CHAPTER 34

SUBDIVISION CODE

ARTICLE I - GENERAL PROVISIONS

34-1-1 TITLE. These regulations shall be known as and may be referred to as the Subdivision Code.

34-1-2 PURPOSE. In accordance with State law **(Ill. Comp. Stats., Chap. 65, Secs. 5/11-12-5, 5/11-12-8 -- 5/11-12-12; Chap. 765, Sec. 205/1 et seq.)** this Code regulates the subdivision and development of land in order to implement the Comprehensive Plan and Official Map duly adopted by the City. Thus this Code assists in achieving the following specific objectives:

(A) to preserve, protect, and promote the public health, safety, and welfare;

(B) to provide a pleasant living environment by furthering the orderly and efficient layout and use of land and by facilitating aesthetic urban design;

(C) to establish accurate legal records, to avoid development in wetland areas, and to avoid legal and other problems by requiring that subdivided land be properly monumented and recorded;

(D) to conserve and increase the value of land, improvements, and buildings throughout the City;

(E) to preserve the natural beauty and topography of the City to the maximum feasible extent, including preservation of such features as stands of trees, streams, significant archaeological sites, and historical landmarks;

(F) to provide adequate light, air, and privacy for all residents of new developments by preventing undue concentration of population;

(G) to protect against injury or damage caused by fire, pollution, flooding, storm water runoff, or erosion and sedimentation;

(H) to provide safe and convenient access to new developments and to avoid traffic congestion and unnecessary public expenditures by requiring the proper location, design, and construction of streets and sidewalks;

(I) to provide an environment whereby the cost of installing and maintaining adequate water mains, sanitary sewers, storm water sewers, and other utilities and services can be kept at a minimum; and

(J) to ensure that adequate parks, schools, and similar facilities can be made available to serve the residents.

34-1-3 JURISDICTION. The provisions of this Code shall apply to all Planned Developments whether Residential, Commercial, or otherwise in nature, and to any other developments whether a Plat is required or not under the law, statutes, ordinances or regulations of the governmental body or agency having jurisdiction or control, and regardless of whether the same is labeled a subdivision or not, it being the intent of this Code to apply to all types of development, both within the City and to areas lying within **one and one-half (1.5) miles** of the corporate limits of the City.

34-1-4 INSTANCES WHEN PLATS WILL NOT BE REQUIRED. The provision of these regulations do not apply and no plat is required in any of the following instances:

(A) the division or subdivision of land into parcels or tracts of **five (5) acres** or more in size which does not involve any new streets or easements of access or add special utility easements;

(B) the division of lots or blocks of less than **one (1) acre** in any recorded subdivision which does not involve any new streets or easements of access or add special utility easements;

(C) the sale or exchange of parcels of land between owners of adjoining and contiguous land;

(D) the conveyance of parcels of land or interests therein for use as a right-of-way for railroads or other public utility facilities and other pipelines which does not involve any new streets or easements of access or add special utility easements;

(E) the conveyance of land for highway or other public purposes or grants or conveyance relating to the dedication of land for public use or instruments relating to the vacation of land impressed with a public use;

(F) conveyance made to correct description in prior conveyances;

(G) the sale or exchange of parcels or tracts of land following the division into no more than **two (2) parts** of a particular parcel or tract of land recorded on or before **July 17, 1959** and not involving any new streets or easements of access or add special utility easements;

(H) the conveyance of land owned by a railroad or other public utility which does not involve any new streets or easements of access or add special utility easements;

(I) the sale of a single lot of less than **five (5) acres** from a larger tract when a survey is made by a registered surveyor; provided, however, that this exemption shall not apply to the sale of any subsequent lots from the same larger tract of land, as determined by the dimensions and configuration of the larger tract existing as of **October 1, 1973.**

34-1-5 INTERPRETATION. Every provision of this Code shall be construed liberally in favor of the City, and every regulation set forth herein shall be considered the minimum requirement for the promotion of the public health, safety, and welfare.

(A) **More Restrictive Requirements Apply.** Whenever the requirements of this Code differ from those of any statute, lawfully adopted ordinance or regulation, easement, covenant, or deed restriction, the more stringent requirement shall prevail. Thus, in accordance with State law whenever this Code imposes higher standards than the County Subdivision Code, said higher standards shall supersede the County regulations in the unincorporated territory located within the City's subdivision jurisdiction. **(See 65 ILCS Sec. 5/11-12-11)**

34-1-6 DISCLAIMER OF LIABILITY.

(A) Except as may be provided otherwise by statute or ordinance, no officer, council member, agent, or employee of the City shall render himself personally liable for any damage that may accrue to persons or property as a result of any act required or permitted in the discharge of his duties under this Code. **(See "Local Governmental and Governmental Employees Tort Immunity Act," Ill. Comp. Stats., Chap. 745, Secs. 10/1-101.)**

(B) Any suit brought against any officer, council member, agent, or employee of the City, as a result of any act required or permitted in the discharge of his duties under this Code, shall be defended by the City Attorney until the final determination of the legal proceedings.

34-1-7 REVIEW AND EXPIRATION. This Code shall be reviewed by the Plan Commission every **ten (10) years** for necessary amendments.

ARTICLE II - DEFINITIONS

34-2-1 INTERPRETATION OF TERMS. In construing the intended meaning of terminology used in this Code, the following rules shall be observed:

(A) Unless the context clearly indicates otherwise, words and phrases shall have the meanings respectively ascribed to them in Section 34-2-2; terms not defined in Section 34-2-2 shall have the meanings respectively ascribed to them in the City's Zoning Code; if any term is not defined either in Section 34-2-2 or in the Zoning Code, said term shall have its standard English dictionary meaning.

(B) Words denoting the masculine gender shall be deemed to include the feminine and neuter genders.

(C) Words used in the present tense shall include the future tense.

(D) Words used in the singular number shall include the plural number, and vice versa.

(E) The word "shall" is mandatory; the word "may" is discretionary.

(F) Captions (i.e., titles of sections, subsections, etc.) are intended merely to facilitate general reference and in no way limit the substantive application of the provisions set forth thereunder.

(G) References to sections shall be deemed to include all subsections within that section; but a reference to a particular subsection designates only that subsection.

(H) A general term that follows or is followed by enumerations of specific terms shall not be limited to the enumerated class unless expressly limited.

34-2-2 SELECTED DEFINITIONS.

Administrator: The official appointed by the Mayor and the City Council to administer the Subdivision and Development Code.

Alley: A public right-of-way which affords a secondary means of vehicular access to the side or rear of premises that front on a nearby street, and which may be used for utility purposes.

Amendment: A change in the provisions of this code, properly effected in accordance with State law and the procedures set forth herein.

Area, Building: The total of areas taken on a horizontal plane at the main grade level of the principal building and all accessory buildings exclusive of unenclosed patios, terraces, and steps.

Area, Gross: The entire area within the lot lines of the property proposed for subdivision/development, including any areas to be dedicated/reserved for street and alley rights-of-way and for public uses.

Area, Net: The entire area within the boundary lines of the territory proposed for subdivision, less the area to be dedicated for street and alley rights-of-way and public use.

Arterial Street: A street designed or utilized primarily for high vehicular speeds or for heavy volumes of traffic on a continuous route with intersections at grade, and on which traffic control devices are used to expedite the safe movement of through traffic.

Barrier (Natural or Artificial): Any street, highway, river, pond, canal, railroad, levee, embankment, or screening by a fence or hedge.

Block: An area of land entirely bounded by streets, highways, barriers, or rights-of-ways (except alleys, pedestrian ways, or exterior boundaries of a subdivision unless exterior boundary is a street, highway, or R.O.W.) or bounded by a combination of streets, public parks, cemeteries, railroad rights-of-way, waterways, or corporate boundary lines.

Building: Any structure, whether temporary, semi-permanent, or permanent, designed or intended for the support, enclosure, shelter or protection of persons or property.

Building Line: See Setback Line.

Catch Basin: A receptacle, located where a street gutter opens into a storm sewer, designed to retain matter that would not easily pass through the storm sewer.

Centerline:

(A) the centerline of any right-of-way having a uniform width;
(B) the original centerline, where a right-of-way has been widened irregularly;
(C) the new centerline, whenever a road has been relocated.

Centerline Offset: The distance between the centerline of two roughly parallel streets, measured along the third street with which both said "parallel" streets intersect.

Cluster Development: A subdivision planned and constructed so as to group housing units into relatively dense patterns while providing a unified network of open space and wooded areas, and meeting the requirements of the Subdivision Code and the Zoning Code.

Collector Street: A street which carries or is proposed to carry intermediate volumes of traffic from local streets to arterial streets and which may or may not be continuous.

Common Land: That land set aside for open space or recreational use for the owners of the lots of a subdivision, which land is conveyed by the developer in fee simple absolute title by warranty to trustees whose trust indenture shall provide that said common land be used for the sole benefit, use and enjoyment of the lot owners present and future. No lot owner shall have the right to convey his interest in the common land except as an incident of the ownership of a regularly platted lot.

Comprehensive Plan: The plan or any portion thereof adopted by the City Council to guide and coordinate the physical and economic development of the City. The City's Comprehensive Plan may include, but is not limited to, plans and programs regarding the location, character, and extent of highways, bridges, public buildings or uses, utilities, schools, residential, commercial, or industrial land uses, parks, drainage facilities, etc.

Cross-slope: The degree of inclination measured across a right-of-way rather than in the direction traffic moves on said right-of-way.

Cul-de-Sac: A short minor local street having only one outlet for vehicular traffic and having the other end permanently terminated by a turn-around for vehicles; the term may also be used to refer solely to said turn-around.

Curb and Gutter, Integral: The rim forming the edge of a street plus the channel for leading off surface water, constructed of concrete as a single facility.

Dedicate: To transfer the ownership of a right-of-way, parcel of land, or improvement to the City or other appropriate government entity without compensation.

Density, Gross: The total number of dwelling units divided by the total project area, expressed as gross dwelling units per acre.

Density, Net: The total number of dwelling units divided by the net acreage. See definition of Area, Net.

Design: The arrangement of uses on the land and the arrangement of easements, lots and rights-of-way, including specifications of materials, alignment, grade and width of these elements.

Develop: To erect any structure or to install any improvements on a tract of land, or to undertake any activity (such as grading) in preparation therefor.

Dimensions: Refers to both lot depth and lot width.

District, Zoning: A portion of the territory of the City wherein certain uniform requirements or various combinations thereof apply to structures, lots, and uses under the terms of the City's Zoning Code.

Drainageway: A watercourse, gully, dry stream, creek, or ditch which carries storm water runoff or which is fed by street or building gutters or by storm water sewers, or which serves the purpose of draining water from the lands adjacent to such watercourse, gully, dry stream, creek, or ditch.

Easement: A grant by the property owner to the public, a corporation, or a person of the use of land for limited and specifically named purpose.

Escrow Deposit: A deposit in cash or other approved securities to assure the completion of improvements within a subdivision.

Filing Date: The date that the applicant has filed the last item of required data or information with the City Clerk and has paid the necessary fees for review by the Plan Commission.

Flood Hazard Area: All land subject to periodic inundation from overflow of natural waterways.

Frontage: The lineal extent of the front (street-side) of a lot.

Frontage Road: A minor street fronting on an arterial street or highway (usually a limited access highway), used for access to abutting lots.

Grade: The degree of inclination of the site or right-of-way, expressed as a percentage. Synonym for "slope."

Hillside Area: An area with an average slope of **twenty percent (20%)** or more.

Improvement: Refers to site grading, street work and utilities (including water, sewer, electric, gas, storm water, telephone and cable television) to be installed or agreed to be installed by the subdivider on land to be used for public or private streets, and easements or other purposes as are necessary for the general use of lot owners in the subdivision. Including the furnishing of all materials, equipment, work and services such as engineering, staking and supervision, necessary to construct all the improvements required in Article V of the Code or any other improvements that may be provided by the subdivider. All of such materials, equipment and services shall be provided at the subdivider's cost and expense, although he may enter into a contract with individuals and firms to complete such improvements, and the improvements shall be subject to the final approval of the Plan Commission and the City Council.

Improvement Plans: The engineering plans showing types of materials and construction details for earth moving and for the structures and facilities to be installed both in, or in conjunction with, a subdivision. Plans must include drainage, streets, alleys and utility locations to be installed in or in conjunction with a subdivision - also, include overall drainage plan and its effect on contiguous land and source of effluent or discharge.

Inlet: A receptacle, located where surface and/or groundwater can run to by gravity to be received by the storm sewer.

Intersection: The point at which two or more public rights-of-way (generally streets) meet.

Land Use Plan: The comprehensive long-range plan for the desirable use of land, the purpose of such plan being, among other things, to serve as a guide to the zoning and progressive subdividing and use of undeveloped land.

Local Street: A street serving limited amounts of residential traffic, and for access to abutting property, and on which the speed limit is low and the traffic volume minimal.

Lot: A tract of land intended as a unit for the purpose (whether immediate or future) of development or transfer of ownership. A "lot" may or may not coincide with a "lot of record."

Lot Area: The area of a horizontal plane bounded by the front, side, and rear lines of a lot, exclusive of any land designated for street right-of-way.

Lot, Butt: A lot at the end of a block and located between **two (2) corner lots.**

Lot, Corner: A lot having at least **two (2) adjacent sides** that abut for their full length upon streets. Both such side lines shall be deemed front lot lines.

Lot Depth: The mean horizontal distance between the front end and the rear lot lines measured in the general direction of the side lot lines.

Lot, Interior: A lot whose side lines do not abut any street.

Lot Line, Front: The line separating the lot from the street. On a corner lot, the front lot line shall be the frontage having the least dimension.

Lot Line, Rear: The rear lot line is the lot line most nearly parallel to and most remote from the front lot line.

Lot Line, Side: Any lot line other than front or rear lot line. A corner side lot line separating a lot from a street is called a street side lot line. A side lot line separating a lot from another lot or lots is called an interior side lot line.

Lot of Record: An area of land designated as a lot on a plat of subdivision recorded with the County Recorder of Deeds in accordance with State law.

Lot, Through: A lot having a part of approximately parallel lot lines that abut **two (2)** approximately parallel streets. Both such lot lines shall be deemed front lot lines.

Lot Width: The mean horizontal width of the lot measured at right angle to the general direction of the side lot lines.

Maintenance Bond: A surety bond, posted by the developer and approved by the City, guaranteeing the satisfactory condition of installed improvements for the one-year period following their dedication.

Master Development Plan: A combination of maps, drawings, site plans, charts and supportive narrative material that portrays total development to be achieved in the overall project area; which provides sufficient detailed information to both illustrate and describe the intended character and configuration of development to be accomplished.

Metes and Bounds: A description of real property which is not described by reference to a lot or block shown on a map, but is described by starting at a known point and description of the lines forming the boundaries of the property or delineates a fractional portion of a section, lot or area by describing lines or portions thereof.

Official Map: A graphic statement of the existing and proposed capital improvements planned by the City which require the acquisition of land--such as streets, drainage systems, parks, etc.

Owner: A person having sufficient proprietary interest in the land sought to be subdivided to commence and maintain proceedings to subdivide the same under these regulations.

Parking Lane: An auxiliary lane of a street and primarily used for vehicular parking.

Pedestrian Way: A right-of-way dedicated to public use which cuts across a block to facilitate safe pedestrian access to adjacent streets and properties.

Performance Bond: A surety bond posted by the developer and approved by the City, guaranteeing the installation of required improvements within, or in conjunction with, a subdivision.

Person: Any agent, individual, firm, association, partnership, corporation, syndicate or trust.

Plan Commission: The Plan Commission of the City.

Planned Unit Development (PUD): A planned unit development is a comprehensively planned development containing residential, commercial, industrial, or other land uses on an area of land under continuing unified control. A planned unit development may contain a single type of land use or combination of land uses provided that such development is reviewed, evaluated and approved by the City and satisfies the requirements contained herein.

Plans: All of the drawings including plats, cross-sections, profiles, working details and specifications, which the subdivider prepares or has prepared to show the character, extent and details of improvements required in this Code and which plans shall conform to any requirements of the Plan Commission as to scale and details for submittal to the approval officials of the City for consideration, approval or disapproval.

Plat, Final: The final engineering and architectural maps, drawings, and supporting material indicating the subdivider's plan of the subdivision which, if approved, may be filed with the County Recorder of Deeds.

Plat, Preliminary: Preliminary engineering and architectural maps, drawings, and supportive material indicating the proposed layout of a subdivision.

Project Area: That territory intended to be subdivided or developed, and portrayed and defined in the preliminary and final plats.

Reserve: To set aside a parcel of land in anticipation of its acquisition by the City or other appropriate government entity for public purposes.

Reserve Strip: A narrow strip of land between a public street and adjacent lots which is designated on a recorded subdivision plat or property deed as land over which vehicular travel is not permitted.

Re-subdivision: See Subdivision.

Retention Area: An area of land designed to capture water runoff from a developed parcel and release it at a specified rate of flow as determined by engineering studies **(See Section 5-16.4).**

Reverse Curve: A curve in a street heading in approximately the opposite direction from the curve immediately preceding it so as to form an S-shape.

Right-of-Way, Public: A strip of land which the owner/subdivider has dedicated to the City or other appropriate government entity for streets, alleys, and other public improvements; sometimes abbreviated as r.o.w.

Roadbed: The graded portion of a street upon which the base course, surface course, shoulders and median are constructed.

Roadway: The entire improved portion of the street, including shoulders, parking lanes, travel way, curbs and gutter.

Setback Line: A line that is usually parallel to the front, side or rear lot line establishing the minimum space to be provided as the front, side or rear yard.

Sidewalk: A pedestrian way constructed in compliance with the standards of this Code, generally abutting or near the curb line of the street.

Slope: The degree of inclination of site or right-of-way expressed as a percentage. Synonym for "grade."

Soil and Water Conservation District: The County Soil and Water Conservation District.

Street: A public or private way for motor vehicle travel. The term "street" includes a highway, thoroughfare, parkway, through way, road, pike, avenue, boulevard, lane, place, drive, court and similar designations, but excludes an alley or a way for pedestrian or bicycle use only.

Street, Area Service Highway: Area service highways interconnect collectors and land access streets with the principal system and vice versa, brings all developed areas within a reasonable distance of principal streets, connects and provides direct access to major traffic generators, provides secondary service to smaller communities, may provide access to abutting property, and have a medium volume design capacity and travel speeds.

Street, Cul-de-Sac: A short, land-access street, having only **one (1) end** open for vehicular traffic, and the other permanently terminated by a turn-around for vehicles.

Street, Dead-End: Land access streets similar to cul-de-sacs, except that they provide no turn-around circle at their closed end, and are not permitted in any proposed subdivision.

Street, Land Access: Land access streets provide access to abutting properties, have a relatively short travel distance, and have a low volume design capacity and travel speeds.

Street, Looped: Land access streets having **two (2) open ends**, each end generally connecting with the same street, no other streets intersecting between its ends, and property fronts on both sides of the street.

Street, Marginal Access or Service Road: A land access street parallel and adjacent to area service highways providing access to abutting properties.

Structure: Anything constructed or erected which requires permanent or temporary location on or in the ground, or is attached to something having a fixed location on or in the ground. All buildings are structures but not all structures are buildings (e.g., a fence).

Stub or Butt Street: A street that is temporarily terminated, but that is planned for future continuation.

Subdivider: Any person, firm, partnership, association, corporation, estate or other group or combination acting as a unit, dividing or proposing to divide land in a manner that constitutes a subdivision as defined in this Article.

Subdivision: (1) The division of land into two or more lots or parcels for the purpose of either immediate or future sale, rental or building development or use(s) other than agricultural use or

production. (2) Establishment or dedication of a public street or alley through a tract of land regardless of size. The term "subdivision" shall also include all re-subdivisions of land or lots.

Subdivision, Minor: A division of land into **two (2)**, but not more than **four (4) lots**, all of which front upon an existing street, **not involving new streets** or other rights-of-way, easements, improvements, or other provisions for public areas and facilities.

Topography: The relief features or surface configuration of an area of land.

Travelway: That portion of a street used for the movement of vehicles, exclusive of shoulders and auxiliary lanes.

Vacate: To terminate the legal existence of right-of-way or subdivision, and to so note on the final plat recorded with the County Recorder of Deeds.

Variance, Subdivision: A relaxation in the strict application of the design and improvement standards set forth in this Code.

Yard, Front: A yard extending across the full width of the lot, the depth of which is set forth in the Zoning Code.

Yard, Rear: A yard extending across the full width of the lot between the nearest rear main building and the rear lot lines. The depth of the required rear yard shall be measured horizontally from the nearest part of the main building toward the nearest point of the rear lot lines.

Yard, Side: A yard between a main building and the side lot line, extending from the front yard or front lot lines, where no front yard is required, to the rear yard. The width of the required side yard shall be measured horizontally from the nearest point of the side lot line toward the nearest part of the main building.

Zoning Code: The Zoning Code of the City.

ARTICLE III - PLATS AND PLANS

DIVISION I - PRELIMINARY PLATS

34-3-1 GENERAL PROCEDURE. Before preparing a proposed plat for an area, the owner, developer, or their representatives should have a pre-application meeting with the Plan Commission and/or the City Planner to determine applicable ordinance regulations and standards which must be complied with. After the pre-application meeting(s), the subdivider should then prepare the preliminary plat. As defined in the Subdivision Code, the preliminary plat must contain a substantial amount of data, and will thus be incomplete and cannot be considered as filed until all required data are submitted. The preliminary plat is received with filing fees by the City Clerk's office, who, in turn, will forward the same to the Plan Commission for their review. Following its review (as well as comments from other appropriate agencies when required), the Plan Commission forwards its recommendation(s) to the City Council, who then either approve, disapprove, or approve with modifications the preliminary plat.

34-3-2 FILING PROCEDURE. Except as specifically provided otherwise below, every person who proposes to subdivide any land located within the subdivision jurisdiction of this municipality shall file **six (6) copies** of the preliminary plat of said subdivision with the City Clerk.

He shall also file **one (1) copy** of the preliminary plat and supporting data with the appropriate Soil and Water Conservation District. Said district shall have not more than **thirty (30) days** to submit any comments it might wish to make to the Administrator. **(See 70 ILCS Sec. 405/22.02A)**

Whenever a large tract is to be developed in stages and only a portion of that tract is to be submitted for final plat approval, nonetheless, a Master Development Plan of the entire tract shall be submitted.

All preliminary plats shall be reviewed and acted upon in accordance with **Illinois Compiled Statutes, Chapter 65, Section 5/11-12-8** and the provisions of the subsections below.

EXCEPTION: The provision of this section shall not apply to:

(A) minor subdivisions as defined at Section 34-2-2; or

(B) land that is specifically exempted from the Illinois Plats Act as now or hereafter amended. **(See 765 ILCS Sec. 205/1(B)).**

34-3-3 INFORMATION REQUIRED. Every preliminary plat shall be prepared by an Illinois Registered Land Surveyor at any scale from **one inch equals twenty feet (1" = 20')** through **one inch equals one hundred feet (1" = 100')** provided the resultant drawing does not exceed **thirty-six (36) inches square**.

(A) small key map showing the relation of the proposed subdivision to section or U.S. Survey lines and to platted subdivisions and dedicated roads within **three hundred (300) feet** of the proposed subdivision;

(B) names and addresses of the owner, subdivider (if not the owner), and registered professional engineer;

(C) proposed name of the subdivision;

(D) zoning district classification of the tract to be subdivided, and of the adjacent land;

(E) north arrow, graphic scale, and date of map;

(F) the gross and net acreage area of the proposed subdivision, the acreage of streets, and of any areas reserved for the common use of the property owners within the subdivision and/or for public use;

(G) all lot lines adjacent to and abutting the subdivision;

(H) tract boundary lines showing dimensions, bearings, angles, and references to known land lines;

(I) topography of the tract to be subdivided as indicated by **two- (2) foot** contour data for land having slopes of **zero-four percent (0-4%), five- (5) foot** contour data for land having slopes between **four-twelve percent (4-12%),** and **ten- (10) foot** contour data for land having slopes of **twelve percent (12%)** or more;

(J) any proposed alteration, adjustment or change in the elevation or topography of any area;

(K) locations of such features as bodies of water, ponding areas, natural drainageways, railroads, cemeteries, bridges, parks, schools, etc.;

(L) streets and rights-of-way on and adjoining the site of the proposed subdivision; showing the names and including street right-of-way and paving widths; approximate

gradients; types and widths of pavement, curbs, sidewalks, crosswalks, planting strips and other pertinent data, including classification of all existing or proposed streets as to function as collector, major, minor or county road;

(M) a copy of the results of any tests made to ascertain subsurface rock and soil conditions and the water table;

(N) locations, widths, and purposes of all existing and proposed easements;

(O) a copy of the description of all proposed deed restrictions and covenants;

(P) location and size of existing and proposed sanitary and storm sewers;

(Q) locations, types, and approximate sizes of all other existing and proposed utilities;

(R) building setback or front yard lines and dimensions;

(S) locations, dimensions, and areas of all parcels to be reserved or dedicated for schools, parks/playgrounds, and other public purposes; and

(T) locations, dimensions, and areas of all proposed or existing lots within the subdivision;

(U) information as defined in Section 34-3-4(A).

34-3-4 PLAN COMMISSION ACTION. The Plan Commission shall either approve or disapprove the application for preliminary plat approval within **sixty (60) days** from the date of said application or the filing of the last item of required supporting data, whichever date is later, unless the Plan Commission and the subdivider mutually agree to extend this time limit. If the Plan Commission disapproves the preliminary plat, they shall furnish to the applicant within the **sixty (60) day period** a written statement specifying the aspects in which the proposed plat fails to conform to this Code and/or the Official Map. If the Plan Commission approved the preliminary plat, they shall inform the City Council that action can be taken at the next regularly scheduled City Council meeting.

(A) **Notice of Meeting.** The Plan Commission shall give notice of its consideration of any preliminary plat and allow the opportunity to be heard to the following person(s) or groups during its preliminary review time span:

(1) Any person requesting notification of the meeting.

(2) Any property owner whose property is contiguous to the property, including property across the streets, railroads, creeks, and similar barriers; said information shall be provided by the applicant to the City Clerk's office when filing the plat.

(3) Any governmental or taxing body which requests notification of the meeting.

34-3-5 REVIEW BY CITY COUNCIL; TIME CONSTRAINTS. The City Council shall review the preliminary plat, along with the Plan Commission recommendations and approve, disapprove or approve subject to certain conditions and/or modifications said preliminary plat within **thirty (30) days** after its next regularly scheduled meeting following receipt of the written Plan Commission recommendations, unless variances from Zoning Code requirements are needed, in which case, the City Council's **thirty (30) days** commence the day after the Board of Appeals hearing is held, as required by the Zoning Code.

If the City Council rejects the preliminary plat, their resolution shall specify the aspects in which the plat fails to comply with this Code and/or the Official Map. The City Clerk shall attach a certified copy of the Council's resolution of approval or disapproval to the preliminary plat. One

copy of the resolution and plat shall be retained by the Clerk, one copy shall be filed with the Administrator, and one copy shall be sent to the subdivider by return receipt mail.

34-3-6 RIGHTS AND PRIVILEGES OF SUBDIVIDER. Preliminary plat approval shall confer the following rights and privileges upon the subdivider:

(A) That the preliminary plat will remain in effect for a **one (1) year** period from the day the City Council approves the same. The applicant may, during this period, submit all or part or parts of said preliminary plat for final approval. In the event that the subdivision is being developed in stages, the applicant may, by written mutual agreement with the City Council, have final approval of the last part of the plat delayed for a period not to exceed **five (5) years** from the date of the preliminary plat approval. Any part of a subdivision which is being developed in stages shall contain a tract of land at least **one (1) block** in area or **five (5) gross acres**.

(B) That the general terms and conditions under which the preliminary plat approval was granted will not be changed for final approval.

(C) The applicant may also proceed with any detailed improvement plans required for all facilities or utilities intended to be provided. Actual construction of such facilities and improvements may commence prior to final plat approval if the detailed improvement plans have been recommended by the City Engineer and approved by the City Council, provided that such facilities and improvements will be inspected throughout their construction, and final plat approval will be contingent in part upon acceptable compliance to City improvement and facilities standards. If the applicant does not submit the improvement plans prior to the submission of the final plat, then he shall submit the improvement plans to the City Clerk's office at the time that the final plat is submitted.

34-3-7 RESERVED.

DIVISION II - IMPROVEMENT PLANS

34-3-8 SUBMISSION OF PLANS. After the City Council has approved the preliminary plat, but prior to submission of the final plat, the developer shall furnish **six (6) copies** of the plans and specifications for all improvements to be installed within or in conjunction with the proposed development to the City Clerk, pay all associated filing fees before review by the City Engineer. These plans and specifications shall be signed and sealed by the registered professional engineer responsible for their preparation. Until the City Engineer certifies in writing that the proposed improvements conform to generally accepted engineering practices and to the standards in this Code:

(A) the Administrator shall not issue any building permit to allow construction of said improvements; and

(B) the City Council shall not act upon the application for final plat approval.

34-3-9 INFORMATION REQUIRED. Improvements plans shall consist of black or blue line prints not larger than **thirty-six (36) inches square**. These plans and the related specifications shall provide all of the following information:

(A) topography of the tract, both before and after development at the same scale as the approved preliminary plat;

(B) existing and proposed elevations along the centerline of all streets;

(C) radii of all curves and lengths of tangents on all streets;

(D) locations and typical cross-section of street pavements including curbs/gutters, catch basins, and inlets;

(E) locations and typical cross-section of sidewalks and driveway aprons;

(F) locations, sizes, and invert elevations of all existing and proposed sanitary sewers, storm sewers, and fire hydrants, showing connections to any existing or proposed utility systems;

(G) locations and sizes of all water, gas, electric, and other utilities;

(H) locations of street lighting standards and street signs;

(I) one or more bench marks, when requested by Engineer, in or near the subdivision, to which the subdivision is referenced; the identity and elevation shall be based on sea level datum;

(J) all proposed measures to control erosion and sedimentation;

(K) high water elevations of all lakes/streams adjoining or within the tract;

(L) such other information as the City Engineer may reasonably require to perform his duties under this section; and

(M) existing and proposed survey monuments on street plans or on the proposed final plat as required by this Code.

34-3-10 INSPECTIONS REQUIRED. The subdivider/developer shall notify the Administrator and the Building Commissioner of both the start and completion of construction.

(A) The Building Commissioner shall inspect said improvements while they are under construction. If he or his designated deputy determines that they are being built in violation of this Code, he shall request that the Administrator promptly issue a stop order.

(B) The Building Commissioner and City Engineer shall inspect improvements upon their completion. This municipality shall not accept any completed improvement until the Building Commissioner and Engineer have stated in writing that it complies with this Code.

34-3-11 FILING "AS-BUILT" RECORDS.

(A) The subdivider/developer shall file with the Administrator a set of reproducible cloth- or polyester-base film positive showing the as-built details and any deviations from the approved plans upon the completion of improvements, or when **fifty percent (50%)** of the building permits have been issued in a given plat.

(B) The subdivider/developer shall pay the costs to add water, sewer, street, and stormwater improvements to the overall City map(s); street, sewer, water, stormwater;

(C) If the Administrator finds the as-built to be unacceptable, building permits shall be discontinued until such time as the information is acceptable.

34-3-12 RESERVED.

DIVISION III - ASSURANCE FOR COMPLETION OF REQUIRED IMPROVEMENTS

34-3-13 APPROVAL OF FINAL PLAT - IMPROVEMENTS. The City Council shall not approve any final plat of subdivision (and, hence, said final plat shall not be entitled to recording) until:

(A) all improvements required in the improvements plan have been completed by the subdivider/developer at his expense, inspected by the Building Commissioner and Engineer, and dedicated to this municipality or other appropriate entity; or

(B) in accordance with the subsections below, the subdivider/developer has provided this municipality with legal assurance to guarantee the satisfactory completion and dedication of all required improvements.

34-3-14 FORMS OF ASSURANCE. At the option of the City Council, the required legal assurance may be either a performance bond or an escrow deposit. Every performance bond shall be reviewed by the City Attorney, and posted with the City Clerk. Any funds to be held in escrow shall be deposited with the City Clerk.

34-3-15 AMOUNT OF BOND OR DEPOSIT. The amount of the performance bond or escrow deposit shall be equal to the City Engineer's opinion of probable costs of constructing the uncompleted portion of the required improvements plus all required inspection fees. Any escrow deposit may be in the form of:

(A) cash;

(B) an irrevocable letter of credit or commitment from a lending institution guaranteeing to this municipality the availability of the escrow funds from time to time upon demand; or

(C) certificates of deposit, treasury bills, or other readily negotiable instruments approved by the City Clerk, and made payable to this municipality.

34-3-16 ELIGIBLE SURETIES. No person shall be eligible to act as surety unless he has been approved by the City Clerk. The Clerk shall conduct or cause to be conducted spot audits of all sureties. Any surety who fails to perform shall be ineligible for **two (2) years** thereafter to act as surety for any subdivision improvement within this municipality's jurisdiction.

34-3-17 TERM OF ASSURANCE, EXTENSION. The initial term of any performance bond or escrow agreement shall not exceed **two (2) years**. If all the required improvements have not been completed by the end of the two-year period, the Plan Commission, with the advice and consent of the City Council, may either extend said bond/escrow agreement for **one (1) year** only, or may proceed as per **Section 34-3-19**.

34-3-18 RELEASE OF BOND/ESCROW DEPOSIT.

(A) The City Clerk may release up to **ninety percent (90%)** of the amount of the performance bond/escrow deposit upon receipt of written authorization from the Building Commissioner. The amount which the Building Commissioner authorizes to be released shall be equal to the value of improvements actually completed in accordance with approved plans.

(B) The balance of the amount of the performance bond/escrow deposit shall not be released by the City Clerk until:

(1) the Building Commissioner has certified to the Administrator in writing that all required improvements have been satisfactorily completed; and

(2) said improvements have been accepted by and dedicated to this City or other appropriate entity.

34-3-19 FAILURE TO COMPLETE IMPROVEMENTS. If all the required improvements have not been completed by the end of the two-year period (or three-year period, in the case of an extension), the Administrator, with the assistance of the City Attorney, may:

(A) require the surety to perform on the bond, and to pay to this municipality an equal amount to the cost of completing the required improvements or the amount of the bond not theretofore released, whichever is less; or

(B) order the City Clerk to retain all escrow funds needed to complete the required improvements, and to return the balance (if any) of such funds to the subdivider/developer; or

(C) require the subdivider/developer to submit a new performance bond/escrow deposit in an amount sufficient to cover any increase in the cost of constructing the required improvements.

34-3-20 - 34-3-21 RESERVED.

DIVISION IV - FINAL PLATS

34-3-22 CITY COUNCIL APPROVAL. The City Council shall not approve any final plat unless they determine that it is in compliance with all pertinent requirements of this Code including those set forth in the subsections below.

34-3-23 FILING, TIME LIMITS. The subdivider of every subdivision -- whether major or minor but excluding land specifically exempted from the Illinois Plats Act as now or hereafter amended **(Ill. Comp. Stats., Chap. 765, Sec. 205/1(b))** -- who desires final plat approval shall file **six (6) copies** of the final plat and supporting data with the City Clerk and pay all associated filing fees not later than **one (1) year** after preliminary plat approval has been granted. However, with the consent of the City Council, the subdivider may delay application for final approval of part(s) of the tract shown on the preliminary plat for successive one-year periods. No subdivision plat or re-plat shall be filed for record or recorded in the office of the County Recorder of Deeds, unless and until the approval of the City is endorsed thereon. No lot shall be sold for such subdivision plat or re-plat until it has been approved by the City Council and filed for record in the office of the County Recorder of Deeds as required by the State Statutes.

For official filings, the subdivider shall file the approved final plat with the County Recorder of Deeds within **sixty (60) days** after the City Council has approved the same and the Mayor has affixed his signature thereto. **One (1) copy** of the final plat shall be given to the City Clerk's office by the subdivider bearing the official stamp of the County Recorder attesting its recording within **twenty (20) days** of such action.

34-3-24 INFORMATION REQUIRED. Every final plat shall be prepared by a land surveyor on new linen tracing cloth- or polyester-base film with waterproof black ink at a scale not greater than **one hundred (100) feet** equals **one (1) inch**, provided that the resultant drawing shall not exceed **thirty-six (36) inches square**. The final plat and supporting data shall portray/provide all of the following information:

(A) north arrow, graphic scale, and date;

(B) name of subdivider, subdivision, identification of the portion of the Public Lands Survey in which the subdivision is located;

(C) accurate metes and bounds or other adequate legal description of the tract, and the included area of the subdivision to the nearest **one-hundredth (1/100) of an acre**;

(D) accurate boundary lines, with dimensions and bearings or angles which provide a survey of the tract, closing with an error of closure of not more than **one (1) foot** in **ten thousand (10,000) feet**;

(E) all dimensions shall be shown in feet and decimals of a foot;

(F) reference to recorded plats of adjoining platted land within **three hundred (300) feet**, by record name, plat book, and page number;

(G) accurate locations of all existing streets intersecting the boundaries of the subdivision;

(H) right-of-way lines of all streets, other rights-of-way, easements, and lot lines with accurate dimensions, angles, or bearings and curve data, including radii, arcs or chords, points of tangency, and central angles;

(I) name and right-of-way width of every proposed street;

(J) purpose of any existing or proposed easement(s);

(K) number of each lot, lot dimensions, and (in a separate list) lot areas;

(L) purpose(s) for which sites, other than private lots, are reserved;

(M) building or setback lines with accurate dimensions;

(N) restrictions of all types which will run with the land, and become covenants in the deeds of lots;

(O) certification of dedication of all public areas;

(P) accurate distances and directions to the nearest established official monument; reference corners shall be accurately described on the final plat;

(Q) reference to known and permanent monuments and bench marks from which future surveys may be made together with elevations of any bench marks; and the Surveyor must, at the time of making his survey, establish permanent monuments (set in such a manner that they will not be moved by frost) which mark the external boundaries of the tract to be divided or subdivided and must designate upon the plat the locations where they may be found;

(R) location, type, material and size of all monuments and lot markers.

34-3-25 CERTIFICATES REQUIRED. As required by State law **(Ill. Comp. Stats., Chap. 765, Sec. 205/2; Chap. 65, Sec. 5/11-12-8),** the following certificates shall be executed on the final plat:

(A)

OWNER'S CERTIFICATE

We, _____, the Owners of _____(description)_____, have caused the said tract to be surveyed and subdivided in the manner shown, and said subdivision is to be hereinafter known as _____. All rights-of-way and easements shown hereon are

hereby dedicated to the use of the public forever including the release and waiver of the right of homestead under the Homestead Exemption laws of the State of Illinois.

Dated this ___ day of _____, ____.

_____ (Seal)

_____ (Seal)

(B)

NOTARY PUBLIC'S CERTIFICATE

State of Illinois)
) SS
County of Ford)

I, _____, a Notary Public in and for the County aforesaid, do hereby certify that (owners)_____ are personally known to me to be the same persons whose names are subscribed to the foregoing instrument, and that they appeared before me this day in person and acknowledged that they signed and sealed the same as their free and voluntary act for the uses and purposes therein set forth, including the release of waiver of the right of homestead.

Given under my hand and Notarial Seal this _____ day of _____ , ____.

_____
Notary Public

(C)

SURVEYOR'S CERTIFICATE

I, _____, an Illinois Registered Land Surveyor, do hereby certify that this plat is a correct representation of a survey made under my direct supervision at the request of for the purpose of subdividing the tract into lots as shown.

_____
Land Surveyor

_____
Illinois Registration Number

_____
Date

(D)

COUNTY CLERK'S CERTIFICATE

I, _____, County Clerk of Ford County, Illinois, do hereby certify that I find no unpaid or forfeited taxes against any of the real estate included within this plat.

_____

County Clerk

_____
Date

(E)

CERTIFICATE OF CITY COUNCIL

I, _____, Mayor of the City, do hereby certify that the plat shown herein was duly presented to the City Council and approved at a meeting of same held on _____, __ .

_____
Mayor

_____
City Clerk

(F)

FLOOD HAZARD CERTIFICATE

We, the undersigned, do hereby certify that no part of this plat to be recorded, is situated within **five hundred (500) feet** of any surface drain or watercourse serving a tributary area of **six hundred forty (640) acres** or more, or, if this plat is within **five hundred (500) feet** of any surface drain or watercourse, we hereby certify that this plat has been reviewed by the Illinois Department of Transportation Division of Water Resources and their report is on file with the County Recorder of Deeds.

By: _____
Owner(s)

By: _____
Illinois Land Surveyor

_____
Registration Number

_____
Date

34-3-26 ADMINISTRATIVE REVIEW, ADVISORY REPORT. Within **thirty (30) days** from the date of application for Final Plat approval, the Building Commissioner and the Administrator shall review said Final Plat (and supporting data), and shall each advise the City Council in writing whether it substantially conforms to the approved preliminary plat and improvement plans. A copy of their Advisory Report shall be forwarded to the Plan Commission. The Plan Commission may prepare an addendum to said report (should they so desire), and forward same to the City Council.

34-3-27 ACTION BY CITY COUNCIL. The City Council shall either approve or disapprove the application for Final Plat approval by resolution within **sixty (60) days** from the date of said application or the filing of the last item of required supporting data, whichever date is

later, unless the Council and the subdivider mutually agree to extend this time limit. The City Council shall not approve any Final Plat unless:

(A) the final plat substantially conforms to the approved preliminary plat; and

(B) the final plat manifests substantial compliance with the design and improvements standards of this Code, Zoning Code, and the Official Map; and

(C) to the Council's knowledge and belief, the final plat complies with all pertinent requirements of State law; and

(D) either of the following has been met:

(1) all required improvements have been completed, inspected, accepted, and dedicated; or

(2) the subdivider/developer has posted a performance bond or deposited funds in escrow to guarantee the satisfactory completion and dedication of all required improvements.

If the City Council disapproves the Final Plat, their resolution shall specify the aspects in which the Plat fails to meet the above conditions for approval.

The City Clerk shall attach a certified copy of the Council's resolution of approval or disapproval to the Final Plat. One copy of the resolution and plat shall be retained by the Clerk, one copy shall be filed with the Administrator, and one copy shall be given to the subdivider.

34-3-28 CHANGES IN APPROVED FINAL PLATS. Once a Final Plat is approved by the City Council, it shall not thereafter be modified; provided, however, that minor changes may be made upon written application to the Administrator. Major changes require the filing of a new Final Plat and complete re-review.

34-3-29 - 34-3-34 RESERVED.

DIVISION V - MAINTENANCE OF IMPROVEMENTS

34-3-35 SUBDIVIDER'S RESPONSIBILITIES. The subdivider/developer shall maintain all the improvements in the subdivision until they have been accepted by and dedicated to the City or other appropriate entity.

34-3-36 MAINTENANCE BOND. Prior to dedication, the subdivider/developer shall post a maintenance bond with the City Clerk in the form approved by the City Attorney. Said bond shall be in the amount determined by the Building Commissioner to be sufficient to guarantee the satisfactory condition of the required improvements for a period of **two (2) years** from the date of their acceptance and dedication. If at any time during the two-year period the improvements are found to be defective, they shall be repaired/replaced at the subdivider/developer's expense. If the subdivider/developer fails or refuses to pay such costs within **ninety (90) days** after demand is made upon him by the Building Commissioner, the City shall use the maintenance bond to make the necessary repairs/replacement. If the cost of repairs/replacement exceeds the bond amount, the subdivider/developer shall be liable for the excess. At the end of the two-year period, the maintenance bond shall be released.

DIVISION VI - VACATION OF PLATS

34-3-37 VACATION OF PLATS. In accordance with State law **(Ill. Comp. Stats., Chap. 765, Secs. 205/6, 205/7, and 205/8),** any plat or part thereof may be vacated by the owner of the tract, at any time before the sale of any lot therein, by a written vacation instrument to which a copy of the plat is attached. If there are public service facilities in any street, other public way, or easement shown on said plat, the instrument shall reserve to the City or other public entity or public utility owning such facilities the property, rights-of-way, and easements necessary for continuing public service by means of those facilities and for maintaining or reconstructing the same. The vacation instrument shall be approved by the Council in the same manner as plats of subdivision and shall also be approved by the County Superintendent of Highways, the Highway Commissioner of the appropriate township, the District Engineer of the State Department of Transportation, and the public utilities. In the case of the platted tracts wherein any lots have been sold, the written vacation instrument must also be signed by all the owners of lots in said tracts.

ARTICLE IV - ADMINISTRATIVE PROCEDURES

34-4-1 ENFORCEMENT OFFICER, DUTIES. The Enforcement Officer, referred to herein as the Administrator, is hereby authorized and directed to administer and enforce the provisions of this Code. This broad responsibility encompasses, but is not limited to, the following specific duties.

(A) to review and forward preliminary plats to the Plan **Commission (See Art. III; Div. I);**

(B) to transmit improvements plans to the City Engineer for his review **(See Art. III; Div. II);**

(C) to review and forward final plats to the City Council **(See Sec. 34-3-23);**

(D) to issue stop orders as necessary when the Building Commissioner or City Engineer determines that approved improvements are being constructed in violation of this Code **(See Sec. 34-3-10);**

(E) to pursue actions authorized at **Section 34-3-19** when a developer fails to complete required improvements;

(F) to evaluate and pass upon proposed changes in approved final plats **(See Sec. 34-3-28);**

(G) to review and forward applications for subdivision variances to the Plan Commission **(See Sec. 34-4-2);**

(H) to maintain up-to-date records of matters pertaining to this Code including, but not limited to, preliminary plats, as-built records of completed improvements **(See Sec. 34-3-11),** final plats, variances, and amendments; and

(I) to provide information to subdividers/developers and to the general public on matters related to this Code.

34-4-2 SUBDIVISION VARIANCES. Any subdivider/developer desiring a variance from the requirements of this Code shall file a written application therefor with the

Administrator at the same time that he files his preliminary plat. The application shall fully explain the grounds for the variance request, and specify the section(s) of this Code which, if strictly applied, would cause great practical difficulties or hardship. The Administrator shall prepare an advisory report on every variance application and submit it, together with the completed application, to the Plan Commission.

34-4-3 REVIEW BY PLAN COMMISSION. The Plan Commission shall review the variance application and the Administrator's comments, perform on-site review when appropriate, and submit their advisory report to the City Council together with their recommendation on preliminary plat approval **(See Sec. 34-3-2).** The Plan Commission's advisory report shall be responsive to all the variances standards set forth in **Section 34-4-4**.

34-4-4 ACTION BY CITY COUNCIL, VARIANCE STANDARDS. At the same meeting at which they take action on the application for preliminary plat **approval (See Sec. 34-3-3),** the City Council shall decide by resolution whether to grant or deny the requested subdivision variance. A copy of their decision, clearly stating their reasons therefor and the exact terms of any variance granted, shall be attached to both the preliminary and final plats. The City Council shall not grant any subdivision variance unless, based upon the information presented to them, they determine that:

(A) the proposed variance is consistent with the general purposes of this Code **(See Sec. 34-1-1);** and

(B) strict application of the subdivision requirements **(See Article V)** would result in great practical difficulties or hardship to the applicant, not a mere inconvenience; and

(C) the proposed variance is the minimum deviation from the subdivision requirements that will alleviate the difficulties/hardship; and

(D) the plight of the applicant is due to peculiar circumstances not of his own making; and

(E) the peculiar circumstances creating the variance request are not applicable to other tracts and, therefore, that a variance would be a more appropriate remedy than a code amendment; and

(F) the variance, if granted, will not materially frustrate implementation of the municipal comprehensive plan including the Official Map.

34-4-5 AMENDMENTS. Amendments to this Code may be proposed by the Administrator, any member of the City Council, any Plan Commission member, or any party in interest. Every amendment proposal shall be filed on a prescribed form in the Administrator's office. The Administrator shall promptly transmit each proposal, together with any comments or recommendations he may wish to make, to the Plan Commission for a public hearing.

(A) **Public Hearing, Notice.** The Plan Commission shall hold a public hearing on every amendment proposal within a reasonable time after said proposal is submitted to them. At the hearing any interested party may appear and testify, either in person or by duly authorized agent or attorney. Notice indicating the time, date, and place of the hearing, and the nature of the proposed amendment shall be given not more than **thirty (30)** nor less than **fifteen (15) days** before the hearing by publication in a newspaper of general circulation within this municipality.

(B) **Advisory Report, Action By City Council.** Within a reasonable time after the public hearing, the Plan Commission shall submit an advisory report to the City Council. The City Council shall act on the proposed amendment at their next regularly scheduled meeting

following submission of this report. Without another public hearing, the City Council may either pass or reject the proposed amendment or may refer it back to the Plan Commission for further consideration.

34-4-6 SCHEDULE OF FEES.

(A) The review for the preliminary plat shall be **Fifty Dollars ($50.00),** plus **Five Dollars ($5.00)** per lot.

(B) The final plat fee shall be **Fifty Dollars ($50.00)** if no variation from the preliminary plat, otherwise **Fifty Dollars ($50.00),** plus **Five Dollars ($5.00)** per lot whenever Plan Commission review is required.

(C) Improvement Plan review and inspection fee shall be **one percent (1%)** of the total opinion of probable cost for all improvements as determined by the City Engineer or by the total of all certified contracts for all work related to improvements.

34-4-7 FEES: TIME OF PAYMENT. All fees listed in **Section 34-4-6** shall be paid by the subdivider/developer or the applicant to the City Clerk's office at the time of submission of documents.

ARTICLE V - DESIGN AND IMPROVEMENT STANDARDS

DIVISION I - GENERALLY

34-5-1 APPLICABILITY OF ARTICLE. No land within the subdivision and development jurisdiction of this municipality shall be subdivided or developed except in compliance with the regulations of this Article and the applicable provisions of State law**. (See Ill. Comp. Stats., Chap. 65, Sec. 5/11-12-8; Chap. 765, Secs. 205/1 et seq.)** No lot in any subdivision shall be conveyed until:

(A) the final plat of said subdivision has been approved by the City Council and recorded in the office of the County Recorder of Deeds; and

(B) the portion of said subdivision in which the lot is located has been improved in accordance with the requirements of this Article or until a performance bond or other security has been posted to assure the completion of such improvements.

The Building Commissioner shall not issue a building permit for any lot conveyed in violation of this section.

34-5-2 SUITABILITY FOR DEVELOPMENT GENERALLY. Land that is unsuitable for development due to flooding, poor drainage, rough topography, adverse soil conditions, or other features which will be harmful to the health, safety, and general welfare of the inhabitants of the development and/or its surrounding areas shall not be subdivided or developed unless the subdivider/developer formulates adequate plans/methods to solve the problems caused by the adverse land conditions.

34-5-3 RESERVED.

DIVISION II - LOT REQUIREMENTS

34-5-4 CONFORMITY WITH ZONING. All lots in a subdivision shall conform to the minimum lot area and dimensions requirements of the zoning district in which said subdivision is located; land that is under water or reserved for street improvements shall not be counted to satisfy these minimum requirements. Every corner and through lot shall be large enough to permit compliance with the district's front setback requirements on every side of the lot that faces a street. All lot remnants shall be added to adjacent lots to avoid the creation of unbuildable parcels. All lots shall contain adequate space for required off-street parking and loading.

34-5-5 ACCESS AND RELATIONSHIP TO STREET. Land shall be subdivided in such a way that each lot abuts a street meeting the requirements of **Section 34-5-7**. All side lot lines shall be at right angles to straight street right-of-way lines or radial to curved street right-of-way lines except where a deviation from this rule will provide a better street and lot design.

34-5-6 REFERENCE MONUMENTS. Stone or reinforced concrete reference monuments, set in the ground in such a manner that they will not be moved by frost, shall be placed in the field in accordance with the Plats Act, as now or hereafter amended. **(Ill. Comp. Stats., Chap. 765, Sec. 205/1.)** All block corners shall be **thirty-six (36) inch** permanent concrete post monuments and **four (4) inches** in diameter. All lot corners shall be marked by **one-half (0.5) inch** iron pins not less than **thirty (30) inches** long. These pins shall be driven into the ground deep enough that they do not protrude above the ground surface more than **one-half (0.5) inch**.

DIVISION III - STREET DESIGN STANDARDS

34-5-7 PLAN INTEGRATION. All streets shall be properly integrated with the existing and proposed street system indicated in the municipal comprehensive plan, and shall meet the specifications set forth in **Table 5-A**.

34-5-8 RIGHT-OF-WAY AND PAVEMENT WIDTHS. Every right-of-way established for subdivision purposes is to be separate and distinct from the lots or parcels adjoining such right-of-way and not included within the dimensions or areas of such lots or parcels. All rights-of-way shall be dedicated to the public by the developer.

The minimum pavement widths shall be as noted in **Table 5-A**.

34-5-9 TOPOGRAPHICAL CONSIDERATIONS. Grades of street shall conform as closely as possible to the natural topography, but shall not exceed the maximum grade nor be less than the minimum grade indicated in the Table of Street Design Specifications. All streets shall be arranged so that as many as possible of the building sites are at or above street grade.

34-5-10 THROUGH TRAFFIC DISCOURAGED. Marginal access and local streets shall be laid out so as to discourage use by through traffic. The rigid rectangular gridiron street pattern shall be avoided, and the use of curvilinear streets, cul-de-sacs, or U-shaped streets shall be encouraged to effect a more desirable street layout.

34-5-11 LIMITED ACCESS TO ARTERIALS. Where a development abuts or contains an existing or proposed arterial street, the Plan Commission may recommend to the City Council that access to said arterial street be limited by one of the following means:

(A) by subdividing lots so they back onto the arterial street and front onto a parallel local street (double frontage lots), coupled with the installation of screening in a reserve (access-restricting) strip along the rear lot lines of such lots;

(B) a series of cul-de-sacs, U-shaped streets, or short loops entered from and generally at right angles to the arterial street, with the rear lot lines of the lots at the termini of such streets backing onto the arterial street; or

(C) a frontage road separated from the arterial street by a planting strip, but having access thereto at suitable points.

34-5-12 DEAD-END STREETS.

(A) **Temporary Stub Streets.** Streets shall be so arranged to provide for the continuation of principal streets between adjacent properties when such continuation is necessary for convenient movement of traffic, effective fire and police protection, and efficient provision of utilities, and where such continuation comports with the City's Official Map. If the adjacent property is undeveloped and the street must dead-end temporarily, the right-of-way shall be extended to the property line, and no strip that would prevent connections with future streets shall be reserved. A temporary turnabout shall be provided at the terminus of any temporary dead-end street.

(B) **Permanent Dead-End Streets.** For greater convenience to traffic and more effective police and fire protection, permanent dead-end streets shall be limited to **five hundred (500) feet** in length.

The terminus of a permanent dead-end street shall not be closer than **fifty (50) feet** to the boundary of an adjacent tract. A cul-de-sac turnaround, having a minimum right-of-way radius of **fifty (50) feet** and a minimum pavement radius of **forty-two (42)** feet, shall be provided at the end of every permanent dead-end street.

34-5-13 INTERSECTIONS.

(A) **Only Two Streets.** Not more than **two (2) streets** shall intersect at any one point.

(B) **Right Angles.** Streets shall be laid out so as to intersect as nearly as possible at right angles; in no case shall **two (2) streets** intersect at an angle of less than **seventy-five (75) degrees**. An oblique street shall be curved approaching an intersection and shall be approximately at right angles with said intersection for at least **one hundred (100) feet** therefrom.

(C) **Proper Alignment.** Proposed new intersections along one side of an existing street shall, whenever practicable, coincide with any existing intersections on the opposite side of such street. Street jogs with centerline offsets of less than **one hundred twenty-five (125') feet** shall not be permitted, except where the intersected street has divided lanes without

median breaks at either intersection. Intersections involving collector or arterial streets shall be at least **eight hundred (800) feet** apart.

(D) **Curb Radii.** To permit safe vehicular movements at corners, the minimum curb radius at the intersection of two streets shall be **twenty (20) feet**, and the minimum radius at the back of the curb shall be **thirty-two (32) feet.**

(E) **Flat Grade.** Intersections shall be designed with a flat grade wherever practical. In hilly terrain, an area having not greater than a **three percent (3%)** slope for a distance of **fifty (50) feet** from the nearest right-of-way line of the intersecting street shall be provided at the approach to an intersection.

(F) **Maximum Cross-Slope.** The cross-slopes on all streets, including intersections, shall not exceed **three percent (3%).**

(G) **Adequate Sight-Lines.** Where any street intersection will involve earth banks or existing vegetation on the triangular area shown in **Figure 1**, the developer shall cut such ground and/or vegetation (including trees) in connection with the grading of the public right-of-way to the extent necessary to provide an adequate sight distance.

34-5-14 REVERSE CURVES. A tangent at least **one hundred (100) feet** long shall be introduced between reverse curves on local collector and collector streets **(see Figure 2).**

34-5-15 IMPROVEMENTS TO EXISTING STREETS. Whenever any development abuts an existing street that is narrower than the standards indicated in the Table of Street Design Specifications, the subdivider shall dedicate sufficient right-of-way on the side abutting the development to permit compliance with those standards. The developer shall improve said street to the standards imposed at **Section 34-5-21** et seq., and pay one-half the cost of said improvements.

34-5-16 WHEN EXCESS RIGHT-OF-WAY REQUIRED. Right-of-way width in excess of the standards set forth in the Table of Street Design Specifications shall be required where:

(A) due to topography, additional width is necessary to provide adequate earth slopes; or

(B) due to the location of railroad tracks, additional width is needed to construct overpasses, underpasses, and approaches thereto.

34-5-17 - 34-5-19 RESERVED.

DIVISION IV - STREET IMPROVEMENT STANDARDS

34-5-20 STREET REQUIREMENTS. All streets and alleys shall be improved solely at the expense of the developer in accordance with the requirements set forth herein. Typical roadway and pavement sections are shown in **Appendix A**. Requirements for pavement materials, equipment, and methods of construction for bituminous concrete (flexible) pavements and Portland cement concrete (rigid) pavements are contained in **Table 5-B.** Existing streets that adjoin the development on one side only will be improved to meet the current street standards,

and this cost will be shared equally between the City and the developer. Existing streets that join the development on both sides shall be improved at the developer's expense. The extent of the improvement of existing streets will be determined by the City and the developer during improvement plan approval process. All streets shall meet IDOT Roads and Bridges Standard Specifications.

34-5-21 PAVEMENT STRUCTURE. All streets and alleys shall be paved across the entire surface width specified in **Section 34-5-8.** The structural composition of the pavement shall conform to the minimum requirements set forth in **Table 5-B.** Design requirements for both rigid and flexible pavements are set forth hereinafter.

(A) **Flexible Pavements.** Flexible pavements are to be constructed as multi-layered structures combining hot mix bituminous concrete/bituminous base/crushed stone base/subbase. Each layer of material is to be constructed in lifts not to exceed the maximum lift thickness (compacted) specified in **Table 5-B.** The minimum width of any single pass for any lift/layer of bituminous mixture shall be **ten (10) feet.** There are alternate designs for either deep-strength asphalt or bituminous concrete on a crushed stone base/subbase.

(B) **Rigid Pavements.** Rigid pavements are specified as either reinforced or non-non-reinforced Portland cement concrete to be constructed either on the earth subgrade or on a crushed stone subbase or underlayment. Alternate designs are shown for two of the seven street classifications. The underlayment is to be **one-fourth (1/4) inch** thick fabric such as "Bidim" or "Petromat," or equal.

(1) Contraction joints are to be provided at the spacings shown in **Table 5-B** for each of the various alternates. These transverse joints are to be sawed joints that are **one-eighth inch (1/8")** to **one- fourth inch (1/4")** wide with a depth equal to **one-fourth (1/4)** of the pavement thickness. Sawed construction joints are to be sawed within **twenty-four (24) hours** of placement on the concrete. All contraction joints are to be dowelled with the exception of the alleys and land access residential streets. Dowel sizes and spacing shall comply with the following requirements:

Min. Pavement Thickness	Min. Dowel Diameter	Min. Dowel Length	Min. Dowel Spacing
6"	5/8"	12"	12"
7"	3/4"	15"	15"
8"	1"	15″	12"

The dowel units are to be smooth, plain round bars placed at mid-height of the pavement with an expansion cap on one end. The bars, or assemblies, shall be placed so that the bars are parallel to the centerline and to the pavement surface and shall be treated to prevent bonding of the concrete.

(2) Longitudinal joints shall be constructed no closer than **eight (8) feet** and no farther apart than **fifteen (15) feet**. The longitudinal joints may be either "construction" joints or "sawed" joints. In either case, there shall be transverse #4 reformed tie bars**, thirty (30) inches** long, spaced at **thirty (30) inch** centers along all

longitudinal joints. This includes the joint between the pavement and curb/gutter if the curb/gutter is not constructed integral with the pavement. As an option to tie bars, either a half-round or trapezoidal preformed keyway meeting the following dimensions may be used on longitudinal joints excluding the gutter joint:

		Trapezoidal		
Pavement Thickness	Half-Round Diameter	Edge Ht.	Depth	Inside Ht.
6"	2"	2"	1"	1"
7"	2"	2"	1"	1"
8"	2"	2"	1"	1"

Sawed longitudinal joints shall be sawed within **ten (10) days** of concrete placement and prior to any traffic or vehicles traveling on the surface.

(3) Transverse Construction Joints shall be constructed at the end of each day's run or at locations where a "cold" joint will occur due to a delay or interruption in placement operations. All transverse construction joints shall be "tied" with #4 reformed bars**, thirty-six (36) inches** long, spaced at **twelve (12) inch** centers. Construction joints must be at least **five (5) feet** from a contraction joint.

(4) Pavement Reinforcement shall be used in all rigid pavements designated as S.R.P.C.C. in Table 5-B. Reinforcement shall be welded wire fabric **(6" X 12")** with W 4 wire transversely and W 5.5 wire longitudinally weighing approximately **54 lbs. per 100 sq. ft**. The fabric shall be lapped **twelve (12) inches** on transverse laps and **six (6) inches** on longitudinal laps. Reinforcement shall be placed on the subgrade and supported by proper chairs and spacers, prior to paving, at the heights specified below:

Pavement Thickness	Depth Below Pavement Surface
6"	2" min. 3" max.
7"	2 " min. 3" max.
8"	3" min. 4" max.

Should the Building Commissioner and/or City Engineer or the developer's engineer determine that the minimal standards are not adequate for a given condition (i.e., traffic volume, size of loads, subgrade support, drainage, etc.), the required pavement design shall be determined by the subdivider's engineer on the basis of current pavement design procedures subject to the approval of the Building Commissioner and/or City Engineer.

34-5-22 CURB AND GUTTER. All streets, except alleys and collector commercial, local commercial, arterial or industrial, shall be constructed with Portland cement concrete vertical curb and gutter and/or V-type gutter in accordance with the dimensions and specifications shown, therefor, in the Appendices. Only vertical curb and gutter shall be constructed in Industrial Streets. The materials and construction methods for curb and/or gutter shall conform with IDOT Roads and Bridges Standard Specifications.

Curb and/or gutter may be constructed either integrally or separately in conjunction with Portland cement concrete pavement. If constructed separately, the gutter flag shall be "tied" to P.C.C. pavement with **thirty (30) inch** long #4 reinforcing bars spaced at **thirty (30) inch** centers.

34-5-23 MAINTENANCE RESPONSIBILITY. Subsequent to completion of street construction by the subdivider, the City Engineer shall make a final inspection of all streets to ascertain the acceptability of structural condition, earth slopes, drainage structures, etc. If said inspection indicates no deficient items, the City shall take formal action to accept the completed streets for maintenance based upon the Engineer's recommendation.

Should any item need correction or repair, the subdivider will be notified in writing of each deficiency. No street(s) will be accepted in a subdivision until all streets comply with the City's requirements to the satisfaction of the City Engineer. In addition, the developer will be required to provide a guarantee in the form of a Surety Bond in the amount of **Ten Thousand Dollars ($10,000)** for a period of **two (2) years**.

34-5-24 RESERVED.

DIVISION V - BLOCKS

34-5-25 BLOCK WIDTH. Blocks shall be sufficiently wide to accommodate **two (2) tiers** of lots having the minimum depth required by the zoning district regulations; provided, that this requirement may be waived in blocks adjacent to local collector or collector streets, railroads, or watercourses.

34-5-26 BLOCK LENGTH. No block shall be longer than **one thousand four hundred (1,400) feet** nor shorter than **five hundred (500) feet**. Wherever practicable, blocks along collector streets shall not be less than **one thousand (1,000) feet** in length.

34-5-27 CROSSWALKS. Crosswalks, not less than **ten (10) feet** wide, may be required through the center of blocks more than **one thousand (1,000) feet** long where necessary to provide circulation or access to schools, playgrounds, shopping centers, transportation, or other community facilities.

34-5-28 RESERVED.

DIVISION VI - SIDEWALKS

34-5-29 REQUIRED. Sidewalks shall be required:

(A) on the recommendation of the Plan Commission that, sidewalks are needed to ensure public safety;

(B) along collector streets, near schools, and in shopping areas and similar public places.

These requirements shall not be waived unless the Plan Commission advises the City Council that, in the area in question, sidewalks are not needed to ensure public safety, and/or that topographical conditions make the installation of sidewalks impractical.

All sidewalks constructed within the municipality shall meet IDOT Roads and Bridges Standard Specifications.

34-5-30 SIDEWALK CONSTRUCTION STANDARDS.

(A) **Relationship to Curb.** The street-side edge of every sidewalk shall either abut the curb or be located at least **six (6) feet** from the curb to allow sufficient space for tree planting.

(B) **Width.** Residential sidewalks shall be at least **four (4) feet** wide. Non-residential sidewalks shall be at least **five (5) feet** wide.

(C) **Thickness of Concrete.** All sidewalks shall be constructed of concrete at least **four (4) inches** thick, except that across driveways the thickness shall be increased to **six (6) inches** and/or number **six (6)** reinforcing mesh shall be used.

(D) **Grade.** No sidewalk shall be constructed at a grade steeper than **six percent (6%).**

(E) **Ramps at Intersections.** When sidewalks are required curbs shall be cut and sidewalks shall be ramped at all intersections so as to enhance the mobility of handicapped individuals.

34-5-31 RESERVED.

DIVISION VII - STREETLIGHTS

34-5-32 INTERSECTION LIGHTING. Streetlights shall be provided at each intersection of streets (or alleys) within a subdivision and at each cul-de-sac, but in no event shall there be less than one streetlight per **four hundred (400) feet** (or portion thereof) of street frontage between intersections, or between a street intersection and the terminus of a dead-end street. Additionally, in multi-family dwelling subdivisions, lighting shall be provided within parking areas at a minimum rate of one light per **twenty-five (25) parking spaces** or any fraction thereof.

34-5-33 STREETLIGHT SYSTEM STANDARDS. The design and installation of the streetlight system in every subdivision shall be reviewed by the Building Commissioner and the appropriate electric utility company.

The lighting intensity of each streetlight shall be equivalent, at a minimum, to a **175 watt lamp** or **6800 mercury luminary lamp.** Each streetlight standard (post) shall be at least **sixteen (16) feet** high.

34-5-34 RESERVED.

DIVISION VIII - STREET NAME SIGNS

34-5-35 SPECIFICATIONS. Street name signs of the size, height, and type approved by Building Commissioner shall be supplied and placed by the developer at all intersections within or abutting any subdivision. Street names shall be sufficiently different in sound and spelling from other street names in this municipality so as to avoid confusion. The City Clerk shall maintain a list of existing street names for reference. A street which is planned as a continuation of an existing street shall bear the same name.

34-5-36 RESERVED.

DIVISION IX - UTILITIES

34-5-37 UTILITY LOCATION AND EASEMENTS REQUIRED. At locations within the subdivision where utilities and drainage facilities are not to be constructed within public rights-of-way, the subdivider shall make provision for easements for such installations. Preliminary plats shall be submitted to the electric, gas, and telephone companies for their input regarding utility easements.

34-5-38 UTILITY EASEMENTS. Utility easements, not less than **twenty (20) feet** wide for sanitary sewers and water mains and not less than **fifteen (15) feet** wide for gas, electric, telephone, and cable television, shall be provided where necessary. Normally, in the case of abutting lots, an equal amount should be taken from each lot. Property owners may (at their own risk) plant shrubbery or hedges or install fences on the easement areas. Utilities (private and public), however, in order to have access for repair shall have the election to destroy said improvements and restore the area only by grading and seeding, or to have alternate access through the owner's property.

34-5-39 DRAINAGE EASEMENTS. Adequate easements for storm water drainage shall be established along any natural drainage channel and in such other locations as may be necessary to provide satisfactory disposal of storm water from streets, alleys, and all other portions of the subdivision. The location and minimum widths of such easements shall be approved by the City Engineer.

34-5-40 MAINTENANCE EASEMENTS. Maintenance easements of not less than **five (5) feet** in width shall be provided along all rear and side lot lines.

34-5-41 RESERVED.

DIVISION X - WATER FACILITIES

34-5-42 POTABLE WATER REQUIRED. An adequate supply of potable water shall be provided to every platted lot in accordance with Illinois Department of Public Health regulations. If the public water system is reasonably accessible, each lot shall be properly connected thereto at the property line. All water distribution lines shall be at least **six (6) inches** in diameter.

34-5-43 FIRE HYDRANTS. Fire hydrants of the type approved by the Water and Sewer Superintendent shall be installed in every subdivision as part of the water distribution system. The distance from any lot to a hydrant, measured along the centerline of the public right-of-way, shall not be greater than **four hundred (400) feet**.

34-5-44 RESERVED.

DIVISION XI - SANITARY SEWERS

34-5-45 COMPLIANCE WITH REGULATIONS. All proposed sanitary sewer facilities shall comply with the regulations of the Illinois Department of Public Health and the Illinois Environmental Protection Agency, and shall be approved by the City Council. All water and sewer lines shall be constructed as per Standard Specifications for Water and Sewers Mains, State of Illinois, 4th Edition, or as amended.

34-5-46 WHEN PUBLIC SYSTEM PLANNED. In areas where the public sanitary sewerage system is not reasonably accessible but where plans for the installation of said system have been approved by the Illinois Environmental Protection Agency, sanitary sewers shall be provided in accordance with such plans and temporarily capped. To serve the subdivision until the time when connection to the public system becomes practicable, an approved private central sewage disposal system shall be installed, or individual sewage disposal systems may be used.

34-5-47 ALTERNATE METHODS OF DISPOSAL. In the event it is not possible, or feasible, for the subdivider to extend the public sewer system into the proposed subdivision, for whatever reason, the subdivider has the right to petition the City to install an alternative method of sewage disposal. Any such petition shall be considered on an individual basis with each case standing on its own merit. No subdivision shall be approved without the City's approval of the method of sewage disposal:

(A) **Private Central Sewage Systems.** Upon specific approval of the City Council, the subdivider may install a private central sewage system. The City shall reserve the right to review and approve/reject the detailed plans for such a system. Approval of the plans by the City shall in no way be construed as acceptance of the design or operation or maintenance responsibility for said installation. Such installation shall be designed and constructed in accordance with the rules and regulations of the Illinois Environmental Protection Agency, and the Illinois Department of Public Health. The subdivider shall assume perpetual operational and maintenance responsibilities for such installation unless arrangements to the contrary are provided for in a formal written agreement between home owners and the subdivider. Failure of the subdivider to discharge his operational/maintenance responsibilities may result in a fine of **Five Hundred Dollars ($500)** per day for each day a deficiency exists and shall apply to the subdivider, his heirs, successors, or assigns.

(B) **Individual Disposal Systems.** Upon written approval of the City Council, the subdivider may install individual sewage disposal systems providing the lot size is in excess of **twenty thousand (20,000) s.f.** If such installations are permitted, they shall be designed and installed in accordance with the applicable provisions of the requirements and regulations of the **"Private Sewage Disposal Licensing Act and Code"** of the Illinois Department of Public Health.

34-5-48 RESERVED.

DIVISION XII - DRAINAGE AND STORM SEWERS

34-5-49 STORM WATER FACILITIES REQUIRED. Storm water detention facilities shall be required for all new developments. The applicant must show, by their detailed calculations, that the requirements of this Code are met. The developer, upon City direction, may pay a fee instead of on-site storm water detention. The fee shall be based upon the pro-rated share of the City's cost or expected costs to provide the regional detention facility. Costs shall be pro-rated based upon the amount of run-off contributing to the regional detention facility.

34-5-50 DESIGN FORMULA. Rainfall intensity shall be from the latest technical letters of the Illinois State Water Survey. For areas of less than **twenty (20) acres** of total contributing drainage area, the calculation of run-off volumes and allowable release rates shall be calculated using the rational method as outlined in the latest Illinois Department of Transportation Drainage Manual. For contributing drainage areas greater than **twenty (20) acres**, the Soil Conservation Hydrograph Method shall be used. No other methodology will be acceptable without prior written permission of the City Engineer.

34-5-51 DESIGN STORM.

(A) **Rational Method.** Storage volume calculated using the Rational Method shall be the difference between the average run-offs of the 100-year rainfall frequency in the post development condition and the 3-year rainfall frequency in the predevelopment condition, assuming such differences occur for **one (1) hour**.

(B) **Soil Conservation Hydrograph Method.** When using the Soil Conservation Hydrograph Method the storage volume will be the difference between an inflow

hydrograph generated using a 100-year rainfall frequency with a run-off coefficient in post development conditions, less the allowable release rate.

34-5-52 RELEASE RATE. The allowable release rate will be the run-off generated from a rainfall intensity associated with the average recurrence interval of **three (3) years** for the storm period calculated by the time of concentration, as outlined by the latest technical letters of the Illinois State Water Survey or Soil Conservation Service. C factor or CN number used to determine the allowable release rate shall reflect the pre-developed condition of the water shed.

34-5-53 BASIN REQUIREMENTS.

(A) **Dry Bottom Basins.** All dry bottom basins shall be designed with the minimum bottom slope of **two percent (2%)**. A minimum slope of **one percent (1%)** may be used if an underdrain tile system is installed in the basin. Underdrain tile systems shall be constructed of rigid perforated PVC pipe, SDR 35 or stronger, encased in an envelope of fabric weighing not less than **three and one-half (3 ½) ounces** per square yard, meeting the requirements for geotechnical fabric for French drains as specified in the **Illinois Department of Transportation Standard Specifications for Road and Bridge Construction**, latest edition.

(B) **Wet Bottom Basins.** A wet bottom basin shall be constructed with a top berm adequate in size for expected maintenance equipment. The proposed shore line shall be adequately protected against erosion by construction of a wave shelf and other means as determined necessary by the City Engineer.

(C) **All Basins.** All storm water detention basins shall be constructed with emergency spillways which shall be sized for no less than **seventy-five percent (75%)** of the maximum peak inflow to the basin. Emergency spillways shall be protected from erosion with approved paving or slope stabilization. All detention basins shall be constructed with a minimum of **one (1) foot** freeboard over the maximum anticipated water level in the emergency spillway. Submission of design calculations justifying storm water detention basin design shall include the proposed owner and responsible party for maintenance of the detention basin.

34-5-54 FLOOD ROUTE. A flood route shall be provided in all developments to convey the 100-year flood through the proposed development to the storm water detention basin. A flood route may be a storm sewer, street or open channel. Finish ground at all building sites adjacent to flood routes shall be a minimum of **one (1) foot** above the 100-year water level in the flood route.

34-5-55 SURFACE AND GROUND WATER. Storm water drainage shall be constructed for every platted lot to provide satisfactory disposal of surface and/or groundwater as determined necessary by the City Engineer.

34-5-56 RESERVED.

(Ord. No. 98-13; 08-24-98)

DIVISION XIII - GENERAL GUIDELINES

34-5-57 APPLICABILITY. This Code shall apply to all development within the limits of the City. Residential developments having a total area of less than **five (5) acres**, and commercial or industrial developments having a total area of less than **two (2) acres**, may be given a waiver by the City in accordance with **Section 34-4-4** of this Code, subject to the following conditions.

(A) The City retains the right to require detention storage in all cases in which the proposed development will generate excess runoff that adversely affects the carrying capacity of the receiving watercourse.

(B) Developments less than **two (2) acres** with less than **thirty percent (30%)** of the area paved and developments generating less than one cubic foot per second (CFS)/acre increased runoff shall not be required to provide detention storage, unless conditions (A) is applicable.

(C) This Code shall apply for all newly platted areas and new developments proposed after the date of passage of this Code. All development that have an approved preliminary plan by the Plan Commission at the time of the approval of this Code will not have to conform to this Code.

34-5-58 AFFIDAVIT OF DISCLOSURE OF PROPERTY INTEREST. The effective acreage for a site is not limited to a fractional part of the total. If a project is developed in phases or small plats, the total acreage of the project site must be considered. At the time the owner of any development submits a preliminary plat or preliminary plan, he shall also identify to the City all contiguous property or property in the watershed that he has interest in.

34-5-59 METHOD OF EVALUATION. The storage capacity and discharge rate shall be based upon the calculated volume and peak flow of the storm water runoff, respectively. The calculations for sites having an area of **one hundred (100) acres** or less shall be made using either the Illinois Manual for Soil Erosion and Sedimentation Control Method or the Rational Method. If the site is larger than **one hundred (100) acres** then the Engineer shall use the Illinois Manual for Soil Erosion and Sedimentation Control Method or if another method is desired to be used, the Engineer shall submit a proposed method of evaluation for the calculations for review and approval. The permitted discharge rate of storm water runoff shall be determined by calculating the rate of runoff for the site's pre- and post-development conditions. The Engineer shall determine the most critical storm looking at three different time periods: 1) the time of concentration, 2) a one hour storm and 3) a 24-hour storm.

34-5-60 DETENTION OF DIFFERENTIAL RUNOFF. All new developments shall provide a storm water system that insures that the rate of flow of storm water runoff discharged from the site after development does not exceed the rate of flow of storm water runoff discharged from the site before development of a 25-year storm, unless given a waiver by the City in accordance with **Section 34-4-4** of this Code. Data shall be submitted for the 15-, 25-, and 100-year frequency storm.

34-5-61 FLOWS FROM UPSTREAM AREAS. Flows from upstream areas outside the site should be based upon the assumption that those areas are fully developed under forecast land use patterns. The required storage volume will be based upon the site only, with flows from

upstream areas being by-passed or discharged via overflow spillways or other devices for the 100-year storm.

34-5-62 FACILITIES IN FLOODPLAINS. If detention storage is provided within a floodplain, only the net increase in storage volume above that which naturally existed on the floodplain shall be credited to the development. No credit will be granted for volumes below the elevation of the base flood at that location unless compensatory storage is also provided. Where encroachments in the existing floodplain fill the valley storage areas, an equal amount of detention volume shall be provided.

34-5-63 LAND CREDIT FOR DETENTION FACILITIES. The number of units/lots shall be based on the total area of the tract to be developed. All areas to be used as detention facilities shall be included in this total area.

34-5-64 RESERVED.

DIVISION XIV - DESIGN CRITERIA

34-5-65 GENERAL REQUIREMENTS. The design shall be accomplished under the direction of a Registered Professional Engineer. The design shall also be based on land use in the tributary area as zoned, actually developed, or indicated by an adopted future land use plan, whichever basis produces the greatest runoff.

34-5-66 OTHER REFERENCES. Other agencies have criteria and regulations pertaining to drainage systems which may complement this criteria. When conflicts are encountered the most rigorous criteria shall govern.

(A) **Federal Insurance Agency**. Floodplain Regulations and Implementing Ordinances Adopted by Municipalities: Drainage systems designed within the limits of the designated 100-year floodplain on the principal stream shall be designed to convey the flood as defined by applicable published floodplain information studies. For areas located in FIA Zone "A" outside the detailed study area, the developer shall prepare studies and calculations establishing the floodplain, elevation and width. These calculations shall be submitted to the reviewing agency for approval.

(B) **Illinois Department of Water Resources.** Rules and Regulations of Dams and Reservoirs shall apply to those structures classified as dams thereunder.

34-5-67 STORM WATER RUNOFF. The design criteria used in determining the amount of runoff shall be the same as set out in **Section 34-5-49** of this Code.

34-5-68 HYDRAULIC CONSIDERATIONS FOR DETENTION STORAGE.

(A) **Principal Spillways.** Shall be designed to meet the following requirements:

(1) The principal spillway shall be designed to function without requiring attendance or operation of any kind or requiring use of equipment or tools.

(2) All discharge from the detention facility when inflow is equal to or less than the 100-year inflow shall be via the principal spillway(s).

(3) The design shall allow for discharge of at least **eighty percent (80%)** of the detention storage volume within **twenty-four (24) hours** after the peak or center of mass of the inflow has entered the detention basin. On basins less than **one hundred (100) acres**, this shall not apply.

(4) The design discharge rate via the spillway shall continuously increase with increasing head and shall have hydraulic characteristics similar to weirs, orifices or pipes.

(B) **Emergency Spillways.** The emergency spillway shall be provided to pass a 100-year storm without damaging any property and, where applicable, designed to Illinois Urban Manual: Section 4 - Standards.

(C) **Outlet Works.** Shall have an outlet works consisting of valves, gates, pipes, and other devices as necessary to completely drain the facility in **seventy-two (72) hours** or less when required for maintenance or inspection on normally wet basins.

(D) **Sediment Storage.** Shall be designed to provide for **five (5) years** of sediment accumulation calculated by using the standards in Section 4 of the Illinois Urban Manual. All other detention facilities shall provide storage for **two (2) years** of sediment accumulation by using the Manual, except for those using roofs of buildings, paved parking areas or other facilities designed to preclude the deposition or accumulation of sediment. Sediment storage volume shall be in addition to the volume required for temporary storage of storm water to properly size the detention facility on normally wet basins.

(E) **Erosion Control.** Principal spillways and outlet works shall be designed to prevent erosion and if necessary equipped with energy dissipating devices to slow the water to normal velocity as called out in the Illinois Urban Manual. Special measures shall be taken by the developer to not permit sediment from filling the proposed detention basin during all construction of the proposed development.

(F) **Public Detention Facilities.** The owner shall dedicate the detention facility and easements as set forth upon completion of the one-year warranty period and approval by the City Engineer, except:

(1) When multipurpose wet facilities are planned or are suitable for use for private aquatic recreation or for aesthetic enhancement of the owner's property.

(2) When multipurpose dry facilities incorporate surface recreational improvements.

(G) **Private Detention Facilities.** Shall be designed requiring the same criteria as the public detention facilities.

The amount of easement shall be equal to the land occupied by the facility plus a **twenty (20) foot** wide strip around the perimeter of the highest elevation attained by the design storage volume, plus an excess easement **twenty (20) feet** in width between the facility and public street. This easement shall be shown as common ground or be dedicated to the trustees of the subdivision or owner of the property for the purpose of maintenance of the storm water detention facility.

A plan for perpetual maintenance and designating responsibility for the maintenance shall be provided for its continuing performance to the standards established by this criteria.

34-5-69 RESERVED.

DIVISION XV - PLAN REQUIREMENTS

34-5-70 PLAN REQUIREMENTS. The plan requirements shall be:

(A) Elevation-area-capacity curves for the storage facility including notation of the storage volumes allocated to runoff, and permanent residual water storage for other uses (wet basins only).

(B) Inflow hydrographs (detention volumes for rational method) for the 15-, 25-, and 100-year recurrence interval design storms.

(C) Stage-discharge rating curves for each spillway and for combined spillway discharges.

(D) Routing curves for the 15-year and all greater criteria recurrence interval design storms with time plotted as the abscissa and the following plotted as ordinates (this item is not required for the rational method):

(1) Cumulative inflow volume.
(2) Cumulative discharge.
(3) Stage elevation.

34-5-71 CONSTRUCTION ALTERNATIVES.

(A) A developer shall build, as part of his development, a detention basin as required by this Code, unless the following sections apply.

(B) Developers of adjacent tracts may combine to build one detention site large enough to meet the requirements of all the tracts of land with approval of the City. The basin shall be located in the same drainage basin.

(C) On-site detention will be required whenever increased runoff from the proposed development creates a hazard down stream as determined by the City Engineer.

34-5-72 RESERVED.

DIVISION XVI - INSPECTION, MAINTENANCE AND ACCEPTANCE BY CITY

34-5-73 INSPECTION. The developer shall inspect or cause to be inspected, all storm water detention systems constructed within the City. Through such inspection reports the City Engineer shall ensure that the facilities under construction are being constructed in accordance with the approved plans for such development.

34-5-74 MAINTENANCE. Each owner of the property being developed has the responsibility and duty to properly operate and maintain any storm water management system which has not been accepted for maintenance by the City. The responsibility of maintenance of the system and subdivision projects shall remain with the developer until such time as the storm

water management system escrow for such development has been released at the end of the one-year warranty period. Upon release of escrow, the maintenance responsibility shall be vested in the trustees of the subdivision by virtue of a trust indenture. Indenture of trusts shall clearly indicate resident responsibility for maintenance. All such privately owned maintained systems shall be subject to periodic inspections by the City Engineer or its representative. After an inspection by the City Engineer, he determines whether or not the conditions of the privately owned storm water detention system are safe and correct. Any cost incurred by the City, as a result of the City Engineer's actions, shall be attest against the owner(s) of the system.

34-5-75 ACCEPTANCE. Upon acceptance by the City Council, the storm water detention system may be dedicated to the City for perpetual maintenance. Any such system shall include adequate perpetual access and sufficient area for maintenance by the City personnel and vehicles.

34-5-76 RESERVED.

DIVISION XVII - PENALTIES FOR VIOLATION

34-5-77 GENERAL. Violation of the provisions of this Code or failure to comply with any of its requirements, including conditions and safeguards established shall constitute a misdemeanor. Each day such violation continues shall be considered a separate offense.

34-5-78 CORRECTIVE ACTIONS. Nothing herein contained shall prevent the City from taking such other lawful actions as is necessary to forbid or remedy any violations. All such costs connected therewith shall accrue to the person or persons responsible.

34-5-79 PENALTY. Any person who violates this Code shall be subject to the penalty in **Section 1-1-20** in the Revised Code.

TABLE 5-A

STREET DESIGN SPECIFICATIONS

Residential Street Classification	Max. No. of Dwelling Units/ Net Acre	Permitted On-Street Parking	Required R.O.W. (ft.)	Min. Pave-ment Width (ft.)	Max. Grad-ient (%)	Min. Gradient (%)
Marginal Access	To 1.99	None	40	20	6	1.3
Local	2.0-4.50	Both Sides	45	30	6	1.0
Collector	4.50/Greater	Both Sides	50	34	6	1.0
Arterial	Over 250 dwelling units served	None	70	28	6	1.0

Commercial and Industrial Street Classification	Permitted On-Street Parking	Required R.O.W. (ft.)	Min. Pavement Width (ft.)	Max. Gradient (%)	Min. Gradient (%)
Local	None	60	26	10	1.0
Local	One Side	60	34	10	1.0
Local	Both Sides	60	42	10	1.0
Collector	None	80	44	8	1.0

TABLE 5-B

MINIMUM REQUIREMENTS FOR STRUCTURAL COMPOSITION OF PAVEMENTS

Street Classification	Flexible Pavements Alt. #1	Flexible Pavements Alt. #2	Rigid Pavements Alt. #1	Rigid Pavements Alt. #2
MARGINAL LAND ACCESS Residential	4″ BAM 2″ I-11 Surf.	8″ Cr. St. 1 1/2″ I-11 Bind. 1 1/2″ I-11 Surf.	6″ P.C.C. (15′ Plain Jts)	---
LOCAL Residential	5″ BAM 2″ I-11 Surf.	8″ Cr. St. 2″ I-11 Bind. 1 1/2″ I-11 Surf.	6″ P.C.C. (15′ Plain Jts)	---
COLLECTOR Residential	4″ BAM 2 1/2″ I-11 Bind. 2″ I-11 Surf.	8″ Cr. St. 3″ BAM` 1 1/2″ I-11 Surf.	6″ S.R.P.C.C. (40′ Dowel Jts)	6″ P.C.C. 4″ Cr. St./ U.L. (15′ Dowel Jts)
LOCAL Commercial and Industrial	4″ Bam 2″ I-11 Bind. 1 1/2″ I-11 Surf.	8″ Cr. St. 3″ BAM 2″ I-11 Surf.	6″ S.R.P.C.C. (40′ Dowel Jts)	6″ P.C.C. 4″ Cr. St./ U.L. (15′ Dowel Jts)
COLLECTOR Commercial and Industrial	6″ BAM 2 1/2″I-11 Bind. 1 1/2″ I-11 Surf.	8″ Cr. St. 4″ BAM 1 1/2″ I-11 Bind. 1 1/2″ I-11 Surf.	7″ S.R.P.C.C. (40′ Dowel Jts) 4″ Cr. St./ U.L.	---

NOTE: Equivalent pavements in addition to those shown above shall be determined by the City Engineer. Should the total pavement thickness exceed 8″ the granular base/subbase shall extend under the curb/gutter.

ABBREVIATIONS:

Cr. St.	=	Crushed Stone
BAM	=	Bituminous Aggregate Mixture
U.L.	=	Underlayment
P.C.C.	=	Unreinforced Portland Cement Concrete
S.R.P.C.C.	=	Standard Reinforced Portland Cement Concrete

MAXIMUM LIFT THICKNESS:

Crushed Stone	=	8″
BAM	=	6″
I-11 Binder	=	2 1/2″
I-11 Surface	=	2″

SOIL CONSERVATION SERVICE
CONSERVATION PRACTICE
STANDARD

IMPOUNDMENTS STRUCTURE – FULL FLO
(no.)
CODE 841

DEFINITION. A dam or excavation which creates an impoundment to collect and store debris, sediment, or water.

PURPOSE. The purpose of this practice is to reduce sediment and/or debris in runoff waters to prevent damage to downstream facilities; or to provide surface water for consumption, irrigation, wildlife habitat, recreation or fire protection.

CONDITIONS WHERE PRACTICE APPLIES. This practice applies where sediment or debris are expected to be contained in runoff waters and may impair the capacity of the watercourse or damage other structures or where a surface water supply is desirable; where storage for at least **one (1) inch** of water from the contributing watershed is either impractical or undesirable and where any embankment does not exceed the limits for Class III, small dams, as defined by the IDOT-DWR in "Rules for Construction and Maintenance of Dams" and the landowner or other responsible party has secured necessary permits, if required, for design and construction from IDOT-DWR and any local governmental authorities.

CRITERIA.

Investigations. Sufficient investiga-tions shall be made of the impoundment site and borrow areas to determine the suitability of site and materials for construction, water holding ability and structure stability. A complete analysis of foundation and proposed fill materials shall be made when, in the opinion of the responsible engineer, it is necessary.

Hazard/Safety. Structures designed under criteria found in this practice shall fall within the Class III, small dam category, defined by the IDOT-DWR as follows: *"Class III. Dams located where failure has low probability for causing loss of life, where there are no permanent structures for human habitation, or minimum economic loss in excess of that which naturally would occur downstream of the dam if the dam had not failed. A dam has a low probability for causing loss of life or minimal economic loss if it is located where its failure may cause damage to agricultural fields, timber areas, township roads, or similar type areas where people seldom are present and where there are few structures. This corresponds to US Army Corps of Engineers Low Hazard Potential and USDA SCS class a dams."*

Small dams have a total impounding capacity of less than **one thousand (1,000) acre-feet** and dam height of less than **forty (40) feet**, where dam height is defined as *"height of dam, in feet, as measured from the natural bed of the stream or watercourse at the downstream dam slope toe of the barrier to the top of the embankment or barrier."*

Owners of impoundment structures shall obtain all necessary permits. IDOT-DWR permits may be required for Class III, small dams where:

1. The drainage area of the proposed dam is **six thousand four hundred (6,400) acres** or more in a rural area or **six hundred forty (640) acres** or more in an urban area, or
2. The dam is **twenty-five (25) feet** or more in height, provided that the

impounding capacity is greater than **fifteen (15) acre-feet**, or

3. The dam has an impounding capacity of **fifty (50) acre-feet** or more provided that the dam height is greater than **six (6) feet**.

Pool Capacities. Structures for the impoundment of debris or sediment shall have a capacity equal to the volume of sediment or debris expected to be trapped at the site during the planned useful life of the structure. That capacity may be proportionally reduced, if periodic removal of sediment/debris is planned.

Structures that impound water for consumptive use shall have capacity as required by local consumptive use standards.

Structures that impound water for irrigation, wildlife habitat or recreation shall have capacity and depth adequate for the intended use.

Structures that impound water for fire protection shall have a capacity of at least **four thousand (4,000) cubic feet** per residence. That capacity shall exist between the inlet to hydrant and an elevation **three (3) feet** below the permanent pool elevation.

Runoff Computation. Total runoff amounts and peak discharges may be computed using procedures found in SCS Engineering Field Handbook, SCS Engineering Handbook, SCS TR-55 and TR-20, US Army Corps of Engineers HEC-1 or other procedures designated by the appropriate regulatory authorities.

Principal Spillways. Non-permit, IDOT Class III dams shall have a principal spillway structure capable of passing the peak discharge from a **twenty-four (24) hour** duration storm event of frequency specified in Table 1 with stage at or below emergency spillway crest.

IDOT Class III, permit size dams shall have a principal spillway structure capable of passing the peak discharge from a **twenty-four (24) hour**, **twenty-five (25) year** storm event with stage at or below the emergency spillway crest.

Principal spillway structures may be conduits, weir-type straight drops, or chutes.

Principal spillway pipe conduits and fittings may be metal, as per material specifications 551, 552, or 554 or non-metal, as per SCS material specifications 541, 542, 544, or 547. Conduits or other materials may be used at the discretion of the appropriate regulatory authorities.

Pipe conduits should meet the following requirements:

The pipe should be capable of withstanding external loading without yielding, buckling, or cracking. Pipe strength should not be less than that of the grades indicated in Table 2 for plastic pipe and in Table 3 for corrugated aluminum and galvanized steel pipe. Flexible pipe strength shall not be less than that necessary to support the design load with maximum **five percent (5%)** deflection. The inlets and outlets should be structurally sound and made of materials compatible with that of the pipe. All pipe joints should be made watertight by the use of couplings or gaskets or by welding or caulking.

Acceptable pipe materials are cast-iron, steel, corrugated steel, or aluminum, concrete, plastic, vitrified clay with rubber gaskets, and cast-in-place reinforced concrete. Aluminum pipe will not be used in soils with pH values outside the range of 4-9. Concrete and vitrified clay pipe should be laid in a concrete bedding. Plastic pipe that will be exposed to direct sunlight should be made of ultraviolet-resistant materials and projected by coating or

shielding, or provisions for replacement should be specified. Connections of plastic pipe to less flexible pipe or structures must be designed to avoid stress concentrations that could rupture the plastic. Cantilever outlet sections, if used, should be designed to withstand the cantilever load. Pipe supports should be provided when needed. Other suitable outlet protection structure devices may also be used to provide a safe outlet.

Anti-seep collars should be installed around the pipe conduit in the normal saturation zone if any of the following conditions exist:

1. The settled dam height exceeds **fifteen (15) feet**.
2. The conduit is of smooth exterior pipe larger than **eight (8) inches** in diameter.
3. The conduit is of corrugated exterior pipe larger than **twelve (12) inches** in diameter.

Anti-seep collars and their connections to the pipe should be watertight. The collar material should be compatible with pipe materials. The maximum spacing should be approximately **fourteen (14) times** the minimum projection of the collar measured perpendicular to the pipe. A minimum of **one (1)** anti-seep collar should be used on all conduits.

Closed conduit spillways designed for pressure flow must have adequate antivortex devices at their inlets.

If needed to prevent clogging of the conduit, an appropriate trash guard should be installed at the inlet or riser.

For safety reasons, all vertical drop inlets should be constructed to prevent accidental injury. This may be accomplished by using a horizontal anti-vortex baffle, trash rack or guard rail.

Procedures for designing, dimensioning, and detailing pipe conduit spillways may be found in the SCS Engineering Field handbook, the SCS National Engineering Handbook and Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control or other references specified by local regulatory authorities.

Weir-type straight drops or box inlets and chutes shall be designed according to procedures in the SCS Engineering Field Handbook, the SCS National Engineering Handbook, and the USDA Agricultural Handbook No. 301, or as specified by the local regulatory authorities.

SCS toe wall drop structures can be used if the vertical drop is **four (4) feet** or less, flows are intermittent, downstream grades are stable, and tailwater depth at design flow is equal to or greater than **one-third (1/3)** of the height of the overfall.

The ratio of the capacity of drop boxes to road culverts shall be as required by the responsible road authority. The drop box capacity attached to a new or existing culvert must equal or exceed the culvert capacity at the design flow.

Emergency Spillways. An emergency spillway must be provided for each dam, unless the principal spillways I large enough to pass peak discharge from the routed design hydrograph and the trash that comes to it without overtopping the dam. The following are minimum criteria for acceptable use of pipe conduit principal spillway without an emergency spillway: a conduit with a cross-sectional area of **three (3) square feet** or more, an inlet that will not clog, and an elbow designed to facilitate the passage of trash.

The minimum capacity of a natural or constructed emergency spillway shall be that required to pass the peak flow expected from a design storm of the frequency and duration shown in Table 1. IDOT Class III permit dams shall have an emergency spillway capable of passing the

peak discharge from a 100-year, 24-hour storm event less principal spillway discharge.

Emergency spillways shall provide for passing the design flow at a safe velocity to a point downstream where the dam will not be endangered.

Constructed emergency spillways are open channels that usually consist of an inlet channel, a control section, and an exit channel. They shall be stable for the material in which the spillway is to be constructed. The emergency spillway shall have a bottom width of not less than **ten (10) feet**.

Upstream from the control section, the inlet channel shall be level for the distance needed to protect and maintain the crest elevation of the spillway. The inlet channel may be curved to fit existing topography. The grade of the exit channel of a constructed emergency spillway shall fall within the range established by discharge requirements and permissible velocities. Design procedures and details for vegetated earth emergency spillways may be found in the SCS Engineering Field Handbook, the SCS National Engineering Handbook, and SCS Technical Release 52, or other references specified by the local regulatory authorities.

Foundation Cutoff. A cutoff of relatively impervious material shall be provided under the dam if necessary. The cutoff shall be located at or upstream from the centerline of the dam. It shall extend up the abutments as required and be deep enough to extend into a relatively impervious layer or provide for a stable dam when combined with seepage control. The cutoff trench shall have a bottom width adequate to accommodate the equipment used for excavation, backfill, and compaction operations. Side slopes shall not be steeper than one horizontal to one vertical.

Seepage control. Seepage control is to be included if:

1. Pervious layers are not intercepted by the cutoff.
2. Seepage creates swamping downstream.
3. Such control is needed to insure a stable embankment.
4. Special problems require drainage for a stable dam.

Seepage may be controlled by:

1. Foundation, abutment, or embankment drains.
2. Reservoir blanketing.
3. A combination of these measures.

Earth Embankment. The minimum top width for a dam is shown in Table 4. If the embankment top is to be used as a public road, the minimum width shall be **sixteen (16) feet** for one-way traffic and **twenty-six (26) feet** for two-way traffic. Guardrails or other safety measures shall be used where necessary and shall meet the requirements of the responsible road authority.

The combined upstream and downstream side slopes of the settled embankments shall not be less than five horizontal to one vertical, and neither slope shall be steeper than two horizontal to one vertical. All slopes must be designed to be stable, even if flatter side slopes are required.

If needed to protect the slopes of the dam, special measures, such as berms, rock riprap, sand-gravel, soil cement, or special vegetation, shall be provided.

The minimum elevation of the top of the settled embankment shall be **one (1) foot** above the water surface in the reservoir with the emergency spillway flowing at design depth. The minimum difference in elevation between the crest of the emergency spillway and the settled top of the dam shall be **two (2) feet** for all dams having more than **twenty (20) acre**

drainage area or more than **twenty (20) feet** in effective height.

The design height of the dam shall be increased by the amount needed to insure that after settlement the height of the dam equals or exceeds the design height. This increase shall not be less than **five percent (5%)**, except where detailed soil testing and laboratory analyses show that a lesser amount is adequate.

EXCAVATED IMPOUNDMENTS.

Runoff. Provisions shall be made for a pipe and emergency spillway if necessary. Runoff flow patterns shall be considered when locating the pit and placing the spoil.

Side Slopes. Side slopes of excavated ponds shall be stable and shall not be steeper than one horizontal to one vertical.

Perimeter Form. If the structures are to be used for recreation or are highly visible to the public, the perimeter or edge should be curvilinear.

Inlet Protection. If surface water enters the pond in a natural or excavated channel, the side slope of the impoundment shall be protected against erosion.

Excavated Material. The material excavated from the pond shall be placed so that its weight will not endanger the stability of the pond side slopes and so that it will not be washed back into the pond by rainfall. It shall be disposed of in one of the following ways:

1. Uniformly spread to a height that does not exceed **three (3) feet**, with the top graded to a continuous slope away from the impoundment.
2. Uniformly placed or shaped reasonably well, with side slopes assuming a natural angle of repose. The excavated material will be placed at a distance equal to the depth of the impoundment but not less than **twelve (12) feet** from the edge of the impoundment.
3. Shaped to a designed form that blends visually with the landscape.
4. Used for low embankment and leveling.
5. Hauled away.

Vegetation. Disturbed areas that are not to be cultivated shall be established as soon as practicable after construction. Seedbed preparation, seeding, fertilizing and mulching shall comply with practice standard 880 or 970 Permanent or Temporary Seeding.

CONSIDERATIONS.

Site Safety. Impoundments are potential attractive nuisances and safety aspects must be considered in their design and layout. If the area is used or may be used for recreation, it is recommended that warning signs be erected, that lifesaving equipment be available on site and that emergency instructions be posted in a conspicuous location.

Visual Resource Design. The visual design of impoundments shall be carefully considered in areas of high public visibility and those associated with recreation. The underlying criterion for all visual design is appropriateness. The shape and form of ponds, excavated material, and plantings are to relate visually to their surroundings and to their function.

The embankment may be shaped to blend with the natural topography. The edge of the impoundment may be shaped so that it is generally curvilinear rather than rectangular. Excavated material can be shaped so that the final form is smooth, flowing, and fitting to the adjacent landscape rather than angular geometric mounds. If feasible, islands may be added for visual interest and to attract wildlife.

Impoundments for water supply should have adequate drainage area to fill at least

yearly. As a minimum, drainage area, in acres, where water supply is a primary purpose, shall equal permanent storage in acre-feet.

PLANS AND SPECIFICATIONS. Plans and specifications for installing full flow impoundment structures shall be in keeping with this standard and shall describe the requirements for installing the practice. Items that specifications should address, if applicable, and appropriate construction/ material specifications, standard drawings and other standards are as follows:

Site and Foundation Preparation. All site and foundation areas shall be prepared and maintained in such a manner that earthfill placement or other specified treatments allow the practice to achieve its intended purpose. Applicable construction specifications may include: 1 CLEARING, 2 CLEARING AND GRUBBING, 8 MOBILIZATION, 10 WATER FOR CONSTRUCTION, 11 REMOVAL OF WATER.

Applicable material specifications may include: 521 AGGREGATES FOR DRAINFILL FILTERS, 592 GEOTEXTILES.

Applicable standard drawings may include drawing number IL-515 DIVERSION PLAN, IL-585 EARTH DAM STRUCTURE PLAN, IL-630 STABILIZED CONSTRUCTION ENTRANCE, IL-650 SUMP PIT PLAN, AND IL-610 TEMPORARY SLOPE DRAIN PLAN.

Other applicable standards may include: 315 DIVERSION, 950 SUMP PIT, 970 TEMPORARY SLOPE DRAIN, 975 TEMPORARY STREAM CROSSING.

Excavations and Earthfill. All specified excavation shall be preformed and earthfills shall be placed in such a manner that allows the practice to achieve its intended purpose. Applicable construction specifications may include: 10 WATER FOR CONSTRUCTION, 21 EXCAVATION, 23 EARTHFILL, 24 DRAINFILL, 25 ROCKFILL, 26 SALVAGING AND SPREADING TOPSOIL, 61 LOOSE ROCK RIPRAP, 62 GROUTED ROCK RIPRAP, 95 GEOTEXTILE.

Applicable material specifications may include: 521 AGGREGATES FOR DRAINFILL AND FILTERS, 523 ROCK FOR RIPRAP, 592 GEOTEXTILE.

Applicable standard drawings may include: IL-585 EARTHDAM STRUCTURE PLAN.

Spillway Structures. All spillways including inlet and outlet structures shall be constructed or installed in a manner that allows the practice to achieve its intended purpose. Materials and construction techniques specified shall be appropriate for the intended life and hazard classification of the practice. Where available, manufacturer's installation recommendations may be included in specifications. Application construction specifications may include: 24 DRAINFILL, 25 ROCKFILL, 32 CONCRETE FOR MINOR STRUCTURES, 34 STEEL REINFORCEMENT, 41 REINFORCED CONCRETE PRESSURE PIPE PRINCIPAL SPILLWAY CONDUITS, 42 CONCRETE PIPE CONDUITS AND DRAINS, 43 CLAY PIPE CONDUITS, 51 CORRUGATED METAL PIPE CONDUITS, 41 REINFORCED CONCRETE PRESSURE PIPE PRINCIPAL SPILLWAY CONDUITS, 42 CONCRETE PIPE CONDUITS AND DRAINS, 43 CLAY PIPE CONDUITS AND DRAINS, 51 CORRUGATED METAL PIPE CONDUITS, 52 STEEL PIPE CONDUITS, 53 DUCTILE-IRON PIPE CONDUITS, 61 LOOSE ROCK RIPRAP, 62 GROUTED ROCK RIPRAP, 64 WIRE MESH GABIONS, 71 WATER CONTROL GATES, 81 METAL FABRICATION AND INSTALLATION, 83 TIMBER FABRICATION & INSTALLATION, 95 GEOTEXTILES.

Applicable material specifications may include: 521 AGGREGATES FOR DRAINFALL and FILTERS, 522 AGGREGATES FOR CONCRETE, 523 ROCK FOR RIPRAP, 531 PORTLAND CEMENT, 532 AIR ENTRAINING ADMIXTURES, 534 CURING COMPOIUND,

535 PREFORMED EXPANSION JOINT FILLER, 536 SDEALING COMPOUND, 537 NON-METALLIC WATERSTOPS, 538 METAL WATERSTOPS, 539 STEEL REINFORCEMENT, 541 REINFORCED CONCRETE PRESSURE PIPE, 542 CONCRETE CULVERT PIPE, 544 CLAY PIPE AND CLAY DRAIN TILE, 546 BITUMINIZED FIBER PIPE, 547 PLASTIC (PVC, PE, ABS) PIPE, 551 METALLIC COATED CORRUGATED STEEL PIPE, 552 ALUMINUM CORRUGATED PIPE, 554 STEEL PIPE & FITTINGS, 581 METAL, 582 GALVANIZING, 584 STRUCTURAL TIMBER AND LUMBER, 585 WOOD PRESERVATIVES AND TREATMENT, 592 GEOTEXTILE.

Applicable standard drawings may include: IL-543 INLET FOR UNDERGROUND OUTLET, IL-545 CULVERT FLARED END METAL SECTION, IL-576 HEADWALL & SAFETY GUARD FOR PIPE RISERS, IL-577 HOOD INLET WITH BAFFLE FOR CMP, IL-578 CMP DROP INLET & BAFFLE, IL-579 CMP PIPE DIAPHRAGM, IL-580 COUPLING BAND FOR CMP, IL-581 TIMBER PROP FOR 10" – 30" DIAMETER CMP, IL-582 TIMBER PROP FOR 36" – 48" DIAMETER CMP, IL-583 DROP INLET STRUCTURE PLAN, IL-584 HOOD INLET STRUCTURE PLAN, IL-585 EARTH DAM STRUCTURE PLAN, IL-586 CMP SUPPORT, IL-590 TRASH RACKS FOR PIPE DROP INLET, IL-591 TRASH RACKS FOR HOODED INLET, IL-592 DETAIL FOR PVC CANOPY INLET, IL-593 FLEXIBLE ANTISEEP COLLAR, IL-594 CMP WATER CONTROL STRUCTURE, IL-610 PIPE OUTLET TO FLAT AREA.

Site Physical Protection Plan. Adequate measure shall be specified to control, on site, additional runoff and/or contaminants expected as a result of construction activities; to provide for the safety of the general public; and to provide a maintainable system of erosion protection for the constructed practice. Applicable construction specifications may include: 6 SEEDING, SPRIGGING, & MULCHING FOR PROTECTIVE COVER, 26 SALVAGING & SPREADING TOPSOIL, 27 DIVERSIONS, 28 WATERWAYS, 46 TILE DRAINS, 61 LOOSE ROCK RIPRAP, 62 GROUTED ROCK RIPRAP, 64 WIRE MESH GABIONS, 91 CHAIN LINK FENCE, 95 GEOTEXTILES.

Applicable standard drawings may include: IL-515 DIVERSION PLAN, IL-540 WATERWAY PLAN, IL-541 ROCK CHECKS FOR WATERWAYS, IL-543 INLET FOR UNDERGROUND OUTLET, IL-595 PORTABLE SEDIMENT TANK PLAN, IL-620 SILT FENCE PLAN, IL-630 STABILIZED CONSTRUCTION ENTRANCE PLAN, IL-635 STRAW BALE DIKE PLAN, IL-615 SEDIMENT BASIN DEWATERING PLAN, IL-660 TEMPORARY SEDIMENT TRAP.

Other applicable standards may include: 815 DIVERSION, 820 DIVERSION DIKE, 825 DUST CONTROL, 830 EROSION BLANKET, 835 FILTER STRIP, 865 LAND GRADING, 895 MULCHING, 880 PERMANENT SEEDING, 895 PORTLAND SEDIMENT TANK, 910 ROCK OUTLET PROTECTION, 920 SILT FENCE, 925 SODDING, 935 STRAW BALE BARRIER, 945 SUBSURFACE DRAIN, 955 TEMPORARY DIVERSION, 960 TEMPORARY SEDIMENT TRAP, 965 TEMPORARY SEEDING, 980 TEMPORARY SWALE, 981 TOPSOILING.

OPERATION AND MAINTENANCE. An operation and maintenance plan should be developed and concurred in by the owners/operators of the impoundment structure. The operation plan shall establish a schedule for testing all operable facilities to ensure that they function as intended, or that necessary repairs are made. The maintenance plan shall specify responsible parties for maintaining or replacing, as necessary: all vegetative components of the structure, riprap for wave protection or outlet protection, inlet and outlet works, safety features including fences and signs, and on-site erosion/water control facilities.

Procedures and responsible parties for removing and disposing of accumulated debris and/or sediment as necessary to ensure the function of the structure shall be specified. Procedures and responsible parties for repairing damage to embankment, spillway structures and other appurtenances shall be specified. The structure shall be inspected at least yearly and after every storm event causing flows through vegetated spillways or over top of embankment.

If required by the IDOT-DWR, an emergency action plan shall be filed for permit structures.

SCS IL August 1994

Urb841.dcx