General Enactments
of the
County

Amended, January 22, 2002
Effective March 15, 2002

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BUILDING CODE

Unlike the other codification Section Numbers, the Building Code is numbered on a hundred section number basis. An eight (8) has been added to each section of the Building Code to denote “Chapter 08”. In addition, each section is divided into a subsection which is numbered on a decimal basis (i.e. 8-100.1, 8-100.2, etc.). The hundred series has been established by the Building Division of the Department of Development and Environmental Concerns and is preserved in the DuPage County Code.
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ARTICLE I. BUILDING CODE

SECTION 8-100. SCOPE

8-100.1. Title.

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

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 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. Application of References.

Unless otherwise specifically provided in this Code, all references to article or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such article, section or provision of this Code.

8-100.5. Code Remedial.

This Code shall be construed to secure its expressed intent, which is to insure 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.

SECTION 8-101. APPLICABILITY


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

8-101.2. 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 hereinafter provided for:
1. Ordinary repairs and maintenance.

2. Reroofing and/or residing where the installation of the new roofing and/or siding is over existing roofing and/or siding.

3. Raising, lowering or moving a building or structure as a unit necessitated by a change in legal grade or widening of a street, provided that the building or structure is not otherwise altered or its use or occupancy changed.

4. Buildings and structures used for, or intended for use for agricultural purposes on tracts of land with an agricultural use.

5. 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 §8-117.4.

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.

SECTION 8-102. VALIDITY

8-102.2. 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.


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.
SECTION 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.

Alterations or repairs may be made to any structure without requiring the existing structure to comply with all the requirements of this Code, provided such work conforms to that required of a new structure. Alterations or repairs shall not cause an existing structure to become unsafe or adversely affect the performance of the building.

Alterations or repairs to an existing structure which are nonstructural and do not adversely affect any structural member of any part of the structure having a required fire-resistance rating may be made with the same materials of which the structure is constructed.

In the event a building or structure is altered beyond twenty-five percent (25%) of its present physical value, the Building Official may require that the entire building or portions thereof be brought into compliance with all present applicable codes.

8-103.4. Increase in Size.

If the structure is increased in floor area or number of stories, the entire 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: single family dwellings.)

SECTION 8-104. RESERVED

SECTION 8-105. RESERVED

SECTION 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. (See §8-112.18.)
SECTION 8-107. APPROVAL

8-107.1. Approval 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. Modifications.

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 application for the permit in the permanent records of the department of building inspection.

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.


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.
SECTION 8-108. PROFESSIONAL ARCHITECTURAL & ENGINEERING SERVICES


Where applications for unusual design or magnitude of construction are filed or where Code reference standards in Appendix A 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. Fee and Costs.

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

SECTION 8-109. ENFORCEMENT


The Building Official shall be the Director of the Department of Development and Environmental Concerns or other such person as the County Board may designate by resolution or ordinance. The Building Official shall administer and enforce the provisions of this Code. The Building Official may employ such 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 department of building inspection, 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 insure 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.


The Building Official and authorized representative 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.


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 the official records so long as the building or structure to which they relate remains in existence unless otherwise provided by other regulations.

SECTION 8-110.  RESERVED

SECTION 8-111.  MAINTENANCE OF UTILITIES

8-111.1.  Maintenance of Utilities.

During the course of 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 property including those which may serve other properties.
SECTION 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, or to commence the construction, addition, alteration, relocation, re-siding, re-roofing, removal or demolition of a building or structure or install equipment for the operation of a building or structure without first filing with the Building Official an application in writing and obtaining a formal permit. The term "structure" shall include but not be limited to swimming, therapeutic and decorative pools, hot tubs, spas and hydromassage bathtubs, whether permanently installed or storable.

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 or portion thereof for which a lawful permit has been heretofore issued or which has been actually begun within 90 days after this Code becomes effective.

8-112.3. Continuation of Permit.

1. Where no work has been started within ninety (90) days after the issuance of a permit, such permit shall be void. A new permit must be obtained before any work may begin. The permit must reflect the current provisions of this Code. A fee according to the fee schedule shall be charged for the new permit.

2. Where work has been started and no request for a required inspection has been recorded within ninety (90) days, such permit shall be void. A new permit will be required before work may be resumed. Fees according to the fee schedule shall be charged for the new permit.

3. 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 fee schedule shall be charged when such a transfer is effected.

4. 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.

8-112.4. Recorded Property.

At the time of applying for a permit for the erection of, alteration of, installation of, addition to, change of occupancy or occupants, or moving of any building or structure, the applicant shall submit to the Building Official a 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, 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 Ordinance.

8-112.4.1. Required Scales.

Plats of Surveys submitted shall be one of the following scales: one inch = ten feet (1" = 10'); one inch = twenty feet (1" = 20'); one inch = thirty feet (1" = 30').
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 describe briefly 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 agent thereof except as otherwise provided for in Subsection 4.

2. If Application is made by a person other than the owner it shall be accompanied by a notarized authorization form, provided by the County, signed by both the owner and agent. The Building Official may accept, in lieu of the County authorization form, the written authorization of the owner provided however that such authorization shall be substantially in the following form:

The undersigned states that (he), (she), (we), (is), (are), the owner(s) of the following described property:

(legal description)

and that (he), (she), (we), authorize(s)

(name of agent)

to sign the application for a building and use permit to

(description of work)

Signature of Owner  Notary Public

Signature of Agent
3. If the owner is a corporation, the application for the building and use permit must be signed in the name of the corporation, by an officer of the corporation authorized to sign such application or form.

4. The Building Official may waive the required owner authorization form whenever the proposed work is to a building or structure comprised of three or more individually owned units and that the owners of such units are members of an owners' association responsible for the work sought to be permitted. In such cases, the Building Official may accept, in lieu of owner authorization forms, an affidavit executed by an authorized officer of the owners' association stating that the association is authorized by the owners to make application for the proposed work pursuant to an agreement between owners and association and that the owners have delegated responsibility for performing the proposed work to the association.

8-112.9. Information Required.

Three complete sets of plans, drawings, specifications and calculations meeting the architectural, mechanical, structural and electrical 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.

Exception: Two sets of working drawings drawn to scale and in sufficient detail to describe the character of the work proposed are required for single-family residential buildings or their additions or accessory structures. Accessory structures one hundred twenty (120) square feet or less shall not need drawings.

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.

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. **Construction Plans.**

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. The permit shall be posted on the site.

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 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 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 and the restoration of established grades.

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, 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 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 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.


1. No permit shall be issued for work in an easement area until satisfactory proof has been submitted that all affected easement holders have authorized and/or approved the proposed work.

2. No permit shall be issued for work in a public utility easement area until satisfactory proof has been submitted in accordance with 8-112.19 (or 8-113.6) and the application has been reviewed and approved.

SECTION 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.
SECTION 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 §8-114.3.1 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 type of construction.

8-114.3.1. Fee Schedule.

A fee for each plan examination, building permit and inspections 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 by law.

8-114.5. Refunds.

In the case of a revocation of a permit or abandonment or discontinuance of a building project, the portion of the work actually completed shall be computed and any excess fee for the incomplete work shall be returned to the permit holder upon written request. 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. The DuPage County Development Committee of the County Board shall consider all such requests and may grant a fee reduction or waiver in whole or in part.
SECTION 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 fifty ($50.00) dollar reinspection fee may be charged. No further inspections shall be made until such time as the reinspection 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.

   c. **Backfill:** Before backfilling and after footing drain tile and gravel has 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.

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

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

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

   g. **Framing:** Before any insulation, vapor barrier, or wall finish is applied and after the framing is completed.

   h. **Plumbing:** Before any insulation, vapor barrier, or wall finish is applied and after the rough plumbing is completed.

   i. **Electrical:** Before any insulation, vapor barriers, or wall finish is applied and after the rough electric is completed.
j. **Electrical Service:** At the time the electrical service is to be energized or reenergized.

k. **Insulation:** Before any interior wall finish is applied and after insulation and vapor barriers are completed.

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

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

n. **Grading:** After property has been graded in compliance with approved grading plans. After grading is achieved and prior to requesting a final grading inspection, a record grading plan prepared and sealed by a Registered Land Surveyor or Illinois Professional Engineer shall be submitted for approval.

o. **Plumbing Final:** After all plumbing is completed.

p. **Final Inspection:** After all work is completed.

3. Inspections shall be arranged on regular workdays between 3:00 p.m. and 4:30 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 §8-115.2.3, 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 §8-119., 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.

**SECTION 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.

**SECTION 8-117. VIOLATIONS**

8-117.1. **Unlawful Acts.**

It shall be unlawful for any person, firm, or corporation to erect, construct, alter, extend, repair, remove, relocate, demolish, use or occupy any building or structure or equipment regulated by this Code, or cause same to be done, in conflict with or in violation of any of the provisions of this Code.

8-117.2. **Notice of Violation.**

The Building Official shall serve a notice of violation or order on the subject property or the person responsible for the erection, construction, alteration, extension, repair, removal, relocation, demolition, use or occupancy of a building or structure in violation of the provisions of this Code, or in violation of a detail statement or a plan approved thereunder, or in violation of a permit or certificate issued under the provisions of this Code. Such notice or order shall direct the discontinuance of the illegal action or condition and the abatement of the violation.

8-117.3. **Prosecution of Violation.**

If the notice of violation is not complied with, within the time period specified by the Building Official, the Building Official may request the legal counsel of the jurisdiction to institute the appropriate proceeding at law or in equity to restrain, correct, or abate such violation or to require the removal or termination of the unlawful use of the building or structure in violation of the provisions of this Code or of the order or direction made pursuant thereto.

8-117.4. **Violation Penalties.**

Any person who shall violate a provision of this Code, or shall fail 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 fifty dollars ($50.00) nor more than five hundred dollars ($500.00). 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.

The imposition of the penalties herein prescribed shall not preclude the legal officer of the jurisdiction 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.

SECTION 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 fifty dollars ($50.00) or more than five hundred dollars ($500.00).

SECTION 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 permit 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 within ten days after written application. 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.

SECTION 8-120. UNSAFE STRUCTURES.

8-120.1. Unsafe Structures or Buildings.

All buildings or structures that are or hereafter become unsafe, 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 give to 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 in excess of fifty percent (50%) of its replacement value, exclusive of foundations, 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. Costs 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.

SECTION 8-121. EMERGENCY MEASURES.

8-121.1. Vacating Structures.

When, in the opinion of the Building Official, there is actual and immediate danger of failure or 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 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 a 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. Closing Streets.

When necessary for the public safety, the Building Official may temporarily close sidewalks, streets, buildings and 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.  Cost 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.

SECTION 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 §8-108 of this Code, and who shall be responsible for its erection in accordance with the Building Code and the Approved Plans and Specifications.

SECTION 8-123. RESERVED

SECTION 8-124. APPEAL OF BUILDING OFFICIAL'S DECISION.


Any person aggrieved by the decisions of the Building Official may appeal this decision in the following manner. Application for appeal may be made when the aggrieved party feels that the intent of the Code has been met or that the rule adopted has been incorrectly interpreted or that substitute construction and protective assemblies and systems will provide as good as or better structure or building when completed.

8-124.2.  Procedure.

1. 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.

2. 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.

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

SECTION 8-125. OFF SITE CONSTRUCTION

8-125.1.  Requirements.

Off-site construction of components, sections, modules, 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.

SECTION 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, and plastics.

SECTION 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:

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

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

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

4. The masculine gender includes the feminine and neuter.
5. 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.

**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 firewalls.

**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.

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

**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.

**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 other 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.
**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 the Code.

**Dwelling Unit, Multiple Family:** A dwelling unit which has another dwelling unit or any other occupancy located above or below it in whole or in part and not properly separated by fire-resistive walls 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.

**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 pre-existing 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.

**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 spaces.

**Landscape Bond:** A cash bond deposit or irrevocable letter of credit in the form acceptable to the County of DuPage to be provided to insure that landscaping will be completed in the event the applicant does not complete or replace guaranteed plants within the time allowed by the bond. Surety or performance type bonds are not acceptable.

**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.

**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 areas 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 in 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 or 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 buildings.

Plant Average Functional Size: The mature height and spread typical of a category of plants, such as low shrubs, evergreen trees, 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.

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

Required: Shall be construed to be mandatory by provisions of this Code.

Roof Covering: The covering applied to the roof for weather resistance, fire-resistance or appearance.

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

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

Shrub, Tall: Any shrub which maintains a mature height of five (5) feet or more when left unpruned.
**Stormwater Basin:** A man-made pond or impoundment designed to detain, store and release stormwater.

a. A Dry Basin is designed to release all stormwater.

b. A Wetland Basin is designed to retain less than three feet of water or maintain saturated soils on the bottom, which are suitable for wetland plants.

c. A Wet Basin or Pond is designed to maintain surface water areas of three 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.

**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 Sec. 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.

**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 incidental to construction, alteration or demolition shall be deemed a structure within the meaning of §8-120.

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**SECTION 8-128. GRADE REGULATIONS.**

8-128.1. **General Requirements**

1. Sump pump and gutter discharges:
   a. Discharge onto grassed areas of sufficient length to allow dissipation before discharge exits site, a minimum of three feet (3’) from any property line.
   b. May be tied to storm sewers if sewer drains to a stormwater detention facility serving the subdivision.

2. Sediment and erosion control plan requirements:
   a. Sedimentation controls for all existing and proposed stormwater structures.
   b. Erosion control measures designed to protect adjacent properties and public rights-of-way. Such measures to be installed before ground break.
c. Erosion control measures designed to protect ditches, swales, and other sloped areas where stormwater velocity can cause erosion.
d. Sediment and erosion control provisions for earth stockpiles.

3. All lots proposing new principal buildings or structures shall meet all requirements of the Department of Development and Environmental Concerns and the DuPage County Countywide Stormwater and Flood Plain Ordinance.

4. All required erosion control measures specified on grading plans are to be installed and maintained in accordance with Procedures and Standards for Urban Soil Erosion and Sedimentation Control in Illinois (Green Book).

5. Surfaces of stripped areas shall be permanently or temporarily 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.

6. No occupancy permit or other indication of approval of new construction by the Building Official shall be issued for any premises, which violate the provisions of this section or the regulations thereunder. The Building Official may require such further plats, plans or other documentation as deemed necessary to determine compliance with this section.

8-128.2. Minimum Plan Requirements

The following specifies the minimum plan requirements required for site improvement plans submitted for single family homes or other developments requiring grading and sediment/erosion control plans. Site development that requires stormwater detention facilities, impacts flood plain, or impacts or is within 100 feet of wetlands will require additional submittal information as found in the DuPage County Countywide Stormwater and Flood Plain Ordinance.

Minimum Plan Requirements:

1. Title block that includes the project name, sheet number, date of preparation, and latest revision date.
2. North arrow.
3. Graph or bar scale.
4. Legal description.
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 County (NGVD) datum. For sites located in flood hazard areas, tie benchmark to the F.I.R.M. datum.
9. Existing and proposed contour lines at one (1’) foot interval tied to the benchmark.
10. Finished grades at least 0.5 feet below top of foundation.
11. Side and rear lot line swales at a minimum 1% slope.
12. Topography of adjacent properties shown 100 feet beyond project site.
13. Maximum earth slopes—4 horizontal to 1 vertical.
14. Spot elevations for break points, swales, and as needed.
15. Proposed top of foundation elevation and top of foundation elevations of existing structures within 100’ of the project site.
16. Drainage arrows along lot lines and wherever else appropriate.
17. Locate proposed sump pump and gutter discharges.
18. Driveway slope 8%.
19. Location of earth stockpiles remaining on site for more than 3 days.
20. Sediment and erosion control plan designed using the standards of the “Procedures and Standards for Urban Soil Erosion and Sedimentation Control in Illinois” as published by the Urban Committee of the Association of Illinois Soil and Water Conservation Districts.
21. Location of all existing and proposed utility lines.
22. Location of all existing and proposed storm/sewer/water lines within 100’ of the site. Include rim/invert elevations.
23. Indicate pipe size, slope, length, and type of material for all proposed storm lines.

SECTION 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 the 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. These 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 (1) or more transition yards.
   d. All projects having parking lot areas of 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 (3) inches in diameter measured four and one-half (4½) feet 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 the twenty (20) percent yard reduction for parking, circulation or loading.
   h. All projects having parking lots of four (4) or more spaces located less than forty (40) feet from a residential property or street right-of-way line.
   i. All projects having open off-street loading areas located less than forty (40) feet 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 on lots which contain single family residences) that do not have any of the circumstances in Sec 8-129.2 (section 1) above.

3. Existing conditions on developed sites that are not in conformance with the requirements of the DuPage County Zoning Ordinance, Sec. 37-4.19. Landscaping, that are otherwise lawful on August 13, 1991 may be continued as a matter of right. Any lawful expansions of non-conforming uses that involve any of the circumstances in Sec. 8-129.2.(section 1) 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 (1) 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 in-fill 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 non-residential 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 the trees and other prominent vegetation on the site.

   b. The plan shall include the following:

      1) All existing trees of three (3) inches or larger in diameter measured four and one-half (4 ½ ) feet above the ground, their species and condition.

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

      3) All trees of twelve (12) inches or larger in diameter measured at four and one-half (4 ½ ) feet above the ground, on all adjacent properties within twenty five (25) feet of the property line.

2. The Landscape Plan is to be prepared and stamped by a Registered Landscape Architect, Licensed in the State of Illinois, for all non-residential 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 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 200 feet 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 recreation equipment.

9) On sites where trees and other vegetation are to be preserved, the plan 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, including locations noted, trees three (3) inches or larger in diameter measured at four and one-half (4½) feet above the ground, and a list of species.

2) Existing trees of three (3) inches or larger in diameter measured at four and one-half (4½) feet 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 (3) inches 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.


   1) Provide written specifications for planting procedures.

   2) Provide a written landscape management and maintenance plan for the three 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. A Landscape Bond equal to 100 percent of the approved cost estimate shall be placed with the Department of Development & Environmental Concerns to guarantee appropriate installation of landscape materials and protection during construction of trees and other vegetation to be preserved, prior to the issuance of any permits.

5. The applicant shall also be required to sign a Temporary Easement Agreement prior to the issuance of any permits.
6. Upon the receipt of the Landscape Bond the signed Temporary Easement Agreement, and the approval of the tree preservation measures on the site by the County when tree preservation is required, the applicant will have completed the landscape submittal requirements of the Code.

7. 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 (1) year has passed.

8. A Landscape Bond in the amount of 110 per cent of the cost of required native plantings for stormwater basins shall be submitted as a condition of release of the initial landscape bond covering all required landscaping. The bond shall guarantee establishment and maintenance of native plantings for two (2) years from the expiration date of the initial landscape bond.

**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 (3) inches, except for single lot residential development, which shall have a minimum caliper of two and one-half (2 ½) inches as measured six (6) inches 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 (2 ½) inches except for single lot residential development, which shall have a minimum caliper of two (2) inches, as measured six (6) inches 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 (8) feet, except for single lot residential development, which shall have a minimum height of six (6) feet. Trees shall be fully branched to the ground.

6. Columnar evergreens shall have a minimum height of four (4) feet 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 (36) inches 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 non-residential development. Plants shall measure at least eighteen (18) inches in height or spread for residential development and at least twenty-four (24) inches in height or spread for nonresidential development.
9. Groundcover plants shall be planted so that an effective covering is obtained within two (2) growing seasons, or at a maximum spacing of one (1) foot 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 (8) feet; and to a minimum height of twelve (12) feet 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 (2) feet from any curb.
   b. Low shrubs planted in parking lot islands shall be maintained at a height not to exceed three (3) feet, in order to keep sight lines clear.

12. Plantings shall conform with Sec. 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 that 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 a part of an applicant’s approved landscape preservation plan shall be subject to the following requirements:

   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 of equipment or vehicles, dumping of liquids, and direction of construction runoff shall be prohibited within five (5) feet of any existing tree drip line or shrub/ground vegetation line.

   b. A sturdy, continuous, temporary fence of least four (4) feet 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 (5) feet 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 assess 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 Sec.8-129.2. Alternative Compliance.

   b. Replacement Trees shall be located in the areas identified for preservation on the approved landscape plan or as allowed by Sec. 8-129.2. Alternative Compliance.

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 or masses of trees and shrubs shall be alive and in a healthy condition.

      2) Trees three (3) inches to five (5) inches in diameter measured four and one-half (4 ½) feet above the ground shall receive 100 landscape points.
3) Trees six (6) inches to eight (8) inches in diameter measured four and one half above the ground shall receive 135 landscape points.

4) Trees nine (9) to eleven (11) inches in diameter measured four and one-half (4 ½) feet above the ground shall receive 170 landscape points.

5) Trees twelve (12) inches or larger in diameter measured four and one-half (4 ½) feet above the ground shall receive 200 landscape points.

6) Masses of trees under three (3) inches in diameter and shrubs in landscape yards may receive up to 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 and 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 Sec. 8-129.7.

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 that utilizes the fifty (50) percent yard reduction by conditional use abuts a nonresidential district.
   d. A non-single family detached use that utilizes the twenty (20) percent 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 non-residential 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 (50) percent yard reduction by conditional use abuts a residential district.
   d. A non-single family detached use that utilizes the twenty (20) percent 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 (20) percent is utilized for parking, circulation or loading.
   h. Parking lots of four (4) or more spaces are located less than forty (40) feet from a residential property or street right-of-way line.
   i. Open off-street loading areas are located less than forty (40) feet 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 areas 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:

<table>
<thead>
<tr>
<th>Type</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low shrubs</td>
<td>10</td>
</tr>
<tr>
<td>Tall shrubs</td>
<td>15</td>
</tr>
<tr>
<td>Columnar evergreens</td>
<td>25</td>
</tr>
<tr>
<td>Ornamental trees</td>
<td>50</td>
</tr>
<tr>
<td>Evergreen trees</td>
<td>100</td>
</tr>
<tr>
<td>Shade trees</td>
<td>100</td>
</tr>
</tbody>
</table>

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 in order 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 which are six (6) feet in height, where allowed, may contribute up to fifty (50) percent of the required landscape points for a full or partial landscape screen on non-single family residential lots, and up to 100 percent of the required points on single family residential lots.

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

7. Berms.

a. Berms are required in all front and corner side landscaping 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 (50) percent of the total landscape points for that portion of landscape yard. Berm heights of at least two and one-half (2.5) feet will receive credit based on the following:

1) Berm Height in feet \times 10 = \% \text{ of points credited} \ (0.5' \text{ increments})
   EXAMPLE: 100' Long Berm @ 2.5' high \times 10 = 25\% \text{ of points credited for that landscape yard.}

2) Berm Heights of five (5) feet or more shall be credited a maximum of fifty (50) percent 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 lots, all outdoor 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 (6) feet above grade.


The following requirements apply to all parking lot landscaping:

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

2. Interior landscaping shall occupy at least ten (10) percent 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 the Conditional Use Procedure shall provide a minimum of ten (10) percent 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 evenly spaced and distributed throughout the parking area in order to meet the ten (10) percent 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 (10) percent 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 (10) percent landscaping requirements.

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

a. End islands shall be a minimum width of nine (9) feet and minimum length of thirty-six (36) feet (forty-five [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 (9) feet and a minimum length of eighteen (18) feet. 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 (18) feet 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 (9) feet, 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 build-up. 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 (9) foot wide intermediate islands: at least one (1) tree, and groundcover plants and/or turf grass.

b. Eighteen (18) foot corner islands: at least one (1) tree, and groundcover plants and/or turf grass.

c. Nine (9) foot wide center and drive islands at least three (3) trees per 100 linear feet, and groundcover plants and/or turf grass.

d. Nine (9) foot wide half end islands: at least one (1) tree, and groundcover plants and/or turf grass. Provide at least seven (7) shrubs when the islands are not adjacent and are forty (40) feet or more from a landscape yard.

e. Nine (9) foot wide end islands: at least two (2) trees, and groundcover plants and/or turf grass. Provide at least fifteen (15) low shrubs when the island is not adjacent and is forty (40) feet or more from a landscape yard.
f. Nine (9) foot wide end plus center island: at least two (2) trees, and groundcover plants and/or turf grass. Provide at least twenty (20) low shrubs when the island is not adjacent and is forty (40) feet or more from a landscape yard.


1. Applicability. The requirements for native landscaping shall apply to stormwater basins in unincorporated DuPage County:

   a. Native prairie grasses, grass-like species, wildflowers and wetland species shall be planted in and around stormwater basins where practicable. Trees and shrubs may be included in the planting above the high water line.

   b. Stormwater basin planting area shall include:

      1) The bottom and side slopes of dry basins to ten (10) horizontal feet beyond the high water line.

      2) The side slopes of wetland basins, wet basins or ponds from the normal water line to ten (10) feet beyond the high water line.

      3) Permanently submerged or saturated areas providing conditions conducive to growth of wetland species.

   c. Facilities on sites which cannot accommodate minimum stated planting areas for native plantings shall propose plantings according to 8-129.2 Alternative Compliance.

   d. Existing conditions on developed sites that are otherwise lawful on the effective date of Section 8-129 may be continued as a matter of right.

   e. Existing stormwater basins, which are modified to add storage capacity, shall be subject to the native landscaping requirements of this section.


   a. All plants specified, excepting temporary cover crop, shall be native to the North Central Region of the United States.

   b. A minimum of 5 native grasses, which may include rush and sedge species, and 25 native wildflower species, shall be included in the planting area.

   c. Seventy percent (70%) of native non-woody species shall have a mature height of at least 30” to provide sufficient plant height and density for goose control.

   d. Safety ledges in ponds shall be planted with native wetland species.

   e. Cover Crop: Specify non-invasive species compatible with establishment of native plantings.

   f. Native Seed Mixes: Provide name of nursery providing seed mix.

   g. Specify size of plugs or container plants to be used.
h. Trees shall have a minimum size of 6 feet in height. Specify whether trees are in containers, bare root, or balled and burlapped. Trees which will be used to meet perimeter-screening requirements shall meet the minimum plant sizes of Sec. 37-4.19-5.a, paragraphs 3 through 5 of the DuPage County Zoning Ordinance.

i. Shrubs shall have a minimum size of 30 inches in height. Specify whether shrubs are in containers, bare root, or balled and burlapped. Shrubs which will be used to meet perimeter-screening requirements shall meet the minimum plant sizes of Sec. 37-4.19-5.a, paragraphs 6 through 8 of the DuPage County Zoning Ordinance.

j. Specify erosion control measures for seeding and planting.

k. Specify protection measures for plants and tubers to prevent animal predation.

3. Establishment Requirements. Areas to be planted with native species shall conform to the following requirements to insure establishment.

a. Planting areas shall not exceed a 5:1 slope.

b. Where space allows, areas up to one foot above the normal water line shall not exceed an 8:1 slope.

c. Safety ledges in ponds shall be ten feet in width and shall not exceed a 10:1 slope.

d. Planting areas shall have at least twelve inches of clean un-compacted topsoil. Subsoil shall be loosened and topsoil applied to minimize compaction.

e. Cover crop may be planted immediately after grading to prevent erosion if conditions are not conducive for native species seeding. Permanent native species shall be planted during the first available growing season at the appropriate time and conditions for such plantings.

f. Open areas within three (3) feet of adjacent properties with mowed turf grass or existing wood fences shall be planted in turf grass and regularly mowed to serve as a physical separation between native plantings and adjacent properties.

g. Paths within the native landscape area shall be no more than four (4) feet in width and shall not be asphalt or oiled granular materials. Paths may access the shoreline of permanent water areas along no more than a total of 20% of the shoreline length.

h. Trees and shrubs shall not interfere with access easements and access to stormwater basins for maintenance purposes.


a. Inspection of the landscaping will be conducted by the County after installation of all materials and again after at least one (1) year has passed.

b. The County shall inspect the stormwater basin plantings at least twice per year during the two-year term of the Establishment and Maintenance Cash Bond or Letter of Credit, to determine compliance with the minimum annual performance criteria.

c. The County shall be notified upon completion of all maintenance procedures performed in order to schedule inspection of stormwater basin plantings.
d. Plantings shall meet the following minimum annual performance criteria. Areas which do not meet annual establishment standards as determined by the County shall be replanted at developer’s/owner’s expense.

1) First year: 90% of cover crop established. No bare areas greater than two (2) square feet. Invasive species control measures approved in the plan.

2) Second year: Full vegetative cover. At least 50% of vegetation present shall be native non-invasive species. Invasive species control measures approved in the plan.

3) Third year: At least 75% of vegetation present shall be native non-invasive species. Non-native species shall constitute no more than 25% relative aerial coverage of the planted area. Invasive species control measures approved in the plan.

e. Invasive and non-native species, and woody plant species not specified as part of the planting plan, shall be controlled by appropriate management practices of the approved plan. Invasive species shall constitute no more than 25% relative aerial coverage of the planted area and shall be actively controlled. Invasive species for the purposes of this code shall include the following:

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cirsium arvense</td>
<td>Canada Thistle</td>
</tr>
<tr>
<td>Dipsacus laciniatus</td>
<td>Cut-leaved Teasel</td>
</tr>
<tr>
<td>Dipsacus sylvestris</td>
<td>Common Teasel</td>
</tr>
<tr>
<td>Lythrum salicaria</td>
<td>Purple Loosestrife</td>
</tr>
<tr>
<td>Melilotus alba</td>
<td>White Sweet Clover</td>
</tr>
<tr>
<td>Phalaris arundinacea</td>
<td>Reed Canary Grass</td>
</tr>
<tr>
<td>Polygonum cuspidatum</td>
<td>Japanese Knotweed/Mexican Bamboo</td>
</tr>
</tbody>
</table>

f. A compliance report shall be submitted by the owner/developer no less than 60 days prior to the expiration of the landscape Cash Bond or Letter of Credit, certifying that the planting meets the performance criteria and requesting the release of the landscape Case Bond or Letter of Credit. Final acceptance and release shall be determined by the County upon inspection of the site to verify compliance.

g. Should the performance criteria not be met within the allotted time, the County shall require submittal of a remedial action plan for approval and an extension to the landscape Cash Bond or Letter of Credit for a period of at least one year. A revised compliance report with follow-up inspection shall demonstrate compliance with the performance criteria as a condition of release of the landscape Cash Bond or Letter of Credit.

5. Long Term Maintenance. Stormwater basin native plantings shall be maintained according to approved management practices as provided for in subdivision covenants or easements, following final acceptance of the planting by the County.

a. Prescribed burning annually, or at least every three years, is the best management practice for established native prairie plantings. Burning requires a permit from Illinois EPA and notification of the local fire district. Burning shall be performed by a contractor with prior prescribed burn experience.
b. Late fall or early winter mowing to a height of six to twelve inches, with removal of hay, may be performed in alternate years where burning is not practical or conditions are not conducive to burning.

c. Application of herbicide to control invasive species may be necessary if burning does not control or eliminate them. A certified and licensed pesticide applicator shall select herbicide, which is non-toxic to animal and aquatic life, and shall apply the herbicide by the appropriate method, to prevent killing of desirable native species.

8-129.10 Prohibited Plants.

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

1. TREES:

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Common Name</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acer negundo</td>
<td>Box-elder</td>
<td>Weak wood, invasive roots, self-seeds, Box-elder bug</td>
</tr>
<tr>
<td>Acer saccharinum</td>
<td>Silver Maple</td>
<td>Weak wood, invasive roots, self-seeds, disease</td>
</tr>
<tr>
<td>Ailanthus altissima</td>
<td>Tree-of-Heaven</td>
<td>Weak wood, twig litter, self-seeds, invasive roots</td>
</tr>
<tr>
<td>Betula pendula</td>
<td>European Birch</td>
<td>Disease, fatal borer insects</td>
</tr>
<tr>
<td>Catalpa species</td>
<td>Catalpa</td>
<td>Weak wood, leaf &amp; twig litter, Disease, self-seeds</td>
</tr>
<tr>
<td>Eleagnus species</td>
<td>Russian, Autumn Olive</td>
<td>Weak wood, short-lived</td>
</tr>
<tr>
<td>Ginkgo biloba</td>
<td>Ginkgo (female)</td>
<td>Offensive smelling fruit, seeds (Male varieties acceptable)</td>
</tr>
<tr>
<td>Gleditsia triacanthos</td>
<td>Thorny Honeylocust</td>
<td>Large thorns, seed pods (Thornless &amp; seedless varieties acceptable.)</td>
</tr>
<tr>
<td>Juglans species</td>
<td>Butternut, Walnut</td>
<td>Large fruit, difficult to grow plants under</td>
</tr>
<tr>
<td>Maclura pomifera</td>
<td>Osage-orange</td>
<td>Large fruit, thorns</td>
</tr>
<tr>
<td>Morus species</td>
<td>Mulberry</td>
<td>Weak wood, fruit, self-seeds, Invasive</td>
</tr>
<tr>
<td>Malus domestica</td>
<td>Apple</td>
<td>Large fruit, disease, insects</td>
</tr>
<tr>
<td>Populus species</td>
<td>Aspen, Cottonwood</td>
<td>Weak wood, short-lived, litter, Poplar self-seeds, disease</td>
</tr>
</tbody>
</table>
Prunus species Cherry, Peach, Plum Large fruit, disease, insects, short-lived
Pyrus communis Pear Large fruit, disease, insects
Rhamnus frangula Buckthorn Weak wood, fruit, seed spread by birds, invasive
Robinia species Black Locust Weak wood, twig litter, self-seeds, Invasive
Salix species Willow Weak wood, invasive roots, short-lived
Sorbus aucuparia European Mountainash Disease, fatal borer insects
Ulmus americana American Elm Fatal diseases, insects, self-seeds (Disease resistant varieties acceptable.)
Ulmus pumila Siberian Elm Weak wood, disease, insects, self-seeds, invasive

2. SHRUBS & HERBACEOUS PLANTS:

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Common Name</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coronilla varia</td>
<td>Crownvetch</td>
<td>Invasive, intolerant of other plants</td>
</tr>
<tr>
<td>Lonicera japonica</td>
<td>Japanese Honeysuckle</td>
<td>Very Invasive, crowds out native understory plants</td>
</tr>
<tr>
<td>Lythrum salicaria</td>
<td>Purple Loosestrife</td>
<td>Very invasive, replaces native plants in wetlands</td>
</tr>
<tr>
<td>Polygonum cuspidatum*</td>
<td>Japenese Knotweed</td>
<td>Very invasive, replaces native plants in sum</td>
</tr>
<tr>
<td>Rosa multiflora</td>
<td>Multiflora Rose</td>
<td>Very invasive, thorns</td>
</tr>
</tbody>
</table>

*(Also know as Fallopia japonica, False or Mexican Bamboo)*

SECTION 8-130. BUILDING OPERATIONS

1. NIGHT OPERATIONS: No construction or alteration operations shall be carried on prior to 6:00 a.m. or after 10:00 p.m. if the same are accompanied by loud or annoying noises.

2. 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.

3. 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 use in the erection, construction, alteration, or repair of buildings.
a. 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.

b. 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.

SECTION 8-131. BUILDING ADDRESSES

Prior to the issuance of a Certificate of Use and Occupancy or Occupancy Permit, 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.

SECTION 8-132. NOISE STANDARDS

Title 35: Environmental Protection
Subtitle H: Noise
Chapter II: Environmental Protection Agency
Part 951

Measurement procedures for the enforcement of 35 IL Code 900 and 901.

ARTICLE II. MINIMUM PLANNING REQUIREMENTS

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

SECTION 8-200. LIGHT AND VENTILATION

8-200 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 window 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 non-flexible galvanized steel or stainless steel and shall discharge to outside air. An attic or crawl space shall not be considered outside air.

8-200 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 the eight percent (8%) of floor area of room.

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

8-200 C. Borrowed Light and Ventilation Between Rooms.

1. Unless separately lighted and ventilated by windows, which provide the required areas, the floor area of two 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.

8-200 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 area, 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 (1) cfm per square foot.

8-200 E. Open Basements.

Basements with the finished floor greater than three feet six inches (3'6") below grade.

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

8-200 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 (1) 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 ventilating openings is one (1) square foot ventilation for each one hundred fifty (150) square feet of the crawl space area and arranged for cross-ventilation.

8-200 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, the net area of the opening shall be one (1) square foot of vent per one hundred fifty (150) square feet of area of the area of the ceiling below.

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 (1) 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 (1) 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.

8-200 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 shall comply with NFPA No. 54 and the installation of oil burning units shall comply with NFPA No. 31. 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 then 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 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 (1) 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.

8-200 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 §8-107.0).

8-200 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. Doors and enclosures for bathtubs, showers, hot tubs, spas, 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.

Exceptions to Safety Glazing:

a. Leaded, faceted or decorative glass panels.

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

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

SECTION 8-201. SPACE REQUIREMENTS

8-201 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 one room 220
   
   b. Living, only in one 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 thirty (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 one bedroom is provided 144
   
   b. When two or more bedrooms are provided, the major bedroom shall contain 120
   
   c. All other bedrooms 100
3. **Bathroom:**

Size: Adequate for water closet, lavatory and tub or shower. The water closet may be located 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 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 Paragraph (a) and in addition, each such utility room must be of sufficient size so that a clear, unobstructed space of not less than three feet can be maintained in front of the water heater and a separate clear, unobstructed space of not less that three feet can be maintained in front of the furnace. The water heater and furnace must each be not less than three feet 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 §8-201 D. "Space for Heating Units" must also be satisfied.

5. **Hallways:**

Minimum width three feet (3').

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**8-201 B. Additional Habitable Rooms:** See 8-200 B.

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

**8-201 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').

**8-201 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 NFPA standards

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**SECTION 8-202. HABITABLE BASEMENT ROOMS**

Comply with requirements for habitable rooms with respect to privacy, light, ventilation and floor area.
SECTION 8-203. PORCHES, DECKS, TERRACES, AND LANDINGS

Minimum dimensions shall be at least eighteen inches (18") larger that 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 have a minimum width and depth equal to the door it serves.

SECTION 8-204. PRIVACY AND ACCESS

8-204 A. Access.

Egress:

1. Exit Required: Not less than two (2) exits opening directly to outside shall be provided from each dwelling unit.

2. Emergency egress openings: Every sleeping room shall have at least one (1) 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 dimension 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.

a. Attics: Provide access to attics having a clear height of over thirty inches (30") by means of scuttles, minimum eighteen inches by twenty-four inches (18" X 24"), disappearing or built-in stairways. (Attic access in attached garage ceilings must maintain the required one-hour fire-resistive rating.) Scuttles permitted in walk-in closet ceilings, provided scuttle is free from obstructions.

b. Basementless Spaces: Provide access from inside or outside, opening size not less than eighteen inches by twenty-four inches (18" X 24").

c. 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 three feet (3') above floor. Escape windows to be provided with exterior metal window well with twenty-four inch (24") projection from foundation at least as wide as escape window. Provide egress ladder in window well where deemed necessary by the Building Official. (Escape windows may be provided with approved security protection.)

8-204 B. Privacy.

1. Bedroom Privacy.

a. At least two 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.

2. Nonacceptable 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.

SECTION 8-205. CEILING HEIGHTS

8-205 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.

SECTION 8-206. DOORS.

8-206 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”).

8-206 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 wide by six feet eight inches high (2’6” X 6’8”).
   b. Bathrooms: two feet four inches wide by six feet eight inches high (2’4” X 6’8”).
c. Powder rooms: two feet zero inches wide by six feet eight inches high (2’0” X 6’8").

SECTION 8-207. STAIRWAYS

8-207 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. Basement Stairs: Minimum, two feet six inches (2’6”) clear of handrail.

3. Treads: Minimum width, nine inches (9”), clear of tread above.

4. Rise: eight inches (8”) 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. Handrail: Install continuous handrail 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 of handhold while traversing said stairway run. The grasp level shall be not 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.

7. 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 sides of stairways, porches, decks and balconies shall have intermediate rails or ornamental closures which will not allow passage of an object six inches (6”) or more in diameter.

8. 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 eighteenth inches (1 1/18”) thick and stair is more than two feet six inches (2’6”) wide.
9. 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.

SECTION 8-208. FIRE RATED WALLS BETWEEN ATTACHED DWELLING UNITS

Each duplex or town house dwelling unit shall be separated from adjoining dwelling units by a two (2) hour fire-rated wall.

On duplex or town house buildings with roofs or combustible construction parapets are required on fire-rated walls and shall be similar construction to the fire-rated wall and shall extend eighteen inches above the highest point of any roof within ten feet (10’) of the fire-rated wall.

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

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-rated wall.

SECTION 8-209. MINIMUM WIDTH.

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

SECTION 8-210. RESERVED

SECTION 8-211. AUTOMATIC FIRE DETECTION

8-211 A. Smoke Detectors Required.

Smoke detectors shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms 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.

8-211 B. Power Source.

Required smoke detectors shall receive their primary power from the building wiring when such wiring is served from a commercial source. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection.
SECTION 8-212. HEATING REQUIREMENTS

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

2. 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.

ARTICLE III. MINIMUM CONSTRUCTION REQUIREMENTS

SECTION 8-300. GENERAL

8-300 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 evidence satisfactory to him 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 in excess of these requirements. Building Official may require tests in accordance with acceptable standards at expense of owner.

8-300 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 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 pound (40#) live load and a ten pound (10#) 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 pound (20#) live load and a ten pound (10#) dead load.

   c. Roof rafters: Design deflection - L/180, cathedral ceilings - L/240. Design to support at least a thirty pound (30#) live load and a seven pound (7#) dead load when not supporting a ceiling load. When supporting a ceiling load (cathedral), design for at least a thirty pound (30#) live load and a fifteen pound (15#) dead load. Roofs that are subject to snow drift loads shall require more stringent design values.
3. Wind Loads:
   a. On vertical faces: twenty pounds (20#) per square foot horizontally, any direction.
   b. Roof or parts of roofs with slopes greater than thirty degrees (30°): twenty pounds (20#) per square foot design wind load.
   c. Lifting Force: Twenty pounds (20 #) per square foot. To prevent sliding or overturning, anchor roofs to walls and columns, and walls and columns to foundations.

8-300 C. Reserved.

8-300 D. Thermal Insulation and Vapor Barriers.

1. Minimum Insulation Requirements:
   a. 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.
   b. "R"-Values - Thermal Resistance: "R"-value is a measure of the ability of a material or a combination of materials to retard the flow of heat. The higher the "R", the greater the insulating value. All materials having the same "R"-value, regardless of thickness, weight, or appearance, have the same insulating value.
   c. Where Required: All ceilings, roofs, walls and floors that separate heated spaces from unheated spaces shall be insulated to provide the total "R"-values as follows:
      1) "R" - 30; Ceiling, roofs (including cathedral ceilings).
      2) "R" - 13; Walls.
      3) "R" – 13; Floors.
   d. Crawl Spaces: See §8-300 D-1-f. for insulation requirements for unheated crawl spaces. See §8-300 D-1-g. for insulation requirements for heated crawl spaces.
   e. Installation:
      1) Place insulation on the cold side (in winter) of pipes and ducts.
      2) Apply insulation snugly against the framing members.
      3) Butt ends of insulation tightly to each other and framing members.
      4) Avoid "fish mouths" or gaps between stapling flanges and the sides of framing members.
      5) Do not cover recessed lighting fixtures with insulation.
6) Do not cover or block ventilators in ventilated area.

7) Stuff insulation in voids and between framing members and door and window heads, jambs, and sills.

f. 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”). Insulate all heating supply and return ducts and fittings, domestic hot and cold water piping with materials having a minimum "R“-value of seven (7).

g. Heated 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”).

h. Concrete Floor Slabs on Grade: Insulate exterior perimeter of concrete floor slabs in all area designed or intended as habitable spaces. Insulation materials shall be rigid, inorganic, water proof, non-capillary, and approved for the use intended. Insulation shall have a minimum "R"-value of four (4) and shall extend either down the foundation wall vertically or down the wall and horizontally under the slab a total distance of at least twenty-four inches (24”). Provide one half-inch (1/2”) thermal break at perimeter of slab where slab meets exterior foundation.

Where heating ducts are in or below the floor slab, the insulation shall extend down the foundation wall vertically. Provide ground cover vapor barrier with a perm value of 1.0 directly under the floor slab. The vapor barrier shall be below any horizontal perimeter insulation.

i. Exterior Doors:
   1) All exterior doors shall have an R Value not less than 3.33.
   2) Frames, jambs, and thresholds, if other than wood, shall have a thermal barrier.
   3) All wood doors must be fully weather-stripped.

j. Service Door (Between Garage and Occupied Area):
   1) All service doors shall have an R Value not less than 3.33, and must be fully weather-stripped.

k. Patio Doors (Sliding):
   1) Air infiltration not to exceed .50 CFM per square foot of opening.
   2) Glass shall be insulated.
   3) Frames, jambs and thresholds, if other than wood, shall have a thermal barrier.

l. Glass: All glass in habitable area shall be double glazed or insulated. (Single glazed with storm windows will be accepted in place of the double glazed glass.)

m. Unheated Spaces.
1) Hot and cold water lines shall be insulated with a material having an R Value not less than seven (7). All heating and cooling pipe and plenums (supply and/or return) shall be insulated with a material having a R Value not less than seven (7).

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 have 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) Asphalt laminated paper.
   4) Aluminum foil.
   5) 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 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.

SECTION 8-301. EXCAVATION

8-301 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 effect uninterrupted flow.

5. Bottom of footings: Not less that three feet six inches (3’6”) below finished grade, except where placed on solid rock.

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 testings.

8. Protect against freezing. No concrete shall be placed on frozen ground.
8-301 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 four-inch (4") layer of crushed stone or gravel. Semi-crawl spaces may be permitted when approved by the Building Official.

SECTION 8-302. GRADING AND BACKFILL

8-302 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. Do not use debris for backfilling. (See §8-304 D-5.)
4. No frozen material to be used as backfill.

8-302 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. Masonry Unit Walls: Apply one half inch (1/2") thick Portland cement plaster coat forming a cove at the footing, over which apply at least one heavy coat of undiluted hot tar, asphalt or compound acceptable to the Building Official.
   b. Concrete Walls Cast in Place: Apply at least one heavy coat of undiluted hot tar, asphalt or compound acceptable to the Building Official.
   c. Waterproofing compound mixed in concrete acceptable when approved by Building Official.

8-302 C. Grading.
(Also see §8-128.0) 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.

8-302 D. Trees:
Where applicable, street trees shall be installed in accordance with the DuPage County Subdivision Code. (See Chapter 31.)

SECTION 8-303. MASONRY MATERIALS
Masonry materials described below apply to all masonry and concrete work.
8-303 A. Cement.

1. Portland Cement. (See Appendix A.)
2. Prepared masonry cement for mortar. (See Appendix A.)
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. (See Appendix A.)
5. Portland Blast Furnace Slag Cement.

8-303 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. (See Appendix A.)

8-303 C. Water.

Clean and free from harmful material.

8-303 D. Lime.

1. Hydrated lime. (See Appendix A.)
2. Quick lime, slake thoroughly. (See Appendix A.)

8-303 E. Brick.

1. Face Brick: Hard-burned, quality at least equal to Grade B.
2. Common Brick: (See Appendix A.)
   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.)
4. Concrete Brick: (See Appendix A.)

8-303 F. Structural Hollow Clay Tile.

1. Sound, kiln-fired units, free from defects.
2. Load-bearing tile. (See Appendix A.)
3. Non-load bearing tile. (See Appendix A.)

8-303 G. Concrete Masonry Unit.
Sound and thoroughly cured. (See Appendix A.)

8-303 H. Stone.
2. Cast Stone. (See Appendix A.)

8-303 I. Flue Lining.
Glazed fire clay and vitrified tile, free from cracks and other defects.

8-303 J. Glass Block.
(See Appendix A.)

SECTION 8-304. CONCRETE WORK.

8-304 A. General.
Concrete shall reach a minimum compressive strength of 3000 psi within 28 days.

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%), + or - 1%. Air entraining admixtures shall conform to ASTM C 260 86.

8-304 B. Quality of Concrete.
1. Job mix: minimum cement proportions, by volume. One part Portland cement, 2 1/2 parts sand, 3 parts coarse aggregate (3/4” to 1” maximum size).
2. Commercial Ready mix: See Appendix A.
   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 3/4” to 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.

8-304 C. Forms.
1. Double forms required for all basement concrete foundation walls.
2. Side forms required for footings where soil conditions prevent sharp-cut trenches.
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.

8-304 D. Placing.
1. Place continuously unless otherwise allowed by 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.

8-304 E. Curing and Protection.
Concrete shall be protected from drying or freezing and shall be cured in accordance with ASTM C 309-89.

8-304 F. Loading.
Allow sufficient time for strength of concrete to develop before subjecting to loads or traffic.

8-304 G. Reserved.

8-304 H. Footings.
1. General.
   a. Design for proper distribution of superimposed loads.
   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 of average bearing capacity (3,000 lbs. per square foot). For soils of lesser bearing capacity where unusual loading conditions exist, larger footings will be required.

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 by two inch (2” X 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. One story dwellings; minimum thickness, twelve inches (12”); minimum projection each side, four inches (4”).

b. Dwellings over one story: minimum thickness, twelve inches (12”); minimum projection each side, six inches (6”).

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

d. Material: Concrete cast in place.

8-304 I. Footing Drain Tile. (See Appendix A.)

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.

8-304 J. Concrete Foundation Walls Cast in Place.

(For masonry unit foundation walls. See §8-305 B.)
1. General.
   a. Materials. (See §8-303.)
   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 so 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-inch (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 seven inches (7") 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) one half inch (½") round hooked bars four feet (4’) long in main wall, two near top and two near bottom of attached wall. Where new foundation walls adjoin existing foundation walls they shall be attached with a minimum of four (4) one half inch (1/2") round dowel bars at each point of attachment.


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. (See §8-305 C.)

8-304 K. Concrete Floor Slabs on Ground.

1. Construction.
a. Fill Under Slabs: Gravel, sand, screenings, or crushed rock, minimum thickness four inches (4”). Earth underfill thoroughly leveled and free from vegetable matter thoroughly tamped. No floor slab to be place in water or on a soft wet subgrade. Basements must be pumped dry at least twenty-four (24) hours before floor is poured.

b. Wire Mesh Reinforcing: 6” X 6” X #10 required in all slabs used for driveways or garage floors. Overlap joints and tie every four feet.

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.

5. Required Garage Floor 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 §8-311 F.)
   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.

8-304 L. Reserved.

SECTION 8-305. MASONRY WORK

8-305 A. General.


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. Retempering mortar: Mortar that has stiffened on the mortar board due to evaporation should be retempered 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.

   a. Maximum thickness five eights inch (5/8”). Joints for decorative stone work 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.

   a. Walls of solid masonry units. Solid masonry bearing and non-bearing 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 Section 305-F-4 for cavity walls. There shall be one metal tie for not more than each four and one half (4 ½) 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 are 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 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 Building Official when temperature falls below freezing, except that no masonry work shall be done in temperatures below twenty degrees (20°) F. (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 ASTM Specifications C67-73) in excess of 0.025 oz. per square inch per minimum shall be wetted sufficiently so that the rate of absorption does not exceed this amount.

8-305 B. Masonry Unit Foundation Walls.

(For cast-in-place concrete foundation walls, see §8-304 J.)

1. General.
   a. Materials. (See §8-303.)
   b. Walls supporting wood frame construction: Extend not less than six inches (6”) above adjoining outside finish grade.
   c. Walls supporting masonry veneered wood frame: Extend foundation so that wood portion of wall or any portion of brick veneer is not less than six inches (6”) above outside finish grade.
   d. Walls of hollow masonry units: Cap with a minimum of four inches (4”) of solid masonry or concrete. Hollow units filled with concrete not acceptable.
   e. Concentrated loads under ends of girders bearing on hollow masonry unit foundation walls: Support must be designed for the bearing load and shall be a minimum of four inches (4”) of solid masonry or concrete.

2. Minimum Thickness of Masonry Unit Foundation Walls:
   a. Foundation walls shall be of sufficient strength and thickness to resist lateral pressures from adjacent earth and to support their vertical loads. Foundation walls or foundation footings shall extend to a depth below grade of no less than forty-two inches (42”). Foundation footings shall be no less than ten inches (10”) thick.
   b. Masonry unit walls, minimum thickness, ten inches (10”), except when total height of foundation wall and masonry wall supported exceeds thirty feet (30’) at eaves and thirty-five feet (35’) at ridge in gable end, then minimum shall be twelve inches (12”).

3. Girder Pockets: Provide four inch (4”) end bearing for girder. For wood girder, leave one half-inch (1/2”) space each side.

4. Sill anchor bolts to be installed.
   a. Diameter: one half-inch (1/2”) minimum.
b. Minimum length fifteen inches (15’’), embedded at least twelve inches (12’’) into grout.
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 anchorage for porch and terrace slabs, concrete or masonry steps and area walls, which adjoin foundation walls.

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

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

8-305 C. Piers.

1. Piers supporting exterior walls acceptable only for detached accessory buildings, carports or open porches, decks with or without roof or pre-engineered porch enclosures when acceptable to the Building Official.

2. Materials: Masonry units or cast-in-place concrete. (See §8-303.)

3. Minimum Sizes in Inches:
   a. Masonry: twelve inches by twelve inches (12” X 12”).
   b. Plain Concrete: eight inches by eight inches (8” X 8”) or eight inches (8’’) round.

4. Maximum Spacing:
   a. Exterior Walls Piers Supporting Floor Joists: eight feet (8’) on center.
   b. Exterior Wall Piers in Line Parallel to Joists and Interior Piers: twelve feet (12’) on center.

5. Minimum height above grade, six inches (6”).

6. When of hollow masonry units, cap with at least four inches (4”) solid masonry or concrete.

7. Anchor bolts or dowels approved brackets or equivalent to be installed for post support.

8. Piers may be omitted from detached, freestanding, unroofed decks when approved by Building Official.

9. Support posts shall not be embedded in concrete.

8-305 D. Exterior Masonry Walls Above Grade.

1. Materials: Masonry or cast-in-place concrete. (See §8-303.)

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 §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) Precast concrete and brick reinforced.
      2) Stone.
      3) Masonry arch.
      4) Steel (See Appendix A.)
   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.

   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 §8-305 E.2.

b. Maximum depth, four inches (4”).

**8-305 E. Masonry Veneer.**

1. **Minimum Thickness of Material:**

   a. Architectural terra cotta (cellular) 3 inches.  
   b. Architectural terra cotta (flat slabs) 1-1/4 inches.  
   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. Precast 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. 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 §8-305 F-6.)

8-305 F. Cavity Walls.

1. 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. The maximum height of ten inches (10”) for cavity walls and the width of the cavity shall conform to the requirements of §8-305 E.

3. 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 §§8-305 A.2. a. and b.)

4. The facing and backing of cavity walls shall be bonded with three sixteenths inches (3/16”) diameter noncorrosive 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 sixteen inches (16”), and the maximum horizontal distance shall not exceed thirty-two inches (32”). 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 degree (90°) 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. Noncorrodible 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 shall be provided in the head joint in the first course immediately above all flashing. The weep holes shall be spaced not more than twenty four inches (24”) 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 §8-305 E-5.)

8-305 G. 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 (1) inch 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 not less than No. 24 Manufacturers’ 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 outside edge.
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.

8-305 **H. 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 §8-305 H. Filled concrete block or cinder block shall be considered unacceptable.

2. **Construction:**
   a. Structural walls of fireplaces shall be at least eight inches (8”) thick solid brick in addition to a lining of low duty refractory brick at least two inches (2”) thick laid in fire clay mortar with three-sixteenths inches (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 (1) 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 combustible 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.

   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 §8-305 G.2. 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 Gage (0.105 inch) metal.

6. **Lintel:** Masonry over the fireplace opening shall be supported by a noncombustible lintel.
7. 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 or 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.

8. Other Type Fireplaces: Other fireplaces not conforming to the requirements of this section shall be subject to approval by the department prior to installation. Imitation fireplaces shall not be used for the burning of gas, solid, or liquid fuel. 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.

8-305 I. Glass Block.

1. May not use as load-bearing units.

2. Maximum size of unsubdivided panel: Area one hundred forty-four (144) square feet; Length twenty-five feet (25'); Height twenty feet (20').

3. Provide for expansion.

SECTION 8-306. STRUCTURAL STEEL AND IRON

8-306 A. Structural Steel Construction.


3. 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.

8-306 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 inch (2-1/2”) (loose shims not acceptable).

8-306 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.

8-306 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 Tables for Steel Joists and Joist Girders adopted by the Steel Construction and Steel Joist Institute, 1988 Edition.

8-306 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.

SECTION 8-307. WOOD CONSTRUCTION

8-307 A. Lumber.


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 American Lumber Standards shall be accepted as the minimum net sizes conforming to such nominal sizes. For manufactured lumber, the net sizes established in the National Design 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, or 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.

8-307 B. Framing - General.

Except as specifically provided for herein, compliance with Wood Construction Data Series NFPA 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 acceptable to 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 stopping:
   a. Fire stop 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 stop all balloon framing at intervals not to exceed eight feet (8') in height.
   c. Wood or masonry, tightly fitted, or other methods acceptable to Building Official may be used.
   d. Floor trusses shall be fire-stopped both sides of truss by one hour fire-resistant construction. Maximum spacing of fire stopping shall be six feet (6' 0").

8-307 C. Floor Framing.

1. Columns and Posts:
   a. Structural steel or iron. See §8-306.
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 of solid and built-up wood girders to be made over pier or column supports only, unless specifically engineered and approved.
   d. 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 by four inch (2" X 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, NFPA, 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 AFPA 1993 publication Span Tables for Joists and Rafters, and as regulated by the design standards set forth in the NFPA 1991 publication Design Values for Wood Construction.
   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.

Look for table in appendix A (Maximum Spans for Joists and Rafters).

c. Framing into headers or side of wood girders. Use steel joist hangers or wood ledger board at least two inches by two inches (2" X 2"), nominal. Notching of joist for ledger board more than one-fourth (¼) 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 (¼) 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 non-bearing 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 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 by two inches (2” X 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 inches (2”) to the top or bottom of the joist and the diameter of the hole shall not exceed 1/3 (one-third) the depth of the joist.
j. Cross-bridging:

1) Maximum spacing, eight feet (8’), minimum size, one inch by three inches (1” X 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 Building Official.

5. Subflooring

   a. Plywood or approved equivalent:

1) Apply with face grain perpendicular to supports 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: See 307B. 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 subflooring, 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 subflooring is designed according to loads to be imposed.

   c. Clearance: Provide one-half inch (1/2”) clearance between all subflooring and all masonry walls, chimneys and partitions.

   d. Floors finished with any material other than hardwood.

   e. Combination subfloor-underlayment: Combination subfloor-underlayment shall be installed in accordance with the following table:

See table in appendix A Combined Subfloor-Underlayment
8-307 D. Ceiling Framing.

See 300-D.

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 307-C-4.

      See table in appendix A (Ceiling Joists).

   b. 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 by three inch (1" X 3") cross-bridging or rigid metal bridging may be used; when acceptable to Building Official; maximum spacing, eight feet (8’) on center.

   d. 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 by four inches (2" X 4") on edge supported by wood or metal hangers, not more than six feet (6’) on center.

   b. Ceiling joists bridging not required.

8-307 E. Roof Framing.

1. Spans (See design load requirement in 8-300-B-2-c.)
   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 National Forest Products Association.

      See appendix A.

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 305-D-7).

   b. Collar ties: Minimum size - one inch by six inches (1” X 6”) or two inches by four inches (2” X 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.

3. Flat Roof construction:

a. Provide cross-bridging at maximum spacing of eight feet (8’) on center. Minimum size of bridging - one inch by three inches (1” X 3”).

b. Splicing of framing of roof joists over girders and bearing walls shall follow the requirements for floor joists.

8-307 F. Exterior Wall and Bearing Partition Framing.

1. Studs:
   a. Continuous lengths without splicing.
   b. Minimum size, two inches by four inches (2” X 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 two inch by six inch (2” x 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 by four inch (1” X 4”) ribbon. Nail joists to studs.
   e. Provide fireblocking at eight feet (8’) on center when height of wall exceed eight feet (8’).

2. Corner Posts: Not less than three (3) 2” X 4”s 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 by four inches (1” X 4”) let into outside face of studs and plates set approximately at forty-five degrees (45°) 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 kneewall construction other approved lateral braces may be installed.

4. Sill Construction:
   a. Sill anchorage. (See §§8-304 J.4 and 8-305 B.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.
   d. 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 assuming 1200 F and double top plate.

   
   | 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 where header carries roof load only:

   
   | 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 X 4's. Lap at corners and intersecting partitions. When plates are cut 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 plates must be made over stud.
   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 subfloor.

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.

8-307 G. Non-Bearing Partition Framing.

1. Studs:
   a. Use continuous lengths without splicing.
   b. Minimum size - two inches by four inches (2” X 4”), sixteen inches (16”) on center.
   c. Masonry walls may be furred out with two inches by two inches (2” X 2”) nominal lumber as a minimum.

4. Plates:
   a. Minimum thickness, two inches (2”).
   b. Splices must be made at midpoint of stud.

8-307 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 adjoining end-matched boards to break joints over same stud space and each board to bear on at least two studs.
   d. Application: When laid diagonally extend at forty-five degrees (45°) 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) Underwood Shingles: If five-sixteenths inch (5/16’’) plywood is used, apply shingles over one inch by two inch (1” X 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. Fiber Board: Structural. (See Appendix A.)

   a. Under Wood Shingle Siding: Apply one inch by two inch (1” X 2”) nailing strips over sheathing, spaced according to shingle exposure.

   b. Thickness/Spacing:

<table>
<thead>
<tr>
<th>Minimum Thickness</th>
<th>Maximum Stud Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2 inch</td>
<td>16 inches</td>
</tr>
<tr>
<td>3/4 inch</td>
<td>24 inches</td>
</tr>
</tbody>
</table>

8-307 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.

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.

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 caulk material. Corner joints may be protected with an eighteen-inch (18”) width 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.

8-307 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 adjoining end-matched boards to break joints over same rafter space and each board to bear on at least two rafters.
   d. Application: Lay closed under all roof material. Under wood shingles or shakes 1” X 4” or 1” X 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

   Exception: Plywood thickness for slate, tile, cement shingles should be in accordance with manufacturer’s specifications.

   c. Under Wood Shingles: Apply 1” X 2” nailing strips over plywood less than 1/2” thick, spaced according to shingle exposure.
   d. 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 Building Official.**

5. **Engineered board thicknesses shall be at least equal to those minimum thicknesses stated in §8-307 J-2.b. 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.**

8-307 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.

SECTION 8-308. RESERVED

SECTION 8-309. EXTERIOR WALL FINISH

(See Sec. 8-307 H.)

8-309 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:

<table>
<thead>
<tr>
<th>Nominal Width (Inches)</th>
<th>Thickness At Top (Inches)</th>
<th>Thickness At Butt (Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 to 6</td>
<td>3/16</td>
<td>7/16</td>
</tr>
<tr>
<td>8</td>
<td>3/16</td>
<td>9/16</td>
</tr>
<tr>
<td>10 to 12</td>
<td>3/16</td>
<td>11/16</td>
</tr>
</tbody>
</table>

   b. Minimum Headlap: 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, 3/4 inch (finished); maximum width eight inches (nominal).

5. Shiplap or Matched Siding:
   a. Minimum thickness, 3/4" (finished); maximum width, 12 inches (nominal).

   b. Triple-nail all boards over eight inches (8") in width.

   c. When boards are applied vertically, set edges in white lead.

8-309 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:

<table>
<thead>
<tr>
<th>Length (inches)</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>5 butts in 2 inches</td>
</tr>
<tr>
<td>18</td>
<td>5 butts in 2-1/4 inches</td>
</tr>
<tr>
<td>24</td>
<td>4 butts in 2 inches</td>
</tr>
</tbody>
</table>

3. Maximum Exposure:

<table>
<thead>
<tr>
<th>Shingle Length (inches)</th>
<th>Single Course Exposure (in)</th>
<th>Double Course Exposure (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>7-1/2</td>
<td>12</td>
</tr>
<tr>
<td>18</td>
<td>8-1/2</td>
<td>14</td>
</tr>
<tr>
<td>24</td>
<td>11</td>
<td>16</td>
</tr>
</tbody>
</table>

4. Nailing:
   a. Nails: Copper or hot-dipped galvanized.
   b. Butt Nail Double Coursing: Exposed nails may be small-headed.

8-309 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 (4) below.

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 inches (12”) on center.

8-309 D. Stucco.

1. Lath for Stucco. (See appendix A.) Wood lath not acceptable.
   a. Expanded metal lath, painted; with large openings 1.8 lbs. per square yard.
c. Metal lath, held at least one quarter inch (1/4”) away from sheathing by furring nails. Furring strips and self-furring lath not permitted.

2. Stucco:
   a. Materials: (See §8-303 and Appendix A.)
   b. Mixture: 1 part Portland cement, 3 parts sand, and hydrated lime equal to 10 percent of cement by volume; or prepared Portland cement stucco used in accordance with manufacturer's recommendations.
   c. Thickness: 3-coat work, 1 inch total; 2-coat work, 5/8 inch total.
   d. Application:
      1) 3-coat, over wood frame
      2) 2-coat work, over masonry surfaces.
      3) Finish coat may be trowel coat of prepared exterior Portland cement stucco.
      4) Thoroughly cover and embed lath is stucco.
      5) Keep wet two (2) days after application of each coat.
      6) Drying time before application of finished coat, seven (7) days.
      7) Stucco not to be applied when temperature is lower than forty degrees (40°) F.

8-309 E. Metal Siding.
1. Aluminum Clapboard Siding Thickness: .024 inch minimum
   Aluminum Clapboard Siding Thickness: .019 inch may be unbacked only when the flat areas are five (5) inches or less in the narrow dimension.

2. Formed Steel Siding Thickness: twenty eight (28) gauge min.

3. Vinyl Siding.

8-309 F. Protected Combustible Fiber Board Siding.
Minimum Thickness: One-half inch (1/2”).

8-309 G. Hardboard and/or Masonite.
Minimum thickness of one-quarter inch (1/4”) and providing required outside sheathing is first installed on outside of studs.

8-309 H. Manufactured Brick Siding.
Install as per manufacturer’s specifications.
8-309 I. Other Materials.

As approved by the Building Official.

SECTION 8-310. ROOF COVERINGS.

8-310 A. General.

1. Roof Slope.
   a. Wood shingle and tile roof, 4 in 12 minimum.
   b. Asphalt shingle roof, 3 2 in 12 minimum.
   c. Shingle roofs less than 4 in 12 but not less than 2 in 12 shall be applied in strict accordance with manufacturers’ specifications.
   d. Built-up Roofs (gravel or slag surface). 2 in 12 maximum.
   e. Built-up Roofs with mineral surfaced cap sheet, 3 in 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 outlines by “Manufacturers Selection and Application of Asphalt Roofing and Siding Products” published by A.R.I.B. 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.


8-310 B. Asphalt and Fiberglass Shingles.

1. Fire Underwriters Class C Label on each bundle.

2. Approximate shipping weights per square:
   a. Square butt strip, two hundred thirty-five pounds (235 lbs.).
   b. Hexagon strip, two hundred pounds (200 lbs.).
   c. Irregular shaped shingles manufactured in conformance with the Underwriters' Laboratories minimum weight requirements.

3. Exposure as required for Underwriters’ Class C label.

4. Headlap as recommended by manufacturers; minimum two inches (2”).

5. Underlay:
   a. Asphalt saturated felt; weight approximately fifteen pounds (15#) per hundred (100) square feet.
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 pound (15#) asphalt saturated felt. A nineteen inch (19") 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 sheet by nineteen inches (19"). A continuous layer of plastic roof cement shall be applied between the two (2) layers 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.

6. Reroofing. No more than two (2) layers over existing original installation without architect's written approval.

8-310 C. Wood Shingles.

1. Edge-grain, tapered shingles (No. 1 grade).

2. Minimum size:

<table>
<thead>
<tr>
<th>LENGTH (inches)</th>
<th>THICKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>5 Butts in 2&quot;</td>
</tr>
<tr>
<td>18</td>
<td>5 Butts in 2 1/4&quot;</td>
</tr>
<tr>
<td>24</td>
<td>4 Butts in 2&quot;</td>
</tr>
</tbody>
</table>

3. Maximum exposure:

<table>
<thead>
<tr>
<th>SLOPE OF ROOF EXPOSURE FOR SHINGLE LENGTH (Inches)</th>
<th>16</th>
<th>18</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 to 7</td>
<td>4</td>
<td>1-1/2</td>
<td>7-1/2</td>
</tr>
<tr>
<td>7 to 18</td>
<td>5</td>
<td>5-1/2</td>
<td>7-1/2</td>
</tr>
</tbody>
</table>

4. Minimum thirty pound (30#) asphalt saturated felt required.

8-310 D. Tile Roofing.

1. Quality: Hard-burned or cement-type roofing tile.

2. Underlay: One (1) layer asphalt saturated felt approximately thirty pounds (30#) per one hundred (100) square feet.

3. Shingle Tile, American Method:

<table>
<thead>
<tr>
<th>LENGTH OF SHINGLE</th>
<th>MAXIMUM EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>16&quot;</td>
<td>7&quot;</td>
</tr>
<tr>
<td>15&quot;</td>
<td>6-1/2&quot;</td>
</tr>
<tr>
<td>14&quot;</td>
<td>6&quot;</td>
</tr>
<tr>
<td>12&quot;</td>
<td>5&quot;</td>
</tr>
</tbody>
</table>
4. Interlocking tile and curved tile: Lay in accordance with manufacturer's recommendations.

8-310 E. Slate Shingles.


2. Underlay: Asphalt saturated felt approximately thirty pounds (30#) per one hundred (100) square feet.

3. Laid American Method
   a. Minimum thickness, three-sixteenths inch (3/16”).
   b. Maximum Exposure:

<table>
<thead>
<tr>
<th>SHINGLE LENGTH</th>
<th>MAXIMUM EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>18”</td>
<td>7-12”</td>
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<tr>
<td>16”</td>
<td>6-1/2”</td>
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<tr>
<td>14”</td>
<td>5-1/2”</td>
</tr>
<tr>
<td>12”</td>
<td>4-1/2”</td>
</tr>
<tr>
<td>10”</td>
<td>3-1/2”</td>
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</table>

8-310 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 three (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 Building Official.

5. Top ply of felt and crushed stone or slag surfacing may be replaced with one (1) layer of mineral surfaced cap sheet, minimum weight: eighty-five pounds (85#) per square feet.

8-310 G. Metal Roofs.

1. Materials:
   a. Galvanized sheet metal; 26-gauge sheets, 1.25-oz. (total weight both sides) zinc coating per square foot.
   b. Copper: sixteen (16) ounce soft (roofing temper).
   c. Roofing tin: forty pound (40#) coating.
   d. Lead: Sheet lead, two and one half pounds (2-1/2#) 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.

8-310 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.

SECTION 8-311. FLASHING.

Flashings, a lap joint or a turned up flange, usually of metal to make a water-tight connection between two (2) different materials.

8-311 A. Material.

1. Copper: 16 ounce 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 pound (40#) coating, painted both sides.
5. Membrane waterproofing material acceptable to Building Official.
6. Copper and zinc flashings, gutters and downspouts not to used in conjunction with each other.
7. Aluminum of suitable weight to Building Official.

8-311 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 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:
   b. Drip: From drip on front edge of drip cap and extend flashing up behind building paper underneath stucco.

8-311 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").

8-311 D. Valleys.

1. Rigid shingle roof covering:
   a. Flash with sheet metal.
   b. Flashing on:
      1) Roof slopes less than 7 in 12, width eighteen inches (18"").
      2) Roof slopes 7 in 12 or more, width twelve inches (12"").
      3) Single strips 18 inches wide may be used under closed valleys.

2. Asphalt shingles roof covering valley requirements to be in accordance with manufacturer’s requirements.

8-311 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 degree (45°) cant strip at roof and wall intersection.
8-311 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.

8-311 G.   Chimneys.

1.  All chimney and roof intersections, sheet metal flashing.

2.  Cricket or saddle covering: Sheet metal.

SECTION 8-312.  GUTTERS AND DOWNSPOUTS.

All dwellings shall be provided with gutters and downspouts.  Downspouts shall properly discharge roof water at least twenty-four inches (24") away from foundation.  Gutters and downspouts may be omitted with minimum twenty-four inches (24") roof overhang.  See the following specifications:

8-312 A.   Materials.

(See Appendix B.)

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 coats pitch or three coats lead and oil after installation.

4.  Aluminum: Gutters shall be a minimum of .027-inch thick metal and downspouts a minimum of .020 inch thick metal

5.  Vinyl.

8-312 B.   Roof Water Disposal.

Provide outlet acceptable to Building Official.

SECTION 8-313.  INTERIOR WALL AND CEILING FINISH

None shall be applied when moisture content of framing lumber remains over nineteen percent (19%).

8-313 A.   Lath and Plaster.

(See Appendix B.)

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 1/4 to 3/8 inch 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 YD | STUD SPACING (IN.) |
      |----------------------|---------------|---------------------|
      | Walls                |               |                     |
      | All Dwellings        | 2.5           | 16                  |
      | 1-Story Dwellings    | X3.4          | 20                  |
      |                      | X4.0          | 24                  |
      |                      | XX3.0         | 24                  |

      | JOIST SPACING (IN.) |
      |---------------------|
      | Ceilings            |
      | X2.75               | 16             |
      | X3.4                | 16             |
      | XX3.4               | 24             |

      | X Flat Rib          |
      | XX High Rib         |

3. Insulating Fiber Board Lath:

   a. Minimum thickness, one half inch (1/2").

   b. Lath size, sixteen inches by forty-eight inches (16" X 48"). Lath twenty-four inches by forty-eight inches (24" X 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.

8-313 B. Ceramic Tile.

Waterproof all surfaces prior to the application of the setting coat of adhesive.

8-313 C. Bath - Shower Walls.

1. Surface materials: Dense, smooth and water-repellent. Walls of showers and bath enclosures with showerheads 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.

8-313 D. Dry Wall Finish.

1. Minimum thickness: Actual Inches

<table>
<thead>
<tr>
<th>TYPE OF WALL FINISH</th>
<th>SPACING OF STUDS OF FURRING (Actual Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Wood boards</td>
<td>3/8</td>
</tr>
<tr>
<td>Plywood</td>
<td>1/4</td>
</tr>
<tr>
<td>Gypsum board</td>
<td>3/8</td>
</tr>
<tr>
<td>Fiberboard</td>
<td>1/2</td>
</tr>
</tbody>
</table>

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 of an inch (3/4") thick.

SECTION 8-314. FINISH FLOORS.

8-314 A. Cement Floors.

1. Mix. (See §§8-304 B and 8-304 K-2.)
2. Heater room floors and wood construction where solid or liquid fuel is used:
   a. Minimum thickness, four inches (4\(\text{"}\)).
   b. Use sheet metal over tops of joists for concrete forms or cut in 1 inch 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\(\text{"}\)) 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 degrees (160°), comply with the provision of (2) above. See American Gas Assn. specifications.

8-314 B. Wood Floors.

(See §8-307 C-5.)

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 subflooring except when subflooring is laid diagonally, and except when on strips applied directly over floor joists.
   b. Finish Flooring on Strips: Wood strips, minimum size, one inch by two inch (1" X 2"), maximum spacing, sixteen inches (16") on center. Apply strips over building paper or deadening felt on top of subflooring.
   c. Strip Flooring on Concrete: Apply on not less than two inches by two inches (2" X 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.

8-314 C. Ceramic Tile.

1. Materials: (See Appendix A.)

2. Grade: Not less that Standard grade.

3. Installation: Ceramic tile flooring to be installed in strict accordance with manufacturers’ specifications.
8-314 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 subfloor. An underlayment grade of wood based panels of plywood, particleboard, or hardboard a minimum thickness of one-quarter inch (1/4"), shall be used over wood subfloors under resilient floors, excluding wall to wall carpeting.


SECTION 8-315. GARAGES AND ACCESSORY BUILDINGS

8-315 A. Attached and Built-in Garages.

1. Construction same as required for the dwelling.

2. If door opening occurs between garage and dwelling; provide six inch (6") curb at the door or construct garage floor 6 inches lower than adjoining floor. This also applies to interior stairways leading to lower levels or basements from the garage.

3. 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.

4. Garage separated from residence 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. Where separation by breezeway between residence and garage is less than ten feet (10'), comply with §8-315 A-1-2-3-5.

5. Wood frame walls and doors common to dwelling and garage; finish on garage side to be 1 hour fire-resistive construction. Where rooms occur over garage, ceiling and any attic access, supporting girders, columns and beams, and all walls shall be one-hour fire-resistive construction.

8-315 B. One Story Frame Detached 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 inch (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 inches (20") grade beam to be of equal depth and on undisturbed soil. 6" X 6" #10 wire mesh shall also be installed.
   c. Studs, maximum spacing twenty-four inches (24") o.c. 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 2” X 4”s, or a 4” X 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 2” X 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 1” X 4”.

2. Where distance between dwelling unit and detached garage is less than ten feet (10’), provide minimum 1 hour fire resistive construction in garage as approved by the Building Official.

8-315 C. One Story Solid Masonry Detached Garages Including 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.

8-315 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 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 in 8-315 D 1, 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.

END

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
APPENDIX A.

Building Materials Standards

Compliance with the standards and publications as listed in the B.O.C.A. National Code, latest amendments, shall serve as a guide in determining the acceptability and use of materials wherever in the Rules in Regulations, Appendix A, is referred to, provided the standards are not in conflict with specific requirements of this building code.
# APPENDIX B. – TABLES AND ILLUSTRATIONS

## TABLES

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<tr>
<td>40# LIVE LOAD, 10# DEAD LOAD</td>
<td>II</td>
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<td>FASTENING SCHEDULE</td>
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APPENDIX B

ILLUSTRATIONS AND TABLES
ARTICLE IV-A. PLUMBING CODE

Section 8-400. Adoption By Reference

1. There is hereby adopted by reference, as if fully set out herein, that certain code known as the Illinois Plumbing Code 1993 (Illinois Revised Statute 1991, Chapter 111, Paragraph 1133) [225 ILSC 320/35] as sponsored and published by the Illinois Department of Public Health, together with the following additions, insertions, deletions and amendments.

2. Amendments to the Illinois Plumbing Code:
   a. Properly installed floor drain shall be installed in each restroom, basement and within five (5) feet of the furnace, boiler or water heater.
      Exception Number 1: floor drains not required in residential restrooms.
      Exception Number 2: alternative drain methods for the above furnace and boiler requirement may be substituted when acceptable to the Building Official.
   b. Floor and/or trench drains in all residential garages shall have a gas and oil interceptor and shall not discharge into a drywall.
   c. All manufactured and mobile home units shall conform to the Illinois Plumbing Code.
   d. All residential kitchen sinks require a minimum two inch (2”) waste opening.
   e. All sanitary sump pits shall be properly vented. Minimum vent size: two (2) inches.
   f. Only the following materials are permitted for the following locations:
      1) Aboveground drain, waste and vent: cast iron.
      Exception: One and two family structures may also use polyvinyl chloride (PVC) plastic pipe.
2) Underground drain, waste and vent: cast iron.

Exception: One and two family structures may also use polyvinyl chloride (PVC) plastic pipe.

3) Roof drains, above grade: Cast iron or polyvinyl chloride (PVC) plastic pipe.

4) Underground water supply piping: Type “K” copper or ductile iron. (Polyethylene plastic pipe or tubing may be used for wells only.) Minimum size: one (1) inch.

5) Aboveground water supply piping: Type “L” copper or galvanized steel.

6) The use of plastic pipe or tubing shall be prohibited through fire rated walls, floors or ceilings.

g. Minimum two inch (2”) sewage pump required where laundry facilities discharge into a sanitary ejector pit.

h. All service connections to sanitary sewer mains or septic systems must have an overhead sewer system within the building, with the only exceptions being slab on grade construction or where septic system elevations dictate a gravity-fed system.
ARTICLE V. NATIONAL ELECTRICAL CODE 1996

Section 8-500. Adoption By Reference.

1. There is hereby adopted by reference as if fully set out herein that certain code known as the National Electrical Code, 1996 Edition (NFPA 70-1996) as sponsored and published by the National Fire Protection Association, together with the additions, insertions, deletions, and amendments hereinafter set forth.

2. Amendments and deletions to the 1996 National Electrical Code:
   a. The following Articles, Sections or Subsections of the Nation Electrical Code/1996 shall be deleted.
      - Section 250-83 (a) and (b) Made and Other Electrodes
      - Article 320 Open Wiring on Insulators.
      - Article 321 Messenger Supported Wiring.
      - Article 324 Concealed Knob-and-Tube Wiring.
      - Article 325 Integrated Gas Space Cable.
      - Article 326 Medium Voltage Cable Type MV
      - Article 328 Flat Conductor Cable Type FCC.
      - Article 330 Mineral-Insulated, Metal-Sheathed Cable Type MI
      - Article 331 Electrical Nonmetallic Tubing
      - Article 333 Armored Cable Type AC
      - Article 334 Metal-Clad Cable
      - Article 336 Nonmetallic-Sheathed Cable Type SNM
      - Article 338 Service-Entrance Cable Types SE and USE
      - Article 342 Nonmetallic Extensions
   b. Any reference in said code to the “authority having jurisdiction” shall mean the Building Official of the County of DuPage, Illinois.
   c. The following Chapters, Articles, Sections and Subsections of the National Electrical Code/1996 shall be amended as follows:
      1) Chapter 2. Wiring and Protection
         a) Subsection 210-8(a)(7) to be added to read as follows:

         210-8(a)(7) All 125-volt, single-phase, 15- and 20-ampere receptacles installed in floors shall have ground-fault circuit-interrupter protection for personnel.
b) Subsection 210-21(b)(3) to be amended by adding the sentence:

Only 20-ampere receptacles shall be used on 20-ampere circuits.

c) Subsection 210-70(a) to be amended by adding the sentence:

Said wall switch shall not be located beyond five (5) feet from the point of entry to a room, including cellars or basements.

d) Subsection 210-70(a) to be amended by adding the following:

Exception No. 3: Switches in bathrooms shall be at least five (5) feet 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 of location.

2) Subsection 347.2 of Article 347, “Rigid Nonmetallic Conduit”, to be amended to read as follows:

a) Exterior underground installations.

b) In corrosive or high moisture situations where authorized by the Building Official after sufficient justification as to the special circumstances making necessary such permission.
ARTICLE VI. THE BOCA NATIONAL BUILDING CODE 1996

Sec. 8-600. Adoption by Reference

1. The provisions of Chapters 1 through 34, except §§ 407.0, 416.0, 420.0, 1212.0, 1213.0, 3102.0, 3103.0, 3104.0, 3202.9, 3203.0, 3204.0, Chapter 1, Chapter 13, and Chapter 34 of the BOCA National Building Code, Thirteenth Edition, 1996, as published by the Building Officials and Code Administrators International, Inc., 4051 W. Flossmoor Road, Country Club Hills, IL, 60476, setting forth the minimum standards for construction, alteration, equipment, repair and conversion of all building and structures and appurtenances thereof which are not specifically provided for in other sections of this Code, are hereby adopted.

2. Amendments and deletions to the 1996 BOCA National Building Code:

   a. The following Chapters and Sections of the 1996 BOCA National Building Code have NOT been Adopted:

      1) §407.0 - Private Garages.
      2) §416.0 - HPM Facilities.
      3) §420.0 - Mobile Units.
      4) §1212.0 - courts.
      5) §1213.0 - Courts and Yards.
      6) §3102.0 - Signs.
      7) §3103.0 - Membrane Structures.
      8) §3104.0 - Temporary Structures.
      9) §3202.0 - Street Encroachments.
     10) §3203.0 - Permissible Street Projections.
     11) §3204.0 - Special and Temporary Projections.
     12) Chapter 1 - Administration.

b. The BOCA National Building Code, 1996 Edition, is hereby amended as follows:
1) Chapter 2

Chapter 2, “Definitions,” is hereby amended as follows:

Add to Section 202.0 to read: Conflicting Definitions: In the event that any definition(s) listed in Section 201.O 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.

2) Chapter 3

Chapter 3, “Use or Occupancy,” is hereby amended and deleted as follows:

a) Exceptions 5, 6, 15 and 17 of Subsection 307.8 of Section 307.0 are hereby deleted.

b) Subsections 310.5 and 310.6 of Section 370.0 are hereby deleted. Subsection 310.5.1 remains.

3) Chapter 4

Chapter 4, “Special Use and Occupancy,” is hereby amended as follows:

a) Section 421.0, “Swimming Pools,” is hereby amended by adding to such Section, Subsections 421.3.2, 421.3.3 and amending 421.5.5 which shall read as follows:

421.3.2 Required Inspections. The following inspections are required and the owner or contractor shall give twenty-four (24) hours advance notice to the building official:

i. After excavation, and before any work is started.
ii. After plumbing is roughed in.
iii. After electrical is roughed in.
iv. Final inspection after all work is complete and before pool is used.

421.3.3 Permit to Operate. A permit to operate a swimming pool or wading pool is required only for public pools. The application shall be made in writing to the County Health Official. An operation permit shall be renewed annually in and whenever a pool is to be re-opened for use after being closed down for a period longer than three (3) months.

Any pool receiving a classification of “AA” from the ‘Illinois Department of Public Health under “Items considered of classification for swimming pools,” shall be automatically licensed for a period of one (1) year following the receipt of such engineering report from the Illinois Department of Public Health.
Any pool receiving a lower classification must apply for a permit to operate before May 1 of the year the license will be issued. An inspection must be made and a written permit to open must be obtained from the DuPage County Health Department, before such swimming pool is used. Private pools do not require an operating permit.

421.55 Steps and Ladders. At least two (2) means of egress shall be provided from private pools.

Exception: Above ground portable pools shall only require one means of egress. Public pools shall provide ladders to other means of egress at both sides of the diving section and at least one means of egress at the shallow end. Treads of steps and ladders shall have slip-resistant surfaces and handrails on both sides, except that handrails may be omitted when steps extend the full width of the side or end of the pool.

b) Subsection 421.10.1 of Section 421.0 is hereby amended by deleting said subsection and inserting in lieu thereof, the following:

421.10.1 Pool Area. A fence or wall shall be installed to completely surround a pool except in the case of a portable above ground pool which is at least 42” in height above the adjoining grade at any point, the fence or wall shall be an effective barrier to small children and be at least 42” high. Gates shall be equipped with self-closing and self-latching devices placed at the top of the gate. Portable above ground pools shall be made inaccessible by a raisable, removable or retractable ladder. The pool area shall be considered that piece of property which contains the pool. Spas or hot tubs may be covered with approved rigid, locking covers designed to keep small children from gaining access to the spa or hot tub.

Sales literature, or equal, describing the cover shall be submitted to the building official at time of permit application.

4) Chapter 5.

Chapter 5, “General Building Limitations,” is hereby amended as follows:

a) Subsection 502.1 of Section 502.0, “Definitions,” is hereby amended to read as follows:

Basement: That portion of a building having more than one half (1/2) in height, or four (4) feet, below the average grade of the adjoining ground.
Story Above Grade: Any story having its finished floor surface entirely above grade, except that a basement shall be considered a story above grade where the finished surface of the basement is not one half (1/2) in height or four feet (4') below the average grade of the adjoining ground.

b) Subsection 505.3.1 of Section 505.0, “Mezzanines”, is hereby added to read as follows:

505.3.1. The mezzanine shall be provided with one enclosed exit leading to the outside of the building.

Exceptions: Mezzanines under 2,000 square feet in area used for attic storage may have one exit only which does not require an enclosure.

5) Chapter 6.

Chapter 6, “Types of Construction,” is hereby amended as follows:

a) Table 602 is hereby amended to read as follows: (see following page)

b) Section 606.0 “Type 5 Construction,” is hereby amended by adding to such Section, Subsection 606.2 which shall read as follows:

606.2 Area Limitations. Type 5 buildings are limited to one story in height and 2,000 square feet in area (gross) unless provided with an approved fire suppression system.

6) Chapter 7

Chapter 7, “Fire-resistant Materials and Construction,” is hereby amended by deleting said tables and subsections and inserting in lieu thereof, the following:

a) Table 705.2 of Subsection 705.2, “Exterior Walls” is hereby amended by deleting said table and inserting in lieu thereof the following:

<table>
<thead>
<tr>
<th>Fire Separation Distance (feet)</th>
<th>All Use Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 5</td>
<td>3</td>
</tr>
<tr>
<td>Greater than 5 to 10</td>
<td>2</td>
</tr>
<tr>
<td>Greater than 10 to 30</td>
<td>1</td>
</tr>
<tr>
<td>Greater than 30</td>
<td>0</td>
</tr>
<tr>
<td>Structure element</td>
<td>Type of construction Section 602.0</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td></td>
<td>Type 1</td>
</tr>
<tr>
<td></td>
<td>Section 603.0</td>
</tr>
<tr>
<td></td>
<td>Protected</td>
</tr>
<tr>
<td>1 Exterior walls</td>
<td>Loadbearing</td>
</tr>
<tr>
<td></td>
<td>Nonloadbearing</td>
</tr>
<tr>
<td>2 Fire walls and party walls (Section 707.3)</td>
<td></td>
</tr>
<tr>
<td>3 Fire separation assemblies (Section 709.0)</td>
<td>Fire enclosure of exits (Sections 1014.11, 709.0 and Note b)</td>
</tr>
<tr>
<td></td>
<td>Shafts (other than exits) and elevator hoistways (Sections 706.9, 710.0 and Note b)</td>
</tr>
<tr>
<td></td>
<td>Mixed use and fire area separations (Section 313.0)</td>
</tr>
<tr>
<td></td>
<td>Other separation assemblies (Note i)</td>
</tr>
<tr>
<td>4 Fire partitions (Section 711.0)</td>
<td>Exit access corridors (Note g)</td>
</tr>
<tr>
<td></td>
<td>Tenant spaces separations (Note f)</td>
</tr>
<tr>
<td>5 Dwelling unit and guestroom separations (Sections 711.0, 713.0 and Notes f and i)</td>
<td>1</td>
</tr>
<tr>
<td>6 Smoke barriers (Section 712.0 and Note g)</td>
<td>1</td>
</tr>
<tr>
<td>7 Other nonloadbearing partitions</td>
<td>0</td>
</tr>
<tr>
<td>8 Interior loadbearing walls, loadbearing partitions, columns, girders, trusses (other than roof trusses) and framing (Section 716.0)</td>
<td>Supporting more than one floor</td>
</tr>
<tr>
<td></td>
<td>Supporting one floor only or a roof only</td>
</tr>
<tr>
<td>9 Structural members supporting wall (Section 716.0 and Note g)</td>
<td>3</td>
</tr>
<tr>
<td>10 Floor construction including beams (Section 713.0 and Note h)</td>
<td>3</td>
</tr>
<tr>
<td>11 Roof construction, including beams, trusses and framing, arches and roof deck (Section 715.0 and Notes e, m)</td>
<td>15' or less in height to lowest member</td>
</tr>
<tr>
<td></td>
<td>More than 15' but less than 20' in height to lowest member</td>
</tr>
<tr>
<td></td>
<td>25' or more in height to lowest member</td>
</tr>
</tbody>
</table>

**Note a.** For fire resistance rating requirements for structural members and assemblies which support other fire resistance rated members or assemblies, see Section 716.1.

**Note b.** For reductions in the required fire resistance rating of exit and shaft enclosures, see Sections 1014.11 and 719.3.

**Note c.** For substitution of other structural materials for timber in Type 4 construction, see Section 2304.2.

**Note d.** For fire-resistant treated wood permitted in roof construction and nonloadbearing walls where the required fire resistance rating is 1 hour or less, see Sections 603.2 and 2310.0.

**Note e.** For permitted uses of heavy timber in roof construction in buildings of Types 1 and 2 construction, see Section 715.4.

**Note f.** For reductions in required fire resistance ratings of tenant separations and dwelling unit separations, see Sections 1011.4 and 1011.4.1.

**Note g.** For exceptions to the required fire resistance rating of construction supporting exit access corridor walls, tenant separation walls in covered mall buildings, and smoke barriers, see Sections 711.4 and 712.2.

**Note h.** For buildings having habitable or occupiable stories or basements below grade, see Section 1006.3.1.

**Note i.** Not less than the rating required by this code.

**Note j.** For Use Group I-3, see Section 310.5.

**Note k.** Fire resistance ratings are expressed in hours.

**Note l.** In buildings which are required to comply with the provisions of Section 403.3, the required fire resistance rating for floor construction, including beams, shall be 2 hours, see Section 403.3.3.1.

**Note m.** 1 foot = 304.8 mm.
b) Subsection 707.1 including Table 707.1, “Fire Walls and Party Walls,” is hereby amended to read as follows:

707.1 General. Walls shall have sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall, and shall be constructed of approved, solid masonry, noncombustible materials that provide the required strength and fire resistance rating specified in Table 602 for the type of construction, but not less than the fire resistance rating of the use group specified in Table 707.1. Strength and stability shall comply with the provisions of Chapters 14 and 16.

TABLE 707.1
FIRE AND PARTY WALL FIRE RESISTANCE RATINGS

<table>
<thead>
<tr>
<th>Use Group</th>
<th>Minimum Fire Resistance Rating (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>4</td>
</tr>
</tbody>
</table>

c) Subsections 711.4 and 711.5 of Section 711.0, “Fire Partitions,” are hereby amended to read as follows:

711.4 Continuity: All fire partitions shall extend from the top of the floor assembly below to the underside of the floor/roof slab and shall be securely attached thereto. The supporting construction shall be protected to afford the required fire resistance rating of the wall supported, except for exit access corridor walls in buildings of Types 2C, 3B and 5B construction and tenant separation walls in covered mall buildings of Type 2C construction. All hollow vertical spaces shall be firestopped at every floor level as required in Section 721.0.

711.5 Exterior Walls: Where exterior walls serve as a part of a required fire resistance rated enclosure, such walls shall comply with the requirements of Table 602 and Table 705.2 for exterior wall fire resistance ratings, and the fire resistance rated enclosure requirements shall not apply.

d) Subsection 803.6 of Section 803.0, “Interior Finish and Trim,” is hereby amended to read as follows:

803.6 Carpet and Carpet-Like Wall Coverings: Textile wall coverings having a napped, tufted, looped, woven, nonwoven or similar surface, shall comply with the following:

1. Such materials shall have a Class I flame spread classification and be used only in rooms or areas protected by an approved automatic fire suppression system; and
2. Such materials shall be tested in accordance with an 8-foot by 12-foot by 8-foot high (2438 mm by 3658 mm by 2438 mm) room/cover fire test procedure using a product-mounting system, including adhesive, representative of actual use. Prior to testing, the sample shall be conditioned at 70 degrees F. (21 degrees C.) $\pm$ 5 percent and a relative humidity of 50 percent $\pm$ 5 percent until the sample reaches a rate of weight change of less than 0.1 percent per day. The product shall be exposed to a flame from a gas diffusion burner for 15 minutes. The fire exposure shall be 40 kW for the first 5 minutes, followed by an exposure of 150 kW for an additional 10 minutes.

Such tests shall demonstrate that a product will not spread fire to the edge of the specimen or cause flashover in the test room.

7) Chapter 8.

Chapter 8, Interior Finishes, is hereby amended as follows:

803.6 Carpet and Carpet-Like Wall Coverings: Textile wall coverings having a napped, tufted, looped, woven, nonwoven or similar surface, shall comply with the following:

a). Such materials shall have a Class I flame spread classification and be used only in rooms or areas protected by an approved automatic fire suppression system; and

b). Such materials shall be tested in accordance with an 8-foot by 12-foot by 8-foot high (2438 mm by 3658 mm by 2438 mm) room/cover fire test procedure using a product-mounting system, including adhesive, representative of actual use. Prior to testing, the sample shall be conditioned at 70 degrees F. (21 degrees C.) $\pm$ 5 percent and a relative humidity of 50 percent $\pm$ 5 percent until the sample reaches a rate of weight change of less than 0.1 percent per day. The product shall be exposed to a flame from a gas diffusion burner for 15 minutes. The fire exposure shall be 40 kW for the first 5 minutes, followed by an exposure of 150 kW for an additional 10 minutes.

Such tests shall demonstrate that a product will not spread fire to the edge of the specimen or cause flashover in the test room.

8) Chapter 9

Chapter 9, “Fire Protection Systems,” is hereby amended and deleted as follows:

a) Section 904.0, “Fire Suppression Systems,” is hereby amended by adding to such Section, Subsections 904.1.I and 904.10.1 which shall read as follows:
904.1.1 All Use Groups. Supplementing those locations listed in this Code, any building when more than 7,500 square feet (gross) in area or when more than three stories in height shall be provided with approved fire suppression systems.

904.10.1 Suppression System Required. If the area of a basement exceeds 2,000 square feet (gross) an automatic fire suppression system shall be required.

b) Section 905.0, “Suppression System Agent Compatibility,” is hereby amended by adding to such Section, Subsection 905.2 which shall read as follows:

905.2 Primary Selection: The primary selection shall be an approved automatic sprinkler system. The use of any other suppression agent requires specific approval from the Building Official.

c) Subsections 906.2.2 and 906.2.3 of Section 906.0, “Fire Sprinkler System,” is hereby amended by adding to such Section 906.0, “Fire Sprinkler System,” and shall read as follows:

906.4 Water Supply: An automatic water supply is required for all sprinkler systems.

d) Subsection 906.4 of Section 906.0, “Fire Sprinkler System,” is hereby amended by deleting said subsection and inserting in lieu thereof, the following:

906.4.1 Capacity, Pressure and Duration: The capacity pressure and duration of the water supply shall meet the design requirements of the system.

906.4.2 Limited Capacity Water Supply: Buildings except Use Groups H or I less than 12,000 square feet in area (gross) may be served by an automatic water supply of limited capacity when approved by the Building Official.

e) Subsections 906.4.1 and 906.4.2 are hereby amended by adding to such Section 906.0, “Fire Sprinkler System,” and shall read as follows:

906.4.1 Capacity, Pressure and Duration: The capacity pressure and duration of the water supply shall meet the design requirements of the system.

906.4.2 Limited Capacity Water Supply: Buildings except Use Groups H or I less than 12,000 square feet in area (gross) may be served by an automatic water supply of limited capacity when approved by the Building Official.

f) Subsections 907.2.1 and 907.5 of Section 907.0, “Limited Area Sprinkler Systems,” are hereby amended and deleted as follows:

907.2.1 Within a fire Area: A limited area sprinkler system shall be permitted within one fire area provided that 5 sprinklers or less are required based on the spacing limitations of NFPA 13 listed in Chapter 35.

907.5 is hereby deleted.
g) Subsection 916.1 of Section 916.0, “Fire Department Connections is hereby amended by deleting said subsection and inserting in lieu thereof, the following:

916.1 Required: All required water fire-extinguishing and standpipe systems shall be provided with a fire department connection in accordance with the applicable standards.

Exceptions:

1. Limited area sprinkler systems supplied from the domestic water system.

2. Where the local fire department approves a single connection for large diameter hose of at least 4 inches.

3. An automatic sprinkler system with less than 6 sprinklers.

h) Subsection 919.3 of Section 919.0, “Automatic Fire Detection Systems,” is hereby amended by deleting said subsection and inserting in lieu thereof, the following:

919.3 Approval. The automatic fire alarm system shall be approved for the particular application and shall be used for detection and signaling in the event of fire. Automatic detecting devices shall be approved for use in which they are intended. Smoke detectors, as part of the fire alarm system, shall be used where institutional, residential and educational uses exist.

i) Subsection 919.4.4 of Section 919.0, “Automatic Fire Detection Systems,” is hereby amended by deleting said Subsection and by inserting in lieu thereof the following and adding Subsection 919 4.5.

919.4.4 Residential Uses. An automatic fire detection system shall be installed and maintained in all buildings of Use Groups R-1 and R-2. All buildings having multiple uses including residential use shall be equipped with an approved automatic fire detection system.

919.4.5 Other Uses: All other buildings including educational, high hazard, institutional, mercantile, factory or industrial, assembly, storage, or business occupancies including any other buildings housing combustible materials and products, over one story in height, and such one story building over 2,000 square feet (gross) in area shall be equipped with an approved fire alarm system.

j) The following Subsection 922.1.1 is hereby added to Section 922.0, “Smoke Control Systems,” and shall read as follows:
922.1.1 Other Areas: An emergency smoke control system shall be provided:

1. In all sprinklered buildings with a gross (combined floor area of all floors) floor area exceeding 60,000 square feet.

2. In all non-sprinklered buildings with a gross floor area exceeding 30,000 square feet.

3. In all buildings over three (3) stories or 35 feet in height.

k) Subsections 922.2 through 922.2.4 shall be hereby amended by deleting said subsections and inserting in lieu thereof the following, and adding 922.2.4.1:

922.2 Design Criteria. All systems shall be designed in accordance with nationally recognized standards for the design of such systems.

922.2.1 Air Changes: The system shall be designed to provide six (6) air changes per hour throughout the fire area.

922.2.1.1 The mechanical smoke management system shall have an adequate supply and/or return air source to allow the system to operate properly.

922.2.2 The smoke management system shall be operated manually. It may also be designed to operate automatically.

922.2.2.1 The location and design of controls for the mechanical smoke management system including the pressurization of areas of a building shall be at a location approved by the Bureau of Fire Prevention and shall be at a location easily accessible.

922.2.3 For buildings less than 25,000 square feet in area, windows which may be opened may be used.

922.2.4. Buildings Over Three Stories. In buildings over three stories in height, interior access corridors, stairs and exitways shall be provided with positive pressure.

922.2.4.1 The pressurization system may operate continuously or be activated by the alarm signal of the fire alarm or fire suppression system. Manual controls shall be provided.
Section 924.0 “Supervision,” is hereby amended by deleting said section and inserting in lieu thereof the following:

924.1 Fire Suppression System/Fire Alarm System Supervision. Each fire suppression system and/or each fire alarm system shall be supervised at an approved, constantly attended location from which the fire department will be immediately notified.

924.2 Alarm Supervisory and Trouble Signals. The following signals shall be supervised.

924.2.1 Alarm. All flow and all active alarm signals from any fire suppression and/or fire alarm system in service shall be supervised.

924.2.2 Supervisory and Trouble Signals. All system components which are normally supervised including valves, pressures and levels where critical to the system operation, National Fire Protection standards required signals and any other component deemed necessary for the proper operation of the system shall be supervised.

Chapter 10, “Means of Egress,” is hereby amended as follows:

a) Delete exception under Subsection 1006.4.1 of Section 1006.0, “Types and Location of Means of Egress”.

b) Table 1017.2 of Section 1017.0, “Means of Egress Doorways,” is hereby amended by deleting said table and inserting in lieu thereof the following:

<table>
<thead>
<tr>
<th>USE GROUP</th>
<th>MAXIMUM OCCUPANT LOAD</th>
<th>MAXIMUM TRAVEL DISTANCE (FEET)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A, B, E, F, M, S</td>
<td>20</td>
<td>75</td>
</tr>
<tr>
<td>I, R</td>
<td>10</td>
<td>75</td>
</tr>
</tbody>
</table>

Note: The maximum area for a single exit is 2,000 square feet.

c) Subsection 1017.4.1.2 of Section 1017.0, “Means of Egress Doorways” is hereby deleted.

d) Subsection 1020.3 of Section 1020.0, “Level of Exit Discharge Passageways Used as an Exit Element,” is hereby amended to read as follows:
1020.3 Lobby. Where an exit discharges into an interior lobby located at the level of exit discharge, such lobby shall be provided with an automatic fire suppression system, and any other portion of the floor with access to the lobby shall be provided with an automatic fire suppression system or shall be separated therefrom in accordance with the requirements for the enclosure of exits. This Subsection, shall apply to only one exit unless lobby IS properly segregated.

10) Chapter 11

Chapter 11, “Accessibility,” is hereby amended as follows:


11) Chapter 34, “Existing Buildings,” is hereby amended.
A new section is hereby added:

8) Chapter 34

Chapter 34, "Historic Structures," is hereby amended as follows:

A. Subsection 3401. "GENERAL" is hereby added.

3401.1 Scope: The provisions of this chapter shall control the alteration, repair, relocation, addition and change of use and/or occupancy of existing historic structures.

B. Subsection 3402.0 "Definition" is hereby added.

3402.1 General: The following words and terms shall, for the purpose of this chapter and as used elsewhere in this code, have the meanings shown herein.

Historical Structure:

Structures located within the unin-corporated areas of DuPage County will be considered to be of historical/architectural importance if they meet the following criteria:

1. A structure is listed on the National Register of Historical Places, or
2. A structure is listed on the Illinois Register of Historical Places, or
3. A structure that is at least 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 distinctive characteristics:

   i. Physical features of 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.)*

   ii. It is a 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 if it is the only building of a type or style.)*

   iii. It is work of a master. A master is a figure of generally recognized greatness in a field, a known craftsman of consummate skill.
b) Historical Event
A structure must be associated with an historic event or trend, and 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 quality a structure as historically important.*)

c) Persons with Historical Contribution
A structure must be associated with individuals who have made important contribution to history. This association must be documented and demonstrably important in the local, State or national context. (*A structure’s association with an individual whose contribution is not historically important does not qualify a structure to be historical.*)

C. Subsection 3403.0 "GENERAL REQUIREMENTS" is hereby added.

3403.1 Application: Those structures meeting the criteria for a historic structure as defined in Section 3402.1 and approved as such by the Development Committee shall comply with all requirements of this code and other applicable codes adopted by the county for new construction.

D. Subsection 3404.0 "COMPLIANCE ALTERNATIVES" is hereby added.

3404.1 Compliance: Where application of Section 3403.1 would create a significant detrimental impact on existing historic architecture and/or the nature of preservation, a detailed individual evaluation for that structure is to be conducted by the code official and/or designee. The evaluation shall be comprised of three categories: fire safety, means of egress and general life safety, as it pertains to the proposed use and occupancy and meeting the intent of the code.

Upon completion of the evaluation, an analysis and recommendation, including those code sections requiring a variation, shall be presented to the Development Committee for approval.

BE IT FURTHER ORDAINED that the County Clerk shall publish notice hereof and transmit certified copies of this Ordinance to the County Board Chairman, the County Administrator, the Department of Development and Stormwater/ Building Division, the State's Attorney, the Auditor, Finance, and the Treasurer; and Nancy Hauptman, County Board.
ARTICLE VII. THE INTERNATIONAL MECHANICAL CODE 1996

Section 8-700. Adoption By Reference.

The International Mechanical Code, 1996 Edition, is hereby adopted and incorporated by reference with the following additions, insertions, deletions and amendments:

1. Chapter 1.

   Chapter 1, “Administration,” is hereby deleted.

2. Chapter 2. Chapter 2, “Definitions,” is hereby amended as follows:

   a. Add Subsection 201.5 to Section 201, “General,” 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 as in those Codes or Ordinances.

3. Chapter 3.

   Chapter 3, “General Regulations,” is hereby amended and deleted as follows:

   a. Subsection 301.2 of Section 301, “General,” is hereby deleted.

   b. Subsection 301.8 of Section 301, “General,” is hereby deleted.

   c. Subsection 307.2 of Section 307, “Condensate Disposal,” is hereby amended to read as follows:

      307.2. Evaporators and Cooling Coils. Condensate drain systems shall be provided for equipment containing evaporators or cooling coils.


   Chapter 13, “Fuel-Gas Piping,” is hereby amended as follows:

   a. Subsection 1303.2.1 is hereby added to Section 1303, “Piping Materials,” and shall read as follows:

      1303.2.1. Galvanized Steel Pipe or Fittings. Galvanized steel pipe or fittings shall not be used in fuel-gas piping installations.

5. Chapter 16.

   Chapter 16, “Referenced Standards,” is hereby amended as follows:

ARTICLE VIII. THE BOCA NATIONAL PROPERTY MAINTENANCE CODE 1996

Section 8-800. Adoption By Reference.

The BOCA National Property Maintenance Code, 1996 Edition, is hereby adopted and incorporated by reference with the following additions, insertions, deletions and amendments:

1. Chapter 1, “Administration,” is hereby deleted.

2. Chapter 2.

   Chapter 2, “Definitions,” is hereby amended as follows:

   a. Subsection PM-201.6 to Section PM-201.0., “General,” is added to read as follows:

      PM-201.6 Conflicting Definitions: In the event any definition(s) listed in Section PM-202.0 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.

   b. Section PM-202.0, “General Definitions,” is supplemented by adding the following definition:

      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

   Chapter 3, “General Requirements,” is hereby amended and deleted as follows:

   a. Subsections PM-303.4 and PM-303.8 of Section PM-303.0, “Exterior Property Areas,” are hereby deleted.

   b. Subsection PM-303.9 of Section PM-303.0, “Exterior Property Areas,” is hereby added to read as follows:

      PM-303.9 Graffiti: Property and/or structures defaced by graffiti shall be cleaned, repaired or otherwise restored to its previous condition.

   c. Subsection PM-304.3, of Section PM-304.0, “Exterior Structure,” is hereby amended to read as follows:
PM-304.3 Street Numbers: Each structure which has been assigned an address shall have such numbers displayed so that the address is visible from the main street. Address characters shall be in Arabic numerals and shall be at least six (6) inches in height and mounted on a contrasting background other than glass. Such address shall be maintained visible and legible.

d. Subsection PM-304.15 of Section PM-304.0, “Exterior Structure,” is hereby amended to read as follows:

PM-304.15 Insect Screens: (Page 11, first line insert: May 1 and page 11, second line insert: November 1.)

e. Section PM-308.0 is hereby added to read as follows:

Section PM-308.0 Public Nuisances: No owner or occupant of any premises shall allow any public nuisance to exist on the premises.

4. Chapter 4

Chapter 4, “Light, Ventilation and Occupancy Limitations,” is hereby amended as follows:

a. Subsection PM-404.2 of Section PM-404.0, “Ventilation,” is hereby amended to read as follows:

PM-404.2 Bathrooms and Toilet Rooms: Every bathroom and toilet room shall comply with the ventilation requirements for habitable spaces as required by Section PM-404.1, except that a window shall not be required in spaces equipped with a mechanical ventilation system that complies with the following:

1) Air exhausted by a mechanical ventilation system from a bathroom within a dwelling unit shall be exhausted to the exterior and shall not be recirculated to any space, including space from which such air is withdrawn.

2) Air exhausted by a mechanical ventilation system from all other bathrooms or toilet rooms shall be exhausted to the exterior without recirculation to any space.

5. Chapter 5

Chapter 5, “Plumbing Facilities and Fixture Requirements,” is hereby amended and deleted as follows:

a. Subsection PM-504.3, “Location of Employee Toilet Facilities,” is hereby deleted in its entirety.

6. Chapter 6

Chapter 6, “Mechanical and Electrical Requirements,” is hereby amended as follows:

a. Subsection PM-602.2.1 of Section PM-602.0, “Heating Facilities,” is amended to read as follows:
PM-602.2.1 Heat Supply: (page 17, fifth line) insert: September 1 to May 1.

b. Subsection PM-602.3 of Section PM-602.0, “Heating Facilities,” is amended to read as follows:

PM-602.3 Nonresidential Structures: (page 17, third line) Insert: September 1 to May 1.

7. Chapter 7

Chapter 7, “Fire Safety Requirements,” is hereby amended by deleting said subsections and inserting in lieu thereof, the following

a. Subsection PM-702.12 of Section PM-702.0, “Means of Egress,” is amended to read as follows:

PM-702.12 Emergency Escape: Every sleeping room, occupied room or habitable space located in a basement shall have at least one openable window or exterior door approved for emergency egress or rescue; or shall have access to not less than two approved independent exits.

   Exception: Basements under 2,000 square feet in area or with less than 20 occupants equipped with a complete approved automatic fire suppression system.

b. Subsection PM-702.13 of Section PM-702.0, “Means of Egress,” to be added to read as follows:

PM-702.13 Means of Egress Lighting: Means of egress lighting shall be provided and shall comply with Section 1024.0 of the DuPage County Building Code.

ARTICLE IX. RESERVED
ARTICLE X. DU PAGE COUNTY FIRE PREVENTION CODE 1996

Sec. 8-1000. National Codes.


Sec. 8-1001. Establishment & Duties.

1. The Fire Prevention Code shall be enforced by the DuPage County Development Department, Building Division, which shall be operated under the supervision of the Building Official.

2. Application of this Code is to the unincorporated areas of the County.

3. The Chairman of the DuPage County Board with the advice and consent of the County Board may appoint a DuPage County Fire Marshal who shall administer this Code under the supervision of the Building Official.

4. The Director of the DuPage County Development Department may detail such members of the Building Division as Deputy County Fire Marshals as shall from time to time be necessary and may employ those with special technical expertise as necessary.

5. Qualified fire chiefs and/or their appointed qualified representatives serving in DuPage County may serve as a Deputy County Fire Marshal.

Sec. 8-1002. Definition.

1. Wherever the words “Fire Prevention Code” or “Code” are used, they shall be held to mean the DuPage County Fire Prevention Code.

2. Wherever the word “Municipality” is used in the Fire Prevention Code, it shall be held to mean DuPage County, Illinois.

3. Wherever the word “County” is used in the Fire Prevention Code, it shall be held to mean DuPage County, Illinois.

4. Wherever the term “Corporation Counsel” is used in the Fire Prevention Code, it shall be held to mean the State’s Attorney for DuPage County, Illinois.

5. Wherever the term “Fire Official”, “Code Official”, “Authority Hav Fire Marshal” is used, it shall be held to mean the Fire Marshal or Building Official of DuPage County, Illinois.

6. Wherever the term “Bureau of Fire Prevention” is used, it shall be held to mean the Bureau of Fire Prevention of DuPage County, Illinois.
Sec. 8-1003. Prohibited Storage of Explosives & Blasting Agents.

1. The storage, handling and use of explosives and blasting agents are hereby prohibited within the County.

Sec. 8-1004. Prohibited Storage of Flammable Liquids.

1. The storage of flammable liquids in outside aboveground tanks is hereby prohibited.

Sec. 8-1005. Restricted Bulk Storage of Liquefied Petroleum Gases.

1. The bulk storage of liquefied petroleum gases in excess of 1,000 gallons water capacity is hereby prohibited.

Sec. 8-1006. Motor Vehicle Routes for Transporting Explosives, Etc.

1. Routes for vehicles transporting explosives and blasting agents are hereby established as follows:
   a. Routes approved by the State or Federal Governments.

Sec. 8-1007. Motor Vehicle Routes for Transporting Hazardous Chemicals and Other Dangerous Articles including Liquefied Petroleum Gases and Combustible and Flammable Liquids.

1. Routes for vehicles transporting hazardous chemicals and other dangerous articles including combustible and flammable liquids are hereby established as follows:
   a. Routes approved by the State or Federal Governments.
   b. No tank vehicles shall be parked for over one hour or left unattended at any time.

Sec. 8-1008. Amendments to the BOCA National Fire Prevention Code/1996.

1. Chapter 1 Administration. Is hereby deleted.

2. Chapter 3 Precautions Against Fire.
   a. Sec. F-310.1. is hereby amended by deleting said sections and inserting in lieu thereof the following:

   Sec. F-310.1. Abatement of Electrical Hazards. When any electrical hazards are identified, such conditions shall be abated.

   F-310.1.1. National Electrical Code. The National Electrical Code adopted by DuPage County shall govern the design, installation and maintenance of electrical wiring and installations.
F-310.1.2. Building Official Notification. Where electrical hazards are noted and have not been corrected, the Building Official shall be notified.

b. Sec. F-311.0. is hereby amended by deleting said section and inserting in lieu thereof the following:

Sec. F-311.0. Fire Lanes.

F-311.1. Public Access and Fire Lanes on Private Property, Devoted to Public Use, shall be provided so that:

F-311.1.1. Public or private access is provided to each building so that the first responding fire department pumper unit will be able to be so located that all points of the interior of the building may be reached by one hundred fifty (150) feet of initial attack hose.

F-311.1.1.1. Where the size or height of the building does not allow this regulation to be met, an interior standpipe system equipped with fire department hose connections approved by the Fire Official may be allowed as an exception. The standpipe system shall be connected to a public water system.

F-311.1.1.1.1. Design and installation shall meet the design criteria for a Class I or II! system of NFPA No. 14.

F-311.1.2. Public or private access for motor fire apparatus shall be provided around the building so that there may be proper operation of ladders and mechanically elevated mechanisms. Minimum width of the fire lanes shall be 12 feet with greater widths to accommodate vehicles when turning and laddering buildings.

F-311.1.3. Access routes shall be so arranged that fire department apparatus may respond from all points of the building to adjacent fire hydrants along routes not to exceed three hundred (300) feet from the most remote point to the building to the closest fire hydrant.

F-311.1.4. Fire lanes on private property shall be approved by the Fire Marshal, and parking of motor vehicles otherwise obstructing such fire lanes or access routes shall be prohibited at all times. Permanent all-weather signs identifying fire lanes and accessways shall be posted.

F-311.1.5. Public or private fire department access roads and ways shall be all weather, properly maintained and accessible at all times. Such access roads and ways shall be a minimum of six (6) inches of granular stone surfaced by at least two (2) inches of bituminous asphalt material or such other construction acceptable to the Fire Marshal.
F-311.1.6. Access roads shall be not less than fifteen (15) feet from the building and further if the height of the building requires, a greater set back to ladder the buildings.

F-311.1.7. Access routes shall be continuous around the building.

F-311.1.7.1. This requirement may be modified by the Fire Marshal where adequate building access openings and a complete fire suppression system are provided.

F-311.1.7.2. Where cul de sacs are permitted, they shall not be less than ninety (90) feet in diameter. The maximum length of the cul de sac shall be one hundred (100) feet for other than residential construction. Residential construction shall be in accordance with the DuPage County Subdivision Ordinance.

c. Sec. F-316.0. is hereby added to read as follows:

Sec. F-316.0. Material Storage.

F-316.1. Stock Maintenance. All stock shall be kept in a neat, orderly, compact manner in accord with good housekeeping practices. Storage shall not be within two (2) feet of the ceiling or the floor or roof structural members, eighteen (18) inches from the sprinkler heads nor shall storage obstruct egress from a building.

F-316.2. Packing Materials. Wherever and whenever stock is dispensed directly from a shipping container and combustible material is used as protective packing, such packing material shall be removed from the container and taken care of by removing to the outside in closed containers. Such container shall be kept closed at all times except when removing stock therefrom.

F-316.3. Removal of Packing and Waste Materials. No persons shall store in any building excess amounts of combustible empty packing cases, wooden or plastic pallets, barrels, boxes, rubber tires, shavings, excelsior, rubbish, paper bags, litter, hay, straw and similar combustibles. Aisleways and storage of the above mentioned combustibles necessary for the performance of business shall be kept in an orderly and neat manner. Combustible materials shall be removed, daily or more often as is necessary to suitable vaults, bins, dumpsters, compactors or separate buildings. Such practices shall be as approved by the Fire Marshal.

d. Sec. F-317.0 is hereby added to read as follows:

Sec. F-317.0. Fire Department Rapid Entry System.

F-317.1. General. The Fire Marshal shall require all new construction that is required to be equipped with an approved fire alarm system that consists of smoke and/or heat detection and all buildings required to be equipped with a complete sprinkler system to have an approved key box system.
F-317.2. **Purpose.** The purpose of the rapid entry key system is to allow the fire department to gain immediate access to a building in emergency situations - without forcible entry.

F-317.3. **Location.** The installation of the approved key box shall be approved by the Fire Marshal.

F-317.4. **Contents.** The approved key box shall contain keys to gain necessary access as required by the Fire Marshal.

F-317.5. **Alarms.** At the request of the owner or lessee, the Fire Marshal shall permit him to install a key box tamper switch connected to the building’s alarm system. If the owner or lessee chooses to connect the key box to an alarm then they shall comply with the following requirements:

   F-317.5.1. If the building is protected by a burglar alarm system, the key box shall be connected to that system.

   F-317.5.2. If the building is not protected by a burglar alarm system, the key box may be connected to the fire alarm providing the connection is on the trouble side signaling an alarm. Connection to the fire alarm requires the key box to be zoned separately from any fire detection and noted on the fire alarm annunciator panel as KEY BOX.

e. **Sec. F-318.0.** is hereby added to read as follows:

   **Sec. F-318.0. Miscellaneous Provisions.**

   **F-318.1 Hazardous Areas.** Rooms used for storage, boiler or furnace rooms, fuel storage, janitors closets, maintenance shops and kitchens shall be separated from other building areas by assemblies having a fire resistance rating of not less than one hour with appropriate protection of openings into the rooms.

   **F-318.2. Fire Procedure Notice.** Owners, managers, and agents of multiple dwelling units with three (3) or more units, motels, hotels and places of assembly shall post and maintain in a conspicuous location within each dwelling unit and in access routes, a written notice which explains what procedures to use in the event of a fire. The notice shall contain a diagram of all fire exits.

3. **Chapter 5 Fire Protection Systems.**

   a. **Sec. F-501.4.1.1.** is hereby added to read as follows:

      **Sec. F-501.4.1.1. Complete Information.** The Fire Marshal shall determine the detail of information required including description of maintenance, time and date and extent of tests performed.

   b. **Sec. F-503.4.1.** is hereby amended by deleting said section and inserting in lieu thereof the following:
F-503.4.1. Design and Installation. All detectors and other fire alarm components for Use Groups R-1, I-1 and R-2 shall be designed and installed in accordance with NFPA 72, National Fire Alarm Code, 1996 edition (except for Chapter 2 thereof).

c. Sec. F-504.2.1. and F-504.2.2. are hereby added to read as follows:

Sec. F-504.2.1. Systems Out of Service. Automatic fire suppression systems shall not be out of service for more than eight (8) hours for additions, alterations, maintenance or repairs without the approval of the Fire Marshal or the designated representative.

Sec. F-504.2.2. Control Valve Operator/Firewatch. When any fire suppression system must be taken out of service, for any length of time, a responsible person shall be stationed at the control valve(s) to immediately activate the system in case of fire or shall provide a firewatch as the Fire Marshal may determine.

d. Sec. F-506.2. is hereby added to read as follows:


F-506.2.1. Where required: Automatic fire suppression systems shall be provided as follows:


F-506.2.1.2. In all buildings over three stories or thirty-five feet (35’) in height.

F-506.2.1.3. All basements exceeding 2,000 square feet in area, excepting single family townhouses residential (Use Group R-3).

F-506.2.1.4. All transient residential uses (Use Group R-1).

F-506.2.1.5. Any new construction multifamily use (Use Group R-2).

F-506.2.1.6. Any new construction building having a gross area over 7,500 square feet.

F-506.2.1.7. Any institutional use (Use Group I).

F-506.2.1.8. All high hazard uses (Use Group H).

e. Sec. F-513.4. is hereby added to read as follows:

Sec. F-513.4. Fire Alarm and Automatic Detection Required.

F-513.4.1. Approval. The automatic fire alarm system shall be approved for the particular application and shall be used for detection and signaling in the event of fire. Automatic detecting devices shall be approved devices with smoke detectors used where residential, institutional and assembly uses exist.
F-513.4.2. Where required: Following are locations where a fire alarm system with automatic detection is required:

F513.4.2.1. Residential Uses: In all buildings of use groups R-l and R-2, as defined in the BOCA National Building Code 1996 edition, where used as hotels, motels, lodging houses, dormitories, apartments and similar occupancies. All buildings having multiple uses including residential use shall be equipped with an approved fire alarm system.

F-513.4.2.2. Assembly, educational and institutional use groups shall be equipped with an approved fire alarm system.

F-513.4.2.2.1. This shall include assembly and educational uses with less than 50 occupants.

F-513.4.2.3. Other uses: All other buildings over one story in height and one-story buildings over 2,000 square feet in area shall be equipped with an approved fire alarm system.

a. Exception: R-3 Uses Group.

F-513.4.3. Design. The system shall be designed and installed in accordance with the NFPA 72, National Fire Alarm Code, 1996 edition.

F-513.4.3.1. Power Supplies. A primary power supply source for the operation of the system under normal conditions shall be provided. A secondary power supply for operation of the system shall be by an approved storage battery or engine driven generator.

F-513.4.3.2. Fire Department Supervision. All fire alarm systems shall terminate at a point approved by the Fire Marshal.

F-513.4.3.2.1. No alarm shall be out of service for more than 24 consecutive hours.

F-513.4.3.3. Automatic Sprinklers. Where automatic sprinklers provide protection to an area approved flow and tamper switches interconnected to the fire alarm system shall be provided.

F513.4.3.4 Zones. Each floor and each area over 15,000. square feet in area shall be separately zoned. Each type of system (sprinkler, halon, alarm, etc.) shall be separately zoned.

F-513.4.3.4.1. Each sprinkler system need only be zoned per floor.

F-513.4.3.4.5. Alerting Devices. All alerting devices shall be an approved audio/video type.

F-513.4.3.4.6. Outside Alerting Device. All fire alarm and fire suppression systems shall have an outside alerting device of a type and at a location approved by the Fire Marshal.
f. Sec. F-520.0. is hereby added to read as follows:

Sec. F-520.0. Water Supplies For Fire Department Use.

F-520.1. Application. This section defines water supplies for fire department use for new construction buildings and structures.

F-520.2. Where required: All buildings or structures shall be served by a public water supply system meeting this criteria. This system shall be under pressure with an average static pressure of not less than 35 pounds per square inch (psi). Flows shall be calculated at 20 psi residual pressure. The supplies shall be available for a continuous one hour duration.

F-520.2.1. Exception: Detached single family construction not requiring water and sewer service.

F-520.3. Water Supplies - Quantity. A flow rate of not less than 1,000 gallons per minute (gpm) shall be provided.

Exceptions:

1. Higher flows may be required where more hazardous uses, manufacture or storage are involved. These shall be determined by the Code Official.

2. One story buildings not over 2,000 square feet (gross) in area and over thirty (30) feet from adjoining buildings are exempt.

3. Detached single family residential units are exempt.

F-520.4. Water Supplies - Duration. Water supplies shall be available for not less than a one hour duration.

F-520.5. Water Supplies - Pressure. Water supplies shall provide the required flow at not less than 20 psi residual pressure.

Exception:

F-520.5.1. For non-residential uses, where the individual building or groups of buildings gross area size is less than 10,000 square feet, non-pressurized water supplies may be used where specifically approved by the fire protection district serving the property.

(A group of buildings is considered all buildings on the same lot within fifty (50) feet of each other.)

F-520.6. Fire Hydrant Locations. Water supplies shall be delivered under pressure to fire hydrants located as follows:

F-520.6.1. Fire hydrants shall be located along public streets so that no portion of the building will be over 300 feet from a fire
F-520.6.2. One hydrant shall be located at each intersection and intermediate hydrants where distance between intersections exceed 400 feet.

F-520.6.3. In apartments, town houses, condominiums, town/row or cluster housing areas where streets or parking lots dead end, hydrants shall be placed along the access route.

F-520.6.4. At least two (2) fire hydrants shall be located within 300 feet of the building.

F-520.6.5. Additional fire hydrants shall be provided within 500 feet of the building so that the fire flow requires divided by 1,000 will equal the number of hydrants available.

F-520.6.6. Hydrants should be so located that:

F520.6.6.1. Hydrants will be located approximately ten (10) feet from all-weather roadways. If this cannot be done, the closest part of the hydrant shall be set back at least two (2) feet from the curb.

F-520.6.6.2. Hydrants shall be located approximately 50 feet from the building to be protected.

F520.6.6.3. Access to fire hydrants shall be all-weather roadways adequate in width, clearance and strength for fire fighting purposes. Such routes including private roadways, shall be maintained accessible during all seasons of the year. Legal provisions will be required for private roads.

F-520.6.7. Fire hydrants used in conjunction with water supplies shall meet the standards of the American Water Works Association Standard No. C-502, and shall have two (2-1/2) inch and one (4-1/2) inch outlets with auxiliary gate valves on the hydrant branch line. Threads shall be American National Standard. Pumper outlets shall face roadways.

F-520.6.8. Fire hydrants shall be protected from accidental damage by approved methods when located in areas subject to vehicular damage.

F-520.6.9. Where non-pressurized water systems are allowed, supplies shall be located not less than 300 feet from the building. Access to the supply shall be by an all-weather roadway.

F-520.7. Modifications. Water supplies including hydrant distribution for:


Subsection-601.1 of Section 601.0, “General”, is hereby amended to read as follows:

F-601.1. Scope. The provisions of this article shall govern the maintenance and use of means of egress as provided in buildings and structures in accordance with the requirements of the building code listed in Appendix A, NFPA 101 Life Safety Code, 1994 edition, and this code.

b. Sec. F-612.0. is hereby added to read as follows:

Sec. F-612.0. Additional Requirements.

F-612.1. Emergency Lighting. Emergency power supplies from an independent, approved reliable source (battery or automatic starting generator) shall be provided in all rooms and spaces over 2,000 square feet in area, with an occupancy load of 20 or more, stairways, corridors, access routes and other exit components.

F-612.2. Number and Location of Exits. All rooms or spaces with accommodations for 20 or more persons or over 2,000 square feet in area shall have 2 separate means of egress.


a. Sec. F-708.0 is hereby added to read as follows:


F-708.1 Notice. The owner of any business required under the provisions of the Illinois Toxic Substance Act to post notice to the employees of such business shall display such notice as required under the provisions of said Act.

F-708.2 Emergency Contingency Plan. All employees shall be notified by the owner of the Emergency Contingency Plan required under the Illinois Toxic Substance Act. The plan shall be posted along with the notice of the toxic substances.


a. Subsection F-3101.3 of Section F-3101.0. “General”, is hereby deleted and amended to read as follows:
Sec. F-3101.3. Applications. Applications in a form developed by the Fire Official for permits shall be made in writing at least thirty (30) days in advance of the display or discharge of fireworks.

F-3101.3.1. Bond and Responsibility. Bond and responsibility for Fireworks Display and Discharge requires “Public Liability Insurance in the amounts not less than $1,000,000. bodily injury and $250,000. property damage and the County of DuPage, Illinois, shall be added as an additional insured.”

7. Chapter 32. Flammable and Combustible Liquids.

a. Sec. F-3203.5.5 is hereby added to read as follows:

Sec. F-3203.5.5. Gravity Dispensing: Flammable or combustible liquids shall not be dispensed by gravity from tanks, drums, barrels or similar containers. Approved pumps that take suction from the top of the container shall be used.

Exception: Special permission is required when other methods are necessary due to the viscosity of the liquid.

b. Sec. F-3206.3.3 is hereby added to read as follows:

F-3206.3.3. Special Dispensers. Special type dispensers, such as coin, key or card operated devices, for self-service operation by the general public are prohibited.

c. Sec. F-3210.1.2.4 is hereby added to read as follows:

F-3210.1.2.4. Parking Restrictions. No tank vehicle shall be left unparked or unattended on any lot, street, highway, avenue, alley or any other location, public or private


a. Sec. F-3601.2. is hereby deleted and amended to read as follows:

F-3601.2. Storage Prohibited/Permit Required. Aboveground storage of liquefied petroleum gas utilizing one or more containers having a total capacity of over 1,000 gallons water capacity shall be prohibited. Any tank installation using containers over 30 gallons or aggregate capacity over 60 gallons water capacity shall require a Permit issued by the Fire Official.

b. Sec. F-3603.4 is hereby added to read as follows:

F-3603.4. Parking Restrictions. No tank vehicle shall be left parked or unattended on any lot, street, highway, avenue, alley or any other location, public or private.
Sec. 8-1009. Repeal of Conflicting Ordinances.

All former fire prevention ordinances or parts thereof conflicting or inconsistent with the provisions of this ordinance or of the code hereby adopted are hereby repealed.

Sec. 8-1010. Date of Effect.

This ordinance shall take effect and be in full force from and after its passage, approval and publication as required by law.