertically from the top of the bathtub rim or shower stall threshold. This zone is all encompassing and includes the space directly over the tub or shower stall. Luminaires located within the actual outside dimension of the bathtub or shower to a height of twelve feet (12') vertically from the top of the bathtub rim or shower threshold shall be marked for damp locations, or marked for wet locations where subject to shower spray.

ARTICLE –VII. INTERNATIONAL BUILDING CODE 2021

8-700: ADOPTION BY REFERENCE:

There is hereby adopted by reference, as in fully set out herein, that certain code known as The International Building Code 2021 edition, as sponsored and published by the International Code Council, Inc., together with the following additions, insertions, deletions and amendments: hereinafter set forth.

1. Deletions and amendments to the International Building Code 2021:

    a. The following chapters and sections of the International Building Code 2021 have not been adopted:

        1) Chapter 1, Administration

        2) Chapter 29, Plumbing Systems

        3) Chapter 32, Encroachments To The Public Right-Of-Way

    b. The International Building Code 2021 is amended as follows:

2. Chapter 2, "Definitions," is amended as follows:

    a. Subsection 201.5, “Conflicting Definitions,” of Section 201, "General," is added to read as follows:

        201.5 Conflicting Definitions. In the event any definition(s) listed in Section 201 conflict with any definition(s) in any other DuPage County Code or Ordinance, such definition(s) shall have the meanings ascribed to them in those Codes or Ordinances.

3. Chapter 4, "Special Detailed Requirements Based on Use And Occupancy," is amended as follows:

    a. Section 427, "Principal Arterial Office Use," of Chapter 4, “Special Detailed Requirements Based on Use and Occupancy,” is added to read as follows:

SECTION 427
PRINCIPAL ARTERIAL OFFICE USE

427.1 General. The provisions of this section govern existing homes being converted specifically into an office use which meet all requirements, provisions and definitions set forth in the DuPage County Zoning Ordinance as a principal arterial office (PAO). The following criteria and exceptions to the DuPage County

Building Code must be met, in conjunction with any Zoning Ordinance requirements, in order to qualify for this specific use:

1. Required automatic fire suppression system coverage in attic spaces may be waived if all attic use, including storage, is prohibited and proper heat detection coverage is provided in attic spaces.

2. Where required, additional remote exiting from the basement areas may be waived where the basement use is limited to storage only.

3. A maximum gross floor area of 2500 square feet, including a basement, is allowable without any further on-site firefighting water or automatic fire suppression system requirements.

4. The maximum number of employees working at any one time shall be five (5) before separate toilet facilities for men and women are required.

5. Provide an accessible exterior route and entrance.

6. Provide a minimum of one (1) accessible toilet room.

4. Chapter 5, "General Building Height and Areas," is amended as follows:

a. Subsection 502.1, "Definitions," of Section 502, "Definitions," is amended by adding the following:

BASEMENT. That portion of a building having one half (1/2) or more of its height below the average grade of the adjoining ground.

STORY ABOVE GRADE. Any story having it's finished floor surface entirely above grade, except that a basement shall be considered as a story above grade where the finished floor surface of the basement is one half (1/2) in height or four feet (4'), below the average grade of the adjoining ground.

5. Chapter 9, "Fire Protection Systems," is amended as follows:

a. Section 903, “Automatic Fire Sprinkler Systems,” of Chapter 9, “Fire Protection Systems is and amended as follows:

903.1 General. Automatic fire sprinkler systems shall comply with this section.

903.1.1 Alternative Protection. Alternative automatic fire-extinguishing systems complying with section 904 shall be permitted when recognized by the applicable standard and approved by the Building Official.

b. Subsection 903.2, “Where Required,” of Section 903, "Automatic Sprinkler Systems," is amended as follows:

903.2 Where required. Approved automatic sprinkler systems in new and existing buildings and structures shall be provided in the use groups described in Table 903.2.

TABLE 903.2

REQUIRED FIRE PROTECTION SYSTEMS BY USE GROUP

Automatic Fire Suppression Systems Use Group	
A, E, H	All
I, R	All
B, F, M, S, U	Over 2000 s/f
Note: In addition to the above table, other uses or conditions identified by this Code may require the installation of additional fire protection systems.	

Exception:

1. One and two-family dwellings.

2. Day-care homes which receive no more than 8 children under the age of 12 (including the provider's own children) and which do not have any outside employees shall not be required to have fire sprinklers.

c. Subsection 907.2, "Where Required – New Buildings and Structures," of Section 907, "Fire Alarm and Detection Systems," is amended as follows:

907.2 Where required – buildings and structures. An approved automatic fire alarm system installed in accordance with the provisions of this Code, Table 907.2, and NFPA 72 shall be provided in buildings and structures in accordance with Sections 907.2.1 through 907.2.23 and provide occupant notification in accordance with Section 907.6, unless other requirements are provided by another section of this Code.

A minimum of one manual fire alarm box shall be provided in an approved location to initiate a fire alarm signal for fire alarm systems employing automatic smoke detectors, fire detectors or water-flow detection devices.

TABLE 907.2

Fire Alarm Systems Use Group	
A, E, H	All
I, R	All
B, F, M, S, U	Over 1000 s/f
Note: In addition to the above table, other uses or conditions identified by this Code may require the installation of additional fire protection systems.	

Exception:

1. One and two-family dwellings.

2. Day-care homes which receive no more than 8 children under the age of 12 (including the provider's own children) and which do not have any outside employees shall not be required to have monitored fire alarm system.

6. Chapter 34, "Existing Structures," is added as follows:

SECTION 3401
HISTORICAL STRUCTURE

a. Section 3401, "Historical Structure," is added as follows:

HISTORICAL STRUCTURE. Structures located within the unincorporated areas of DuPage County will be considered to be of historical/architectural importance if they meet the following criteria:

A structure is listed on the National Register of Historical Places, or

A structure is listed on the Illinois Register of Historic Places, or

A structure is at least fifty (50) years old and meets one of the following criteria:

a. Unique Architecture.

To be considered architecturally unique, a structure must meet at least one of the following characteristics:

Physical features or traits that are fully integrated with the lines and massing of the overall style of the structure. (Add-on features that are not in keeping with the overall style will not make a structure architecturally important.)

It is specimen of its type or period of construction. Such a structure must be a major building of its type. (A structure is not architecturally important only if it is the only building of a type or style.)

It is the work of a master. A master is a figure of generally recognized greatness in a field, a known craftsman of consummate skill.

b. Historic Event

A structure must be associated with an historic event or trend, and then it must retain historic integrity. The property's association with the event must itself be considered important as well. (Mere association with historic

events or trends, in and of itself, does not qualify a structure as historically important.)

c. Persons with Historical Contribution

A structure must be associated with individuals who have made an important contribution to history. This association must be documented and demonstrably important in the local, state or national context.

SECTION 3402
CONVERSION TO CONDOMINIUM

a. Section 3402, “Conversion to Condominium,” is added as follows:

3402.1 “Requirements for Conversions To Condominium.” In the case of the conversion of an apartment building into condominium units, the County shall have the right to inspect the apartment building prior to the conversion to condominium units and require that each proposed condominium unit, as well as all common areas, comply with the current life safety, building and zoning codes and ordinances of DuPage County.

Life safety features shall include but are not limited to the installation of, or improvements to, the following:

1. Fire sprinkler system
2. Fire alarm system
3. Environmental barriers and accessibility
4. Exiting
5. Means of egress lighting

3402.2 “Conversion to Condominium.” A property which contains structures, excepting those newly constructed and intended for condominium ownership, which are, or have previously been, wholly or partially occupied before recording of condominium instruments by persons other than those who have contracted for the purchase of condominiums.

ARTICLE VIII. INTERNATIONAL MECHANICAL CODE 2021

8-800: ADOPTION BY REFERENCE:

There is hereby adopted by reference, as if fully set out herein, that certain code known as The International Mechanical Code 2021 edition, together with the following additions, insertions, deletions and amendments hereinafter set forth.

1. Chapter 1, “Administration," is deleted in its entirety.

2. Chapter 2, "Definitions," is amended as follows:

a. Subsection 201.5, “Conflicting Definitions,” of Section 201, "General," is added to read as follows:

201.5 Conflicting Definitions. In the event any definitions(s) listed in Section 201 conflict with any definition(s) in any other DuPage County Code or Ordinance, such definition(s) shall have the meanings ascribed to them as in those Codes or Ordinances.

3. Chapter 9, “Specific Appliances, Fireplaces and Solid Fuel-Burning Equipment,” is added to read as follows:

a. Section 929, “Outdoor Wood-Burning Furnaces,” of Chapter 9, “Specific Appliances, Fireplaces and Solid Fuel-Burning Equipment,” is added to read as follows:

Section 929

Outdoor Wood-Burning Furnaces

929.1 General. Outdoor Wood-burning Furnaces shall be listed, labeled and installed in accordance with the manufacturers’ instructions and with the conditions of the product listing. Factory-built wood-burning furnaces shall be tested in accordance with ANSI/UL 391, “Solid-Fuel and Combination-Fuel Central and Supplementary Furnaces.”

929.2 Smoke Dispersion. To ensure proper smoke dispersion the following chimney heights shall apply:

1. If located fifty feet (50’) or less to any residence not served by the furnace, the stack shall be at least two feet (2’) higher than the eave line of that residence.

2. If located more than fifty feet (50’) but no more than one hundred feet (100’) to any residence, the stack shall be at least seventy-five percent (75%) of the height of the eave line of that residence, plus an additional two feet (2’).

3. If located more than one hundred feet (100’) but no more than one hundred fifty feet (150’) to and residence, the stack shall be at least fifty percent (50%) of the height of the eave line of that residence, plus an additional two feet (2’).

4. If located more than one hundred fifty feet (150’) but no more than two hundred feet (200’) to any residence, the stack shall be at least twenty-five percent (25%) of the height of the eave line of that residence, plus an additional two feet (2’).

929.3 Smoke produced by an outdoor wood-burning furnace shall not pose a nuisance to nearby residences when the furnace is installed on a lot located in a densely wooded area or area of uneven terrain.

929.4 Wood fuels. Wood fuels consumed in wood burning outdoor fireplaces shall support complete combustion. The burning of wood products that produce excess smoke due to high moisture content shall be prohibited.

929.5 Burning improper fuels. Only fuels approved by the manufacturer shall be used. The burning of trash, household garbage, paper, plastics, yard waste and flammable liquids is prohibited.

ARTICLE IX. INTERNATIONAL PROPERTY MAINTENANCE CODE 2021

8-900: ADOPTION BY REFERENCE:

There is hereby adopted by reference, as in fully set out herein, that certain code known as The International Property Maintenance Code 2021 edition, is hereby adopted and incorporated by reference as sponsored and published by the International Code Council, Inc., together with the following additions, insertions, deletions and amendments hereinafter set forth.

1. Chapter 1, "Administration," is deleted in its entirety.

2. Chapter 2, “Definitions,” is amended as follows:

a. Section 201, "General," of Chapter 2, “Definitions,” is amended as follows:

201.6 Conflicting definitions. In the event any definition(s) listed in Section 201, "General," conflict with any other definitions(s) in any other DuPage County Code or Ordinance, such definition(s) shall have the meanings ascribed to them as in those Codes or Ordinances.

b. Section 202, "General Definitions," of Chapter 2, “Definitions,” is amended as follows:

Graffiti. In addition to its usual and customary meaning of defacing walls or structures with messages or slogans, "graffiti" shall also mean any letter, numeral, figure, emblem, insignia, picture, outline, character, spectacle, delineation, announcement, word, phrase, diagram, symbol, sketch, inscription or representation wherein the contents thereof are visible to any member of the general public and which contains references to sexual activity, diagrams relating to sexual activity or sexual organs, references to criminal activities or groups which promote or are involved in criminal activity, swearing or fighting words, defamatory materials about any person, references to relationships or any marking of any kind whatsoever which results in damage to, defacing of, marring of, or

discoloring of any sidewalk, vehicle, equipment, lamp, lamp post or the interior/exterior surface of a wall, fence, door, building or other structure.

3. Chapter 3. “General Requirements,” is amended as follows:

a. Section 301 "General,” of Chapter 3, “General Requirements,” is amended as follows:

301.4 Structure unfit for human occupancy. A structure is unfit for human occupancy whenever the Building Official finds that such structure is unsafe, unlawful or, because of the degree to which the structure is in disrepair or lacks maintenance, is unsanitary, vermin or rat infested, contains filth and contamination, or lacks ventilation, illumination, sanitary or heating facilities or other essential equipment required by this code, or because the location of the structure constitutes a fire hazard to the occupants of the structure or to the public.

301.5 Closing of vacant structures. If a structure is vacant and deemed unfit for human habitation and occupancy, and is not in danger of collapse, the Building Official is authorized to issue a Violation Notice on the premises and order the structure closed up so as not to be an attractive nuisance.

b. Subsection 302.4, "Weeds," and 302.8, “Motor Vehicles,” of Section 302 “Exterior Property Areas,” are deleted in their entirety.

c. Subsection 304.14, "Insect Screens," of Section 304, "Exterior Structure," is amended as follows:

304.14 Insect Screens. (Insert: May 1 to November 1.)

d. Subsection 306.1.1, “Unsafe Conditions,” of Section 306, “Component Serviceability,” is amended as follows:

306.1.1 Unsafe Conditions. Where any of the following conditions cause the component or system to be beyond its limit state, the component or system shall be determined as unsafe and shall be repaired or replaced to comply with the DuPage County Building Code. (Remainder of subsection 306.1.1 to remain as original.)

e. Section 310, "Public Nuisances," of Chapter 3, “General Requirements,” is amended as follows:

310 .0 Public nuisances. Public nuisance means a building or structure that is a menace to the public health, welfare, or safety; that is structurally unsafe, unsanitary, or not provided with adequate safe egress; that constitutes a fire hazard, is otherwise dangerous to human life, or is otherwise no longer fit and habitable; or that, in relation to its existing use, constitutes a hazard to the public health, welfare, or safety by reason of inadequate maintenance, dilapidation, obsolescence, or abandonment; or that is at risk of collapse, or is partially collapsed.

4. Chapter 5, “Plumbing Facilities and Fixture Requirements,” is amended as follows:

a. Subsection 502.5, “Public Toilet Facilities,” of Section 502, “Required Facilities,” is amended as follows:

502.5 Public Toilet Facilities. Public toilet facilities shall be maintained in a safe sanitary and working condition in accordance with the Illinois State Plumbing Code as amended by DuPage County. Except for periodic maintenance or cleaning, public access and use shall be provided to the toilet facilities at all times during occupancy of the premises.

b. Subsection 503.3, "Location of Employee Toilet Rooms," of Section, “503, “Toilet Rooms,” is deleted in its entirety.

5. Chapter 6, “Mechanical and Electrical Requirements,” is amended as follows:

a. Subsection 602.2 “Residential Occupancies,” of Section 602, “Heating Facilities,” is amended as follows:

602.2 Residential Occupancies. Dwellings shall be provided with heating facilities capable of maintaining a room temperature of sixty-eight (68) degrees (twenty (20) degrees C) in all habitable rooms, bathrooms and toilet rooms. Cooking appliances shall not be used, nor shall portable unvented fuel-burning space heaters be used, as a means to provide required heating.

b. Subsection 602.3, "Heat Supply," of Section 602, "Heating Facilities," is amended as follows:

602.3 Heat Supply. Insert: September 1 to May 1.

Exception: When the outdoor temperature is below the winter outdoor design temperature for the locality, maintenance of the minimum room temperature shall not be required provided that the heating system is operating at its full design capacity.

c. Subsection 602.4, "Occupiable Workspaces," of Section 602, “Heating Facilities,” is amended as follows:

602.4 Occupiable Workspaces. Insert: September 1 to May 1.

6. Chapter 7, "Fire Safety Requirements,” is amended as follows:

a. Subsection 702.5, "Emergency Escape and Rescue Openings," of Section 702, "Means of Egress," is added to read as follows:

702.5 Emergency escape. Every sleeping room, occupied room or habitable space located in a basement shall have at least one (1) openable window or exterior door approved for emergency egress or rescue; or shall have access to not less than two approved independent exits.

7. Chapter 8, "Referenced Standards," is amended as follows:

Delete any references to the International Existing Building Code, International Plumbing Code, International Residential Code, International Zoning Code and insert in lieu thereof: DuPage County Building Code.

8. Appendix A, “Boarding Standard,” is adopted in its entirety.

ARTICLE X. INTERNATIONAL FUEL GAS CODE 2021

8-1000: ADOPTION BY REFERENCE:

There is hereby adopted by reference, as if fully set out herein, that certain code known as The International Fuel Gas Code 2021 edition, as sponsored and published by the International Code Council, Inc., together with the following additions, insertions, deletions and amendments hereinafter set forth.

1. Chapter 1, "Administration," is deleted in its entirety.

2. Chapter 2, “Definitions,” is amended as follows:

a. Section 201, “General,” of Chapter 2, “Definitions,” is amended as follows:

201.5 Conflicting Definitions. In the event any definition(s) listed in Section 201 conflict with any definition(s) in any other DuPage County Code or Ordinance, such definition(s) shall have the meanings ascribed to them in those Codes or Ordinances.

ARTICLE XI. INTERNATIONAL FIRE CODE 2021

8-1100: ADOPTION BY REFERENCE:

There is adopted, as fully set out herein, those certain codes known as the International Fire Code 2021 edition, as sponsored and published by the International Code Council, with the following additions, insertions, deletions and amendments hereinafter set forth.

International Fire Code 2021 Edition

1. Chapter 1, "Administration," is deleted in its entirety.

2. Chapter 4, “Emergency Planning and Preparedness,” is amended as follows:

a. Section 408, “Automated External Defibrillators,” of Chapter 4,” Emergency Planning And Preparedness,” is added to read as follows:

SECTION 408
AUTOMATED EXTERNAL DEFIBRILLATORS (AED's)

408.1 General. The provisions of this section shall govern the requirements for AEDs in new and existing commercial occupancies.

408.2 Where Required. An operational AED shall be installed in the following occupancies.

1. Where required by Illinois State Statute or other Authority Having Jurisdiction (AHJ).
2. Use Groups (A, E, I)
3. Use Groups (B, F, H, M) with an occupant load greater than 100 persons.
4. Use Group (R)

Exception: "R" use group structures classified as a single-family residence and not regulated elsewhere in this Code.

408.3 Compliance Required. It shall be the responsibility of the business owner to comply with Illinois Compiled Statues Chapter 410 ILCS 4/and the provisions of this code.

408.4 Location of Devices. Device shall be located in the following areas.

1. At least one operational AED shall be provided in a location accessible to the general public.
2. Travel distance to an operational AED shall not exceed 200 feet in any direction.

408.5 Device Security. AED devices shall be housed in a protected cabinet equipped with a local Audio/Visual (A/V) device that will activate upon opening of the AED cabinet.

408.6 Signage Required. Signage as approved by the Building Official shall be provided in the vicinity of the main entrance to notify occupants that an AED is located on sight. Additional signage shall also be required in the immediate vicinity of any and all additional devices.

4. Chapter 9, "Fire Protection Systems," is amended as follows:

a. Section 903, Automatic Fire Sprinkler Systems," of Chapter 9, "Fire Protection Systems," is amended to read as follows:

903.1 General. Automatic fire sprinkler systems shall comply with this section.

903.1.1 Alternative Protection. Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted when recognized by the applicable standard and approved by the Building Official.

903.2 Where required. Approved automatic sprinkler systems in buildings and structures shall be provided in the locations described in Table 903.2 of the International Building Code and Table 903.2 of the International Fire Code.

TABLE 903.2

REQUIRED FIRE PROTECTION SYSTEMS BY USE GROUP

Automatic Fire Suppression Systems Use Group	
A, E, H	All
I, R	All
B, F, M, S, U	Over 2000 s/f
Note: In addition to the above table, other uses or conditions identified by this Code may require the installation of additional fire protection systems.	

Exceptions:

1. Detached single-family homes in "R" use group must supply a letter from the local fire department/fire district, prior to issuance of any new residential home or addition permit, indicating compliance with their local fire codes or ordinances.

2. Day-care homes which receive no more than 8 children under the age of 12 (including the provider's own children) and which do not have any outside employees shall not be required to have fire sprinklers.

c. Subsection 907.2, "Where Required – New Buildings And Structures," is amended as follows:

907.2 Where required – buildings and structures. An approved automatic fire alarm system installed in accordance with the provisions of this code, Table 907.2, and NFPA 72 shall be provided in buildings and structures in accordance with Sections 907.2.1 through 907.2.23 and provide occupant notification in accordance with Section 907.6, unless other requirements are provided by another section of this code.

A minimum of one manual fire alarm box shall be provided in an approved location to initiate a fire alarm signal for fire alarm systems employing automatic smoke detectors, fire detectors or water-flow detection devices.

TABLE 907.2
REQUIRED FIRE ALARM SYSTEMS BY USE GROUP

Fire Alarm Systems Use Group	
A, E, H	All
I, R	All
B, F, M, S, U	Over 1000 s/f
Note: In addition to the above table, other uses or conditions identified by this Code may require the installation of additional fire protection systems.	

Exception: One and two-family dwellings.

ARTICLE XII. INTERNATIONAL EXISTING STRUCTURES CODE 2021

8-1200: ADOPTION BY REFERENCE:

There is hereby adopted by reference, as if fully set out herein, that certain code known as The International Existing Structures Code 2021 edition, together with the following additions, insertions, deletions, and amendments hereinafter set forth.

1. Chapter 1, "Administration," is deleted in its entirety.

ARTICLE XIII. INTERNATIONAL SWIMMING POOL AND SPA CODE 2021

8-1300: ADOPTION BY REFERENCE:

There is hereby adopted by reference, as if fully set out herein, that certain code known as The International Swimming Pool and Spa Code 2021 edition, together with the following additions, insertions, deletions and amendments hereinafter set forth.

1. Chapter 1, "Administration," is deleted in its entirety

APPENDIX A. BUILDING MATERIALS STANDARDS

Compliance with the standards and publications as listed in the currently adopted edition of the International Building Code, as amended, shall serve as a guide in determining the acceptability and use of materials wherever in the rules and regulations, appendix A, is referred to, provided the standards are not in conflict with specific requirements of this Building Code.

END

Enacted Ordinance 1948; Amended Ordinance B-001-85, May 28, 1985.
Amended OBL-001-89, July 11, 1989.
Amended OBD-001-92, November 24, 1992.
Amended OBD-001-97, July 8, 1997.
Amended OBD-001-98, March 23, 1998
Amended ODSB-01-00, February 22, 2000
Amended ODCB-01-02, January 22, 2002
Amended ODCB-01-04, February 24, 2004
Amended ODCB-01-05, October 25, 2005
Amended ODBC-01-06, November 28, 2006
Amended ODCB-0001-07, November 13, 2007
Amended ODCB-0001-08, August 12, 2008
Amended ODCB-0001-09, August 25, 2009
Amended DC-O-0030-15, August 11, 2015
Amended DC-O-0041-16, October 25, 2016
Amended DC-O-0018-17, May 23, 2017
Amended DC-O-0068-18, October 9, 2018
Amended DC-O-0099-21, October 26, 2021
Amended DC-O-0062-23, November 14, 2023