



City of Lockport

Development Code

Comprehensive Amendment

Approved February 7, 2018; Ordinance No.: 18-008

**CHAPTER 153
DEVELOPMENT CODE**

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**CHAPTER 153.10
GENERAL PROVISIONS**

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- 153.10.020 Purpose
- 153.10.030 Scope of Chapter
- 153.10.040 Application and Interpretations
- 153.10.050 Variations and Exceptions

SECTION 153.10.010 TITLE

This Title (Chapter 153) shall be known and may be cited and referred to as “The Development Code of the City of Lockport”.

SECTION 153.10.020 PURPOSE

In an era of increasing complexity in urban life, the subdivision and development of private land can have a profound impact upon the cost and efficiency of sanitary sewer and water services, vehicular and pedestrian circulation systems, stormwater runoff control, educational and recreational facilities, and upon environmental qualities conducive to the well-being of citizens. Therefore, the following regulations and standards applicable to the subdivision and/or development of land within the jurisdiction of the City of Lockport are hereby adopted to:

- A. Advance the public health, safety and welfare in an era of increasingly rapid improvements of vacant land.
- B. Encourage the use of the best planning and engineering practices by private developers in an age when sophisticated technology in building and design is available.
- C. Promote the growth of the City of Lockport in a manner that will not only provide its citizens with a safe, healthy and beneficent environment, but will also protect property values, thereby securing the fiscal base for public services.
- D. Ensure adequate and economical provisions of necessary public services caused by and attributable to improvement of vacant land.
- E. Promote those qualities in the environment that bring value to the community, to foster the attractiveness and functional utility of the community as a place to live and work, to protect investments in the community, and to raise the level of community expectations for the quality of its environment.

- F. Prescribe the standards for the preparation and submission of preliminary and final subdivision plats and development plans; to specify the types of development or land use for which submissions shall be required; to define and establish the responsibilities and standards for processing, review and approval of such plats and plans; and to designate the reviewing and approving authorities for the City.
- G. Diminish threats to public health, safety and welfare caused by excessive stormwater runoff from new development and redevelopment. Excessive stormwater runoff may result in the inundation of damageable properties, the erosion and destabilization of downstream channels, and the pollution of valuable stream and lake resources. The cause of increases in stormwater runoff volume and flow rate, and impairment of water quality, is the development and improvement of land. As such, this ordinance regulates these activities to minimize or prevent adverse impacts.
- H. Ensure that new development does not increase the threat of stormwater damage or flood hazards to others or create unstable conditions susceptible to soil erosion.
- I. Protect new buildings or major improvements to buildings from flood damage due to increased stormwater runoff.
- J. Protect human life and health from the hazards of increased flooding on a watershed basis.
- K. Lessen the burden on the taxpayer for flood control projects, repairs to flood-damaged public facilities and utilities, correction of channel erosion problems, and flood rescue and relief operations caused by increased stormwater runoff from new development.
- L. Protect, conserve and promote the orderly development of land and water resources.
- M. Preserve the natural hydrologic and hydraulic functions of watercourses and flood plains and to protect water quality and aquatic habitats.
- N. Preserve the natural characteristics of stream corridors in order to moderate flood and stormwater impacts, improve water quality, reduce soil erosion, protect aquatic and riparian habitat, provide recreational opportunities, provide aesthetic benefits, and enhance community and economic development.
- O. Safeguard persons, protect property, prevent damage to the environment, and promote the public welfare by guiding, regulating and controlling the design, construction, use and maintenance of any development or other activity which disturbs or breaks the topsoil or otherwise results in the movement of earth on land situated in the City. It is the intention of this ordinance that the delivery of sediment from sites affected by land-disturbing activities be limited, as closely as practicable, to that which would have occurred if the land had been left in its natural and undisturbed state.

SECTION 153.10.030 SCOPE OF CHAPTER

- A. PREAMBLE. This Article enumerates the activities of landowners and developers that are subject to this Chapter and provides that variations from the regulations herein may be granted upon certain findings.
- B. SUBDIVISION REQUIRED AND SUBDIVISION EXEMPTIONS. No person shall subdivide or resubdivide, or implement a Planned Unit Development (or other multi-unit non-subdivision development), on any parcel of land within the corporate limits of the City, or within one and one-half miles of said corporate limits but not within the corporate limits of any other municipality, or within the jurisdiction of another municipality acting pursuant to Section 11-12-9 of the Illinois Municipal Code (65 ILCS 5/11-12-9), unless a subdivision plat and/or development plan conforming to the Official Map and the requirements of this Chapter has been reviewed by the Plan & Zoning Commission and has been reviewed and approved by the Corporate Authorities as required in this Chapter, provided that the following shall be exempt from this Chapter, unless covered by Section 153.10.030(C):
1. The division of land into parcels, each greater than six (6) acres in size, and which does not involve any new streets or easements of access.
 2. The division of a lot less than one (1) acre in size, which does not involve any new streets or easements of access, provided that the division complies with the regulations of the City Zoning Ordinance.
 3. The sale or exchange of parcels of land between owners of contiguous and adjoining land.
 4. The conveyance of parcels of land or interests therein for use as a right-of-way for railways or other public utility facilities, which does not involve any new streets or easements of access.
 5. The conveyance of land for highways 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.
 6. Conveyances made to correct descriptions in prior conveyances.
- C. DEVELOPMENT PLAN REVIEW REQUIRED. No person shall commence or cause to be commenced any of the following developments within the corporate limits of the City unless a development plan has been reviewed by the Plan & Zoning Commission and approved by the Corporate Authorities as provided in this Chapter:
1. Any development of any parcel of land involving the construction of two (2) or more residential buildings on that lot (excluding accessory buildings).
 2. Any development of any parcel of land involving the construction of a building containing six (6) or more dwelling units.

3. Any development of any parcel of land under single ownership or control involving the construction of any new office, commercial, storage or industrial building(s) (excluding an accessory building under 720 square feet).
 4. Any development involving expansion of 500 square feet or more to an existing office, commercial, storage or industrial building, and which has an impact on approved stormwater management, lot coverage, minimum landscaped surface ratio, parking, loading, or landscaping (including number of plant units and screening).
 5. Any development of any parcel of land under single ownership or control that will create more than fourteen (14) parking spaces for any residential use, or ten (10) or more parking spaces or one (1) loading space for any office, commercial, storage or industrial use.
 6. Any development of any parcel of land involving the construction or expansion of any public or private school, library, hospital, church or any place of public assembly.
 7. Any development of any parcel of land involving a wetland, wetland buffer, water body, watercourse or flood plain.
- D. RECORDING. No Plat of Subdivision shall be recorded in the Recorder's Office of any County, or have any validity, until it shall have been approved in the manner prescribed in this Chapter.

SECTION 153.10.040 APPLICATION AND INTERPRETATION

- A. Whenever any person requesting or performing development of land, or subdivision of land, or wherever any land shall hereafter be laid out within the jurisdiction of this Chapter, the developer or owner shall submit a Preliminary Development Plan and a Preliminary Subdivision Plat to the City. Said plans, proposed improvements, and all procedures relating thereto, shall in all respects be in full compliance with this Chapter.
- B. No portion of a lot, tract, parcel of land, or subdivision shall be sold, conveyed, divided into two (2) or more lots, parcels or tracts, subdivided or filed for record, nor any street or thoroughfare laid out, nor any public or private improvements made to the land until a Development Plan and Subdivision Plat, and other supporting documents have been approved by the Corporate Authorities.
- C. No improvements, such as but not limited to, sidewalks, water supply and distribution, storm water drainage and detention, sewerage or lighting facilities, grading, paving or surfacing of streets, shall hereafter be made within or adjacent to the limits of any such development or redevelopment of land by any owner or owners, or his or their agents, or at the request of such owner or owners or his or their agent, until a Subdivision Plat and Development Plan have been formally reviewed by the Plan & Zoning Commission and approved by the Corporate Authorities.

- D. Where a tract of land proposed for development is part of a larger, logical subdivision unit in relation to the City as a whole, the Corporate Authorities may cause to be prepared or may require the owner or developer to prepare a proposed plan of the entire area; such plan to be used by the Plan & Zoning Commission and the Corporate Authorities as an aid in evaluating the Preliminary Plan and Subdivision Plat, in relationship to the realization of the Comprehensive Plan and Official Map.
- E. In their interpretation and application, the provisions of these regulations shall be held to be the minimum requirements for the promotion of the public health, safety and welfare. These regulations are not intended to interfere with, abrogate or annul any other regulation, covenant or restriction relating to the subdivision or development of land. Whenever this Chapter imposes requirements different from those imposed by any other regulation, covenant or restrictions, whichever imposes more restrictive or higher standards shall apply.

SECTION 153.10.050 VARIATIONS AND EXCEPTIONS

- A. Upon a finding, recommended by the Director of Public Works & Engineering or authorized designee, that severe hardship caused by conditions uniquely attributable to the land under consideration would be imposed upon the Applicant by compliance with these regulations and upon a finding that there are alternate feasible means of fulfilling the purpose of the regulations to protect the public health, safety and welfare, the Plan & Zoning Commission may recommend and the corporate Authorities may grant variations from the regulations of this Chapter.
- B. The Corporate Authorities may impose such conditions and restrictions upon the variation as may be necessary or appropriate to carry out the spirit and purpose of this Chapter.
- C. Requests for variations shall be made in writing upon forms developed by the City for that purpose, and any variation or modification thus authorized, shall be attached to and made a part of the Subdivision Plat or Development Plan.
- D. The Director of Public Works & Engineering or authorized designee may vary and make exceptions to some of the design alternatives and/or modify existing requirements where there is sufficient evidence, in his/her opinion, that other design methodology will serve the same design principle and is the most suited to the site because of topographic or other conditions peculiar to the site, and that such exceptions may be made without being contrary to the intent of this Chapter.

CHAPTER 153.15
RULES AND DEFINITIONS

Sections

- 153.10.010 Rules
- 153.15.020 Definitions
- 153.15.030 Adoption by Reference
- 153.15.040 Enactment
- 153.15.050 Effect on Existing Building Permits and Zoning Certificates
- 153.15.060 Official Map

SECTION 153.15.010 RULES

- A. Words used in the present tense shall include the future; and words used in the singular number shall include the plural number, and the plural the singular.
- B. The word “shall” is mandatory and not discretionary.
- C. The word “may” is permissive.
- D. The word “lot” shall include the words “plot”, “piece”, and “parcel”.
- E. The phrase “used for” shall include the phrases “arranged for”, “designed for”, “intended for”, and “occupied for”.

SECTION 153.15.020 DEFINITIONS

ACI The abbreviation for American Concrete Institute.

AWWA The abbreviation for American Water Works Association.

ANSI The abbreviation for American National Standard Institute.

ASTM The abbreviation for American Society for Testing and Materials.

Adverse Impacts Any deleterious impact on water resources or wetlands affecting their beneficial uses including recreation, aesthetics, aquatic habitat, quality, and quantity.

Alley A public or private strip of land along the side or rear of a lot intended and designed to provide secondary access to a lot along whose principal frontage is a public street.

Applicant Any person, firm, or governmental agency who executes the necessary forms to procure official approval of a development or permit to carry out construction of a development from the City of Lockport.

Armoring A form of channel modification which involves the placement of materials (e. g., concrete, riprap, bulkheads) within a stream channel or along a shoreline to protect property above streams, lakes and ponds from erosion and damage caused by wave action and stream flow.

Approval Action by the corporate Authorities to authorize signing of all certificates on all documents.

Base Flood The flood having a one-percent probability of being equaled or exceeded in a given year. The base flood is also known as the 100-year frequency flood event.

Base Flood Elevation (BFE) The highest water surface elevation that can be expected during the base flood.

Benchmark A permanent object of known elevation.

Best Management Practice (BMP) A measure used to control the adverse stormwater-related effects of development. BMPs include structural devices (e.g. swales, filter strips, infiltration trenches, and detention basins) designed to remove pollutants, reduce runoff rates and volumes, and protect aquatic habitats. BMPs also include non-structural approaches, such as public education efforts to prevent the dumping of household chemicals into storm drains.

Bikepath A right-of-way or pathway across or within a tract of land to be used primarily by bicyclists.

Block A tract of land bounded by street, or by a combination of streets and public parks, railroads, cemeteries, or waterways.

BOCA The abbreviation for Building Officials and Code Administrators International, Inc.

Building Any structure with substantial walls and roof securely affixed to the land and entirely separated on all sides from any other structure by space or by walls in which there are no communicating doors, windows openings. A structure which is designed or intended for shelter, enclosure or protection of persons, animals or other property.

Building Permit An official document or Certificate issued by the City of Lockport authorizing construction, alterations, additions, repair, removal and/or demolition of a structure.

Building Setback Line A line parallel to the street line at a distance from it, establishing the minimum open space to be provided between the building and adjacent street, so designated on a Plat of Subdivision or designated by City Ordinance.

Bulkhead A retaining wall that protects property along water.

Bypass Flows Stormwater runoff or groundwater from upstream properties tributary to a property's drainage system but not under its control.

Certificate of Occupancy The certificate issued by the City which permits the use of a building in accordance with the approved plans and specifications and which certifies compliance with the provision of law for the use and occupancy of the building in its several parts together with any special stipulations of conditions of the building permit.

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

Channelization A modification involving a significant change in the channel cross-section, typically involving relocation of the existing channel (e.g., straightening).

Channel Modification Alteration of a channel by changing the physical dimension or materials of its bed or banks. Channel modification includes damming, rip rapping (or other armoring), widening, deepening, straightening, relocating, lining and significant removal of bottom or woody rooted vegetation, but does not include the clearing of debris or removal of trash or dredging to previously documented thalweg elevations and side slopes.

City The City of Lockport, Illinois.

City Engineer The person charged with engineering responsibilities for the City of Lockport, as designated by the Director of Public Works and Engineering.

Compensatory Storage An excavated, hydrological and hydraulically equivalent volume of storage created to offset the loss of existing flood storage.

Comprehensive Plan The long-range public policy affecting community character, economic well-being, cultural and social amenities, ease and convenience of circulation, and orderly development of various land uses, serving as a policy guide in all decisions related to community growth, adopted and from time to time amended by the Corporate Authorities.

Conduit Any channel, pipe, sewer or culvert used for the conveyance or movement of water, whether open or closed.

Control Structure A structure designed to limit the rate of flow that passes through the structure to a specific rate, given a specific upstream and downstream water surface elevation.

Corporate Authorities The Mayor and members of the City Council of the City of Lockport.

Culvert A structure designed to carry storm water runoff or small streams below barriers such as roads, driveways, or railway embankments.

Depressional Area Any area which is lower in elevation on all sides than surrounding properties (i.e., does not drain freely), or whose drainage is severely limited, such as by a restrictive culvert.

Detention Area An area of land reserved for the temporary storage of storm water runoff.

Detention Basin A constructed structure for the temporary storage of stormwater runoff with a controlled release rate. A Detention Basin is also known as a Site Runoff Storage Facility.

Detention Time The mean residence time of stormwater in a detention basin.

Developer Any person whose concern and desire is to develop or improve land governed by this Chapter.

Development Any constructed change to real estate including:

- a) Construction, reconstruction, repair or replacement of a building or an addition to a building.
- b) Construction of roads, bridges, or similar projects.
- c) Redevelopment of a site.
- d) Filling, dredging, grading, cleaning, excavating, paving, or other non-agricultural alterations of the ground surface.
- e) Storage of materials or deposit of solid or liquid waste.
- f) Any other activity that will alter the magnitude, frequency, deviation, direction, or velocity of stormwater flows from a property, including extensive vegetation removal.

Development Engineer The individual responsible for the engineering design and the preparation of the proposed improvement plans, supporting calculations, and other required documents for the development of land. This individual shall be a Registered Professional Engineer licensed by the State of Illinois.

Development Engineering Consultant The person or firm approved by the Corporate Authorities and charged with development engineering responsibilities for the City of Lockport as directed by the Director of Public Works and Engineering.

DBH (Diameter at Breast Height) The caliper of the tree trunk in inches measured at a height of four and one-half feet (4.5') above ground.

Drainage Plan A plan, including engineering drawings and supporting calculations, which describes the existing storm water drainage system and environmental features, as well as the drainage system and environmental features which are proposed after development of a property.

Drip Line An imaginary, perpendicular line that extends downward from the outermost tips of the tree branches to the ground.

Driveway A private passageway for vehicular access from a public street onto an adjacent lot.

Driveway Apron (Parkway) That portion of a driveway located between the sidewalk (if any) or the property line and the back of curb (if any) or to the edge of the pavement.

Dry Basin A detention basin designed to drain completely after the temporary storage of stormwater runoff and to normally be dry over the majority of its bottom area.

Easement A grant by a property owner for the use of an area of land by the general public, a corporation, or a certain person or persons for a specific purpose or purposes.

Elevation The elevation of structures, the earth, or other items with respect to established benchmarks in terms of U.S.G.S. datum.

Erosion The process whereby soil is detached by the action of water or wind.

Excess Stormwater Runoff The volume and rate of flow of stormwater discharged from an urbanized drainage area which is or will be in excess of that volume and rate of flow which existed before urbanization.

FEMA The abbreviation for the Federal Emergency Management Agency.

Filling Any act by which earth, sand, gravel, rock, or any other material is deposited, placed, replaced, transported or moved by man to a new location, and shall include the conditions resulting therefrom.

Filtered View The maintenance or establishment of woody vegetation of sufficient density to screen developments from a stream or wetland, to provide for stream bank stabilization and erosion control, to serve as an aid to infiltration of surface runoff, and to provide cover to shade the water. The vegetation need not be so dense as to completely block the view, but the practice of clear cutting all vegetation will not be allowed.

Final Development Plan The map or drawing on which the plans for development of land are presented for final approval, as described in Section 153.20.062.

Final Grading The vertical location of the pavement or landscaped material surfaces after all grading work is completed in accordance with the approved final grading plans.

Final Punch List A tabulation of construction deficiencies which must be corrected prior to final acceptance of a subdivision or other development.

Final Grade Survey A topographical survey prepared and certified by a registered land surveyor or registered professional engineer indicating spot elevations and elevation contours on a given parcel. The elevation contours shall be a minimum of 1.0 foot and in sufficient detail to adequately determine the proper final grading on a parcel as determined by the Director of Public Works or his/her designee. This survey shall be provided by the permittee to City at the permittee's expense. The survey shall be submitted to a scale no smaller than one inch equals 30 feet (1"=30').

Fine Grading The process of grading a parcel to the finished grades proposed on the grading plan.

Flooding A general or temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters, or the usual and rapid accumulation of runoff from surface waters from any source.

Flood Plain That land typically adjacent to a body of water with ground surface elevations at or below the base flood or the 100-year frequency flood elevation including detached special flood hazard areas, ponding areas, etc. The Flood Plain is also known as the Special Flood Hazard Area.

Floodway The Floodway includes the channel, on-stream lakes, and that portion of a flood plain adjacent to a stream or channel which is needed to store and convey the critical duration 100-year frequency flood discharge with no more than a 0.1-foot increase in flood stage due to the loss of flood conveyance or storage, and no more than a 10% increase in velocities.

Flood Fringe That portion of the flood plain outside of the designated floodway.

Foundation Opening Elevation The lowest unprotected opening in a structure.

Frontage All the property on one side of a street between two intersecting streets (crossing or terminating) measured along the line of the street; or if the street is dead-ended, then all property abutting on one side between an intersecting street and the dead-end of the street.

Grading The excavation of, the filling of, or any combination thereof of any parcel and shall include the operations and conditions resulting from and necessary because of any excavation or filling of any parcel.

Ground Cover Any manmade or natural landscaping material, functional or ornamental, including but not limited to such material as grass or shrubbery used to protect top soil or soil from eroding.

Heritage Tree A tree that meets species and size criteria for highest quality preservation as stated herein. The species criteria are based on naturally occurring trees for the area that are known to be strong and long lived.

Homeowners' Association An organization or association established pursuant to an agreement, consisting of persons owning or assuming responsibility for open spaces, recreational facilities, or other commonly owned areas or property within a residential subdivision or other real estate development.

Hydraulic Characteristics The features of a watercourse which determine its water conveyance capacity, including, size and configuration of the cross-section of the floodway; texture and roughness of materials along the watercourse; alignment of the watercourse; gradient of the watercourse; amount and type of vegetation within the watercourse; size, configuration and other characteristics of structures within the watercourse; and the characteristics of the overbank in low lying areas.

Hydrograph A graph showing for a given location on a stream or conduit, the flow rate with respect to time.

IBR The abbreviation for Illinois Bearing Ratio.

IDNR-OWR The abbreviation for the Illinois Department of Natural Resources - Office of Water Resources.

IDOT The abbreviation for the Illinois Department of Transportation.

IEPA The abbreviation for Illinois Environmental Protection Agency.

Infiltration The passage or movement of water into the soil surface.

Improvement Changing any of the existing topographical features of land such as installing or constructing drainage, sewerage, or water systems, or streets, parking areas, sidewalks, lights, signs, trees, grading, or related appurtenances.

ISA International Society of Arboriculture.

Lake A natural or artificial body of water encompassing an area of two (2) or more acres, which retains water throughout the year.

Lot A parcel of land in a subdivision separated from other parcels or portions by virtue of a Plat recorded with the appropriate county office and identifiable by reference to said Plat, and not dependent for such identification by metes and bounds.

Major Drainage System That portion of a drainage system needed to store and convey flows beyond the capacity of the Minor Drainage System.

Minor Drainage System That portion of a drainage system consisting of culverts, gutters, storm sewers, small open channels and swales, usually designed to store and convey flows smaller than or equal to the runoff from the 10% annual probability storm.

Mitigation Measures taken to offset the negative impacts from development in wetlands, buffers and flood plain.

MWRD or MWRDGC The abbreviation for the Metropolitan Water Reclamation District of Greater Chicago.

Natural In reference to watercourses, refers to those stream channels, grassed waterways and swales formed by the existing surface topography of the earth prior to changes made by man. Natural watercourses tend to follow a meandering path; their flood plains are not constrained by levees; the area near their banks have not been cleared, mowed or cultivated; the watercourse flows over soil and geologic materials typical of the area, with no alteration of the course or cross-section of the watercourse caused by filling or excavating.

Official Map The Official Map, labeled “City of Lockport Official Zoning Map”, adopted and from time to time amended by the Corporate Authorities, showing the corporate limits, the one and one-half mile extraterritorial jurisdiction of the City, location of existing and proposed public service facilities and improvements, land use areas, current and future public streets, highways, park and school sites, and land for other public purposes in the City and its environs.

One Hundred Year Event A rainfall, runoff, or flood event having a one percent chance of occurring in any given year.

Ordinary High Water Mark (OHWM) The point on the bank or shore up to which the presence and action of surface water is so continuous so as to leave a distinctive mark, such as by erosion, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation, or other easily recognized characteristics.

Owner The person having sufficient proprietary interest of record in the land being proposed to be developed, to commence and maintain proceedings to plat the same under the Statutes of the State of Illinois or under the ordinances of the City.

Parcel A lot, a portion of a lot, land site, or any portion of real estate not publicly owned.

Parkway The area between the back of the curb and the public sidewalk, or the area between the curb and the property line where there is no sidewalk, or the area between the edge of the roadway pavement and the sidewalk where there is no curb, or the area between the edge of the roadway pavement and the property line where there is no curb or sidewalk.

Peak Flow The maximum rate of flow at a given point in a channel or conduit.

Pedestrianway A right-of-way or pathway across or within a tract of land to be used primarily by pedestrians.

Permittee Any person to whom a grading permit is issued.

Person A natural person, joint venture, joint stock company, partnership, association, club, company, corporation, business, trust, organization, or the manager, lessee, agent, servant, officer or employee of any of them.

Planned Unit Development (PUD) A unified development of one or more parcels of contiguous land in single ownership or unified control including two or more principal buildings and more than one principal use-planned and constructed as a unified development where specific regulations of a given zoning district are modified, if application is processed and approved under the planned unit development procedures of the City's Zoning Ordinance.

Plan & Zoning Commission The Plan & Zoning Commission of the City of Lockport.

Plat A map or drawing on which the plans for subdivision of land are presented and which the Owner submits for approval and intends to record in final form, and as further defined in Chapter 153.20.

Plat, Final The drawings and documents presented for final approval, as described in Section 153.20.061.

Plat, Preliminary The drawings and documents presented for tentative approval, as described in Section 153.20.041.

Pond A body of water less than two (2) acres in area, which retains a normal water level year round.

Ponding The creation of pockets or depressions which have no surface drainage relief provided and which, in the event of a failure on the part of the drainage system to collect and convey all stormwater runoff, will contain standing water. That portion of surface waters which are flowing are not ponding.

Positive Drainage Provision for overland drainage paths for all areas of a property, including areas drained by storm sewers, so that ponding does not occur.

Preliminary Development Plan The map or drawing on which the plans for development of land are presented for tentative approval, as described in Section 153.20.041.

Private Improvement Any installed or constructed facility for which the responsibility of maintenance and ownership will be retained by the Owner or a private association.

Property Contiguous land under single ownership or control.

Proposed Grading Plan The depiction of any manmade change to improved or unimproved real estate. It shall also be held to mean the depiction of any manmade change, including but not limited to, the damming, obstructing, changing or altering of any natural drainage course or natural draining way.

Protective Covenant Recorded conditions entered into between private parties and constituting a restriction on the use of all or some private property within a subdivision or development for the mutual benefit of successor property owners, and to provide protection against undesirable aspects of development which would tend to impair the stability of property values.

Public Agency Any public agency created by authority of the State of Illinois or the Federal Government.

Public Improvement Any facility for which the City of Lockport or other public agency may ultimately assume the responsibility for maintenance and operation and which is constructed for general public use or benefit.

Regulatory Flood Plain The flood plain as depicted on maps recognized by FEMA as defining the limits of the Special Flood Hazard Area.

Regulatory Floodway Those portions of the flood plain depicted on maps as floodway and recognized by the IDNR-OWR and FEMA for regulatory purposes.

Retention Basin A facility designed to store stormwater runoff without a gravity release.

Right-of-Way A general term denoting land, property, or interest therein, from opposite private property lines, acquired for or used as a roadway, pedestrian way or bikepath, or other public use.

Roadway The paved area of the street right-of-way, exclusive of sidewalks, driveways, or other related uses.

Root Zone Portion of the tree located underground spreading out from the trunk in all directions, and at varying depths, generally confined to the drip line area.

Rough Grading The excavation on, the filling of, or any combination thereof with respect to a parcel to a two-inch plus or minus (2+/-) variance from the final grading requirement.

Runoff The waters derived from melting snow or rain falling within a tributary drainage basin that exceeds the infiltration capacity of the soils of that basin.

Sedimentation The process that deposits hydraulically moved soils, debris, and other materials either on other ground surfaces or in bodies of water or stormwater drainage systems.

Shrubbery A group of usually low and several-stemmed, woody plants.

Stormwater Drainage System All means, natural or man-made, used for conducting stormwater to, through or from a drainage area to the point of final outlet from a property. The Stormwater Drainage System includes but is not limited to any of the following: conduits and appurtenant features, canals, channels, ditches, streams, culverts, streets, storm sewers, detention basins, swales and pumping stations.

Storm Sewers Closed conduits for conveying collected Stormwater Runoff.

Stream A body of running water flowing continuously or intermittently in a channel on or below the surface of the ground. For purposes of this ordinance, the term “stream” does not include Storm Sewers.

Street The width of the right-of-way or easement, whether public or private, and shall not be considered as the width of pavement or other improvement on the right-of-way.

Street, Accepted A public street which has been accepted for maintenance by resolution by the Corporate Authorities.

Street, Arterial A general term denoting a roadway primarily for through traffic. Arterial highways are generally characterized by their ability to quickly move relatively large volumes of traffic, but often with restricted capacity to serve abutting properties. The arterial system typically provides for high travel speeds and the longest trip movements. The rural and urban arterial systems are connected to provide continuous through movements at approximately the same level of service as determined by the Director of Public Works and Engineering.

Street, Collector A roadway having continuity which carries traffic between local streets and arterials. Collector routes are characterized by a relatively even distribution of access locations and mobility functions. Traffic volumes and speeds are typically lower than those of arterials as determined by the Director of Public Works and Engineering.

Street, Cul-de-Sac A street having one open end and being permanently terminated at the other end by a vehicle turnaround.

Street, Dead End A street having one open end and permanently or temporarily terminated at the other end with no provisions for vehicular turnaround.

Street, Frontage Road A public or private roadway, paved parking lot aisle or driveway located adjacent and parallel to an arterial street for the purpose of separating through traffic on arterial streets from vehicles accessing adjoining property and controlling the point of access thereto.

Street, Industrial Any street included in any subdivision of land to be used for industrial purposes as defined in the Lockport Zoning Ordinance and as determined by the Director of Public Works and Engineering.

Street, Intersection The area embraced within the prolongation or connection of the lateral curb lines, or if none, then the lateral boundary lines of the roadways of two highways which join one another at some angle; or the area within which vehicles traveling upon a highway includes two (2) roadways thirty (30) feet or more apart, then every crossing of each roadway of such divided highway by an intersecting highway shall be regarded as a separate intersection.

Street, Local A street of limited continuity used primarily for access to abutting properties. All public roads and streets not classified as arterials or collectors are classified as local roads and streets. Local roads and streets are characterized by the many points of direct access to adjacent properties and the relatively minor value in accommodating mobility. Speeds and volumes are usually low and trip distances short as determined by the Director of Public Works and Engineering.

Street, Minor Arterial A general term denoting a roadway primarily for through traffic. Minor Arterial highways are generally characterized by their ability to quickly move relatively large volumes of traffic, but often with restricted capacity to serve abutting properties. The minor arterial system typically provides for high travel speeds and the longest trip movements. The rural and urban minor arterial systems are connected to provide continuous through movements at approximately the same level of service as determined by the Director of Public Works and Engineering.

Street, Private Any road that is used for access and circulation and the ownership and maintenance responsibility of which is borne by the Owner or Owners' Association.

Street, Public All arterial, collector, or local streets which are shown and dedicated on the Plat for public use, and the ownership and maintenance responsibility has been accepted by resolution by the Corporate Authorities and is borne by the City or other public agency.

Structure Anything built, constructed, installed, erected or placed on, in or under the ground, or attached to something on, in or under the ground.

Subdivider Any person whose concern and desire is to subdivide parcels of land.

Subdivision The division of land into two (2) or more parts, any of which is less than five (5) acres, for the purpose, whether immediate or future, or transfer of ownership or building development, including all public streets, alleys, ways for public service facilities, parks, playgrounds, school grounds other public grounds, and all tracts, parcels, lots or blocks, and numbering of all such lots, blocks, or parcels by progressive numbers, giving their precise dimensions; provided, however, that the following shall not be considered a subdivision and shall be exempt from the requirements of this Chapter.

1. 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;

2. The sale or exchange of parcels between owners of adjoining and contiguous land;
3. The conveyance of parcels of land or interest therein for use as right-of-way for railroads, or other public utility facilities which does not involve any new streets or easements of access;
4. The conveyance of land owned by a railroad or other public utility which does not involve any new streets or easements of access;
5. The conveyance of land for highway or other public purposes or grants or conveyances relating to the dedication of land for public use or instruments relating to the vacation of land impressed with a public use.
6. Conveyance made to correct descriptions in prior conveyances.
7. The division of lots of record after the adoption of this Chapter into no more than two (2) parts and not involving any new streets or easements of access, provided that the two (2) parts meet the requirements of the applicable zoning ordinance and all other codes and ordinances of the City, or applicable ordinances of the County of Will when said lot or lots are in the unincorporated area.

Surveyor The individual responsible for the preparation of a Plat of Annexation, Subdivision Plat, or a Plat of Easement. This individual shall be a registered and licensed Professional Land Surveyor by the State of Illinois.

Time of Concentration The elapsed time for stormwater to flow from the most hydraulically remote point in a drainage basin to a particular point of interest in that watershed.

Top of Foundation Spot Survey A topographical elevation survey showing in detail the top of the foundation wall, the elevation of all openings in the foundation wall, and the building location relative to the lot lines. The aforementioned survey shall be conducted immediately after the foundation has been poured and backfilled and certified by a registered land surveyor. The survey shall be provided by the permittee to the City at the permittee's expense. The survey shall be submitted to a scale no smaller than one inch equals 30 feet (1"=30').

Tree A woody perennial plant exceeding ten (10) feet in height at maturity having a single main stem trunk.

Tree Bank A collection of money for required tree planting that cannot be reasonably or practically incorporated into a subdivision or development. This collection of money is to be utilized for tree planting elsewhere on public property in the City of Lockport.

Tree Preservation Areas Those areas of a lot or parcel of land within which all trees four inches (4") in DBH and larger shall be protected and preserved.

Tributary Watershed All of the land surface area that contributes runoff to a given point.

Two-Year Event A runoff, rainfall, or flood event having a fifty percent chance of occurring in any given year.

Urban Runoff Pollutants Contaminants commonly found in urban runoff which have been shown to adversely affect receiving water bodies. Pollutants of concern include sediment, heavy metals, petroleum-based compounds, nutrients such as nitrogen, phosphorus and potassium, organic compounds producing Biological Oxygen Demand (BOD), pesticides, salt, and pathogens.

USGS The abbreviation for United States Geological Survey.

Vegetation All plant growth, including but limited to trees, shrubs, mosses and grasses.

Watercourse or Waterways Any river, stream, creek, brook, branch, natural or artificial depression, ponded area, slough, gulch, draw, ditch, channel, conduit, culvert, swale, grass waterway, gully, ravine, wash or natural or man-made drainage way, which has a definite channel, bed and banks, in or into which stormwater runoff and floodwater flow either regularly or intermittently.

Watershed All land area drained by, or contributing runoff to, the same stream, river, lake, pond, stormwater facility or draining to a point.

Wet Basin A stormwater detention basin designed to maintain a permanent pool of water after the temporary storage of stormwater runoff.

Wetlands Areas defined in current Federal methodology and recognized by the U.S. Army Corps of Engineers for regulatory purposes. These areas are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (known as hydrophytic vegetation). A wetland is identified based upon the three attributes: 1) hydrology, 2) soils and 3) vegetation, as mandated by the current Federal wetland determination methodology. Classification of areas shall follow the U.S. Army Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1.

Wetland Basin A stormwater detention basin designed with all or a portion of its bottom area as a wetland.

Zoning Certificate A Certificate of Zoning Compliance prepared by the City prior to the issuance of the Building Permit.

Zoning Lot A plot of land made up of one or more parcels, which is or may be occupied by a use, building or buildings, including the open spaces required by this Chapter.

SECTION 153.15.030 ADOPTION BY REFERENCE

The following are hereby adopted by reference:

- A. “American National Standard Practice for Roadway Lighting” published by the Illuminating Engineering Society of North America, latest edition.
- B. “American Standard for Nursery Stock” published by the American Association of Nurserymen, latest edition.
- C. “Annual Book of ASTM Standards” published by the American Society for Testing and Materials, latest edition.
- D. “AWWA Standards” published by the American Water Works Association, latest edition.
- E. “2000 International Building Code” published by the International Code Council, as amended.
- F. “Fire Suppression Rating Schedule” published by the Insurance Services Office, latest edition.
- G. “Flood Insurance Study, Will County, Illinois and Incorporated Areas” published by the Federal Emergency Management Agency, latest edition.
- H. “Guide for Establishing Values of Trees and Other Plants” published by the International Society of Arboriculture, latest edition.
- I. “Guide for Determination of Required Fire Flow” published by the Insurance Services Office, latest edition.
- J. “Landscape Specification, A Uniform Set of Workmanship Standards” published by the Illinois Landscape Contractors Association, latest edition.
- K. “Manual on Uniform Traffic Control Devices for Streets and Highways” published by the U.S. Department of Transportation, latest edition.
- L. “Mueller Water Distribution Products” published by the Mueller Company, latest edition.
- M. “National Electric Code” published by the National Fire Protection Association, latest edition.
- N. “Neenah Construction Castings” published by the Neenah Foundry Company, latest edition.
- O. “Recommended Practice for Cold Weather Concreting” published by the American Concrete Institute, latest edition.
- P. “Standard Specifications for Water and Sewer Main Construction in Illinois” published by the Illinois Society of Professional Engineers, latest edition.
- Q. “Standard Specifications for Road and Bridge Construction” (abbreviated as SSR & BC) published by the Illinois Department of Transportation, latest edition.

- R. “Bureau of Design and Environment Manual” published by the Illinois Department of Transportation, latest edition.
- S. “Bureau of Local Roads and Streets Manual” published by the Illinois Department of Transportation, latest edition.
- T. “Drainage Manual” published by the Illinois Department of Transportation, latest edition.
- U. “Bridge Manual” published by the Illinois Department of Transportation, latest edition.
- V. “Will County Stormwater Management Ordinance”, effective January 1, 2004 and last revised March 25, 2010. Note: This reference does not apply to Chapter 55 – Stormwater Management, Will County, IL Code of Ordinances which governs stormwater management in unincorporated portions of Will County and is also known as the “Will County Stormwater Management Ordinance”.

SECTION 153.15.040 ENACTMENT

Pursuant to the authority contained in Article VII of the Illinois Constitution of 1970 and in the Illinois Revised Statutes, the Development Code of the City of Lockport is hereby adopted.

SECTION 153.15.050 EFFECT ON EXISTING BUILDING PERMITS AND ZONING CERTIFICATES

Nothing in this Chapter shall be deemed to require any change in the plans, construction or designated use of any land or structure in the event that:

- A. Final subdivision plat or final development plan approval for such subdivision or development was lawfully received prior to the effective date of this Chapter, or the effective date of any amendment thereof, and
- B. Such approval has not by its own terms expired prior to such effective date, and
- C. Such approval was issued on the basis of an application showing complete plans for proposed construction, and
- D. There has been a substantial change of position, substantial expenditures, or incurrence of substantial obligations by the Applicant in reliance on such approval; and
- E. Such change of position, expenditures or incurrence of obligations were made prior to published or actual notice of a proposed amendment to this Chapter which amendment would have made illegal the issuance of such approval; and
- F. Construction pursuant to such approval is completed prior to the expiration of such approval.

SECTION 153.15.060 OFFICIAL MAP

The Official Map, labeled “City of Lockport Official Zoning Map”, shows the corporate limits and the one and one-half mile extraterritorial jurisdiction of the City, together with land use areas and current and future public streets, highways, parks, public grounds and public ways. The latest edition of said map is hereby designated as the Official Map of the City of Lockport. Said Official Map with all of the notations, designations, references and other matters specifically set forth thereon is hereby incorporated in this Chapter by this reference. All future subdivision, development and redevelopment of land within the area depicted on said Official Map shall be in conformance with the notations, designations, references and other matters specifically set forth thereon, and with the specifications and requirements of this Chapter unless a variation or exception is granted in accordance with Section 153.10.050 hereof. All annexation plats and subdivision plats which may hereafter be approved by the Corporate Authorities of the City and recorded in the Office of the Recorder of Deeds of the county in which the property thereon is located shall be, and such annexation and subdivision plats are hereby designated a part of the Official Map of the City.

Preparation of the Official Map shall be the responsibility of the Director of Community Development or authorized designee for the City and shall be updated from time to time as deemed appropriate by the Corporate Authorities of the City.

CHAPTER 153.20

SUBDIVISION AND DEVELOPMENT REVIEW PROCEDURES AND REQUIREMENTS

Sections:

- 153.20.010 Preamble
- 153.20.020 Pre-Application Meeting
- 153.20.030 Procedure for Concept Plan Review
- 153.20.031 Concept Plan Approval
- 153.20.040 Procedure for Preliminary Subdivision Plat and Preliminary Development Plan
- 153.20.041 Submittal Requirements for Preliminary Subdivision Plat or Preliminary Development Plan Review
- 153.20.042 Plan & Zoning Commission Review of the Preliminary Subdivision Plat or Preliminary Development Plan
- 153.20.043 Corporate Authorities Review of the Preliminary Subdivision Plat or Preliminary Development Plan
- 153.20.044 Effect of Corporate Authorities Approval of the Preliminary Subdivision Plat or Preliminary Development Plan
- 153.20.045 City Record
- 153.20.050 Procedure for Final Subdivision Plat or Final Development Plan Review
- 153.20.051 Submittal Requirements for Final Subdivision Plat Review
- 153.20.052 Submittal Requirements for Final Development Plan Review
- 153.20.053 Plan & Zoning Commission Review of the Final Subdivision Plat or Final Development Plan
- 153.20.054 Corporate Authorities Review of the Final Subdivision Plat or Final Development Plan
- 153.20.055 City Record
- 153.20.060 Development Improvement Guarantee

SECTION 153.20.010 PREAMBLE

This Section establishes the procedure to be followed by any person who proposes to subdivide or develop any land subject to the requirements of this Chapter. Although separate requirements are specified for subdivisions and developments regulated by this Chapter, to the extent feasible,

Applicants are urged to consolidate petitions for subdivision, development, zoning relief or annexation in one proceeding. This Section identifies the contents of preliminary plats and plans, final plats and plans and supporting documentation. It also establishes a review process and enumerates standards governing decision making hereunder.

SECTION 153.20.020 PRE-APPLICATION MEETING

Prior to filing an application for review and approval of a concept plan, preliminary development plan or subdivision plat, or final development plan or subdivision plat, the developer or subdivider shall request a pre-application meeting to informally discuss the proposed subdivision or development of land with the various representatives involved with the review of the development proposal (including planning, building, fire districts, engineering, etc.).

Purpose The purpose of the pre-application meeting is to afford the subdivider or developer and their consultants an opportunity for the advice and the assistance of the City concerning the procedures, standards, specifications, and other documentation required by this Chapter for the preparation of a concept plan, preliminary development plan or plat and final development plan or plat. The pre-application meeting is intended, but not limited, to provide clarification of interpretations, avoidance of misunderstandings, and development of liaison in order to expedite the development of land in the City, while minimizing the expenditure of time and financial resources of the subdivider or developer and the City.

Request for Pre-Application Meeting The request for a pre-application meeting shall be made to the Director of Community & Economic Development or authorized designee not less than one (1) week prior to the date of the scheduled meeting. If the applicant has any maps, data or other information which may be helpful to illustrate or describe the characteristics of the proposed development, the developer shall deliver to the Director of Community & Economic Development or authorized designee copies of such information, either in hard copy form or electronically. The Director of Community & Economic Development or authorized designee will determine how the information is to be provided based on the size and scope of the proposal.

SECTION 153.20.030 PROCEDURE FOR CONCEPT PLAN REVIEW (OPTIONAL)

1. In order to discuss the general purpose of the subdivision or development in the context of the established planning policies and practices of the City and to ensure that required data is properly prepared and presented before expending the time and money in preparation and review of a preliminary plat or plan, any person desiring to subdivide or develop land subject to this Chapter before filing a preliminary plat or development plan or seeking annexation or rezoning, is encouraged to file a concept plan of the subdivision or development with the Director of Community & Economic Development or authorized designee. This concept plan shall contain such information as suggested by the Director of Community & Economic Development or authorized designee in order to delineate the

concept of the subdivision or development adequately including but not limited to a plat of survey, a topographic map, soils information, current aerial photographs, and a sketch of the proposed development showing a road system and general land use categories. After staff review, the Director of Community & Economic Development or authorized designee shall refer the matter to the Plan & Zoning Commission, and the Corporate Authorities for final consideration.

2. **Notification:** Early participation with the public can reduce or eliminate neighborhood concerns prior to public meetings. No less than fifteen (15) days prior to the scheduled Plan & Zoning Commission meeting, the applicant is to send via first class mail a site plan, brief description of the project and contact information for the applicant and the Director of Community & Economic Development or authorized designee to all property owners within 250 feet of the subject property. In advance of the scheduled meeting, the applicant must submit to the Director of Community & Economic Development or authorized designee an affidavit confirming the mailings were sent along with a list of the property owners and a copy of the documents mailed.

SECTION 153.20.031 CONCEPT PLAN APPROVAL

A Concept Plan is valid one (1) year from the date of the approval. Approval of a concept plan provides the applicant reasonable assurances to move forward with submission of a preliminary plat or preliminary development plan. The preliminary plat or preliminary development plan shall be in general conformance with the approved Concept Plan.

SECTION 153.20.040 PROCEDURE FOR PRELIMINARY SUBDIVISION PLAT OR PRELIMINARY DEVELOPMENT PLAN REVIEW

No person shall subdivide or develop any parcel of land until a preliminary subdivision plat or development plan has been reviewed by the Plan & Zoning Commission and reviewed and approved by the Corporate Authorities as set forth herein. Plan & Zoning Commission may authorize the simultaneous filing of an application for preliminary and final plat or plan reviews without compliance with separate procedures in particular cases where, in the opinion of the Plan & Zoning Commission, the nature and scope of the proposed subdivision or development does not require separate review procedures.

SECTION 153.20.041 SUBMITTAL REQUIREMENTS FOR PRELIMINARY SUBDIVISION PLAT OR PRELIMINARY DEVELOPMENT PLAN REVIEW

Any person proposing to subdivide or develop any parcel of land shall file with the Director of Community & Economic Development or authorized designee a preliminary subdivision plat or development plan in a quantity and form as required by the City. The preliminary plan or plat drawing sheet shall not exceed twenty-four (24) inches by thirty-six (36) inches in size. If more

than one sheet is needed, each sheet shall be numbered and the relation of one sheet to another clearly indicated.

The preliminary plan or plat shall include the following:

A. General Information The following information, where applicable, shall be shown on the preliminary plan or plat:

1. The name of the proposed development or subdivision which shall not duplicate or resemble the name of any existing development or subdivision with the City of Lockport.
2. Date of preparation, including all subsequent revisions, north point, and graphic scale of drawing which shall be no less than 1 inch = 200 feet.
3. An identification clearly stating that the drawing is a preliminary subdivision plat or a preliminary development plan.
4. Legal description of the parcel and permanent index number (P.I.N.).
5. Location of the subject property by Section, Township and Range.
6. The name and address of the record owner, the Applicant, and the land surveyor, land planner, or licensed professional architect or engineer who prepared the plan or plat.
7. A vicinity map showing the general location of the parcel within the City of Lockport and its environs.
8. The boundary line of the proposed development or subdivision shall be indicated by a solid heavy line and the total acreage within the boundary line shall be indicated.

B. Existing Conditions The following conditions, if found to exist on the parcel, shall be shown on the plat:

1. The location, width and names of all streets, easements, public utility and railroad rights-of-way, and other important features such as section lines, corners and monuments within three hundred (300) feet of the property.
2. Contour lines of the parcel and all adjacent land within three hundred (300) feet of the boundaries of the parcel showing intervals no greater than:
 - a. Two (2) foot contour intervals for ground slopes ten percent (10%) or less.
 - b. Five (5) foot contour intervals for ground slopes exceeding ten percent (10%).
3. The location and direction of all watercourses and the location of all areas subject to flooding, including:

- i. The flowlines of creeks, streams and channels showing their normal shorelines and the 100-year floodway and flood plain limits as indicated on the effective Flood Insurance Rate Maps (FIRM) prepared by FEMA.
 - ii. Lakes, ponds, swamps, marshes and any detention basins, showing their normal shorelines, floodway limits and lines of inflow and outflow, if any.
 - iii. Seeps, springs, flowages and wells.
 - iv. The location of wetlands and fens as indicated on the National Wetlands Inventory maps prepared by the U.S. Fish and Wildlife Service, and as identified by preliminary wetland delineation.
- 4. Natural features such as rock outcroppings, wooded areas, and isolated trees to be protected and preserved.
- 5. Present uses of the parcel including the location of all existing structures, showing those that will be removed and those that will remain on the parcel after construction.
- 6. The location and size of existing agriculture drain tiles, sanitary and storm sewers, water mains, culverts, drain pipes, catch basins, manholes, hydrants, and electric gas lines, and septic fields on and within one hundred fifty (150) feet of the boundaries of the parcel.
- 7. Zoning classifications of the parcel and of lands adjacent.
- 8. Political boundaries, including corporate limits, school district boundaries, park district boundaries, fire protection district boundaries, national and local historic district boundaries, township boundaries and county boundaries.

C. Proposed Improvements The following improvements, if proposed or required, shall be shown on the plat or plan or in supporting documents:

- 1. The layout of pedestrian ways, bike paths, streets and rights-of-way, showing the location, widths, cross-sections, and names thereof. The preliminary plan or plat shall show the relationship between existing and proposed streets.
- 2. Easements showing width and purpose.
- 3. Lots showing approximate dimensions, lot area and proposed lot and block numbers.
- 4. Sites to be dedicated for school, park, playground or other public purposes, and areas reserved for the use of property owners in the development together with the acreage of each.
- 5. Proposed building setback lines.

6. Development data showing the location of each building, number of stories each building will contain, square footage of each building, floor area ratio for the entire development, floor area ratio for each parcel, and lot coverage for each parcel.
 7. The proposed uses of the parcel, including the number, type, and size of residential units.
- D. Supporting Documentation The following supporting documentation shall be submitted in separate statements and/or drawings accompanying the preliminary plat or plan, or, if practical, such data may be shown on the preliminary plat or plan:
1. A completed preliminary subdivision plat or preliminary development plan application as provided by the City.
 2. A landscape plan showing location, type, and approximate size of plantings.
 3. Preliminary engineering plans, including:
 - a. A preliminary utility plan showing the locations and sizes of water mains, valves and hydrants and other appurtenances; and showing the location and sizes of sanitary sewers, depth and gradients of sewers and other pertinent information concerning the sanitary sewer system.
 - b. A preliminary drainage plan showing locations and sizes of existing storm sewers, streams, culverts, bridges, dams and storm water storage areas.
 - c. A preliminary grading plan showing existing and proposed elevation contour lines and the elevation of all buildings.
 4. Preliminary architectural elevations that demonstrate architectural character, denoting materials, colors and finishes. The elevations should be rendered in color. The drawings are to be scaled and must indicate overall building height and the height of each story when multiple stories are proposed. Ventilation grills on the building and any mechanical equipment extending above the building parapet are to be identified.
 5. Evidence of ownership of the parcel and the Applicant's interest therein.
 6. A map extending for a minimum distance of three hundred (300) feet on all sides of the parcel, showing existing use and ownership of adjacent land, showing streets, rights-of-way and dedicated easements, and location of existing structures and elevations of their foundations.
 7. Existing or proposed annexation agreements or deed restrictions which pertain to the parcel.
 8. A Zoning Statement indicating whether any zoning changes, variations, or special uses will be required. If so, the subdivider or developer shall list the changes, variations, or special uses to be requested.
 9. An Annexation Statement indicating whether the proposed subdivision or development (where contiguous to the City) is or is not to be annexed to the City.
 10. Plat of Survey with angular and linear dimensions.

11. Drain tile.
12. Text of proposed protective covenants, deed restrictions, owners' association contracts and other restrictions whereby the subdivider or developer proposes to regulate and otherwise protect the use of land in the subdivision or development.
13. Field stake-out: If requested, the subdivider or developer shall provide such field stake-out as is necessary to allow a field inspection by the Plan & Zoning Commission.
14. For properties 10 acres in size or greater or as requested by the City, a Fiscal Impact Assessment explaining the estimated fiscal impact of the proposed development on the City, school and park districts, fire districts and explaining the methodology and sources of information used in the preparation of the assessment.
15. A soils investigation report, prepared by a geotechnical engineer or licensed soil classifier, of sufficient scope to point out potential hazardous wastes, ground absorption, run-off, flooding deficiencies, the presence of unstable soils or soils of such low bearing capacity as to constitute problems for conventional construction, or the presence of sub-surface rock that would hamper the installation of underground improvements or dictate above ground improvements.
16. A hazardous waste audit, if applicable.
17. Indication of methods of solid and hazardous waste disposal, if applicable.
18. Watermain, storm sewer, sanitary sewer and detention capacity and loading calculations prepared by a licensed professional engineer.
19. Park and open space study: a statement indicating the projected park and open space requirements of the proposed subdivision or development based on the standards in Chapter 153.30 and an evaluation of the areas set aside for park and open space development.
20. School population study: a statement estimating the number of children to be generated in each school classification from the different types of dwellings in the proposed subdivision or development based upon the standards in Chapter 153.30.
21. Estimated cost of the development.
22. Evidence of the financial ability of the Applicant to complete the development.
23. Application checklist indicating that all required items for review have been provided.
24. Any additional documentation requested by the City during the pre-application meeting.
25. Evidence, prepared by a qualified professional, which demonstrates that the proposed subdivision development will not endanger health and safety, including danger from the obstruction or diversion of flood flow. The Applicant shall also

show, by submitting appropriate calculations and resource inventories, that the proposed development activity will not substantially reduce natural floodwater storage capacity, destroy valuable habitat for aquatic or other flora and fauna, adversely affect water quality or ground water resources, increase stormwater runoff velocity so that water levels on other lands are substantially raised or the danger from flooding increased, or adversely impact any other natural stream, flood plain, or wetland functions, and is otherwise consistent with the intent of this ordinance.

SECTION 153.20.042 PLAN & ZONING COMMISSION REVIEW OF THE PRELIMINARY SUBDIVISION PLAT OR PRELIMINARY DEVELOPMENT PLAN

Upon receipt of all materials under Section 153.20.041 for the preliminary subdivision plat or preliminary development plan, the Director of Community & Economic Development or authorized designee shall circulate the preliminary subdivision plat or preliminary development plan among various City departments and agencies for their review and comment. The Director of Community & Economic Development or authorized designee shall place the matter on the Plan & Zoning Commission agenda and shall serve notice upon the applicant of the time and place of its meeting at which said matter will be discussed. The Plan & Zoning Commission shall review the preliminary subdivision plat or preliminary development plan for compliance with the rules, regulations and other ordinances of the City, as well as the comprehensive and long-range plans for the community. The Plan & Zoning Commission shall recommend approval or disapproval of the preliminary subdivision plat or preliminary development plan within ninety (90) days from the date of the application or the filing by the applicant of the last item of required supporting data, whichever date is later, unless such time is extended by mutual consent.

SECTION 153.20.043 CORPORATE AUTHORITIES REVIEW OF THE PRELIMINARY SUBDIVISION PLAT OR PRELIMINARY DEVELOPMENT PLAN

The Corporate Authorities, by resolution, shall accept or reject the preliminary subdivision plat or development plan within thirty (30) days after its next regularly scheduled meeting following the date of action of the Plan & Zoning Commission. The applicant and the Corporate Authorities may mutually agree to extend the thirty (30) day period.

SECTION 153.20.044 EFFECT OF CORPORATE AUTHORITIES APPROVAL OF THE PRELIMINARY SUBDIVISION PLAT OR PRELIMINARY DEVELOPMENT PLAN

Approval of the preliminary subdivision plat or development plan by the Plan & Zoning Commission and Corporate Authorities shall not qualify the plat or plan for recording, but shall be considered permission to prepare the final subdivision plat or final development plan with detailed plans and specifications for the proposed subdivision or development. During review of any preliminary subdivision plat or preliminary development plan, the Plan & Zoning Commission and

Corporate Authorities may require such changes or revisions as deemed necessary in the interests or the needs of the community. Approval of the preliminary subdivision plat or preliminary development plan shall be effective for no more than one (1) year from the date of approval, unless upon application by the applicant, the Corporate Authorities grants an extension of time for an additional one (1) year.

SECTION 153.20.045 CITY RECORD

A certified copy of the resolution approving or disapproving the preliminary subdivision plat or preliminary development plan shall be attached to said preliminary subdivision plat or preliminary development plan and filed in the office of the City Clerk.

SECTION 153.20.050 PROCEDURE FOR FINAL SUBDIVISION PLAT OR FINAL DEVELOPMENT PLAN REVIEW

No person shall subdivide or develop any parcel of land until a final subdivision plat or development plan shall have been reviewed by the Plan & Zoning Commission and reviewed and approved by the Corporate Authorities as set forth herein.

SECTION 153.20.051 SUBMITTAL REQUIREMENTS FOR FINAL SUBDIVISION PLAT REVIEW

A final subdivision plat and all other plans submitted as part of this review process shall be twenty-four inches by thirty-six inches (24"x36") in size. When necessary, the plat may be on several sheets accompanied by an index sheet showing the entire subdivision. The final subdivision plat shall show the following information and shall be accompanied additional plans and documents, when applicable:

- A. General Information The following general information, where applicable, shall be shown on the final plat:
 1. The date of preparation, north point and scale of drawing (which shall be no less than 1 inch = 100 feet).
 2. Legal description of the parcel.
 3. The names and addresses of the record owner, the Applicant, and the Illinois registered surveyor who prepared the plat with his seal affixed.
 4. Reference points of existing surveys identified, related to the plat by distances and bearing, and reference to a field book or map as follows:
 - a. All stakes, monuments or other evidence found on the ground and used to determine the boundaries of the parcel.
 - b. Adjoining corners of all adjoining parcels.

- c. When the City has established the center line of the street adjacent to or within the proposed parcel, the location of such center line and monument found or reset shall be shown.
5. Lot and block lines with dimensions, bearings or deflection angles, and radii, arcs, points of curvature and tangent bearings. Tract boundaries and street bearings shall be shown to the nearest 10 seconds with basis of the bearings. All distances shall be shown to the nearest 0.01 feet. No ditto marks shall be used.
6. The width of the portion of any streets being dedicated and the width of any existing rights-of-way, all shown each side of the center line.
7. All easements shall be denoted by fine dotted lines, clearly identified, and if already of record, the recorder's references to such easement. The width of the easement, its length and bearing, the sufficient ties to locate it definitely with respect to the plat must be shown. If an easement is not precisely located of record, a description of such easement shall be included. If the easement is being dedicated by the map, it shall be properly referenced in the owner's certificate or identification.
8. Lot numbers beginning with the number one, and numbered consecutively within each block.
9. Block numbers or letters without omission or duplication throughout the subdivision. The figures shall be solid, of sufficient size and thickness to stand out, and so placed as not to obliterate any figure. Block figures of an addition to a subdivision of the same name shall be a continuation of the numbering in the original subdivision.
10. Accurate outlines and legal descriptions of any areas to be dedicated or reserved for public use, with the purpose indicated thereon, and of any area to be reserved by deed covenant for common use of all property owners.
11. Building setback lines and dimensions.
12. The name of each street shown on the plat.
13. The name of the subdivision.
14. Boundary of the Plat indicated by a heavy solid line, based upon an accurate traverse with angles and bearings shown to the nearest second of arc and lineal dimensions in hundredths of feet.
15. True angles and distances to the nearest established street lines or permanent monuments, not less than two (2), which shall be accurately described on the Plat.
16. All township, county or section lines accurately tied to the boundaries of the tract by distances and angles.
17. A summary of all restrictions applicable to any part of the tract relating to building restrictions, use restrictions, building lines, or otherwise.

18. The location of all permanent monuments, constructed in accordance with the City of Lockport Standard Drawings, which shall be placed at all corners, at each end of all curves, at the point where a curve changes its radius, at all angle points in any line and at all angle points along a meander line that occur along the boundary of the area of the Final Plat. Additional permanent monuments shall be located at remote locations on corners of each area which will be individually platted so as to provide a minimum of two permanent monuments on corners of each platted area. All lot corners and points where curve radii change which are not marked by permanent monuments shall be marked by survey monuments at least twenty-four (24) inches in length and not less than one-half (1/2) inch in diameter. The top of the survey monument is to be visible above the established grade of the ground prior to initial acceptance.

B. Supporting Data The following supporting data, where applicable, shall be supplied in separate statements or maps, or if practical, may be shown on the final plat:

1. Final Engineering Plan, in accordance with provisions in this Chapter.
2. Final Stormwater Detention Calculations, including proposed detention areas, maximum allowable release rates, bypass flows and emergency overflow routes, in accordance with the provisions in this Chapter.
3. Final Tree Preservation Plan and Tree Survey, in accordance with the provisions in this Chapter.
4. Final Landscape Plan, in accordance with the City's Landscape Ordinance.
5. Final Lighting Plan, including photometrics and details of the proposed lighting system, in accordance with provisions in this Chapter.
6. Final architectural elevations of all four (4) sides for all building types. Architectural elevations shall be rendered in color and noted to indicate all building materials, color and finish. The drawings shall be scaled and must indicate overall building height and the height of each story when multiple stories are proposed. Ventilation grills, downspouts, and utility meters/equipment on the building and any mechanical equipment extending above the building parapet shall be identified.
7. A copy of any Declarations, Restrictive Covenants, or Homeowner Association Documents.
8. Traffic Study and Analysis, with estimated daily/peak hour traffic generation from the development, in accordance with the provisions in this Chapter.
9. Written approval from all outside jurisdictions having permit authority over any proposed access to the subject property (IDOT, Will County, etc.).

C. Additional Requirements The subdivider shall provide the City with an electronic copy of survey and CAD files containing the computer coordinates for property lines, right-of-

way, water main, sanitary sewer, storm sewer improvements in the proposed subdivision, for use by the City of Lockport.

SECTION 153.20.052 SUBMITTAL REQUIREMENTS FOR FINAL DEVELOPMENT PLAN REVIEW

A final development plan and all other plans submitted as part of this review process shall be twenty-four inches by thirty-six inches (24"x36") in size. The final development plan shall include the following information and shall be accompanied by identified plans:

- A. General Information The following general information, where applicable, shall be shown on the final development plan:
1. The date of preparation, north point and scale of drawing (which shall be no less than 1 inch = 100 feet).
 2. Zoning classification and land use of all properties adjacent to the tract; the names of all owners of record of all properties adjacent to the tract.
 3. The names and addresses of the record owner, the Applicant, the land planner, registered land surveyor or engineer who prepared the plan.
 4. All easements denoted by fine dotted lines, clearly identified, and if already of record, the recorder's referenced to such easement; the width of the easement, its length and bearing, and sufficient ties to locate it definitely with respect to the plan; if an easement is not precisely located of record, a description of such easement; if the easement is being dedicated by the map, it shall be properly referenced in the owner's certificate or identification.
 5. Accurate outlines and legal descriptions of any areas to be dedicated or reserved for public use, with the purpose indicated thereon, and of any area to be reserved by deed covenant for common use of all property owners.
 6. Detailed final grades to reflect the complete drainage plan, through use of contours or otherwise, to the satisfaction of the City Engineer or authorized designee.
 7. Location of adjoining roads, water courses and bodies of water, marshes, rock outcroppings, wooded areas, railroads within one hundred fifty (150) feet of the property.
 8. Location and dimensions of on-site pedestrian and vehicular access ways, design of ingress and egress of vehicles to and from the site onto public streets, and curb and sidewalk lines, including sidewalk ramps for the handicapped in accordance with ADA requirements.
 9. Location of buildings and other structures.
 10. Location and intensity of outdoor lighting system.
 11. Use of property within one hundred fifty (150) feet of the boundaries of the site.

12. All off-street parking, loading spaces and walkways, indicating type of surfacing, size, angle of stalls, width of aisles and a specific schedule showing the number of parking spaces provided.
 13. Location of all sanitary sewer, water, and storm sewer structures and pipes.
- B. Supporting Data The following supporting data, where applicable, shall be supplied in separate statements or plans, or, if practical, may be shown on the final development plans:
1. Plat of Survey. The plat must include a legal description and be certified by a licensed surveyor.
 2. Location map showing the subject property in relation to the corporate limits of the City and existing streets and adjoining subdivided areas.
 3. Final Engineering Plans, in accordance with provisions in this Chapter.
 4. Final Stormwater Detention Calculations, including proposed detention areas, maximum allowable release rates, bypass flows and any emergency overflow routes, in accordance with the provisions in this Chapter.
 5. Final Tree Preservation Plan and Tree Survey, in accordance with the provisions in this Chapter.
 6. Drain Tile Study
 7. Final Landscape Plan, in accordance with the City's Landscape Ordinance.
 8. Final Lighting Plan, including photometrics and details of the proposed lighting system, in accordance with provisions in this Chapter.
 9. A copy of any Declarations, Restrictive Covenants, or Homeowner Association Documents.
 10. Traffic Study and Analysis, including estimated daily/peak hour traffic generation from the development, in accordance with the provisions in this Chapter.
 11. Written approval from all outside jurisdictions having permit authority over any proposed access to the subject property (IDOT, Will County, etc.).
 12. Final architectural elevations of all four (4) sides for all building types. Architectural elevations shall be rendered in color and noted to indicate all building materials, color and finish. The drawings shall be scaled and must indicate overall building height and the height of each story when multiple stories are proposed. Ventilation grills, downspouts and utility meters/equipment on the building and any mechanical equipment extending above the building parapet shall be identified.

13. Development data showing the location and general use of each building, number of stories each building will contain, square footage of each building, floor area ratio for the entire development, floor area ratio for each parcel, and lot coverage for each parcel. Information which has changed since preliminary plan approval shall be identified.
14. The proposed uses of each parcel, including the number, type, and size of residential units. Indicate when information has changed since preliminary plan approval.
15. A final drainage plan providing for the adequate disposition of stormwater runoff in accordance with the design criteria and standards of this Chapter, indicating location, sizes, and types and grades of ditches, catch basins and pipes and connections to the existing drainage system.

SECTION 153.20.053 PLAN & ZONING COMMISSION REVIEW OF THE FINAL SUBDIVISION PLAT OR FINAL DEVELOPMENT PLAN

Upon receipt of all materials under Sections 153.20.051 and 153.20.052 for the final subdivision plat or final development plan, the Director of Community & Economic Development or authorized designee shall circulate the final subdivision plat or final development plan among various City departments and agencies for their review and comment. The Director of Community & Economic Development or authorized designee shall place the matter on the Plan & Zoning Commission agenda and shall serve notice upon the applicant of the time and place of its meeting at which said matter will be discussed. The Plan & Zoning Commission shall review the final subdivision plat or final development plan for compliance with the rules, regulations and other ordinances of the City, as well as the comprehensive and long-range plans for the community. The Plan & Zoning Commission shall recommend approval or disapproval of the final subdivision plat or final development plan within ninety (90) days from the date of the application or the filing by the applicant of the last item of required supporting data, whichever date is later, unless such time is extended by mutual consent.

SECTION 153.20.054 CORPORATE AUTHORITIES REVIEW OF THE FINAL SUBDIVISION PLAT OR FINAL DEVELOPMENT PLAN

The Corporate Authorities, shall approve or disapprove the final subdivision plat or final development plan within sixty (60) days after its next regularly scheduled meeting following the date of action of the Plan & Zoning Commission. The applicant and the Corporate Authorities may mutually agree to extend the sixty (60) day period.

SECTION 153.20.055 CITY RECORD

A certified copy of the resolution approving or disapproving the final subdivision plat or development plan shall be filed in the office of the City Clerk attached to said final subdivision plat or final development plan.

The final subdivision plat, together with all other applicable documents, shall be recorded by the City Clerk in the County Recorder's Office for the county in which the property is located. All recording fees shall be paid by the applicant.

SECTION 153.20.060 DEVELOPMENT IMPROVEMENT GUARANTEE

A Development Improvement Guarantee shall be provided to insure completion of required public improvements, to insure repair of defective improvements and to provide for abatement of nuisances occurring during construction.

A. Development Improvement Guarantee

1. A statement shall be submitted to the Director of Public Works & Engineering or authorized designee, by the project engineer, giving an estimate of the total cost of the construction and/or installation of all such improvements both public and private governed by this Chapter. Said estimate shall be subject to review and approval of the Director of Public Works & Engineering or authorized designee.
2. Posting of financial security in a sum sufficient to cover the approved engineer's estimate of cost plus ten (10) percent shall be required. The financial security shall be in the form of 1) cash, 2) sufficient surety bond issued by a corporate surety authorized to do business in the State of Illinois and subject to the approval of the Corporate Authorities, 3) an irrevocable letter of credit issued by a financial institution authorized to do business in the State of Illinois and subject to the approval of the Corporate Authorities, or 4) direct financial obligations of the United States of America subject to the approval of the Corporate authorities. The approval of any of the above mentioned securities is subject to a minimum of one (1) percent of the amount of the security, but not less than Five Thousand Dollars (\$5,000.00) being deposited in cash with the City.
3. Said security is to be issued to assure the City of the acceptable completion of the following improvements, both public and private, including but not limited to: earthwork, streets, driveways, parking lot pavements and curbs, sidewalks, bike paths, sanitary sewers, storm sewers, water mains, drainage and stormwater detention facilities, site grading, street lighting, parking lot lighting and landscaping.
4. Said security shall remain callable and usable by the City until release is authorized by the Corporate Authorities. Funds may be released for individual completed

improvement elements prior to completion of the overall project, at the sole discretion of the Director of Public Works & Engineering.

5. All release of funds will be approved by the Corporate Authorities, upon recommendation by the Director of Public Works & Engineering or authorized designee, subject to the following:
 - a. A specific written request by the developer to the City noting completed improvement quantities and costs.
 - b. Submittal to the City of contractor's affidavits and waivers of lien for labor and material for the completed work.
 - c. Certification by the Director of Public Works & Engineering or authorized designee, that the improvements are satisfactorily completed. The release of funds for development improvements is subject to a minimum ten (10) percent retention which shall remain in the guarantee account until the Corporate Authorities approve and accept the improvements. The actual amount to be retained for a specific improvement shall be as determined by the Director of Public Works & Engineering, or authorized designee.
 - d. Until the required tests have been submitted and approved by the Director of Public Works & Engineering or authorized designee, the following will be subject to full retention: earthwork (compaction & moisture content), streets (materials testing), curb and gutter (materials testing), sidewalk (materials testing), bike path/pedestrian path (materials testing), sanitary sewers (air, mandrel and televising) and water mains (pressure test, chlorination / bacteriological test, issuance of an IEPA operating permit).
6. The aforementioned guarantee shall be kept in effect by the developer or the financial institution so long as project improvements are incomplete, as determined by the Director of Public Works & Engineering, and until the City authorizes the release of all remaining funds per the recommendation of the Director of Public Works & Engineering. Such authorization will occur upon the Corporate Authorities' approval and acceptance of the project improvements as recommended by the Director of Public Works & Engineering. The financial institution shall be required to notify the City Administrator by certified mail of the expiration and any necessary renewals of the guarantee account. The developer shall then submit evidence to the City that said guarantee account has been renewed in an amount acceptable to the City.
7. In the event the developer does not complete or provide improvements in accordance with the approved Final Development Plan, or other requirements of this Chapter, the City, at any time, may elect to direct the financial institution to deliver the security funds to the City. The City shall then use these funds for payment of the cost for completing the improvements, and meeting the responsibilities of the developer established pursuant to this Chapter. Also, the City,

upon notification of the expiration date of the guarantee by the financial institution, shall have thirty (30) days in which to decide whether or not to extend the guarantee account and/or complete the improvements.

B. Maintenance Guarantee

The developer shall repair or replace any defective work or material within thirty (30) days of receipt of a written notice from the City that such defects exist. The developer shall provide a financial security in the amount of ten (10) percent of the original financial security for construction, to the credit of the City, in the form of cash or other type of security as required for construction in paragraph 2. of Section 153.20.060 A. above, but in all cases an amount of at least two thousand dollars (\$2,000.00) of the maintenance guarantee security shall be deposited with the City in cash and shall be held after the final completion and acceptance of the improvements. Such security shall be held by the City for a period of one (1) year after initial acceptance of the development by the Corporate Authorities. If the developer fails to properly repair defects within the required period, the security shall be callable and usable by the City for the purpose of:

1. Securing the correction of any damage to such improvements by reason of settling of the ground, base or foundation thereof.
2. Securing the correction of any defect in material or workmanship furnished for improvements constructed in conjunction with the development.

CHAPTER 153.30

SUBDIVISION REQUIREMENTS AND STANDARDS

Sections:

- 153.30.010 Introduction
- 153.30.020 Land or Cash Contribution for Public Parks
- 153.30.021 Land or Cash Contributions for Schools
- 153.30.022 Cash Contributions for Libraries
- 153.30.030 Required Improvements
- 153.30.040 Design Computations
- 153.30.050 Street Design Criteria
- 153.30.060 Easement Standards
- 153.30.070 Residential Block Standards
- 153.30.080 Lot Standards
- 153.30.090 Improvement of Certain Access Roads and Appurtenances
- 153.30.100 Improvement of Downstream Facilities and Appurtenances
- 153.30.120 Improvements of Public Facilities Related to Resubdivisions
- 153.30.130 Arterial Street Access Standards
- 153.30.140 Survey Benchmarks and Markers

SECTION 153.30.010 INTRODUCTION

The development of land, including the arrangement, character, extent, width, grade and location of all streets, alleys, or other land to be dedicated for Public use shall conform to the Comprehensive Plan and Official Map of the City. This chapter establishes guidelines in order to ensure the orderly development and improvement of land within the jurisdiction of the City.

SECTION 153.30.020 LAND OR CASH CONTRIBUTIONS FOR PUBLIC PARKS

As a condition of approval of a final plat of a residential subdivision, or of a final plat of other residential development, each subdivider or developer will be required to dedicate land for park and recreational purposes to serve the immediate and future needs of the residents of the development, or cash contribution in lieu of actual land dedication, or a combination of both, at the option of the City, in accordance with the following requirements:

A. Criteria for Requiring Park and Recreational Land Dedication.

1. *Amount of Land Required* The ultimate population density to be generated by a subdivider or development shall bear directly on the amount of land required to be dedicated for park and recreation sites. The acreage of land dedication requirements shall be determined by obtaining the total population of the development times the number of required acres per 1,000 population. The total requirement shall be ten (10) acres of park or recreational land, or cash in lieu of land, per 1,000 of ultimate population.
2. *Time of Conveyance of Land* Previous to, or at the time of execution of the final plat, the Developer must dedicate the total amount of park land as required in Section 1 above. The Developer shall maintain the property to be donated until all improvements in the subdivision are built, and/or until accepted by the Lockport Township Park District (the Park District). The Park District shall inspect the land to be dedicated and shall receive title to the land upon written approval of all improvements determined under Section E.

B. Criteria for Requiring a Contribution in Lieu of Park and Recreations Sites.

Where the development is small and the resulting site is too small to be practical or when the available land is geologically and topographically inappropriate for park and recreational purposes as determined by the Corporate Authorities, the Corporate Authorities shall require the subdivider or developer to pay a cash contribution in lieu of the land dedication required. The cash contribution in lieu of park and recreation land as hereinbefore classified, will be available to serve the immediate or future needs of the residents of that subdivision or development or for the improvement of other existing local park and recreation land needs and not however to include operational expenses.

1. *Time Conveyance of Payments* The total cash contribution in lieu of land dedication shall be determined prior to the time of final subdivision plat approval. The cash contribution shall be calculated based on a prorated basis using the table of population density developed by the Illinois School Consulting Service / Associated Municipal Consultants, Inc. of Naperville, Illinois, dated 1996 or as updated from time to time by the same consulting firm. Payment shall be made prior to or concurrent with submission of the application for Certificate of Occupancy for the Residential Unit. Payment shall be made directly to the Park District and evidence of payment shall be presented to the City at the time of the application for Certificate of Occupancy.
2. *Fair Market Value* The cash contribution in lieu of land shall be based on the “fair market value” of the acres of fully improved park land in the area after development. Because of the diversity of lands within the City, a single determination of “fair market value” is not possible. The “fair market value” for any particular parcel shall be recommended by the Park District. This valuation recommended by the Park District shall be used unless any subdivider, developer,

or public body files a written objection thereto. In the event of any such objection, the subdivider, developer, or public body shall submit an appraisal showing the “fair market value” of such improved park land in the area of development or other evidence. Final determination of said “fair market value” per acre of such improved land shall be made by the Corporate Authorities based on such information submitted by the subdivider or developer and from other sources as may be submitted to the Corporate Authorities by affected parties.

3. *Criteria for Requiring Dedication and a Fee* There will be situations in subdivisions or developments when a combination of land dedication and a contribution in lieu of land are both necessary. These occasions will arise when:
 - a. Only a portion of the land to be developed is proposed as the location for a park site. That portion of the land within the subdivision falling within the park location shall be dedicated as a site as aforesaid, and a cash contribution in lieu thereof shall be dedicated;
 - b. A major part of the local park or recreation site has already been acquired and only a small portion of the land is needed from the development to complete the site. The remaining portion shall be required by dedication, and a cash contribution in lieu thereof shall be required.

C. Density Formula

In the event a subdivider or developer files a written objection to the most current edition of the population density provided by the Illinois School Service, he shall submit his own demographic study showing the estimated additional population to be generated from the subdivision or development and in that event, final determination of the density formula to be used in such calculations shall be made by the Corporate Authorities, based upon such demographic information submitted by the subdivider or developer and from other sources which may be submitted to the Corporate Authorities, Park Districts or others. It is recognized that population density, age distribution and local conditions may change over time, and the specific formula for the dedication of land, or the payment of fees in lieu thereof, as stated herein, is subject to periodic review and amendment if necessary.

D. Combining with Adjoining Development

Where the subdivision or development is less than forty (40) acres and public open area space is to be dedicated; the land shall, where practicable, be combined with dedicated land from adjoining developments in order to produce useable recreation areas without undue hardship on a particular developer.

E. Improved Sites

All sites to be dedicated shall have access to electricity, gas, water, sewer, streets, storm drainage and curb and gutter, as applicable. All sites to be dedicated shall be unencumbered by floodplains, wetlands or stormwater detention facilities. All improved sites shall be

seeded and blanketed or mulched, and a healthy stand of grass shall be established prior to acceptance by the Park District.

F. Shape, Topography and Grading

The shape, topography and geology of the dedicated site, as well as its surroundings, shall be suitable for its intended purpose(s).

SECTION 153.30.021 LAND OR CASH CONTRIBUTIONS FOR SCHOOLS

As a condition of approval of a final plat of subdivision, or a final plat of a planned unit development or an application for a special use permit for a mobile home park, each subdivider, developer, or builder will be required to dedicate land within the school district boundaries for school sites, to serve the immediate and future needs of the residents of the development, or make a cash contribution in lieu of actual land dedication, or a combination of both, in accordance with the following criteria and formula:

A. Criteria for Requiring School Dedication

1. *Requirement and Population Ratio* The ultimate number of students to be generated by a subdivision, planned unit development or mobile home park shall bear directly upon the amount of land required to be dedicated for school sites. The land dedication requirement shall be determined by obtaining the ratio of:

- a. Estimated children to be served in each school classification as determined in accordance with the data for the estimated number of children entering school per type of dwelling unit seen in the latest edition of the Illinois School Consulting Service Reports, over the
- b. Maximum recommended number of acres of land needed to have sufficient land for school sites to serve the estimated increased number of children in each such school classification. The recommended number of acres of land needed for school sites shall be obtained from the most current Recommendations for Elementary and High School Spaces, published by the State of Illinois, Springfield, Illinois. If cash contribution is required, the following formula shall be used:

Cost of land as determined in accordance with Section B.2 hereof multiplied by the number of square feet per pupil per school classification as determined in accordance with Section A.2 hereof equals the cost per child.

2. *School Classification and Size of School Site* School classifications and size of school sites within the City shall be determined in accordance with the following criteria:

<i>School Classification by Grades</i>	<i>Maximum Number of Students for each such School Classification</i>	<i>Minimum Size in Acres for each School Site of such Classification</i>
Elementary Schools	600 students	11 acres
Junior High Schools	900 students	29 acres
Senior High Schools	1,500 students	45 acres

The Comprehensive School Plan and/or the standards adopted by the affected school district shall be used as a guideline in locating sites.

B. Criteria for Requiring a Contribution in Lieu of a School Site

1. Where the development is small and the resulting school site is too small to be practical or when the available land is inappropriate for a school site, the City with the recommendation of the Board of Education of the school districts, affected, shall require, at the discretion of the school district, the subdivider, developer or builder, to pay a cash contribution in lieu of land dedication required. The word small in this section is defined as a total number of proposed dwelling units that will produce less than the maximum number of students for one school of each school classification as set forth in Section A.2.
2. The determination of whether available land is appropriate for a school site shall be made by the local school board. Notwithstanding the previous provision, a high school district may recommend more than one valuation which shall correspond and be identical to the valuations within the elementary feeder districts the high school district serves. Any builder, subdivider or developer affected may request a hearing before the Corporate Authorities on the question of whether the proposed land is appropriate as a school site. Any builder, subdivider or developer affected as well as the local school board may present evidence at said hearing and in addition, the Corporate Authorities, in its discretion, may hear evidence from other interested persons.

The approved fair market value of an improved acre accepted by the City for each school district prior to this Amended Ordinance shall be in effect as of the date that this Ordinance becomes effective. For purposes of this Ordinance, an improved acre shall be defined as an acre of land that is fine graded and made ready for construction with utilities, sewer, water and streets, including enclosed drainage and curb and gutter, brought along the entire street frontage of the land.

Said multiple acre parcel to be defined in the same manner as an improved acre is defined above.

For every year thereafter, if a school district wishes to recommend an increased valuation, it must submit an updated appraisal to the Corporate Authorities. The valuation(s) determined by the Corporate Authorities shall be used unless the subdivider, developer or builder files a written objection with the Corporate Authorities prior to final plat approval. At the time of the filing of the written objection, the objector shall also file an appraisal or other evidence relating to the fair market value at the objector's expense. Upon the filing of a written objection, and upon written notice to the objector and the school district, a hearing shall be held before the Corporate Authorities. At said hearing, the objector and the school district shall be permitted to present valuation evidence to the Corporate Authorities. After the hearing the Corporate Authorities shall determine the fair market valuation of an improved acre of property to be used in calculating the cash contribution. If there is any change in the fair market value as determined by the Corporate Authorities after an appeal, it shall be used solely as to the land which is the subject of the objection.

C. Criteria for Requiring Dedication and a Fee

There will be situations in a subdivision, planned unit development or mobile home park when a combination of land dedication and a cash contribution is necessary. These occasions will arise when:

1. Only a portion of the land to be developed is proposed as the location for a school site. That portion of the land within the subdivision, planned unit development or mobile home park falling within the school locations shall be dedicated as a site as aforesaid, and a cash contribution shall be required for any additional land that would have been required to be dedicated.
2. A major part of the school site has already been acquired and only a small portion of land is needed from the development to complete the site. Dedication of the remaining portions of the school site and a cash contribution shall be required.

D. Density Formula

The amount of required dedication of land or the cash contributions in lieu thereof shall be calculated based on a prorated basis using the table of population density developed by the Illinois School Consulting Service / Associated Municipal Consultants, Inc. of Naperville, Illinois, dated 1996 or as updated from time to time by the same consulting firm, unless a written objection is filed thereto by the subdivider, developer, builder, or school district with the Corporate Authorities. Said objection shall be filed by a subdivider, developer, builder or school district prior to final plat approval.

In the event a subdivider, developer, builder, or school district files a written objection to the table of population density, it shall submit its own demographic study showing the estimated additional population to be generated from the subdivision planned unit

development. In that event, final determination of the density formula to be used in such calculation shall be made by the Corporate Authorities after a hearing. At such hearing the builder, subdivider, developer, school district, and other interested persons, in the discretion of the Corporate Authorities, may present demographic information. If there is any change in the density formula as determined by the Corporate Authorities after an appeal, it shall be used solely as to the land which is the subject of the objection.

E. Dedicated Sites

In addition to the requirements listed in Section B.2 of this Chapter, all dedicated sites shall be improved in accordance with all other requirements of the City of Lockport Development Code.

F. Time of Conveyance or Payment

The subdivider or developer shall convey to the respective school districts the land required under this agreement within thirty days after any subdivision plat or final plat or a planned unit development is recorded in the Recorder's Office of Will County, Illinois, or special use permit is granted by the Corporate Authorities. All improvements to the site shall be completed within such time as required by the City. A subdivider, developer, or builder shall make any cash contributions required under this Ordinance upon the issuance of any building permit by the City. Payments shall be made directly to the school district or districts wherein the development, subdivision or building is located and evidence of said payment shall be made at the time of application for the building permit. The amount of each payment of cash shall be determined by the City at the time of the approval of the final subdivision plat, or final plat of a planned unit development.

G. Expenditure of Monies

The monies collected pursuant to this Ordinance are intended for school land acquisition costs or school facility costs. School land acquisition costs means a school district's costs of acquisition of school land, by purchase, lease, or other contractual arrangement. School land acquisition costs may include:

1. The planning, design, and legal costs incurred by a school district in connection with the formulation or adoption of a school land acquisition program; and
2. The reasonable title and survey expenses, brokerage fees, attorneys' fees, architect fees, engineering fees, and environmental investigation fees, and any other costs incurred by a school district in connection with the acquisition of school lands.

School facility costs means those costs attributable to the projected increase in student population resulting from the development of a proposed subdivision, planned unit development or mobile home park, including the following:

1. The costs incurred by a school district that are directly associated with the construction of school facilities, including expenditures for equipment.
2. The costs incurred in the renovation or improvement of school facilities.

3. The costs incurred by a school district that are directly related to construction of additions.
4. The costs incurred by a school district that are directly associated with the acquisition of buildings that are to be devoted to use as a school building.
5. Expenditures made by a school district for installment payments or lease payments on contracts or agreements that have a defined term and that result in the acquisition or leasing of a school building by the school district or in the leasing of temporary classrooms by the school district.
6. Special assessments payable by a school district for capital improvements such as streets, curbs, and drains.
7. The architectural, engineering, and legal costs incurred by a school district in constructing school facilities.

H. Accounting of Expenditures

All monies collected pursuant to this Ordinance shall be maintained in a separate bank account or other fund by the receiving school district.

I. Failure to Convey or Contribute

Failure to provide sufficient evidence of the required conveyance or cash contribution to the City shall result in denial of the application for a building permit or, when a building permit has already been issued, revocation of the building permit.

J. Indemnification

Any public body designated by the City to receive the cash contribution required hereunder or to be the grantee of any conveyance required hereunder shall agree to indemnify and hold the City of Lockport harmless from any cash payments or land conveyances required by any court of competent jurisdiction if any part of this Ordinance is held invalid.

SECTION 153.30.022 CASH CONTRIBUTIONS FOR LIBRARIES

Criteria for Requiring Library Contributions: Subdividers, builders, and/or developers shall be required to contribute for library purposes an amount of \$100 for each dwelling unit constructed in the subdivision or development. The subdivider, builder, and/or developer shall make the cash contribution prior to or concurrent with submission of the application for Certificate of Occupancy. Payments shall be made directly to the said Library District where the development is located and evidence of said payment shall be provided to the City at the time of the application for the Certificate of Occupancy.

SECTION 153.30.030 REQUIRED IMPROVEMENTS

No Preliminary Plan or Plat of any subdivision shall be approved unless and until the required improvements to be constructed have been described in the form of supporting documents which shall include, but not be limited to, the following:

- A. Storm Water Drainage and Detention Facilities - Storm sewers, stormwater detention facilities and open drainage channels shall be sized and designed, including all necessary appurtenances thereto, to accept and convey all stormwater runoff from all lots in accordance with the provisions of this Chapter.
- B. Sanitary Sewerage Facilities - Sanitary sewers and all appurtenances, including pumping stations and force mains, shall be sized and designed to serve all lots, and designed to provide for future expansion or extension of the system services in accordance with the provisions of this Chapter.
- C. Water Distribution System - Water distribution mains, services, and all other appurtenances shall be sized and designed to serve and provide for fire protection for all lots, and designed to provide for future expansion or extension of the system services in accordance with the provisions of this Chapter.
- D. Internal and Perimeter Street Layout and Geometric Design - All streets shall be compatible with existing and proposed streets, topographical conditions, public convenience and safety.
- E. Curb and Gutter - Combination concrete curbs and gutters shall be provided on both sides of all public and private streets.
- F. Sidewalks - Concrete sidewalks shall be provided on both sides of all public and private streets and cul-de-sacs. Sidewalks shall be located one (1) foot from the property line of all lots and along such lines extended to intersecting streets. Sidewalks without parkways between the back of curb and the edge of the sidewalk (aka carriage walks) are prohibited.
- G. Street Lighting - Street lighting systems shall be provided for all public and private streets.
- H. Street Signs - Street signs and/or poles shall be provided to aid in identification of all public and private streets and bikepaths.
- I. Bikepaths - Bikepaths shall be provided to serve proposed parks and other public areas designated on the latest version of the City of Lockport Bicycle/Pedestrian System Master Plan and/or the latest version of the I-355 Area Trails Master Plan, and shall be designed in accordance with applicable provisions of this Chapter and/or applicable Master Plan.
- J. Landscaping - All parkways and medians within any dedicated street right-of-way or any other areas of public use shall be landscaped in accordance with the provisions of this Chapter.
- K. Grading and Drainage - The grading of all lots and streets shall be designed to provide positive drainage and to prevent the ponding of surface water in excess of eight (8) inches depth in the event of a complete failure of the storm sewer systems. The grading of lots

shall be designed to provide slopes of not less than one (1) percent (100:1), nor greater than twenty-five (25) percent (4:1). Drainage easements shall be provided wherever surface waters from more than one lot are conveyed along a property line.

- L. Public Utilities - All public utility lines for electronic sounds and signals, telephone, electric and gas services shall be placed in easements, entirely underground and in compliance with standard engineering procedures adopted by the franchised utility and the "National Electric Code" latest edition.
- M. Soil Erosion & Sedimentation Control / Dust Control - All developments shall have a planned program for erosion, sedimentation and dust control during construction. The developer shall comply with the standards as set forth in Chapter 151.30, the Will County Stormwater Management Ordinance and the Illinois Environmental Protection Agency General NPDES Permit No. ILR10.
- N. Off-Street Parking Facilities - All developments shall provide off-street parking facilities in accordance with the requirements listed in the Lockport Zoning Ordinance.
- O. Foundations and Floor Elevations - The foundations and floor elevations of all structures to be constructed on any lot shall be shown on the Subdivision Plan to assure adequate provisions will be provided for the storage and conveyance of stormwater runoff and subsurface drainage. The Subdivision Plan shall conform to the requirements of the Will County Stormwater Management Ordinance and Chapters 151, 152 and 153 of the City of Lockport Municipal Code.

SECTION 153.30.040 DESIGN COMPUTATIONS

- A. The Developer's engineer shall submit copies of design computations for the required improvements which shall include, but shall not be limited to, the following:
 - 1. Stormwater detention reservoir capacity and outlet control design.
 - 2. Structural design of pavements.
 - 3. The design of watermain size, maximum daily flow demands and fire flow determinations.
 - 4. Design of inlet spacing, storm sewer systems and open channels.
 - 5. Design of sanitary sewer systems.
 - 6. Structural design for storm sewer, sanitary sewer, and water conduits.
 - 7. Design of street lighting conductor and conduit sizing and luminaire spacing, including voltage drop and photometric calculations, to document compliance with the requirements listed in Section 153.50.100.
 - 8. Engineer's estimate of probable construction cost for all required development improvements, broken down by individual pay items with quantities, unit prices and total costs.

- B. The design computations shall be prepared in legible format that can be readily followed, including design assumptions, references, manufacturer's catalog cut sheets and other relevant data. The computations shall be signed, dated and sealed by a Professional Engineer registered in Illinois.
- C. The design computations for required improvements shall be submitted to the City simultaneously with the Preliminary Plan and Subdivision Plat.

SECTION 153.30.050 STREET DESIGN CRITERIA

- A. The minimum right-of-way widths to be dedicated or established and the minimum street pavement widths shall conform to the values listed in Section 153.50.070.
- B. Local streets shall be laid out so that their use by through traffic will be discouraged. In a residential subdivision with lots having frontage on both a local street and a Collector Street, the covenants for the subdivision shall prohibit the installation of driveways connecting to the major or collector street.
- C. Street jogs with centerline offsets of less than one hundred twenty-five (125) feet are prohibited.
- D. Cul-de-sacs shall have a maximum length of five hundred (500) feet measured along the centerline from the intersection at origin, through the center of the circle, to the end of the right-of-way. Each cul-de-sac shall have a terminus of circular shape with a minimum right-of-way diameter of one hundred twenty (120) feet.
- E. No street names may be used which will duplicate or be confused with the names of existing streets in the Lockport Township Fire Protection District, Northwest Homer Fire and Ambulance District, or Homer Township Fire Protection District. Existing street names must be extended wherever possible. Streets within a subdivision cannot be named after the developer or the name of the project unless said street is within said subdivision and cannot be extended into other subdivisions. Proper names shall be discouraged.
- F. If the tract of land proposed to be developed, or any part thereof, lies adjacent to a highway over which the Will County Division of Transportation, the Illinois Department of Transportation or the Illinois Toll Highway Authority has jurisdiction with respect to maintenance and upkeep thereof, and an entrance or entrances are proposed from such highway to lots, streets, roadways or alleys in the development, the developer shall submit to the Director of Public Works & Engineering or authorized designee a copy of the written permit from the appropriate jurisdiction, granting permission to obtain and construct such an entrance or entrances.
- G. Alleys may be required in business, office and research, and industrial districts unless provisions are made for service access, such as off-street loading, unloading and parking, consistent width and adequate for the proposed uses. Alleys shall be prohibited in residential areas except where topographic or other conditions may necessitate their use.

The minimum width of an alley right-of-way shall be twenty (20) feet. The minimum alley pavement width shall be eighteen (18) feet. Dead end alleys are prohibited.

- H. Planned subdivisions and/or developments adjacent to existing subdivisions and/or developments shall be designed to accept the alignment and corresponding widths of existing pavements. The Director of Public Works & Engineering or authorized designee shall determine the proper alignment to be made where the wider pavement connects to narrower pavement at the boundary of the development. Pavement markings shall be provided in the transition section to designate driving and parking lanes.
- I. Clear visibility, measured along the center line of the street shall be provided for at least three hundred fifty (350) feet on all major streets, and for two hundred (200) feet on all collector and local streets. Horizontal and vertical alignment of streets under City jurisdiction shall be designed in accordance with the IDOT Bureau of Local Roads and Streets Manual, including Stopping Sight Distance, Passing Sight Distance and Intersection Sight Distance requirements listed in Chapter 28, horizontal alignment requirements listed in Chapter 29 and vertical alignment requirements listed in Chapter 30.
- J. All street intersections shall be designed to encourage safe traffic flow.
- K. Gradients (longitudinal slope) of streets shall be a minimum of one (1.0) percent, except where unusual topography dictates relief, the Director of Public Works & Engineering or authorized designee may permit a minimum slope between one-half (0.5) and one (1.0) percent. Gradients of streets shall not exceed five (5.0) percent. Street gradients shall be designed to provide natural surface drainage of stormwater with minimal ponding, regardless of the presence of storm sewer facilities.
- L. To facilitate traffic movements from collector to residential streets, channelized approaches shall be provided where warranted. For streets under City jurisdiction, the warrant and the geometrics of channelized approaches shall conform to the requirements in Chapter 34 of the IDOT Bureau of Local Roads and Streets Manual.

SECTION 153.30.060 EASEMENT STANDARDS

Easements across lots or centered on rear or side lot lines shall be provided for utilities and street lighting, electronic sounds and signals, drainage or other public use, and shall be a minimum of ten (10) feet wide, and as determined by the Director of Public Works & Engineering or authorized designee. Easements shall be laid out so that a proper continuity shall be provided from lot to lot and from block to block. In addition, due provisions for extension of easements to adjacent areas shall be made. Approval of the utility easement layout by the public utility companies shall be required on the Plat. Where a development is traversed by a water course, drainage way, channel or stream, there shall be provided a storm water easement or drainage right-of-way conforming substantially to the lines of such water course, and such further width required for construction and maintenance, as will be adequate for the purpose and approved by the Director of Public Works & Engineering or authorized designee. Easements containing pedestrian ways, bikepaths, or right-

of-ways for this purpose shall have a minimum width of twenty (20) feet. Where a subdivision or development is traversed by a watercourse, drainage way, channel, stream or wetlands, there shall be provided a lowlands conservation easement of such size required in Section 151.40.

SECTION 153.30.070 RESIDENTIAL BLOCK STANDARDS

Residential blocks shall have a maximum length of one thousand (1,000) feet when the average lot size is less than one (1) acre. Blocks over eight hundred (800) feet in length shall require a pedestrian way or bikepath within an easement or public right-of-way at the approximate center of the block. Additional pedestrian ways or bikepaths to provide safe and convenient access to schools, parks, or other similar destinations may be recommended by the Plan & Zoning Commission and required by the Corporate Authorities.

No specific rule concerning the shape of residential blocks is made, but blocks must fit easily within the platted area and their alignment must accommodate traffic flow and pedestrian access to public areas. Blocks shall have sufficient width to provide for two (2) tiers of lots of appropriate depth, unless in the opinion of the Plan & Zoning Commission, it is not feasible due to unusual topography or other physical conditions.

SECTION 153.30.080 LOT STANDARDS

- A. All side lot lines shall be at approximate right angles to straight street lines and radial to curved street lines, unless a modification to this requirement will give a better street and lot plan. Double frontage lots shall be avoided except where essential to provide separation of residential development from major streets. All residential lots shall abut a public street.
- B. All lots shall be equal to or larger than the minimum lot areas required by the Lockport Zoning Ordinance. The minimum lot size shall apply to that portion of a lot outside the limits of any flood plains, wetlands, creeks, streams, or open bodies of water.
- C. All residential lots shall be equal to or wider than the minimum lot widths required by the Lockport Zoning Ordinance.
- D. Where lots front upon a cul-de-sac or curved road or street having a radius of two hundred (200) feet or less, the minimum width of the frontage of the lot shall be measured at the building set back line; but only if the width at the right-of-way line is not less than fifty (50) percent of the width required by the Zoning Ordinance, the width being measured on the arc of the street right-of-way line.
- E. The areas of the street right-of-way, whether dedicated to the public or a private street or an easement for street purposes, shall not be included in calculating the area of the lot to be in accordance with the minimum lot area requirements of the zoning district in which the lot is located. The lot shall also have a width and a depth entirely adequate to provide the necessary yard requirements of the Lockport Zoning Ordinance.

- F. Lots having frontage upon major street intersections, and at acute angle intersections, shall have a lot line radius approved by the Director of Public Works & Engineering or authorized designee. On business lots, a chord may be substituted for a circular arc with the approval of the Director of Public Works & Engineering or authorized designee. Where grade separation structures are proposed at an intersection with a major street, the lots and required improvements shall be arranged to make adequate provision for such structures.

SECTION 153.30.090 IMPROVEMENT OF CERTAIN ACCESS ROADS AND APPURTENANCES

- A. Required Improvements Where any parcel of land fronts on or abuts any existing or proposed major or collector street as shown on the Official Map of the City, and where any subdivision or improvement of such parcel will be served by any such streets, and where any such streets have not been opened and improved in accordance with its designation on the Official Map or if existing, is not improved in accordance with the standards and specifications contained and prescribed in this Chapter for such designation, then the Applicant shall be required to improve such street for its entire length and width adjacent to such parcel in accordance with the standards and specifications of this Chapter pertaining to such street as it is designated on the Official Map. Such required improvement shall include the base course and surface courses of the roadway pavement, curbs, gutters, water mains, sanitary sewers, storm sewers, street lights and appurtenant facilities constructed in accordance with the terms of these regulations.
- B. Optional Payment in Lieu of Improvements Any applicant required to improve a street pursuant to subsection (A) hereof, may, at the City's option, agree to pay to the City, for the cost of such improvement as part of a coordinated program, an amount determined by the following formula:

Amount Paid to the City = (a / b) x c, where

a = total cost of the City program to improve the roadway

b = total length in feet of the roadway being improved

c = length in feet of the roadway adjacent to the development

- C. Right to Reimbursement from a Later Adjacent Developer (Recapture) An Applicant required to improve a roadway pursuant to Subsection (A) hereof shall be entitled to reimbursement for a portion of his expenses of such improvement, or payments pursuant to Subsection (B) attributable thereto, from any Applicant who shall subsequently seek to subdivide or improve any parcel of land adjacent to said roadway and fronting upon any part of said roadway which has been previously improved either by the former Applicant pursuant to Subsection (A) or with funds paid by him pursuant to Subsection (B).
- D. Amount of Reimbursement (Recapture Fee) Any reimbursement due pursuant to subsection (C) shall be computed on the basis of the following formula:

Amount of Reimbursement = (a / b) x c, where

a = total cost to the first applicant to improve the roadway

b = total length in feet of the roadway being improved

c = length in feet of the roadway improved by the first applicant which is adjacent to the parcel of the subsequent applicant

together with interest on such amount at the interest rate of the U.S. Treasury 30-year Note on the date of completion of the improvement, compounded annually, from the date of the completion of the improvement by the prior Applicant (or his payment to the City pursuant to Subsection (B)), to the date of payment hereunder by the subsequent Applicant; provided, however, that such interest shall in no event exceed thirty-three percent (33%) of the original principal amount.

- E. Duty to Reimburse Prior Applicant When any Applicant should be required to improve any street pursuant to Subsection (A) hereof, but for the fact that such street has been previously improved by a prior Applicant pursuant to Subsection (A) hereof, such subsequent Applicant shall pay to the City, solely for the purpose of reimbursing such prior Applicant, an amount as determined by the formula set out in Subsection (D).
- F. Duty of City to Pay Over Whenever the City shall receive any funds pursuant to Subsection (E), it shall receive them solely for the benefit of the Applicant entitled thereto and shall promptly pay the funds over to such Applicant or his designated agent.
- G. Duty to Reimburse City When any Applicant would be required to improve any street pursuant to Subsection (A) hereof except for the fact that such street has previously been improved by the City, such Applicant shall pay to the City, solely as reimbursement for such improvement, an amount equal to fifty percent (50%) of the cost to the City for improving the street for the length of the Applicant's parcel fronting on and abutting the street, together with interest on such amount at the interest rate of the U.S. Treasury 30-year Note on the date of completion of the improvement, compounded annually, from the date of the completion of such improvement to the date of payment by the Applicant hereunder; provided, however, that such interest shall in no event exceed thirty-three percent (33%) of the original principal amount.
- H. Applicant's Prior Right to Reimbursement When any roadway subject to this Section has been improved as part of a coordinated program through the use of City funds and funds paid by one or more Applicants pursuant to Subsection (B), any funds received by the City as reimbursement from any subsequent Applicant pursuant to Subsection (G) shall be paid over to any former applicant contributing to the coordinated program, up to one-half of their payments pursuant to Subsection (B). Such payments to any such Applicant shall be computed in accordance with the following formula:

Amount Paid to Applicant = (a / b) x c, where

a = amount contributed by the specified applicant

b = the amount contributed by all applicants

c = the amount available for payment

Any such payment to any Applicant shall reduce, dollar for dollar, the reimbursement to which it might otherwise be entitled under the terms of this Article and by such payment the City shall be subrogated, dollar for dollar, to the right of such Applicant for reimbursement. In interpreting this Section, it shall be assumed to be the intent of the Corporate Authorities that each Applicant which is, or might become, entitled to a reimbursement pursuant to this Article shall receive such reimbursement in full before the City shall receive any reimbursement to which it is, or might become, entitled in connection with the improvement of any roadway subject to this Article.

- I. Sewer Connection Permit Required In addition to any other requirements or prohibitions of these regulations, no Applicant, owner, subdivider, or developer, nor any contractor, agent or other representative thereof, shall connect to any storm drain or sewer constructed in whole or in part by the City or any Applicant pursuant to the provisions and requirements of this Section without first securing a permit for such connection from the City.

The application for such permit shall be accompanied by proof of compliance with all applicable terms of this Section, including payment of any monies due hereunder or provision for such payment satisfactory to the City. Any connection made without such permit shall be subject to disconnection by the City at the expense of the Applicant, owner, subdivider or developer responsible for compliance with the terms of this Section. Nothing herein shall be taken to relieve the Applicant, owner, subdivider or developer of liability for violations of this Section.

- J. Nothing in this Section shall be taken nor construed in any manner to vest in any person, firm or corporation any proprietary rights to any roadway presently owned by the City; nor to relieve or excuse any Applicant, owner, subdivider or developer from the provisions of these regulations pertaining to the dedication of any street or roadway, whether or not such street or roadway is subject to the provisions of this Section.

SECTION 153.30.100 IMPROVEMENT OF DOWNSTREAM FACILITIES AND APPURTENANCES

Because there are areas in the City of Lockport where existing storm sewers, sanitary sewers and water mains and appurtenances may not be sized to adequately accommodate upstream development, the Corporate Authorities may require the subdivider or developer to make or contribute toward the construction of downstream improvements to accommodate the proposed development. The determination of the type and need for such improvements shall be made by the Director of Public Works & Engineering or authorized designee after analysis of the impact of the proposed development on the capacity of the existing downstream facilities. The nature of such improvements and the distribution of costs of the improvements will be determined on an individual basis.

SECTION 153.30.120 IMPROVEMENTS OF PUBLIC FACILITIES RELATED TO RESUBDIVISIONS

In case of resubdivisions or areas to be resubdivided, where required improvements meeting the provisions of this Chapter are already installed, no duplication of such improvements shall be required; provided however, that where such improvements have become worn, broken, outdated, defective or do not meet City standards, the owner or developer shall be required to repair and correct such defects or deficiencies.

If property for which an application to resubdivide has been presented abuts on or contains an existing public street which has a pavement width less than that required by this Chapter, the owner or developer shall dedicate additional land sufficient to provide the additional pavement to bring the street width into compliance with the minimum standards listed in this Chapter, and including the relocation of any water mains, storm sewers, sanitary sewers, or other existing public utilities, prior to final City approval of the property for resubdivision. The necessary dedication and required improvements shall be located on the same side of the street that the proposed resubdivision is located on.

SECTION 153.30.130 ARTERIAL STREET ACCESS STANDARDS

- A. No subdivision shall be permitted in which more than one (1) owner is to use the same private frontage road or parking area unless a covenant with authority for use and maintenance of such private frontage road or parking area is approved by the Corporate Authorities and recorded by the City Clerk.
- B. A minimum distance of seven hundred fifty (750) feet shall be provided between points of ingress and egress to an arterial street when all property to be developed is under one ownership.
- C. When property fronts a County, State, or Federal highway, the spacing and design of the points of ingress and egress to the arterial street shall be subject to approval by the Illinois Department of Transportation, the Illinois State Toll Highway Authority or the Will County Division of Highways, when they have jurisdiction over the highway.
- D. Local street gradients shall be designed for continuity with collector and arterial streets, without abrupt changes in horizontal or vertical alignment. The gradients of private driveways shall be designed to ensure a smooth transition to the public street and to ensure positive overland drainage.

SECTION 153.30.140 SURVEY BENCHMARKS AND MARKERS

At least one (1) permanent benchmark shall be established in each subdivision or development. The number and location of required permanent benchmarks shall be approved by Director of Public Works & Engineering or authorized designee. Permanent benchmarks shall consist of a

brass or aluminum disk set in concrete, in compliance with the City of Lockport Standard Drawings.

Permanent benchmarks shall be tied to the North American Vertical Datum of 1988 (NAVD88) of the National Spatial Reference System (NSRS), as maintained by the United States National Geodetic Survey (US-NGS). Permanent benchmarks shall be established under the supervisions of a Professional Land Surveyor, registered in Illinois. The surveyor shall use one of the following methods to achieve a vertical accuracy of Second Order, Class II, per the US-NGS:

- A. Establish vertical geodetic control at the site using a combination of Global Navigation Satellite System (GNSS) measured ellipsoid heights and calculated orthometric heights using a reputable geoid model. GNSS-derived ellipsoid heights shall be determined by processing GPS field measurements through the NGS GPS Online Positioning System - Rapid Static Service (OPUS-RS).
- B. Establish vertical geodetic control at the site by differential leveling surveying, using NGS specifications for Second Order, Class II vertical surveys. All vertical leveling shall be measured relative to at least two (2) NSRS vertical geodetic control monuments of second-order or better accuracy.

Iron rods, one-half inch (1/2") in diameter, shall be set at all corners, angle points, and points of curvature on property lines and rights-of-way under the supervision of a Professional Land Surveyor, registered in Illinois.

All set or found iron pipes, iron rods and permanent benchmarks shall be shown and described on the final plat. The developer shall replace or verify the existence of all iron pipes, iron rods and permanent benchmarks after the completion of all construction and before initial acceptance of the subdivision or development by the Corporate Authorities.

CHAPTER 153.40

PROCEDURE FOR APPROVAL AND ACCEPTANCE OF IMPROVEMENTS

Sections:

- 153.40.010 Pre-Construction Meeting
- 153.40.020 Construction of Improvements
- 153.40.030 Inspection of Improvements
- 153.40.040 Materials Testing and Evaluation
- 153.40.050 Initial Acceptance of Improvements
- 153.40.060 Final Acceptance of Improvements
- 153.40.070 As-Built Plans
- 153.40.080 Maintenance Guarantee

SECTION 153.40.010 PRE-CONSTRUCTION MEETING

- A. Prior to initiating any construction, the developer, the contractors, and the design engineer shall schedule a meeting with the Director of Public Works & Engineering, or authorized designee, City representatives and other agencies. The purpose of meeting will be to review the proposed construction activities and City inspection requirements for the approved subdivision plat or development plan.
- B. The developer shall furnish the Director of Public Works & Engineering or authorized designee with a list of contractors' and subcontractors' names and phone numbers and a project construction schedule. The construction of improvements within the public rights-of-way shall be completed in the following sequence, unless an alternate plan is approved by the Director of Public Works & Engineering or authorized designee:
 - 1. Installation of underground utilities
 - 2. Pavement construction except for the final surface course
 - 3. Sidewalks and streetlights
 - 4. Final grading, topsoil placement, landscaping and signage
 - 5. Final pavement surface course and pavement markings
- C. Job site safety is the responsibility of the contractors performing the work. All safety requirements of other governmental agencies, including the Federal Government, shall apply to the proposed work.

SECTION 153.40.020 CONSTRUCTION OF IMPROVEMENTS

A. Construction Completion Schedule

The developer shall complete all improvements within twenty-four (24) months following the approval of the Final Subdivision Plat or Final Development Plan by the Corporate Authorities, except for public parks and detention areas which shall be completed within twelve (12) months, and except for any improvements for which specified time limits are noted on the approved plans, which shall be completed within the specified time limits shown on the plans. If work is not completed within the time prescribed herein, the City shall have the right to call upon the financial security for the purpose of completing improvements or conforming to the provisions of this Chapter.

B. Protection, Maintenance and Repair of Existing Improvements

1. The developer, his contractors, and their suppliers shall be jointly and severally responsible to insure that existing improvements and the property of the City are not damaged or rendered less useful or unsightly by any construction of improvements or any other action.
2. This Subsection (B) is intended to include damage or nuisance with respect to adjoining land, existing City improvements such as pavements, sidewalks, curb and gutter, parkways, landscaping, water mains, sanitary sewers, open ditches, culverts, storm sewers and any appurtenances.
3. To minimize the possibility of damage to existing streets by construction traffic, access to the development site or subdivision by construction equipment or trucks shall be limited to those routes designated by the Director of Public Works & Engineering or authorized designee.
4. The developer shall be responsible for enforcement of requirements of this Chapter upon his contractors and/or suppliers.
5. The developer shall be responsible for snow plowing and ice control on all streets which are within the development or subdivision until initial acceptance by the City. The developer shall provide for the City to perform these services on streets which serve occupied properties, by paying an annual fee, at a rate not to exceed that rate determined each year by dividing the budgeted operating costs of the City's Snow and Ice Control Program by the existing mileage of accepted City streets. The minimum charge shall be paid by developers who have less than one-half (1/2) mile of unaccepted streets in their subdivision which are serving occupied properties.
6. The developer shall be responsible for the proper control of weeds, grass, refuse, junk, and other nuisances in the project area in accordance with the standards established in the City Code. The developer shall continue to be responsible for the proper maintenance of any property for which the developer transfers ownership to

the City until such time as the subdivision's improvements are initially accepted by the City in writing.

C. Work Requirements During Construction

1. The developer or contractor shall maintain the construction site and surrounding areas including all public ways, sewers, and drains free from debris and trash and all other extraneous material until initial acceptance by the City.
2. Where pavements are used by construction vehicles and equipment, the developer shall ensure that his contractors clean such streets of dirt and other foreign materials at the end of each day's operations, and as directed by the City.
3. During dry weather periods, an effective dust control program, including dust control watering, shall be required.
4. A positive erosion control system shall be established and maintained to prevent storm water from carrying soils into waterways or onto adjacent properties. All erosion control measures shall comply with Article 3 of the Will County Stormwater Management Ordinance, effective January 1, 2004 and last revised March 25, 2010. Provisions for temporary stormwater detention shall also be established and maintained to protect adjacent properties from flooding during construction.
5. The contractors shall only use such streets for ingress and egress to the construction site as have been designated by the Director of Public Works & Engineering or authorized designee.

SECTION 153.40.030 INSPECTION OF IMPROVEMENTS

All required improvements, public and private, shall be subject to inspection by representatives of the City during their construction for compliance with the provisions of this Chapter and the approved subdivision plat or development plan. The owner or developer's contractors are required to notify the Director of Public Works & Engineering or authorized designee, not less than twenty-four (24) hours in advance of the construction of any required improvements in order to arrange for field inspection. The Director of Public Works & Engineering or authorized designee is empowered to condemn and order the removal of any construction work or improvements which are not in compliance with the approved subdivision plat or development plan or other City ordinances. Such condemned construction shall be promptly removed and replaced in accordance with the approved subdivision plat or development plan and City ordinances.

The Director of Public Works & Engineering or authorized designee may require that work be suspended with due cause and such due cause shall include but not be limited to conditions, questionable materials or construction, methods of construction, workmanship or non-adherence to the approved subdivision plat or development plan or this Chapter.

SECTION 153.40.040 MATERIALS TESTING AND EVALUATION

- A. Material incorporated into any required improvements of the subdivision or development shall be subject to testing and evaluation in accordance with the provisions of this Chapter.
- B. All costs associated with materials testing and evaluation shall be borne by the developer or owner and performed by independent laboratories or others evidencing expertise for specific evaluations, subject to the approval of the Director of Public Works & Engineering or authorized designee.
- C. Copies of all material testing results and reports shall be provided to the Director of Public Works & Engineering or authorized designee for review. The tests and evaluations for materials shall include, but not be limited to:
 - 1. Portland Cement Concrete
 - a. Mix design and verification at the plant
 - b. Slump
 - c. Air content
 - d. Temperature
 - e. Compressive strength
 - 2. Hot-Mix Asphalt
 - a. Mix design and verification at the plant
 - b. Temperature
 - c. Nuclear density
 - 3. Earthwork
 - a. Illinois Bearing Ratio
 - b. Proctor curves
 - c. Nuclear density

SECTION 153.40.050 INITIAL ACCEPTANCE OF IMPROVEMENTS

- A. Between the time of substantial completion and completion of the construction of the required improvements, the City shall inventory deficiencies in the required improvements which do not conform to the provisions of this Chapter, and shall submit a list thereof (the punch list) to the owner or developer for correction. When the deficiencies have been corrected, the owner's or developer's engineer shall prepare a Certificate of Initial Acceptance, the form for which shall be obtained from the Director of Public Works and Engineering.

- B. Following the review and approval of the Director of Public Works & Engineering or authorized designee, the Certificate of Initial Acceptance of the completed improvements shall be forwarded to the Corporate Authorities.
- C. Upon receipt of the certificate, the Corporate Authorities shall consider approval of the Certificate of Initial Acceptance, thereupon formally accepting such improvements, subject to the terms of the maintenance guarantee.
- D. The Certificate of Initial Acceptance of required improvements, as evidenced by the signature of the Director of Public Works & Engineering or authorized designee, shall mark the beginning of a 12-month guarantee period covering the workmanship and materials incorporated into the required improvements.
- E. Special Conditions Regarding Public Sidewalks and Parkway Trees: Although public sidewalks and parkway trees are inspected concurrently with the occupancy of a house, an additional inspection for consideration of initial acceptance of the sidewalks and trees, to reduce the letter of credit, will be done by the Director of Public Works & Engineering or authorized designee on the sidewalks and trees that have been installed over the past year. This inspection of the public sidewalks will be done in conjunction with the requested inspection of the parkway trees that are also to be installed on those same built-upon lots. Any sidewalk or parkway tree found to be defective at the time of the inspection shall be promptly removed and replaced by the Developer.

SECTION 153.40.060 FINAL ACCEPTANCE OF IMPROVEMENTS

- A. Immediately prior to the expiration of the twelve-month guarantee period, the Director of Public Works & Engineering or authorized designee shall prepare an inventory of deficiencies if any, which must be corrected in accordance with the provision of this Chapter. The Director of Public Works & Engineering or authorized designee shall submit a list thereof (the final punch list) to the owner or developer for correction.
- B. After all deficiencies on the final punch list have been corrected, and after the corrections have been inspected and approved by the Director of Public Works & Engineering or authorized designee, the developer may request the release of the financial security for the maintenance guarantee at the conclusion of the maintenance period.

SECTION 153.40.070 AS-BUILT PLANS

- A. Prior to initial acceptance of the improvements, the developer or owner shall provide three (3) sets of as-built plans, showing any and all changes from the approved subdivision plat or development plan, to the Director of Public Works & Engineering or authorized designee for review and approval. The as-built plans shall be signed and sealed by a Professional Engineer or Professional Land Surveyor, registered in Illinois.

- B. The approved final engineering drawings shall be used as a basis for the as-built plans. Additionally, the as-built plans shall include an overall utility plan at a scale of one inch equals one hundred feet (1"=100').
- C. As-built plans shall illustrate the horizontal and vertical location of all water mains, sanitary sewers and storm sewers, as well as fire hydrants, valve vaults, manholes, inlets, catch basins and other appurtenances. As-built grading plans shall illustrate surveyed elevation contours for all stormwater storage basins, including normal water level (NWL and high water level (HWL) contours, and shall include a stage-storage-discharge table. All elevations shall be on the NAVD88 datum and the local benchmarks shall be clearly shown and labeled.
- D. After approval by the Director of Public Works & Engineering or authorized designee, the owner or developer shall provide an electronic copy of the as-built plans, containing the computer coordinates for property lines, rights-of-way, water mains, sanitary sewers, storm sewers and other appurtenances in the proposed subdivision or development plan for use in the City of Lockport computer assisted design (CAD) system. The files shall be in AutoCAD drawing format (preferred) or Adobe pdf format (small developments).

SECTION 153.40.080 MAINTENANCE GUARANTEE

The guarantee supplied to the City by the developer or owner pursuant to Section 153.20.060 shall be held by the City for a period of twelve (12) months after initial acceptance of such improvements.

CHAPTER 153.50

GENERAL DESIGN STANDARDS AND SPECIFICATIONS

Sections:

- 153.50.010 General
- 153.50.020 Soil Erosion and Sedimentation Control
- 153.50.030 Drainage and Storm Sewer Systems
- 153.50.040 Stormwater Management
- 153.50.045 Best Management Practices
- 153.50.050 Sanitary Sewer Systems
- 153.50.060 Water Distribution Systems
- 153.50.070 Street Pavements
- 153.50.080 Sidewalks and Driveway Aprons
- 153.50.090 Bikepaths
- 153.50.100 Street Lighting Systems
- 153.50.110 Signage and Pavement Markings
- 153.50.125 Tree Preservation
- 153.50.130 Lot Grading
- 153.30.135 Grading Requirements
- 153.50.140 Public Utilities
- 153.50.150 Parkway Landscaping
- 153.50.160 Protection and Restoration Requirements

SECTION 153.50.010 GENERAL

- A. Unless specifically stated otherwise in this Chapter, the following standard specifications shall provide the requirements and covenants applicable to construction within the City:
1. Standard Specifications for Road and Bridge Construction, published by the Illinois Department of Transportation, latest edition.
 2. Supplemental Specifications and Recurring Special Provisions, published by the Illinois Department of Transportation, latest edition.

3. Standard Specifications for Water and Sewer Main Construction in Illinois, published by the Illinois Society of Professional Engineers, latest edition.
- B. In the event of conflict between the contents of the Standard Specifications and this Chapter, this Chapter shall govern.

SECTION 153.50.020 SOIL EROSION AND SEDIMENTATION CONTROL

The purpose of this Chapter is to safeguard persons, protect property, prevent damage to the environment, and promote the public welfare by guiding, regulating and controlling the design, construction, use and maintenance of any development or other activity which disturbs or breaks the topsoil and other conditions allowing the movement of sedimentation with the City.

- A. The stormwater runoff from the disturbed areas of any subdivision or development shall not leave the development site without first passing through sediment control facilities. This requirement shall apply to all phases of construction and shall include an ongoing process of implementation of measures and maintenance of those measures during both the construction season and any construction shut down periods.
- B. Sediment and erosion control measures shall meet the requirements of Article 3 of the Will County Stormwater Management Ordinance, effective January 1, 2004 and last revised March 25, 2010. Specifications for sediment and erosion control measures shall be in accordance with the latest edition of the Illinois Urban Manual. Sediment and erosion control measures planning and design shall be in accordance with Procedures and Standards for Urban Soil Erosion and Sedimentation Control in Illinois (the Green Book). Where the Illinois Urban Manual conflicts with the Green Book, the Illinois Urban Manual shall prevail.
- C. The objectives of sediment and erosion control requirements are to control soil erosion and sedimentation caused by any development activities, whether a site development permit is required or not, and to control erosion and sedimentation caused by runoff from vacant land. The following principles shall be incorporated into the design of any proposed development or into the maintenance plan for undeveloped property:
 1. A development shall be designed to take into account the topography and soils of the site, to create the least practicable potential for erosion. Areas of steep slopes with high cuts and fills should be avoided wherever possible. Natural contours should be followed as closely as possible.
 2. Natural vegetation shall be retained and protected wherever possible, especially in areas adjacent to a natural watercourse.
 3. The smallest practical area of land should be exposed for the shortest practical time during development. This may require project phasing.
 4. Areas which have been graded during development shall be protected with temporary vegetation, erosion blanket or mulch (when appropriate) as soon as practicable.

Vegetation within public rights-of-way shall be kept eight inches (8") tall or shorter by periodic mowing.

5. Sediment basins shall be provided and shall be designed and sized in accordance with Article 300.5 of the Will County Stormwater Management Ordinance, effective January 1, 2004 and last revised March 25, 2010.
 6. Provisions shall be made in the design to accommodate the increased runoff caused by changed soil and surface conditions during and after development.
- D. All subdivisions and developments that result in the disturbance of one or more acres total land area, or a disturbance less than one acre of total land that is part of a larger common plan that will ultimately disturb one or more acres total land area, shall meet the requirements of the Illinois Environmental Protection Agency's (IEPA) General NPDES Permit No. ILR10, Stormwater Discharges from Construction Site Activities. A Notice of Intent (NOI) and a Storm Water Pollution Prevention Plan (SWPPP) must be submitted to the IEPA at least thirty (30) days prior to the start of construction. Weekly sedimentation and erosion control inspections are required for the duration of construction, until disturbed areas are stabilized with permanent vegetation. A copy of the NOI, SWPPP and weekly inspection reports shall be kept on site during construction, and an additional copy shall be provided to the Director of Public Works & Engineering or authorized designee.

SECTION 153.50.030 DRAINAGE AND STORM SEWER SYSTEMS

- A. General All developments, whether public or private, where curb and gutter is required and at other locations determined by the Director of Public Works & Engineering or authorized designee, shall include provisions for the construction of storm sewers and appurtenances designed in accordance with this Chapter. Storm sewer systems and pipe culverts shall be designed accordance with the IDOT Bureau of Design and Environment Manual and installed in accordance with the IDOT Standard Specifications for Road and Bridge Construction, latest edition.
- B. Service Areas All storm sewers, culverts and open channels shall be designed to accommodate all areas which naturally flow to the area of the development and also any additional areas which are planned to contribute in the future to the drainage area, as identified by the Director of Public Works & Engineering or authorized designee. If extending the ultimate service area beyond the natural drainage area limits served by the proposed subdivision results in additional construction costs within the subdivision, a written agreement may be made with the Corporate Authorities for the recapture by the owner or developer of the additional cost when future system extensions are made. Recapture payments will be made to the owner or developer only after the person benefiting from the drainage area adjustment has made payment to the City.

- C. System Extensions The location of proposed extensions to the existing storm sewer system shall be approved by the Director of Public Works & Engineering or authorized designee.
- D. Basic Design Standards Unless otherwise approved by the Director of Public Works & Engineering or authorized designee, the following basic design calculations shall utilize the following methods and criteria:
1. Hydrology (Design Flows) Design runoff rates for conveyance shall be calculated using the Rational Method for watersheds of ten (10) acres or less. Design runoff rates for conveyance shall be calculated using an event hydrograph method for watersheds greater than ten (10) acres. Design runoff rates shall be calculated using Illinois State Water Survey Bulletin 71 Northeast Sectional rainfall statistics. The elapsed duration time used in determining rainfall intensity shall be equal to the time of concentration (inlet time) plus the time of flow between the most distant inlet and the point in the system under consideration (travel time). Inlet time shall be calculated using TR-55 or similar methodology, but shall not be less than ten (10) minutes. For the Rational Method, the composite runoff coefficient shall be calculated using 0.95 for all impervious areas and 0.35 for all pervious areas.
 2. Hydraulics (Conveyance Capacity) Storm sewers and open channels shall be designed to provide adequate capacity using Manning's Formula. Culverts shall be designed using inlet control and outlet control culvert design hydrographs, HY-8 or a similar program. Design mean velocity for pipes and open channels shall be at least 2.5 feet per second but shall not exceed ten (10) feet per second, while flowing full.
 3. Storm Sewer Criteria Storm sewers serving inlets shall not be less than twelve (12) inches in diameter. Storm sewers serving sump pumps, roof drains and service lines shall not be less than six (6) inches in diameter. Storm sewers shall be designed to convey the runoff from a 10% annual probability (10-year) storm while flowing full (not surcharged); and shall be designed to convey the runoff from a 1% annual probability (100-year) storm in a surcharged condition, provided that the Hydraulic Gradeline is not more than six (6) inches above the rim grade at each structure. Storm sewers shall be laid straight in both horizontal and vertical planes between manholes. Storm sewers of different diameters shall join only at structures, and to maintain a uniform energy gradient, invert elevations shall be adjusted to match the pipes at their 80% depth.
 4. Culvert Criteria Culverts shall not be less than fifteen (15) inches in diameter. Culverts shall be designed to convey the runoff from a 2% annual probability (50-year) storm with a HW/D value of 1.5 or less.

5. Inlet Criteria Surface drainage inlets shall be provided so that surface water is not conveyed across any street intersections or parking lot driveways. Surface runoff shall not extend a distance of more than four hundred (400) feet along the surface of the ground and shall not create a design flow rate of more than two (2) cubic feet per second for a 10% annual probability (10-year) storm before being intercepted by drainage inlets. Inlets shall discharge into storm sewers, which shall not discharge into side lot or rear lot drainage ditches or swales. Inlets shall be provided at all low points.
6. Lot Drainage Tops of foundation shall be eight (8) inches above the adjacent grade. The lot grade shall fall six (6) inches within the first ten (10) feet of the building line or lot line, whichever distance is less. Sump pumps shall be connected to the storm sewer system and the point of discharge for sump pumps shall be shown on the Subdivision Plan for each building served having a basement or crawl space. The overland flow route of stormwater runoff away from each building into swales and storm sewers, and to the location where it leaves the site, shall be shown on the Subdivision Plan. Positive drainage shall be established for each lot whether or not it is the intention to construct a building on that lot.
7. Manhole Placement Manholes shall be located at the following locations:
 - a. At the termination of all sewers which do not terminate at a catch basin or inlet
 - b. Changes in direction, horizontal or vertical
 - c. Changes in pipe shape or pipe size
 - d. Junctions with other storm sewers
 - e. A storm structure (manhole, inlet or catch basin) shall be located contiguous, abutting or within five (5) feet of the rear lot line of each residential lot unless that lot is contiguous to a detention facility or swale that is at least three (3) feet lower than lowest point on the lot.
 - f. Maximum manhole spacing:
 - 1) For 6" to 24" pipes, maximum structure spacing = 350 feet
 - 2) For 27" to 36" pipes, maximum structure spacing = 400 feet
 - 3) For 42" or larger pipes, maximum structure spacing = 500 feet
8. Estate Residential Zoning Districts In E-R zoning districts, storm sewers are not required. Culverts shall be reinforced concrete pipe (RCP). The length of culverts shall be at least the width of the pavement crossed plus eight (8) feet plus eight (8) times the depth of the ditch.
9. Swale Criteria All swales shall be sodded and limited to a maximum water depth of twelve (12) inches. Side slopes of swales shall not be steeper than four (4) horizontal to one (1) vertical (4:1).

10. Open Channel Criteria Open channels may be provided on an optional basis in lieu of enclosed storm sewer pipe when the channel will drain an area eighty (80) acres or larger, or in the E-R Estate Residential District when located in the public right-of-way, and as hereinafter specified:
- a. All open channels located within a subdivision or located on public property or easements to the subdivision and other open channels within one hundred fifty (150) feet of the subdivision, in the E-R Estate Residential District, shall be improved as follows:
 - 1) Maximum slopes shall be six (6) horizontal to one (1) vertical (6:1).
 - 2) A six (6) inch diameter underdrain shall be constructed with a minimum cover of six (6) inches along the flowline of all open channels.
 - 3) An easement for drainage, access and municipal utilities, shall be provided along the open channel with a width adequate to include the area covered by the runoff from a 1% annual probability (100-year) storm.
 - b. All open channels located within a subdivision classified in the R-1 Single Family Dwelling District shall be improved as follows:
 - 1) Maximum slopes shall be four (4) horizontal to one (1) vertical (4:1).
 - 2) Minimum ditch gradient shall be 0.50%.
 - 3) Minimum ditch depth shall be twenty four (24) inches below the adjacent street pavement centerline.
- E. City of Lockport Standard Drawings Storm sewer system structures shall meet the requirements shown on the City of Lockport Standard Drawings.

SECTION 153.50.040 STORMWATER MANAGEMENT

- A. This Section shall apply to all developments in which:
1. More than two single-family structures or more than one two-family structure are to be constructed on a site more than two acres in size.
 2. Multi-family or non-residential land use is to be constructed on a site more than one acre in size.
 3. Existing multi-family or non-residential land uses on a site more than one acre in size, on which new development after March 25, 2010 in the aggregate exceeds 25,000 square feet.
 4. Roadway developments in rights-of-way under the ownership or control of a unit of local government when the contiguous area of new roadway construction (excluding previously paved areas) exceeds two acres.

5. Exemptions from site runoff storage requirements (stormwater detention) shall be granted under the circumstances listed in Article 200.3 of the Will County Stormwater Management Ordinance, effective January 1, 2004 and last revised March 25, 2010.

B. Drainage Plan Submittal Requirements

Each applicant shall submit the following information, depending on development size, to ensure that the provisions of this ordinance are met. The submittal shall include sufficient information to evaluate the environmental characteristics of the property, the potential adverse impacts of the development on water resources both on-site and downstream, and the effectiveness of the proposed drainage plan in managing stormwater runoff. The applicant shall certify on the drawings that all clearing, grading, drainage, and construction shall be accomplished in strict conformance with the drainage plan. The following information shall be submitted for both existing and proposed property conditions.

Properties smaller than ten (10) acres shall be required to submit only the Basic Drainage Plan. Properties which are ten (10) acres or larger shall comply with the submittal requirements of both the Basic Drainage Plan and the Advanced Drainage Plan.

1. Basic Drainage Plan shall include:

- a. Topographic Map A topographic survey of the property, with one-foot elevation contours under existing and proposed conditions, including areas upstream and downstream of the subdivision or development, necessary to determine off-site impacts of the proposed drainage plan. The map datum shall be NAVD 88, correlated to a FEMA reference mark by differential leveling or GPS.
- b. Drainage System Mapping and descriptions, where relevant, of existing and proposed drainage system features of the property and immediate vicinity including:
 - 1) The banks and centerline of streams and channels;
 - 2) Shoreline of lakes, ponds, and detention basins;
 - 3) Farm drains and tiles;
 - 4) Sub-watershed boundaries within the property;
 - 5) Watershed soils classifications;
 - 6) The property's location within the larger watershed;
 - 7) Location, size and slope of stormwater conduits and drainage swales;
 - 8) Sanitary or combined sewers;
 - 9) Depressional storage areas;
 - 10) Delineation of upstream and downstream drainage features and watersheds which might be affected by the development;

- 11) Stormwater detention facilities;
 - 12) Roads and streets and associated stormwater inlets;
 - 13) Base Flood Elevation, regulatory floodway, and base floodplain limit delineation based on topography and the FEMA Flood Insurance Rate Map; and
 - 14) The basis of design for the final drainage network components.
- c. Environmental Features A depiction of environmental features of the property and immediate vicinity including the following:
- 1) the limits of wetland areas;
 - 2) any designated natural areas; and
 - 3) any proposed environmental mitigation features.
2. Advanced Drainage Plan In addition to the requirements for the Basic Drainage Plan, the Advanced Drainage Plan shall also include:
- a. Elevations and maps of 100-year flooding;
 - b. Cross-section data for open channel flow paths and designated overland flow paths;
 - c. Direction of overland stormwater runoff;
 - d. Flow rates and velocities at representative points in the drainage system; and
 - e. A statement by the design engineer of the proposed drainage system's adequacy for safely handling runoff from storm events greater than the one percent (1%) annual probability (100-year) design storm.
 - f. The City reserves the right to request that the IDNR-OWR review all drainage plan submittals.
- C. Minimizing Runoff Volumes and Runoff Rates In the selection of a drainage plan for a development, the applicant shall evaluate and implement, where practicable, site design features which minimize the increase in runoff volumes and rates from the site. The applicant's drainage plan submittal shall include evaluations of site design features which are consistent with the following hierarchy:
1. Minimize impervious surfaces on the property, consistent with the needs of the project;
 2. Attenuate flows by use of open vegetated swales and natural depressions and preserve existing natural stream channels;
 3. Infiltrate runoff on-site;
 4. Provide stormwater retention structures;
 5. Provide stormwater detention structures; and

6. Construct storm sewers. In developments where the City requires the installation of curb and gutter, storm sewers are preferred. The City may also modify the above hierarchy as required based on an evaluation of the site conditions.

D. Water Quality and Alternate Uses The drainage system shall be designed to minimize adverse water quality impacts downstream and on the property itself. Detention basins shall incorporate design features to capture stormwater runoff pollutants. In particular, designers shall give preference to wet bottom and wetland designs in locations adjacent or near existing wetlands or in other areas where they are suitable and acceptable to the City and all flows from the development shall be routed through the basin (i.e., low flows shall not be bypassed). Dry basins with low flow bypasses may be preferred in certain developments to enhance multiple uses where suitable and acceptable to the City. Retention and infiltration of stormwater shall be promoted throughout the property's drainage system to reduce the volume of stormwater runoff and to reduce the quantity of runoff pollutants.

The drainage system shall incorporate multiple uses where practicable. Uses considered compatible with stormwater management include open space, aesthetics, aquatic habitat, recreation (boating, trails, playing fields), wetlands and water quality mitigation. The applicant shall avoid using portions of the property exclusively for stormwater management wherever practicable.

E. Design Criteria, Standards and Methods

Site runoff storage facilities (stormwater detention basins) shall be designed and constructed in accordance with Section 203 of the Will County Stormwater Management Ordinance, effective January 1, 2004 and last revised March 25, 2010, and as specified herein.

1. Detention Release Rates

If a release rate is not specified in an adopted watershed plan, and if a development is not exempted from storage requirements, then sufficient flood storage shall be provided so that the maximum site discharge will not exceed 0.15 cfs per acre of development for the one percent annual probability (100-year) storm; and will not exceed 0.04 cfs per acre of development for the fifty percent annual probability (2-year) storm.

For sites where the undeveloped release rate is less than the maximum release rate described above, the developed release rate and corresponding site runoff storage volume shall be based on the existing undeveloped release rate for the development.

2. Detention Basin Outlet Design

All hydrologic and hydraulic computations shall utilize appropriate assumptions for downstream water surface elevations, from low flow through the base flood, considering the likelihood of concurrent flood events.

3. Detention Storage Requirements

The minimum site runoff storage volume to be provided in a detention basin shall be based on the runoff from the 100-year, critical duration event. The design of all detention basins shall be by Runoff Hydrograph Methods described in Section 153.50.040.E.5; or where development sites are less than five acres, the unit area site runoff storage nomograph from the “Investigation of Hydrologic Design Methods for Urban Development in Northeastern Illinois,” dated December 1991 and prepared by the Northeastern Illinois Plan & Zoning Commission (now known as CMAP) may be used in lieu of modeling.

4. Drainage System Design and Evaluation

The following criteria shall be used in evaluating and designing the drainage system. The underlying objective is to provide capacity to pass the 10% annual probability (10-year) peak flow in the minor drainage system, and to provide an overland flow path for the one percent annual probability (100-year) peak flow.

- a. Design Methodologies Major and minor conveyance systems for areas up to ten (10) acres may be designed using the rational formula. The rational formula may also be used in sizing the minor drainage system for larger sites. Runoff Hydrograph methods as described in Section 153.50.040.E.5 must be used for major drainage system design for all systems with greater than ten acres of drainage area. All drainage system design shall be in accordance with Part 708 Rules.
- b. Positive Drainage Whenever practicable, all areas of the property shall be provided an overland flow path that will pass the peak 100-year flow at a stage at least one foot below the lowest foundation grade in the vicinity of the flow path. Overland flow paths designed to handle flows in excess of the minor drainage system capacity shall be provided in drainage easements, which shall not be obstructed. Street ponding and flow depths shall not exceed six (6) inches at the crown. For flow over a new roadway or parallel to a new roadway, the product of the flow depth (in feet) and velocity (in feet per second) shall not exceed four (4.00) for the base flood condition.

5. Methods for Generating Runoff Hydrographs

Runoff Hydrographs for detention pond design shall be developed using event hydrograph routing methods. Acceptable and preferred programs are TR-20 and HEC-HMS. If an existing regulatory model uses HEC-1, then HEC-1 may be used for the proposed facility. Continuous simulation models are only acceptable for very complex projects and their use must be approved by the Director of Public Works & Engineering or authorized designee. No other models, including the Modified Rational Method, are acceptable.

Unless a continuous simulation model is used, all design rainfall events shall be based on the Illinois State Water Survey’s Bulletin 71. A critical duration analysis for the design storm of 1, 2, 3, 6, 12, 18, 24 and 48 hours duration shall be prepared in

accordance with generally accepted engineering principles. The first quartile Huff rainfall distribution shall be used for storms with durations of 1, 2 or 3 hours. The second quartile Huff rainfall distribution shall be used for storms with durations of 6 or 12 hours. The third quartile Huff rainfall distribution shall be used for storms with durations of 18, 24 or 48 hours. Computations of runoff hydrographs which do not rely on a continuous accounting of antecedent moisture conditions shall assume an antecedent moisture condition of two.

RAINFALL DATA (BULLETIN 71)
City of Lockport, Will County, Illinois

<i>Storm Frequency</i>	<i>Storm Duration (Hours)</i>	<i>Rainfall (Inches)</i>
2	1	1.50
2	2	1.86
2	3	2.05
2	6	2.40
2	12	2.78
2	18	2.92
2	24	3.20
2	48	3.46
10	1	2.28
10	2	2.77
10	3	3.10
10	6	3.64
10	12	4.22
10	18	4.43
10	24	4.85
10	48	5.24
50	1	3.37
50	2	4.12
50	3	4.59
50	6	5.38
50	12	6.24
50	18	6.54
50	24	7.10
50	48	7.70
100	1	3.98
100	2	4.91
100	3	5.35
100	6	6.35
100	12	7.37
100	18	7.67
100	24	8.36
100	48	9.15

6. Wet-Bottom Detention Basin Design

Wet detention basins shall be designed to remove stormwater pollutants, to be safe, to be aesthetically pleasing, and where practicable, to be available for recreational use. Permanent ponds shall be designed in accordance with the City of Lockport Standard Drawings. Ponds shall have a two-foot horizontal to one-foot vertical side slope (2:1) from a point one and one-half feet above normal water level, down to a point three feet below normal water level. This 2:1 sloped area shall be blanketed with geotechnical fabric to prevent weeds. The fabric shall then be covered with a layer of natural stones, having a minimum diameter of eighteen inches. The surface of the stones on the 2:1 slope shall be arranged in such a manner so as to enable a person to climb out of the pond over the stones.

The area between the top of the 2:1 slope and the high water level shall be protected by sodding in order to prevent soil erosion. The first twelve feet of the sodded area at the top of the 2:1 slope shall be sloped at two percent towards the pond. At the toe of the 2:1 slope, a twelve foot wide safety ledge sloped toward the shore at four percent shall be provided. Beyond the safety ledge, the pond bottom shall slope at two horizontal to one vertical (2:1) down to the pond bottom elevation.

Points of inflow to the ponds shall be accessible to construction equipment for dredging as necessary. If retention facilities are designated for recreational purposes, appropriate consideration shall be reflected in the design for maintenance of fish life, boating, and safety.

- a. Aeration All wet-bottom ponds shall be provided with aeration equipment.
- b. Wet-Bottom Detention Basin Depth Wet basins shall be at least three feet deep, excluding nearshore banks and safety ledges. If fish habitat is to be provided, they shall be at least ten feet deep over twenty-five percent of the bottom area to prevent winter freeze-out.
- c. Permanent Pool Volume The permanent pool volume in a wet-bottom detention basin at normal water level (NWL) shall be equal to the runoff volume from its watershed for the two-year event.
- d. Inlet and Outlet Orientation The distance between detention pond inlet and outlet pipes shall be as large as practicable, but shall be at least 50 feet.
- e. Overflow Weirs Detention basins shall provide at least twelve inches of freeboard between the design High Water level (HWL) and the top of berm. Detention basins shall be provided with an emergency overflow weir at or above the HWL near the outlet pipe. The weir shall be designed to have the capacity to convey a flow of one cfs per tributary acre with a flow depth no greater than six inches, and shall be armored from the overflow point down to the outside toe of slope to prevent soil erosion.

7. Dry-Bottom Detention Basin Design

In addition to the other requirements of this ordinance, dry-bottom basins shall be designed to remove stormwater pollutants, to be safe, to be aesthetically pleasing and to be available for multiple uses wherever practicable.

- a. Dry-Bottom Detention Basin Design In order to prevent soil erosion and invasive weeds, dry-bottom detention basins shall be landscaped, including the establishment of a ground cover over all unpaved areas, through sodding or other means which result in a quality of ground cover comparable to that obtained through sodding. Dry-bottom detention facilities shall be usable as active recreational areas during dry weather conditions. Dry-bottom detention facilities shall be designed so that the bottom has a slope of at least two percent (2%). The bottom of the facility shall be provided with an underdrain (minimum six-inch diameter perforated PVC drain tile) covered on all sides with a minimum of six inches of crushed stone conforming to IDOT Gradation CA-7. Dry-bottom detention facilities shall have side slopes not steeper than four feet horizontal to one foot vertical (4:1).
- b. Overflow Weirs Detention basins shall provide at least twelve inches of freeboard between the design High Water level (HWL) and the top of berm. Detention basins shall be provided with an emergency overflow weir at or above the HWL near the outlet pipe. The weir shall be designed to have the capacity to convey a flow of one cfs per tributary acre with a flow depth no greater than six inches, and shall be armored from the overflow point down to the outside toe of slope to prevent soil erosion.
- c. Velocity Dissipation Velocity dissipation measures shall be incorporated into dry-bottom basin designs to minimize soil erosion at inlets and outlets and to minimize the resuspension of pollutants.
- d. Stilling / Sedimentation Basins A stilling/sedimentation basin shall be constructed at each major inlet to a wetland-bottom or dry-bottom basin. The volume of the basins shall be at least 500 cubic feet per acre of impervious surface in the tributary watershed. Side slopes of the sedimentation basins shall be no steeper than 3 horizontal to 1 vertical (3:1) and basin depths should be at least three feet to minimize resuspension of accumulated sediment.

8. Minimum Detention Pond Outlet Size

Where a single pipe outlet or orifice plate is to be used to control discharge, the minimum desirable diameter is four (4) inches. If this minimum orifice size permits release rates greater than those allowed, and regional detention is not a practical alternative, outlet structures resistant to clogging such as perforated risers or flow control orifices shall be used to protect the smaller restrictor.

9. Detention in Flood Plains

The placement of stormwater detention facilities in the regulatory flood plain is strongly discouraged due to questions regarding their operation during major floods. Site runoff storage facilities in the flood plain shall meet all of the requirements of Sections 203.7 and 203.8 of the Will County Stormwater Management Ordinance, effective January 1, 2004 and last revised March 25, 2010.

The placement of a detention basin in a flood plain shall require compensatory storage for 1.5 times the volume below the base flood elevation occupied by the detention basin, including any berms. All floodplain storage lost below the ten-year flood elevation shall be replaced below the ten-year flood elevation. All floodplain storage lost above the existing ten-year flood elevation shall be replaced above the proposed ten-year flood elevation. All compensatory storage excavations shall be constructed to drain freely and openly to the watercourse.

Detention volume provided by enlarging existing regulatory flood plain storage without providing a structure controlling discharge (on-stream detention) will be allowed only as a variance, requiring a public hearing. The variance will be considered only after applicant demonstrates that flood damages are not increased and the development will not increase flood flows for both the 2-year and 100-year floods on the stream with the site fully developed.

City approval of the variance request will be contingent on the applicant showing by detailed hydrologic and hydraulic analysis that the proposed design will provide a net watershed benefit not otherwise realized by strict application of the above design standards.

10. Protection of Wetlands and Depressional Storage Areas

Wetlands and other depressional storage areas shall be protected from damaging modifications and adverse changes in runoff quality and quantity associated with land developments. In addition to the other requirements of this ordinance, the following requirements shall be met for all developments whose drainage flows into wetlands and depressional storage areas.

- a. Army Corps of Engineers Coordination Any applicant proposing a subdivision or development which will impact an existing wetland or Waters of the U.S. shall obtain a Permit or a Letter of No Objection from the Army Corps of Engineers.
- b. Detention in Wetlands and Depressional Storage Areas Existing wetlands shall not be modified for the purposes of stormwater detention unless it is demonstrated that the existing wetland is low in quality and the proposed modifications will maintain or improve its habitat and ability to perform beneficial functions. Existing depressional storage and release rate characteristics of wetlands and other depressional storage areas shall be maintained and the volume of detention storage

provided to meet the requirements of this Section shall be in addition to this existing storage.

- c. Sediment Control The existing wetland shall be protected during construction by appropriate soil erosion and sediment control measures and shall not be filled. All runoff from the development shall be routed through a preliminary detention / sedimentation basin designed to capture the two-year, 24-hour event and hold it for at least 24 hours, before being discharged to the wetland. The sedimentation basin shall be constructed before site grading commences. In addition, the drainage hierarchy defined in Section 153.50.040.C shall be utilized to minimize runoff volumes and rates being discharged to the wetland.
- d. Alteration of Drainage Patterns Site drainage patterns shall not be altered to substantially decrease or increase the existing area tributary to the wetland.
- e. Vegetated Buffer Strip A buffer strip of at least 75 feet in width, vegetated with plant species native to Illinois, shall be maintained or restored around the periphery of the wetland.

11. Ponding on Streets and Parking Lots

- a. Streets If streets are to be used as part of the minor or major drainage system, ponding depths shall not exceed six (6) inches on the pavement at the crown and shall not remain flooded for more than eight (8) hours for any event less than or equal to the 100-year critical duration event.
- b. Parking Lots The maximum stormwater ponding depth in any parking area shall not exceed nine (9) inches, and the parking lot shall not remain flooded for more than eight (8) hours for any event less than or equal to the 100-year critical duration event.

12. Infiltration Best Management Practices

To effectively reduce runoff volumes, infiltration practices including basins, trenches, and porous pavement should be located on soils in Hydrologic Soil Groups “A” or “B” as designated by the U.S. Soil Conservation Service. Infiltration basins and trenches designed to recharge groundwater shall not be located within seventy-five feet of a water supply well or a building foundation. A sediment settling basin shall be provided to remove coarse sediment from stormwater flows before they reach infiltration basins or trenches. Stormwater shall not be allowed to stand more than seventy-two hours over eighty percent of a dry basin’s bottom area for the maximum design event to be ex-filtrated. The bottom of infiltration facilities shall be a minimum of four feet above seasonally high groundwater and/or bedrock.

To effectively filter stormwater pollutants and promote infiltration of runoff, sites should be designed to maximize the use of vegetated filter strips and swales. Wherever practicable, runoff from impervious surfaces shall be directed onto filter strips and swales before being routed to a storm sewer or detention basin.

13. Safety Considerations

The drainage system components, especially all detention basins, shall be designed to protect the safety of children and adults coming in contact with the system during runoff events.

- a. Side Slopes The side slopes of all detention basins at the HWL shall be as level as practicable to prevent accidental falls into the basin and for stability and ease of maintenance.
- b. Safety Ledge All wet detention basins shall have a flat safety ledge at least twelve feet in width three feet below the normal water level, sloping towards the shore at a four percent (4%) gradient.
- c. Velocity Velocities throughout the surface drainage system shall be controlled to safe levels taking into consideration flow rates and depths of flow.
- d. Overflow Structures All stormwater detention basins shall be provided with an overflow structure capable of safely passing excess flows at a stage at least one foot below the lowest foundation grade in the vicinity of the detention basin. The design flow rate of the overflow structure shall be equivalent to one cfs per acre of all tributary areas.

14. Maintenance Considerations

The stormwater drainage system shall be designed to minimize and facilitate maintenance. Turf grass side slopes shall be designed to allow mowing equipment to easily negotiate the grade. Pre-sedimentation basins shall be included where feasible, for localizing sediment deposition and removal. Access for heavy maintenance equipment shall be provided.

F. Accommodating Runoff from Upstream Tributary Areas

1. Upstream Areas Not Meeting Storage Requirements

When there are areas not meeting the storage and release rate requirements of this ordinance that are tributary to the applicant's property, regionalized stormwater detention on the applicant's property shall be considered by the applicant and the City. The following steps shall be followed:

- a. The applicant shall compute the storage volume needed for his property alone.
- b. Areas tributary to the applicant's property that do not meet the storage and release rate requirements of this ordinance shall be identified.
- c. Using the off-site areas determined above plus the applicant's property area, total storage needed for the combined properties shall be computed. Allowable release rates shall be computed using the combined property areas. If off-site tributary areas are not developed, a reasonable fully-developed land cover, based on local zoning, shall be assumed for the purposes of computing storage requirements.

- d. Once the necessary combined storage is computed, the City may choose to require oversizing the applicant's detention basin to accommodate the regional flows or minimize downstream impacts. Additional costs shall be subject to recapture by the applicant in accordance with Section 153.50.030. If the applicant is the owner of portions of upstream areas, recapture will not be allowed for his share of the upstream area. The applicant's responsibility will be limited to the storage for his property as computed in "a" above plus any upstream property owned by the applicant. If regional storage is selected by the City, then the design produced in "c" above shall be implemented. If regional storage is not selected by the City, the applicant shall bypass all tributary area flows around the applicant's basin, in pipe or open channel, whenever practicable. If the applicant must route upstream flows through his basin, the applicant must demonstrate that sufficient additional storage volume has been added for conveyance through the basin so that the maximum release rate from the facility does not exceed the allowable release rate for the site plus the bypass flow.

2. Upstream Areas Meeting Storage Requirements

When there are areas which meet the storage and release rate requirements of this ordinance, tributary to the applicant's property, the upstream flows shall be bypassed around the applicant's detention basin, or be routed through the applicant's detention basin if this is the only practicable alternative. Storage needed for the applicant's property shall still be computed. However, if the City decides to route tributary area flows through an applicant's basin, the final design stormwater release rates shall be based on the combined total of the applicant's property plus the tributary areas. Supporting calculations must demonstrate that at no time will the runoff rate from the applicant's property exceed the allowable release rate for his/her property alone.

- G. Construction Staging of Storage Facilities Where detention, retention, or depressional storage areas are to be used as part of the drainage system for a property, they shall be constructed as the first element of the initial site grading. Any eroded sediment captured in these facilities shall be removed by the applicant before project completion in order to maintain the design volume of the facilities. Pre-sedimentation basins shall be included, where feasible, for localizing sediment deposition and removal. Access for heavy equipment shall be provided. Stormwater facilities shall be functional prior to the issuance of building permits.
- H. Fee in Lieu of Detention In instances where regional benefits and economics of scale can be achieved, it will be permissible for adjacent properties to utilize a common regional detention basin. The City shall have the option to require paying a fee calculated based on the documented costs for each acre foot of detention required so that the City of Lockport can build regional facilities or the applicants can jointly build the necessary facilities themselves.
- I. Maintenance Responsibilities Maintenance of stormwater drainage facilities located on private property shall be the responsibility of the owner of the property, or a designated

Home Owners Association (HOA). Before a building permit is obtained from the City of Lockport, the applicant shall execute a maintenance agreement with the City of Lockport guaranteeing that the applicant and all future owners of the property will maintain the portions of the stormwater management system located on private property. The maintenance agreement shall also specifically authorize representatives of the City to enter onto the property for the purposes of inspections and maintenance of the stormwater management system. Such agreement shall be recorded with the Will County Recorder of Deeds. The maintenance agreement shall include a schedule for regular maintenance of each aspect of the property's stormwater drainage system and shall provide for access to the system for inspection by authorized personnel of the City of Lockport. The maintenance agreement shall also stipulate that if the City notifies the property owner or HOA in writing of maintenance problems which require correction, the property owner or HOA shall make such corrections within 30 (thirty) calendar days of such notification. If the corrections are not made within this time period, the City may have the necessary work completed and assess the cost of such work to the property owner or HOA.

The City of Lockport has the option of requiring a bond to be filed by the property owner or HOA for maintenance of the stormwater management system.

J. Construction Supervision Requirements

1. Registered Professional Engineers

The applicant shall provide an Illinois registered Professional Engineer, or person working under his direct control and authority, to provide construction stake out and construction observation periodically as required when work is being performed. The applicant's registered Professional Engineer shall provide weekly construction progress reports to the Director of Public Works & Engineering or authorized designee, if requested.

2. Professional Landscape Architect or Environmental Scientist / Ecologist

The applicant shall provide a Professional Landscape Architect or Environmental Scientist / Ecologist, or persons working under their direct control and authority, to provide construction stake out and construction observation periodically as required when landscaping work is being performed. The applicant's Professional Landscape Architect or Environmental Scientist / Ecologist shall provide detailed weekly reports to the Director of Public Works & Engineering or authorized designee, if requested.

K. Conflicts In the event that there is a conflict in the requirements of this Section and other Sections of the Development Code, the most restrictive interpretation shall prevail.

SECTION 153.50.045 BEST MANAGEMENT PRACTICES

All Developments, including subdivisions and planned unit developments, whether public or private, within the area of the City's jurisdiction as identified on the Official Map, shall incorporate permanent best management practices for water quality, to treat stormwater runoff for pollutants of concern, in accordance with the United States Clean Water Act.

SECTION 153.50.050 SANITARY SEWER SYSTEMS

A. General

1. All Developments, including subdivisions and planned unit developments, whether public or private, within the area of the City's jurisdiction as identified on the Official Map, shall include provisions for the construction of sanitary sewers and appurtenances designed in accordance with this Chapter.
2. All sanitary sewer improvements shall be installed in accordance with the "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition, and City details unless otherwise modified in this Section.
3. All Developments including subdivisions and planned unit developments, whether public or private, within the area of the City's jurisdiction, as identified on the Official Map shall obtain sewage treatment services by connection to a mechanical wastewater treatment plant operated in accordance with a valid NPDES Permit issued by the Illinois Environmental Protection Agency, except in single-family subdivisions with lot sizes of 30,000 sq. ft. or more.

B. **Service Areas** All sanitary sewers shall be designed to accommodate an ultimate service area as defined by the Director of Public Works & Engineering or authorized designee. If extending the ultimate service area beyond the limits of the proposed subdivision results in additional construction cost in conjunction with the subdivision, a written agreement may be made with the Corporate Authorities for the recapture by the owner or developer of the additional cost when future system extensions are made. Recapture payments will be made to the owner or developer only after the person benefiting from the extended service area has made payment to the City.

C. **System Extensions** The locations of proposed extensions to the existing sanitary sewer system shall be to the limits of the developed property.

D. Design Standards

1. Design Flows

- a. Design flows for residential subdivisions or developments, single and multiple family, shall be based upon full development of the service area with the population served, estimated as follows:

<u>Type of Dwelling Unit</u>	<u>Number of Persons</u>
Studio	1
1 Bedroom	2
2 Bedroom	3
3 Bedroom	4
4 Bedroom	5

The maximum daily per capita design flow shall be calculated using the formula:

$Q = 500 / P^{1/5}$ where Q = maximum design flow in gpcpd and P = the population served in thousands. Q shall not be less than 250 gpcpd nor more than 400 gpcpd.

For undeveloped residential areas where the details of future subdivisions are not known, design population per acre may be estimated by the Director of Public Works & Engineering or authorized designee. Such flow estimates shall not relieve the owner or developer of the responsibility of providing adequate sanitary sewer capacity to meet any and all future requirements within the subdivision.

- b. Design flows for non-residential subdivisions or developments shall be based on full development of the service area with the maximum daily per capita design flow calculated as follows:

<i>Type of Establishment</i>	<i>Unit</i>	<i>Average Flow in gal/day/unit</i>	<i>Maximum Domestic Flow for Sewer Design in gal/day/unit*</i>
Shopping Center	Employee (1 shift)	50	200
Store	Employee (1 shift)	30	120
Office	Person (1 shift)	25	100
Industrial	Person (1 shift)	35	140
Restaurant	Meal Served	7	30
Theater	Per Seat	5	20
Hotel	Per Guest	100	400

*Quantities are exclusive of process water requirements which must be estimated and added.

For non-residential subdivisions or developments where the details of the subdivision or development are not established, domestic design flows may be estimated by the Director of Public Works & Engineering or authorized designee. Such flow estimates shall not relieve the owner or developer of the responsibility of providing adequate sanitary sewer capacity to meet any and all future requirements within the subdivision.

2. Sewer Design Hydraulics Sanitary gravity sewers shall be designed to provide design flow capacity, without surcharging, using Manning's formula and utilizing a roughness coefficient of 0.012 for PVC pipe, 0.013 for concrete pipe, and 0.014 for ductile iron pipe. Design mean velocity, flowing full, shall not be less than two (2) feet per second nor greater than six (6) feet per second. Design flow shall include the total allowable infiltration at any point based on two hundred (200) gallons per inch of diameter of sewer per mile per twenty-four (24) day at any time for any section of the system.
3. Minimum Sewer Size Sanitary sewer mains shall be at least eight inches (8") in diameter. Sanitary sewer service lines shall be at least six inches (6") in diameter.
4. Alignment Sewers shall be laid straight in both horizontal and vertical planes between manholes, unless otherwise approved by the Director of Public Works & Engineering or authorized designee. Sanitary sewers of different diameters shall join only at manholes. The invert elevations shall be adjusted to maintain a uniform energy gradient by matching the 0.8 depth points of different diameter pipes.
5. Sanitary Sewer Manholes
 - a. Manholes shall be provided at the following locations:
 - 1) Termination of existing and future lines
 - 2) Changes in direction, horizontal or vertical
 - 3) Changes in pipe size or shape
 - 4) Junctions with other sewers
 - b. Maximum spacing between manholes shall be:

<u>Sewer Pipe Size</u>	<u>Maximum Interval</u>
8 to 15 inches	300 feet
18 inches or larger	500 feet
 - c. Where flows and other conditions dictate, special manholes or junction chambers shall be designed and constructed.
6. Sewer Depth Sanitary sewers shall be constructed at a minimum depth of six (6) feet and shall provide an outfall for all sanitary sewage within the ultimate service area, both existing and future.
7. Lift Stations and Force Mains
 - a. Whenever possible, sanitary sewerage facilities shall be designed to avoid the necessity of providing lift stations.
 - b. Lift station and force main designs shall be submitted for review and approval by the Director of Public Works & Engineering or authorized designee and the Illinois Environmental Protection Agency.
 - c. Lift stations shall be of the wet well / dry well type and shall be comparable to other recently constructed lift stations in the City.

- d. A stand-by internal combustion generator shall be provided for lift stations. As an alternative, the Director of Public Works & Engineering or authorized designee may require or approve a dual-connection to the Commonwealth Edison power grid, as a method of providing stand-by power in cases where such an alternative would provide an equal degree of reliability and would provide an economy to the City over the useful life of the generator.
 - e. Sanitary force mains shall be constructed of polyethylene-lined ductile iron pipe.
 - f. A telemetered alarm system shall be installed and connected from the lift station to the City's existing alarm panel.
8. Sewer Pipe Class Sewer pipe class shall be determined by using ASTM rigid and flexible pipe design strength formulas.
 9. Sewer Pipe Bedding Sewer pipe bedding shall conform to the requirements of the City of Lockport Standard Drawings. Sewer pipes shall be bedded in a concrete cradle, arch or full encasement whenever dictated by problematic trench or embankment conditions.

E. Materials Specifications and Details

1. Pipe: Sanitary sewer main pipe and sanitary sewer service pipe shall be constructed of polyvinyl chloride (PVC), reinforced concrete or ductile iron pipe. Sewer pipe shall meet the requirements of Section 30 of the Standard Specifications for Water and Sewer Construction in Illinois. All fittings shall be of the same diameter and material as the pipe to which it is connected or of a compatible material approved by the Director of Public Works & Engineering or authorized designee.
2. Casing Pipe: Casing pipe shall be steel pipe (ASTM A120) with 3/8" minimum wall thickness, or water main quality (AWWA C-900) PVC.
3. Manholes: Sanitary manholes shall be precast reinforced concrete structures with integral monolithic preformed flowlines, meeting the requirements of the City of Lockport Standard Drawings; as well as Section 32 of the Standard Specifications for Water and Sewer Construction in Illinois.
 - a. Size: For sewers eighteen (18) inch diameter or less, manholes shall have a forty-eight (48) inch inside diameter. For sewers twenty-one (21) inch to thirty-six (36) inch diameter, manholes shall have a sixty (60) inch inside diameter. For sewers greater than thirty-six (36) inch diameter, manholes shall have an offset riser pipe of forty-eight (48) inch inside diameter.
 - b. Adjustment: No more than two (2) precast concrete adjusting rings with six (6) inch maximum height adjustment shall be allowed. Rubber adjusting rings (instead of concrete adjusting rings) are required for all manholes located in pavement areas.
 - c. Pipe Seals: All pipe connection openings shall be precast with resilient rubber water tight sleeves or seals, tightened with stainless steel bands.

- d. Chimney Seals: External flexible water tight sleeves, "Cretex" or approved equal, are required and shall extend from the manhole cone to the manhole frame.
4. Castings: Manhole frames and lids shall be self-sealing with recessed pick holes, meeting the requirements of the City of Lockport Standard Drawings. Manhole steps shall be plastic on sixteen (16) inch centers, with the initial step located eight (8) inches from the top of the structure.

F. Installation Requirements

1. Sewer system design and construction shall be in accordance with the regulations of the Illinois Environmental Protection Agency. Construction shall not be allowed to commence until a copy of a permit from this agency is filed with the Director of Public Works & Engineering or authorized designee.
2. The installation of sanitary sewers and appurtenances shall conform to the requirements of this Chapter and Section 31 of the Standard Specifications for Water and Sewer Construction in Illinois.
3. The installation of sanitary sewer service connections shall conform to the requirements of this Chapter and the City of Lockport Standard Drawings.
4. The contractor shall keep a record of the location of all sewer services by measurement to the nearest downstream manhole, and all water services by measurement to the nearest valve. Such records shall be delivered to Director of Public Works & Engineering or authorized designee at the completion of the work.

G. Inspections and Testing

1. General All sewers and appurtenances shall be cleaned prior to inspection and testing required by this Chapter. All sewers and appurtenances shall be visually inspected by representatives of the developer during and following construction.
2. Air Testing All sewers shall be tested by exfiltration of air under pressure in accordance with Section 31 of the Standard Specifications for Water and Sewer Construction in Illinois and ASTM C828.
3. Deflection Testing All sewers constructed of flexible pipe, including PVC, shall be tested for deflection in accordance with Section 31 of the Standard Specifications for Water and Sewer Construction in Illinois. Deflection testing shall not be performed until the sewer has been installed and backfilled for at least thirty (30) days.
4. Manhole Vacuum Testing All sanitary sewer manholes shall be vacuum tested in accordance with Section 31 of the Standard Specifications for Water and Sewer Construction in Illinois.
5. Televised Inspections Upon completion of construction and prior to any connection permit and prior to initiation of the maintenance guarantee period, a Television Inspection shall be performed on the sewer. Electronic video files and a written report of all Television Inspections shall be provided to the Director of Public Works &

Engineering or authorized designee for review and approval prior to the initial acceptance provided for by this Chapter. Fees and costs connected with Television Inspections shall be paid for by the developer or owner. All dips, cracks, leaks, improperly sealed joints, and departures from approved grades and alignment shall be repaired by removing and replacing the noncompliant sections of pipe. All defects and corrective work required as the result of Television Inspections shall be performed by the developer without delay. Upon completion thereof, the sewer shall be re-tested and such further inspections made as may be warranted or as directed by the Director of Public Works & Engineering or authorized designee.

SECTION 153.50.060 WATER DISTRIBUTION SYSTEMS

A. General

1. All developments including subdivisions and planned unit developments whether public or private within the area of the City's jurisdiction as identified on the Official Map shall obtain potable / domestic water supply from a public water system and shall include provisions for the construction of water distribution facilities complete with valves, fire hydrants, and other appurtenances designed in accordance with this Chapter and City details.
2. As a minimum, the water distribution system shall provide a service connection or connections at the approximate mid-point from the property line of each individual lot or parcel within the Development. Where more than one building is located or planned on one lot or parcel of property, or when water main construction is required on the property for fire protection, the proposed construction shall also include all water main construction and appurtenances within the lot or parcel except service lines. The proposed water distribution system extension shall extend to the far side of the development site.
3. Specification references made herein for manufactured materials such as pipe, hydrants, valves and fittings refer to designation of the American Water Works Association (AWWA) or of the American National Standard Institute (ANSI). Water distribution systems shall be constructed in accordance with the "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition, unless otherwise modified in this Section.

B. Design Standards

1. System Extensions
 - a. Extensions to the water distribution system shall form a complete network extension or a part of a complete network extension including all primary mains, secondary mains, and gridiron mains, complementing the existing distribution system network.

- b. Primary mains are those mains forming the arterial portion of the system and in the case of construction within a subdivision are further defined as mains twelve (12) inches or larger. Primary mains within or adjacent to a subdivision shall be sized and located in accordance with the Future Water Supply and Water System Infrastructure Growth Plan at the direction of the Director of Public Works and Engineering. Secondary mains shall be sized, looped, and spaced as required for fire flows and shall have a minimum diameter of eight (8) inches.
 - c. Gridiron mains shall form a grid to supply water to the local fire hydrants and service lines. Gridiron mains shall have a minimum diameter of eight (8) inches.
 - d. The proposed system extension shall be arranged so that the service interruption caused by a break in any main will be limited to thirty-two (32) residential units or five hundred (500) feet in all non-residential areas.
 - e. All lots or buildings must have a water service from a looped water main.
2. Estimated Water Demand

For purposes of water main design, maximum daily water consumption for water main design shall be based on the following table:

Type of Establishment	Unit	Maximum Consumption in Gal/Day/Unit*
Shopping Centers	Employee (1 shift)	105
Stores	Employee (1 shift)	65
Offices	Person (1 shift)	50
Industrial Buildings	Person (1 shift)	75
Restaurants	Meal Served	15
Theaters	Seat	10
Hotels	Guests	210

* Quantities are exclusive of process water requirements, which must be estimated and added.

For other than residential subdivisions, when the details of the subdivision are not known, maximum daily consumption and fire flow may be estimated by the Director of Public Works & Engineering or authorized designee. Such estimate shall not relieve the owner or developer of the responsibility of providing adequate main capacity for any and all future needs within his subdivision. In such cases, the minimum main size shall be twelve (12) inches.

3. Head Loss Head losses related to velocity in water mains shall be computed using the Hazen-Williams formula:

$$V = 1.318 (C) (R)^{0.63} (S)^{0.54}$$

where V = velocity in units of feet per second
C = 100

R = Hydraulic radius in units of feet

S = Hydraulic gradient in units of feet per foot

4. Required Capacity

Primary mains, secondary mains, and gridiron mains shall be sized to provide sufficient capacity to deliver the required fire flow plus the consumption at the maximum daily rate to all areas served by the proposed construction.

5. Required Fire Flow and Pressure

A separate fire flow report shall be prepared that indicates that at selected locations, and at any other locations, and at any other location that may be selected by the Director of Public Works & Engineering or authorized designee, the fire flows required, in excess of maximum daily consumptive demands, using a "C" factor of 100, ignoring fittings, and with a minimum residual hydrant pressure of twenty (20) psi, will be supplied. Required fire flow shall be computed as detailed in the "Guide for Determination of Required Fire Flow", as provided within the Fire Suppression Rating Schedule, latest edition, published by the Insurance Service Office.

6. Fire Hydrant Spacing

- a. Fire hydrants shall be installed so that the near corner of all construction on the site that could burn, will not be further than one hundred fifty (150) feet from a fire hydrant. Fire hydrants shall be provided so as to provide the required fire flows to structures as described in the "Fire Suppression Rating Schedule," latest edition. Six (6) inch main extensions serving hydrants shall not be more than one hundred fifty (150) feet long.
- b. Fire hydrants shall be placed on private property, under the direction of the Fire Chief, when he determines that fire hydrants in the public right-of-way are at too great a distance to provide proper protection for multi-family, commercial or industrial structures.
- c. A fire hydrant shall be placed within one hundred (100) feet of all sprinkler and/or standpipe Siamese connections on buildings, unless otherwise directed by the Fire Chief.

7. Valve Spacing

A sufficient number of valves shall be provided so that a break or other failure will not affect more than thirty-two (32) residential units or five hundred (500) feet of main in nonresidential areas.

C. Materials Specifications and Details

All water distribution system elements shall conform to the following specifications:

1. Ductile Iron Pipe
 - a. Pipe class thickness - ANSI A21.50 (AWWA C150), minimum thickness Class 52, unless otherwise approved by the Director of Public Works & Engineering or authorized designee.
 - b. Pipe - ANSI A21.51 (AWWA C151)
 - c. Pipe lining - ANSI A21.4 (AWWA C104)
 - d. Fittings - ANSI 21.10 (AWWA C110)
 - e. Joints - mechanical and push-on, ANSI A21.11 AWWA C111
2. Polyethylene Encasement To protect Ductile Iron Pipe from corrosion, all ductile iron water mains shall be encased with an 8-mil thick polyethylene sleeve in accordance with ANSI / AWWA C105 / A21.5 standards.
3. Valves
 - a. Twelve (12) inch and smaller - iron body, bronze mounted, double disc, parallel seat, non-rising stem gate valves, counter clockwise to open, AWWA C515.
 - b. Fourteen (14) inch and larger - iron body, rubber seat, butterfly valve, Class 150B, counter clockwise to open, AWWA C504
 - c. Joint end - mechanical, AWWA C111
4. Fire Hydrants
 - a. In accordance with the City of Lockport Standard Drawings.
 - b. Dry barrel, AWWA C502, painted bright red above ground, with auxiliary gate valve.
 - c. Valve size, five and one fourth (5-1/4) inch, counter clockwise to open.
 - d. Nozzles, two (2) at two and one half (2-1/2) inch, one (1) at four and one half (4-1/2) inch, with threads conforming to National Standard Specifications.
 - e. Frangible section (breakaway type) with the break line flange located one (1) inch above finished grade.
 - f. Mechanical joint end, six (6) inch.
 - g. Provided with a STORZ quick connection adapter
5. Fire Hydrant Valve Boxes
 - a. In accordance with the City of Lockport Standard Drawings.
 - b. Lid embossed "WATER"
6. Air Release Valves In accordance with the City of Lockport Standard Drawings.
7. Corporation Stops In accordance with the City of Lockport Standard Drawings and AWWA C800

8. Water Service Pipe

- a. Two (2) inch and smaller: copper tube, ASTM B88, Type K, one and one half (1-1/2) inch minimum, in accordance with the City of Lockport Standard Drawings.
- b. Larger than two (2) inch: ductile iron per C.1 above

9. Curb Stops

- a. In accordance with the City of Lockport Standard Drawings.
- b. Copper service: compression copper connections, minimum one inch, tee head checks, 90 degree turn only

10. Curb Box

- a. In accordance with the City of Lockport Standard Drawings.

11. Concrete Thrust Restraints

- a. Horizontal reactions - thrust restraints at all tees, plugged ends, hydrants, and bends of 11-3/4 degrees to 90 degrees shall conform to the details in the Standard Specifications for Water and Sewer Main Construction in Illinois.
- b. Vertical reactions - the applicant shall submit individual designs for each location to the Director of Public Works & Engineering or authorized designee and comply with AWWA C600, Section 3.8
- c. Material: precast or poured Portland cement concrete, IDOT Class SI plus "Megalug" retainer glands
- d. Where undisturbed earth is not available or not likely to be available to support concrete thrust blocks under pressure, the applicant shall specify tie rods with or without anchor type concrete thrust blocks and submit the design data to the Director of Public Works & Engineering or authorized designee. Care shall be taken when placing concrete so that it will not interfere with access to joints or with hydrant drainage.

12. Casing Pipes / Carrier Pipes

- a. In accordance with the City of Lockport Standard Drawings.
- b. Steel carrier pipe: ASTM A120, 3/8" minimum thickness
- c. PVC carrier pipe: AWWA C900, minimum thickness equal to SDR 26, push-on type joints

13. Valve Vaults

- a. In accordance with the City of Lockport Standard Drawings.
- b. Materials: Precast reinforced concrete sections - ASTM C478 and ASTM C443

- c. Size: For six (6) inch and eight (8) inch diameter valves, valve vaults shall have a forty-eight (48) inch inside diameter; for pressure connections and valves ten (10) inch and larger in diameter, valve vaults shall have a sixty (60) inch inside diameter.
 - d. Adjustment: No more than two (2) precast concrete adjusting rings with six (6) inch maximum height adjustment shall be allowed. Rubber adjusting rings instead of concrete adjusting rings are required for valve vaults located in pavement areas.
 - e. Vault Joints: All joints between the vault sections shall be sealed with mastic. McWrap or equal shall be used around the outside of the vault at all joints.
 - f. Castings: Frame and cover shall be in accordance with the City of Lockport Standard Drawings. Steps shall be plastic on sixteen (16) inch centers, with the initial step located eight (8) inches below the top of the structure.
14. Granular Pipe Bedding Pipe bedding shall be in accordance with the Lockport Standard Drawings and Section 20 of the Standard Specifications for Water and Sewer Main Construction in Illinois. Material shall be crushed aggregate meeting IDOT CA-7 gradation.

D. Installation Requirements

1. The installation of water mains and appurtenances, including services, shall conform to the requirements of this Chapter, Section 41 of the Standard Specifications for Water and Sewer Main Construction in Illinois, AWWA C600, and Lockport Standard Details.
2. Environmental Protection Agency Permit Water system design and construction shall be in accordance with the regulations of the Illinois Environmental Protection Agency. No construction shall commence until a copy of a permit from this agency is filed with the Director of Public Works & Engineering or authorized designee.
3. Excavation
 - a. The trench shall be excavated so that the water main will be at a minimum depth of five and one half (5.5) feet. The trench for the pipe shall be excavated at least two feet wider than the external diameter of the pipe but not wider than the widths denoted on the City of Lockport Standard Drawings.
 - b. Bell holes of sufficient depth shall be provided across the bottom of the trench to accommodate the bell of the pipe, to provide sufficient room for joint making and to ensure uniform bearing for the pipe.
 - c. Where a firm foundation cannot be found at the bottom of the trench, due to soft, spongy or other unsuitable soil, such unsuitable soil shall be removed for the full width of the trench or tunnel and replaced with well compacted unwashed gravel or an equal substitute, or crushed stone if such compacted material proves unsatisfactory. Where rock, in either ledge or boulder formation, is encountered, it

shall be removed below grade and replaced with a well-compacted bed of unwashed gravel having a thickness under the pipe of not less than eight (8) inches.

4. Sheeting and Bracing

- a. Sheeting and bracing shall be used in the excavation area, as may be necessary for the safety of the work and the public, for the protection of the workmen and to prevent adjacent properties from damage.
- b. Sheeting shall not be removed until the backfill has been placed and thoroughly compacted.

5. Laying Water Main

- a. The contractor shall keep the trench free from water while the water main is being placed and until the pipe joint has been sealed to the satisfaction of the Director of Public Works & Engineering or authorized designee.
- b. Adequate provision shall be made for the safety, storage and protection of all water pipe prior to actual installation in the trench. Care shall be taken to prevent damage to the pipe castings, both inside and out. Provisions shall be made to keep the inside of the pipe clean throughout its storage period and to keep mud and/or other debris from being deposited therein. All pipe shall be thoroughly cleaned on the inside before laying of the pipe. Proper equipment shall be used for the safe handling, conveying and laying of the pipe. All pipe shall be carefully lowered into the trench, piece by piece, by means of a derrick, ropes, or other suitable tools or equipment, in such manner as to prevent damage to water main materials and protective coatings and linings. Under no circumstances shall water main materials be dropped or dumped into the trench.
- c. In making joints, all portions of the joining materials and the socket and spigot ends of the joining pipe shall be wiped clean of all foreign materials. The actual assembly of the jointing shall be in accordance with the manufacturer's installation instructions and/or as directed in writing by the Director of Public Works & Engineering or authorized designee. During construction, until jointing operations are complete, the open ends of all pipes shall be at all times protected and sealed with temporary watertight plugs.

6. Pipe Cutting

- a. The cutting of pipe for inserting valves, fittings or closure pieces shall be done in a neat and workmanlike manner without damage to the cement lining and so as to leave a smooth end at right angles to the axis of the pipe.
- b. When machine-cutting is not available for cutting pipe twenty (20) inches in diameter or larger, the electric-arc cutting method will be permitted, using a carbon or steel rod. Only qualified and experienced workmen shall perform this work.
- c. The flame-cutting of pipe by means of an oxyacetylene torch shall not be allowed.

7. Trenches

- a. The trench bottom shall be flat, and shall provide full bearing for the length of the pipe, with a minimum of six (6) inches of crushed granular bedding.
- b. Trenches shall be jetted after backfilling if required by the Director of Public Works and Engineering.
- c. Thrust blocks shall be used to prevent movement at all bends, tees, caps, valves and hydrants.
- d. Backfilling the trench shall be accomplished by careful replacement of the excavated material after the pipe and the bedding material have been installed. Any trench excavated to within five (5) feet of a pavement edge, sidewalk or curb and gutter shall be backfilled to the top of the trench with CA-7 granular material, in compliance with Section 20 of the Standard Specifications for Water and Sewer Main Construction in Illinois.

8. Fire Hydrants

- a. Fire hydrants shall be placed as specified on the engineering plans. All hydrants shall stand plumb, with the pumper nozzle pointing to the road. They shall conform to the established grade, with nozzles at eighteen (18) inches above the finished ground.
- b. A drainage pit two (2) feet in diameter and two (2) feet deep shall be excavated below each hydrant and filled completely with crushed washed stone under and around the bowl of the hydrant and to a level six (6) inches above the waste opening. Hydrant drainage pits shall not drain to a sewer.
- c. Hydrant leads and extensions shall be provided as needed in order to maintain adequate setback from the water main and to provide a three (3) foot separation from the fire hydrant and the hydrant valve box, and to provide a minimum vertical distance of eighteen (18) inches from the center of the pumper nozzle to the final ground elevation.

9. Water Main Installation During water main installation, to make a closure between two pipe ends, or between pipe end fittings, or between pipe ends and valves, short lengths of water main pipe shall be used with proper connections or couplings. Repair sleeves shall not be used to make closures during new construction.

10. Dewatering Where ground water is encountered in the trench, it shall be removed during pipe-laying and jointing operations. Trench water shall not be allowed to enter the pipe at any time.

11. Connections to Existing Mains All connections to the City water distribution system shall be made under full water service pressure unless otherwise approved by the Director of Public Works & Engineering or authorized designee.

E. Water Services

A water service line is a water pipe connected at the water main by a brass corporation stop or a ductile iron fitting attached at a 45° angle per City Details. Said pipe is extended horizontally at right angles with the water main to the front line of a lot or single building which it is to serve. The service pipe shall be provided with a brass curb stop or gate valve at a location between the curb and the sidewalk unless otherwise specified by the Director of Public Works & Engineering or authorized designee. A cast iron curb box shall be installed over curb stops or four (4) inch and smaller gate valves. A valve vault shall be provided for gate valves larger than four (4) inches. All water service lines shall be located at the approximate center of each lot at a minimum depth of five (5) feet. Intermediate unions within the public right-of-way are not permitted.

F. Fire Protection Services All fire sprinklers shall be connected to the water system through a separate fire service line constructed in accordance with the requirements of this Chapter.

G. Water Main Separation Requirements Water mains and water service lines shall be protected from sanitary sewers, storm sewers, combined sewers, house sewer service connections and drains in accordance with Section 41 and Standard Drawings 19 through 24 of the Standard Specifications for Water and Sewer Main Construction in Illinois and all Illinois Environmental Protection Agency Requirements.

Where conditions exist that the minimum vertical separation cannot be attained, or if it is necessary for the water main to pass under a sewer or drain, one of the following two measures shall be taken:

1. The water main shall be installed within a PVC carrier pipe and the carrier pipe shall extend on each side of the crossing until the normal distance from the water main to the sewer or drain line is at least ten (10) feet.
2. The involved sewer or drain shall be constructed from manhole to manhole with "0" ring pipe conforming to ASTM 361 or other pipe material which conforms to water main standards.

H. Pressure Testing

1. As part of the construction, the water mains shall be pressure tested in accordance with this Chapter. The Contractor shall coordinate with City Water Department staff to fill and flush the new water main. Only City Water Department staff is authorized to operate existing water valves.
2. All newly laid pipe shall be subjected to a hydrostatic pressure of one hundred fifty (150) pounds per square inch. Duration of each pressure test shall be for a period of not less than two (2) hours. Each valved section of pipe shall be filled with water and the specified test pressure shall be applied by means of a pump connected to the pipe.

3. Before applying the specified test pressure, all air shall be expelled from the pipe. All leaks shall be repaired until tight. Any cracked or defective pipes, fittings, valves, or hydrants discovered in consequence of this pressure test shall be removed and replaced and the test repeated until satisfactory results are obtained.
4. All testing shall be done after the installation of service lines. Suitable means shall be provided for determining the quantity of water lost by leakage under the specified test pressure. Leakage is defined as the quantity of water required to be supplied to the newly laid pipe necessary to maintain the specified test pressure. Allowable leakage shall not be greater than that computed as follows:

$$L = (N) (D) (P) / 7,400 \quad \text{where,}$$

L = Allowable leakage in gallons per hour

N = Number of joints in the pipeline being tested

D = Nominal diameter of the pipe in inches

P = Average test pressure during the test in pounds per square inch

I. Preliminary Flushing, Disinfection, and Testing

Refer to the City of Lockport Standard Detail 60-7.

- J. All water valves shall be opened and closed as part of the final inspection to ensure that they can be operated using a standard key. Valves which are too deep to reach with a standard key shall be provided with permanent extensions securely anchored to the walls of the valve vault.

SECTION 153.50.070 STREET PAVEMENTS

- A. General The arrangement, character, extent, width, grade and location of all streets to be dedicated to the public, all parking lots and all private streets shall be compatible and complimentary to existing and planned streets, to reasonable circulation of traffic within any subdivision and adjoining lands, to topographical conditions, to runoff of storm water, to public convenience and safety, and in their relations to the proposed uses of the area to be served. All traffic intersections and confluences shall encourage safe and efficient traffic flow.
- B. Design References All pavements shall be designed and constructed in accordance with the following references as they apply:
 1. "Standard Specifications for Road and Bridge Construction", latest edition, published by the Illinois Department of Transportation
 2. "Supplemental Specifications and Recurring Special Provisions", latest edition, published by the Illinois Department of Transportation
 3. "Bureau of Local Roads and Streets Manual", latest edition, published by the Illinois Department of Transportation

4. "Bureau of Design and Environment Manual", latest edition, published by the Illinois Department of Transportation
5. "Drainage Manual", latest edition, published by the Illinois Department of Transportation

C. Pavement Design Requirements

1. Pavement design shall relate to the street classification at the direction of the Director of Public Works and Engineering. The proposed roads indicated on the Official Map are desired to be eventually constructed, but their actual alignment will be decided upon when the Preliminary Plan is submitted to the Plan & Zoning Commission and the Corporate Authorities for review and approval.
2. The classification of new streets, as well as variations to street classifications for a given street, shall be submitted to the Director of Public Works & Engineering or authorized designee for his/her review with the submittal of the "Preliminary Plan".

D. Pavement Design All new streets, public or private, shall be improved and constructed with pavement complying with the requirements of this Chapter and as follows:

1. Subgrade: All subgrade material shall have a minimum Illinois Bearing Ratio (IBR) of 3.0. All unsuitable subgrade material, including subgrade material having an IBR less than 3.0, shall be removed and replaced with suitable fill material, or the pavement shall be designed to compensate for the soil condition. The soil support IBR values selected for use by the design engineer shall represent a minimum value for the soil to be used.
2. Pavement Design: The pavement design standards denoted in the following Table of Pavement and Right-of-Way Width shall be adhered to. A copy of all design assumptions and computations on which the proposed pavement design is based shall be submitted to the Director of Public Works & Engineering or authorized designee.

TABLE OF PAVEMENT DESIGN AND RIGHT-OF-WAY WIDTH

<i>CLASSIFICATION</i>	<i>MINIMUM RIGHT OF WAY WIDTH</i>	<i>MINIMUM ROADWAY WIDTH (e/p to e/p)</i>
Arterial	120 feet	48 feet
Minor Arterial	100 feet	48 feet
Collector	80 feet	34 feet
Local (Residential)*		
1. Dedicated	66 feet	28 feet
2. Private	--	28 feet
Industrial*	100 feet	36 feet
Frontage Road	50 feet	27 feet

* The pavement diameter of cul-de-sac turnarounds shall be 87 feet (b/c to b/c). The right-of-way diameter of a cul-de-sac turnaround shall be 120 feet.

The minimum pavement width in an Estate Residential zoning district shall be 22 feet.

All street pavements shall have a 2.0% cross slope, so the height of the pavement crown will be dependent on the pavement width.

3. Grades

- a. Roadway profile grades shall not exceed five (5) percent on collector streets, nor seven (7) percent on other streets, unless approved by the Director of Public Works & Engineering or authorized designee. Roadway profile grades shall not be less than one-half of one (0.5) percent on tangent sections.
- b. The minimum length of vertical curves shall be one hundred (100) feet for one and one-half (1.5) percent difference of grade. For each additional one (1.0) percent difference in grade over one and one-half (1.5) percent, a fifty (50) foot increment shall be added to the length of a vertical curve. If the grade differential is less than one and one-half (1.5) percent, a vertical curve is not required.

4. Sight Distances At the points of intersection of proposed roads with existing roads, the minimum stopping sight distance shall be calculated in accordance with Chapter 28 of IDOT's Bureau of Local Roads and Streets Manual.

5. Curb and Gutter

- a. Combination curb and gutter shall be constructed on both sides of all street pavements and shall comply with the requirements of the City of Lockport Standard Drawings, except for development in the E-R Estate Residential Zoning district, where curb and gutter will be required at intersections with arterial streets and at other such locations required by the Corporate Authorities. In those locations where curb and gutter is not required, the pavement base course shall be extended an additional two (2) feet beyond the finished pavement width.
- b. Two (2) No. 4 reinforcing bars shall be placed continuously between expansion joints. Expansion joints shall be doweled and spaced no more than sixty (60) feet on center and at tangent points of all radii. Control joints shall be provided at fifteen (15) feet on center and shall consist of a saw cut at least one and one-half (1-1/2) inches deep.
- c. Unless otherwise directed by the Director of Public Works & Engineering or authorized designee and pursuant to IDOT standards, a barrier curb and gutter (B-6.12, B-6.18 or B-6.24) shall be provided on all Arterial and Collector Streets. Gutter widths shall be determined by inlet spacing to permit no more than three (3) feet of encroachment on the pavement due to runoff from the 10% annual probability (10-year) storm.

- d. For all barrier curb and gutter and six (6) inch mountable curb and gutter, depressed curb shall be provided at all driveways. For all curb and gutter, depressed curb shall be provided at all sidewalk crossings in accordance the Americans with Disabilities Act (ADA) requirements.

The subgrade of all paved areas shall be prepared in accordance with of Section 301 of Standard Specifications for Road and Bridge Construction.

Sub-Base Granular Material, Type B shall be meet the requirements of Section 311.

Aggregate Base Course, Type B shall meet the requirements of Section 351.

Hot-Mix Asphalt Base Course shall meet the requirements of Section 355.

Portland Cement Concrete Base Course shall meet the requirements of Section 353.

Hot-Mix Asphalt Binder Course shall meet the requirements of Section 406.

Hot-Mix Asphalt Binder Course shall meet the requirements of Section 406.

Portland Cement Concrete Pavement shall meet the requirements of Section 420.

E. Inspections and Testing

1. At least one Standard Proctor Density Test, performed in accordance with AASHTO T99, shall be taken in each embankment section, with the maximum distance between tests of three hundred (300) feet. One standard proctor density test shall be taken from each different source of borrowed material. The results of the density tests must be submitted to the Director of Public Works & Engineering or authorized designee. Upon review of these tests, an inspection of the subgrade by proof-roll with a fully-loaded truck shall be made by the Director of Public Works & Engineering or authorized designee. A report of acceptable subgrade and preparation shall be submitted to the Director of Public Works & Engineering or authorized designee prior to placing curb and gutter, sub-base or base course.
2. Hot-mix asphalt shall be placed when the ambient temperature is at least 40° F and rising for base course and at least 45° F and rising for binder and surface course, when rain is not in the forecast. Placement of hot-mix asphalt after November 1 shall require written authorization from the Director of Public Works & Engineering or authorized designee. This authorization will not in any way negate the contractor and developer guarantee on the work performed. Cold joints shall be avoided to the maximum extent possible.
3. After flexible pavement base and binder courses have been in place for at least nine (9) months, including a winter and a spring, one (1) pavement core for every nine hundred (900) lineal feet of measured pavement shall be taken. A commercial testing laboratory shall prepare a report listing thicknesses of all pavement courses, the density of all hot-

mix asphalt courses and the type and condition of the subgrade, as determined from laboratory testing of the cores. The report shall be submitted to the Director of Public Works & Engineering or authorized designee and if the results of the cores indicate pavement deficiencies, additional cores will be required as directed by the Director of Public Works & Engineering or authorized designee. Upon receipt of the report, the Director of Public Works & Engineering or authorized designee will review said report and will perform an inspection of the existing pavement. All base and binder course failures will then be repaired to the Director of Public Works & Engineering or authorized designee's satisfaction before installation of the hot-mix asphalt surface course.

F. Maintenance and Responsibility

1. The maintenance and responsibility for private roadways shall be the responsibility of the developer until the final Maintenance Bond is released, when the owners' or homeowners' association shall become responsible for maintenance.
2. All streets, curbs and gutters to be dedicated to the City shall be under warranty for any and all defects and failures in either the surface course or underlying courses or subgrade for a period of one (1) year after the start of the maintenance period.

SECTION 153.50.080 SIDEWALKS AND DRIVEWAY APRONS

- A. Sidewalks Public sidewalks shall be constructed in accordance with Section 424 of IDOT's Standard Specifications for Road and Bridge Construction and the City of Lockport Standard Drawings. Sidewalks shall be constructed along both sides of all public and private streets, including cul-de-sacs, except within the E-R Estate Residential Zoning District where sidewalks will only be required on arterial streets and in other locations deemed necessary by the Corporate Authorities to provide safe and efficient pedestrian movement. Sidewalk ramps shall meet all Americans with Disabilities Act (ADA) requirements for grades, slopes and railings and shall be provided with ADA-compliant detectable warnings.
- B. Driveway Aprons Commercial and industrial driveway aprons shall be constructed of Portland cement concrete (PCC) in accordance with Section 423 of IDOT's Standard Specifications for Road and Bridge Construction and the City of Lockport Standard Drawings. The driveway apron, by definition, shall be that portion of the driveway located between the sidewalk and the roadway pavement.
1. Maximum driveway apron width for one-family or two-family residential properties with one-car or two-car garages is 24 feet.
 2. Maximum driveway apron width for any residential properties entering on to a State or County route is 24 feet and an IDOT or Will County driveway permit will be required.

3. Maximum driveway apron width for one-family or two-family residential properties with three-car garages and not on a State or County route is 30 feet.
 4. Maximum driveway apron width for duplex residential properties with side-by-side garages and not on a State or County route is 30 feet.
 5. Maximum driveway apron width for multi-family residential properties with off-street parking and not on a State or County route is 30 feet.
 6. Maximum driveway apron width for business, office and industrial properties is equal to the maximum driveway width allowed by the City Zoning Ordinance and approved by the Director of Public Works and Engineering.
- C. The developer shall, at his expense, have a commercial testing laboratory prepare and test samples of delivered concrete. One (1) set of tests (slump + air content + temperature + compressive strength) shall be taken for the first twenty-five (25) cubic yards, or fraction thereof, and one (1) set of tests shall be taken for each additional fifty (50) cubic yards.

SECTION 153.50.090 BIKEPATHS

Bikepaths shown on the latest version of the City of Lockport Bicycle/Pedestrian Master Plan and/or the latest version of the I-355 Area Trails Master Plan ~~Official Map~~ and located within or adjacent to a subdivision or development shall be a required public improvement of the subdivision or development. Bikepaths shall be designed in accordance with the Guide for the Development of Bicycle Facilities, published by the American Association of State Highway Officials (AASHTO). Bikepaths located outside street rights-of-way shall be constructed of hot-mix asphalt in accordance with the City of Lockport Standard Drawings. Bikepaths located within street rights-of-way shall be constructed accordance with the City of Lockport Standard Details Drawings. All bikepaths shall have a minimum width of eight (8) feet.

SECTION 153.50.100 STREET LIGHTING SYSTEMS

Lighting for public or private streets located within or adjacent to a subdivision or development shall be a required public improvement of the subdivision or development.

- A. All work required under this Section shall conform to the requirements of the National Electric Code, latest edition and with the service rules and policies of Commonwealth Edison. General electrical requirements, wireway and conduit systems, wire and cable, luminaires, controllers, light poles, foundations and breakaway devices, and the removal and relocation of street lighting facilities shall be constructed in accordance with IDOT's Standard Specifications for Road and Bridge Construction.
- B. Collector Streets and Arterial Streets shall be illuminated in accordance with the latest edition of RP-8, the American National Standard Practice for Roadway Lighting, published

by the Illuminating Engineering Society of North America (IESNA). Photometric calculations shall be submitted to the Director of Public Works & Engineering or authorized designee for review and approval. Pole arrangement and pole spacing will be determined by the approved photometric calculations.

- C. Local Streets shall be illuminated with standard City of Lockport light poles and luminaires. Poles shall be installed at all intersections, alley entrances, curves, cul-de-sacs, and at the end of a street, with additional poles installed as needed to provide a maximum pole spacing of three hundred sixty (360) feet. Unless otherwise directed by the Director of Public Works & Engineering or authorized designee, light poles shall be located on the same side of a street.
- D. Except at intersections, light poles shall be located in line with side property lines. The center of light poles shall be located at least three (3) feet from the back of curb. Light poles located less than six (6) feet from the back of curb shall be provided with breakaway devices. Light poles shall not be located within five (5) feet of a fire hydrant.
- E. Light poles and luminaires for Collector Streets and Arterial Streets shall comply with IDOT requirements, and shall be approved by the Director of Public Works & Engineering or authorized designee. Luminaires for Local Streets shall be either high pressure sodium (HPS) or light emitting diode (LED) and shall comply with City of Lockport requirements
- F. Light pole foundations shall be Portland cement concrete or helical steel of sufficient depth and diameter. The use of butt-end direct-bury poles is not permitted.
- G. All light poles shall be provided with a ground rod (grounding electrode) connected to the pole ground lug with an insulated conductor.
- H. Quick disconnect Tron-type fuse holders shall be provided on power and neutral pole wires inside the light pole handhole. Power cables shall be protected with ten (10) amp fuses and neutral cables shall be provided with a slug.
- I. Light poles at the entrance to a subdivision adjacent to a Major Street shall be provided with twin fixture arms and two luminaires.
- J. Pole wire shall be THHN, 600-volt stranded copper, single conductor, minimum No. 10 AWG. Underground cable shall be XLP-Type USE, 600-volt stranded copper, single conductor, minimum No. 8 AWG. Cable and wire insulation shall be colored red or black for power, white for neutral and green for ground. Voltage drop calculations shall be submitted to the Director of Public Works & Engineering or authorized designee for review and approval. All wire and cable shall be subject to an insulation test to ground after installation. The minimum acceptable resistance to ground shall be two hundred fifty thousand (250,000) ohms. Any section of wiring failing to pass the minimum insulation test, or that shows an obvious short circuit, shall be removed and replaced.
- K. All underground wiring shall be located in HDPE, PVC or galvanized steel duct / conduit. Conduits shall retain 60% void space and conduit sizing calculations shall be submitted to

the Director of Public Works & Engineering or authorized designee for review and approval. Conduit trenches shall provide at least thirty (30) inches of cover.

- L. Street lights must be provided with an electrical disconnect located between the light pole and the Commonwealth Edison transformer. The electrical disconnect shall include a circuit breaker located in a NEMA 3R enclosure. Enclosures shall be provided with a padlock, keyed to meet City specifications.
- M. An accurate representation of the street light system shall be included on the subdivision or development as-built plans submitted to the City for review and approval.

SECTION 153.50.110 SIGNAGE AND PAVEMENT MARKINGS

Roadway signs, bikepath signs, street name signs and other required or warranted signs, as well as all pavement markings, shall be installed as part of the subdivision or development improvements. All pavement markings shall be thermoplastic. All signs shall conform to the Manual on Uniform Traffic Control Devices, published by the U.S. Department of Transportation, Federal Highway Administration. Subdivision or development roads shall not be opened to the public until the installed signs and pavement markings have been inspected and approved by the Director of Public Works & Engineering or authorized designee.

SECTION 153.50.125 TREE PRESERVATION

- A. Purpose The purpose of this Section is to establish high tree preservation standards for public and private properties within Lockport, establish preservation techniques for all new developments, protect the City's natural qualities and heritage, benefit the public at large as an essential asset to neighborhoods, and provide a source of identity and pride in the community. In addition to these high standards, this preservation ordinance specifically strives to accomplish the following:
 - 1. Prevent soil erosion and sedimentation.
 - 2. Reduce stormwater runoff, replenish aquifers, and eliminate the costs associated with correcting the above.
 - 3. Assist in the absorption of excess carbon dioxide in the atmosphere.
 - 4. Maintain a buffer to noise pollution and protection from other natural elements.
 - 5. Maintain existing natural habitats and ecosystems.
 - 6. Increase property values.
 - 7. Conserve and enhance the City's natural environment and heritage.
 - 8. Provide and maintain aesthetic qualities for new and existing developments in the community.
- B. Tree Removal Permit Required Unless otherwise permitted by the terms of this Section, no developer of property or property to be annexed that is greater than or equal to five (5)

acres in size, directly or indirectly, cut down, destroy, remove, move, destroy through damaging or authorize the cutting down, destroying, removing, moving, or damaging, of any tree of four inches (4") or more in Diameter at Breast Height (DBH), without first obtaining a permit as herein provided. No City official shall issue a permit in violation of the requirements of this Section.

Permits for removal, relocations or replacements of trees covered herein shall be obtained by submitting an application on a form prescribed by the Public Works Department pursuant to the standards set forth herein.

- C. Heritage Trees Some species of trees are native to the area, are sound, strong species and have existed naturally for decades or centuries. The City of Lockport recognizes that these trees are a key component to its heritage and therefore those trees will bear a higher level of preservation requirement. The following trees are classified as Lockport's Heritage Trees:

Oaks	20" or greater in DBH
Hickories	20" or greater in DBH
Hackberries	20" or greater in DBH
Ironwoods	10" or greater in DBH
Walnuts	20" or greater in DBH

All of the above must be determined to be in healthy condition according to the International Society of Arboriculture (ISA) standards.

Every practicable measure shall be undertaken in attempting to preserve Heritage Trees in the planning phase. Alternatives to development that may threaten these trees shall be explored in detail. Should the merits of development outweigh the benefits of preservation, an appeal may be made to the Corporate Authorities. The Corporate Authorities shall have discretion regarding preservation of specific trees, and may utilize and review any materials, reports, consultant opinions, etc, when making their decision.

A Heritage Tree may be removed without approval of the Corporate Authorities if a Certified Arborist provides an ISA report stating the tree is in poor condition, i.e. that it is declining significantly in health and/or structure. In such cases, a penalty will not be incurred for removal, but tree replacement as identified herein will be required.

- D. Tree Protection The developer will be required to protect trees during construction as follows:

1. The developer shall make every possible effort to save all healthy trees where feasible and practical.
2. Proposed tree removals must go through an application process as detailed in this Section.
3. All developers with sites containing trees four (4) inches ~~in diameter~~ or greater, as measured at DBH, must certify the location, species, and size of all trees at the time of Preliminary Plan submittal. A grading plan shall be submitted

showing existing trees that are proposed to be removed and those that are proposed to be save.

4. The developer's proposed methodology for saving or removing existing trees shall be reviewed by the Director of Public Works & Engineering or authorized designee. If, in the opinion of the Director of Public Works & Engineering or authorized designee, the developer has not provided for necessary precautions in preserving the existing trees, it will be recommended by the Director of Public Works & Engineering or authorized designee that Preliminary Plan approval not be granted until such time as the developer satisfactorily amends their plans for the preservation of existing trees. If the developer and the Director of Public Works & Engineering or authorized designee cannot agree on a satisfactory plan, the developer can appeal the decision of the Director of Public Works & Engineering or authorized designee to the Corporate Authorities.
5. Where trees are to be saved, provision shall be made for erection of appropriate, temporary, protective fencing, such as snow fence or chain link fence, at the periphery of the drip line to keep construction from damaging or killing the tree from physical trunk and branch damage or compacting soil and damaging shallow feeder roots. The developer shall be responsible for the supply, erection, and maintenance of temporary fencing in accordance with the conditions of the building permit around the tree preservation areas.
6. The fencing shall be placed at the dripline for protection of the roots, trunk and branches.
7. All fencing posts shall be installed no further than ten (10) feet apart.
8. Fencing shall remain in place during the entire construction project.
9. All grading and construction equipment shall be forbidden from encroaching within the trees' drip line. Construction activity, movement and placement of equipment or material or spoils storage and excess soil, additional fill, liquids, or construction debris is prohibited within the dripline of the trees.
10. Materials detrimental to trees, including but not limited to crushed limestone, hydrocarbons, etc. shall not be dumped or stored within the trees' drip line or at any higher location draining toward the trees.
11. Could reasonably expect to affect the health of the tree. Construction activity, movement and placement of equipment or material or spoils storage and excess soil, additional fill, liquids, or construction debris within the dripline of the trees.
12. Directional boring or auguring vs. trenching is required when work is required within the drip zone of the tree(s).
13. Attachments, signs, fences, or wires, other than approved for bracing, guying, or wrapping shall be allowed to be attached to trees during the construction period.
14. Other measures such as construction pruning and root pruning of trees directly impacted by construction, must also be indicated on the plan or on an accompanying sheet and approved by the Director of Public Works and Engineering or his/her representative.
15. No soil to be removed or added within the root zone/dripline of any tree that is to remain.

E. Tree Preservation Plan Required The developer of any lot equal to or greater than five (5) acres in size shall submit to the City a survey of all trees four inches (4") or greater in Diameter at Breast Height, said survey to be prepared by a Certified Arborist. The tree survey shall include notations of intent to preserve trees so identified and the preservation techniques to be implemented.

1. Preliminary Plan Submittal A Tree Preservation Plan shall be submitted as part of the Preliminary Plan. The Tree Preservation Plan shall include all trees plotted to scale on a plat of survey, with the sizes and species identified. The plan shall also include accurate placement of buildings, easements, utilities, infrastructure, wetlands and temporary storage locations in relation to existing trees. Any changes from the concept plan must be expressed clearly in writing.

All proposed tree removals shall be clearly identified on the plan with "X's" and clearly identified at the project site with ribbons or paint.

A list of all trees 4" in DBH or greater including size, species, and identification of all Heritage Trees shall be provided by the developer. Additionally, a listing of all trees proposed for removal shall be submitted on a separate sheet than the plat of survey. Information shall include species, size, reasons for removal, and a reference back to the mapped location for ease of review. Heritage trees shall be labeled as such. Tree protection areas shall be clearly shown on the plan.

2. Plan Submittal The Tree Preservation Plan shall be submitted as part of the Final Development Plan review process. In addition to the previous requirements, the tree preservation details shall be clearly shown, including all preservation requirements as stated in the Landscaping Ordinance. Proposed replacement trees shall also be indicated on the Final Landscape Plan.

Tree preservation fences shall protect areas within the trees' driplines and shall be installed prior to commencement of any work other than approved tree removals.

F. Replacement Requirements All approved tree removal or damaged trees shall require replacement trees with a minimum caliper of two and a half inches (2.5") measured at DBH. Quality and installation requirements shall conform to Section 153.50.120. The number of replacement trees or the number of replacement DBH inches is calculated as follows:

1. Tree for Tree Replacement The following species require one tree replacement for every tree removed, regardless of size. For every tree removed that is four inches (4") in DBH or greater and is of the following species, one 2.5" caliper replacement tree is required:
 - a. Siberian or Chinese Elm (*Ulmus Parviflora*)
 - b. Poplars or Cottonwoods (*Populus Spp*)
 - c. Silver Maples (*Acer Saccharinum*)
 - d. Mulberry (*Morus Alba*)

- e. Pine (Pinus Spp)
 - f. Spruce (Picea Spp)
2. **Inch for Inch Replacement** Heritage Tree removal replacement requirements will require Inch for Inch replacement. For every DBH inch of a Heritage Tree that is removed, an equal number of caliper inch is required in new tree planting. However, if a Certified Arborist agrees that the Heritage Tree is in poor health, the Certified Arborist shall calculate the value of the Heritage Tree, as determined by the “Guide for Establishing Values of Trees and Other Plants,” by the International Society of Arboriculture (ISA). The number of replacement caliper inches then required will be calculated using a unit value of one (1) inch diameter representing \$150.00. For example, a tree valued at \$5,000, would require 33.3” of tree replacement. Replacement options may include eleven 3” caliper trees or eight 4” caliper trees.
 3. For all other trees that do not fall under the restrictions of Tree for Tree or Inch for Inch replacement requirements, tree DBH shall be rounded to the nearest inch and the trees shall have the following replacement scale:
 - a. For each tree measuring 4” to 9” in DBH, two 2.5” caliper trees are required.
 - b. For each tree measuring 10” to 12” in DBH, three 2.5” caliper trees are required.
 - c. For each tree measuring 13” to 15” in DBH, four 2.5” caliper trees are required.
 - d. For each tree measuring 16” to 18” in DBH, five 2.5” caliper trees are required.
 - e. For each tree measuring 19” to 21” in DBH, six 2.5” caliper trees are required.
 4. Trees exempt from replacement requirements:
 - a. Dead, structurally unsound, fatally diseased or declining trees.
 - b. Ailanthus, buckthorn, willows and box elder trees.
 5. Where tree replacement on-site is impractical, the City may allow planting or replacement trees at suitable, pre-approved locations off-site. If no suitable location offsite is found, the City may collect a fee of \$150.00 per inch of required replacements in a Tree Bank, used to plant trees on public lands throughout the City limits.
- G. Planting Specifications Planting shall be performed in accordance with the City of Lockport Landscape Ordinance.
- H. Enforcement Tree preservation enforcement shall be under the direction of the Director of Public Works & Engineering or authorized designee and performed by his/her staff or a contracted certified arborist.
- I. Emergencies In the event of emergency conditions requiring the immediate cutting or removal of a tree or trees protected by this Section in order to avoid danger or hazard to persons or property, an emergency permit will be issued by the Director of Public Works & Engineering or authorized designee without formal application.

J. Penalty

1. Tree Removal without a Permit: Failure to obtain a permit, or removal of a tree classified as protected in the submitted Tree Preservation Plan, as required herein, will result in a fine of \$300.00 per inch of the tree's DBH and shall be levied against that person or entity primarily responsible for causing the tree to be removed or damaged.
 - a. Additional fees will be incurred at the time of violation to cover the cost of required follow-up inspections of the replacement tree installations and subsequent site reviews.
 - b. Violations in this Code may result in inspections by the City Arborist or a Consulting Certified Arborist. All related costs for a Consulting Certified Arborist will be charged back to the applicant as stated in Section 153.70.070. The applicant shall also pay for the arborist's subsequent or follow-up inspection fees.
 - c. Trees removed or destroyed or damaged without a tree removal permit must be replaced with trees whose diameter equals the diameter of the trees affected, regardless of condition or species.
 - d. Additional bonds will be collected at the time of violation at \$150 per inch of the tree's DBH for required replacement trees, until the trees have been installed and have thrived for at least two years. Bonds will be returned upon a satisfactory review after the two-year guarantee period.
 - e. Each subsequent act in violation of this ordinance by the same person or entity shall result in a 50% increase in fines over the previous fine levy.
2. Violation of Protected Trees: Violation of the Tree Protection Plan and required tree preservation techniques will result in a \$100 per tree per day fine. Subsequent violations will result in the stoppage of all work until corrections have been made to the satisfaction of the Director of Public Works & Engineering, or authorized designee or his/her representatives.
 - f. Additional fees will be incurred at the time of violation to cover the cost of required follow-up inspections of the replacement tree installations and subsequent site reviews.
 - g. Violations in this Code may result in inspections by the City Consulting Certified Arborist. All related costs will be charged back to the applicant as stated in Section 153.70.070. The applicant shall also pay for the arborist's subsequent or follow-up inspection fees.
 - h. Trees damaged to the extent that they suffer in health or structure and will likely die within the next five years must be removed and replaced with trees whose diameter equals the diameter of the trees affected.

- i. At the discretion of the Director of Public Works & Engineering, or authorized designee or his/her representatives, additional bonds will be collected at the time of the violation at \$150 per inch of the tree's DBH for required replacement trees, until the trees have been installed and have thrived for at least two years. Bonds will be returned upon a satisfactory review after the two-year guarantee period.
- K. Appeals Applicants may appeal the tree preservation process through the City Public Works Committee.

SECTION 153.50.130 LOT GRADING

- A. All subdivisions shall provide for the grading of all lots in accordance with this Chapter.
- B. Grading of lots within the City shall be accomplished in such a manner so as to prevent ponding in excess of eight (8) inches in the event of complete failure of the storm sewer system. The restriction regarding maximum ponding depth does not apply to ponds or stormwater detention facilities.
- C. Longitudinal grading on all grassed areas of lots shall be not less than two percent (2.0%) and not more than five percent (5.0%) unless otherwise approved by the Director of Public Works & Engineering or authorized designee. Slopes steeper than five feet horizontal to one foot vertical (5:1) will require retaining walls or other treatments approved by the Director of Public Works & Engineering or authorized designee. Slopes equal to or steeper than three feet horizontal to one foot vertical (3:1) will require sodding and the sod shall be staked in place.
- D. Driveway grades on all lots, as measured from the top of depressed curb to the finished garage floor, shall not be less than one percent (1.0%) and not more than eight percent (8.0%), unless otherwise approved by the Director of Public Works & Engineering or authorized designee. When a driveway grade less than eight percent (8.0%) is not practical due to topographical conditions, the Director of Public Works & Engineering or authorized designee may approve driveway grades up to a maximum of ten percent (10.0%).
- E. Grading Certification: At the time of initial acceptance of public improvements, the developer's engineer shall furnish the Director of Public Works & Engineering or authorized designee with a certificate stating that the finished grades around all structures conform to the grading plan submitted at the time of review and approval and that all lots drain properly. This certification shall be provided by the engineer who prepared the as-built plans. The as-built plans shall have the results of an elevation survey of the completed work denoted, showing actual elevations at each location for which an elevation was denoted on the Subdivision Plan. These as-built plan elevations shall be denoted next to the original design elevation which shall have a thin line drawn through it so as to remain legible.

SECTION 153.50.135 GRADING REQUIREMENTS

- A. No structure shall be erected, moved or substantially improved or parcel of land filled or excavated within the City, without first obtaining a grading permit.
- B. Grading Permit. A grading permit will be required (and shall necessitate) the submission of grading plans. The grading plans must be approved by the Director or Public Works & Engineering or authorized designee and a grading permit issued by the City before the following activities can commence:
1. Construction of a new structure in a subdivision or planned unit development where an overall grading plan has been approved by the Corporate Authorities or a parcel subject to the overall grading plan.
 2. Construction of a new structure in an established subdivision or planned unit development that does not have an approved overall grading plan.
 3. Structure being moved where a parcel is affected by a structure being moved, including the parcels from which the structure is moved, and the parcel to which it is being moved.
 4. Parcel filled or excavated, where the fill or excavation could affect stormwater drainage on the parcel being improved or on adjoining parcels as determined by the Director of Public Works & Engineering.
 5. The damming, altering, obstructing or the changing of the natural terrain or a waterway or watercourse carrying natural drainage from upstream properties.
 6. Any change to an existing structure, an addition or alteration to an existing structure that could affect stormwater drainage to the parcel being improved or to the adjoining properties.
- C. Grading Permit Exceptions. A grading permit may not be required for filling or excavation improvements that do not adversely affect stormwater drainage on the parcel being improved or on adjoining parcels as determined by the Director of Public Works & Engineering or authorized designee. Such improvements may include:
1. Additions or alterations to an existing structure.
 2. Final landscaping: and/or
 3. Construction of sheds, shelters, fences, in-ground pools and retaining walls having a finished height of less than thirty-six inches (36").
- D. Contents of Grading Plans. Any proposed grading plan submitted pursuant to the requirements of this Chapter shall contain the following:
1. Location of proposed or existing foundation with respect to property lines.

2. Foundation elevation, including the top of foundation and any openings below top of foundation on all new or existing structures or portions thereof. Proposed or existing top of foundation elevation of structures on all adjacent parcels.
3. Existing and proposed spot grades. Proposed contours at a one foot (1') interval.
4. Parcel drainage shall be designed to flow away from the top of foundation. In the event that conditions dictate that some parts of the lot be higher than the structure foundation, the grading plan must show the specific drainage configurations for the parcel specifying that all drainage is to be directed to flow away from the foundation.
5. Structures, walkways, driveways and landscaping shall be installed so that the construction of same will not interfere with drainage. All sidewalks, driveways, patios, and other flat work shall be at an elevation relative to the foundation wall so that water will drain away from the structure on all sides and off the lot in a manner which will provide reasonable freedom from erosion and permanently pocketed surface water.
6. All overflow routes for the 100-year storm and for accumulated storm water runoff from several lots or from off-site catchment areas must be clearly designated on the grading plan with the total width of the flow route contained within an easement for drainage purposes.
7. Original signed and sealed copy of plan shall be provided. Plan shall be signed and sealed by an Illinois Licensed Professional Engineer.

E. Procedures.

1. A grading plan shall be submitted and a grading permit obtained for all development activities in B. above.
2. A written request for a grading permit determination shall be submitted to the Director of Public Works & Engineering prior to commencing with the development activities in B. above.
3. After the foundation has been completed, a top of foundation spot survey shall be performed to insure compliance with building setback requirements and approved grading plan.
4. After the structure on the parcel has been substantially completed, the Director of Public Works & Engineering or authorized designee will inspect the site to determine if the grading has been performed in substantial conformance with the

approved grading plan. No final occupancy permit will be issued unless and until final grading has been performed in compliance with the approved grading plan.

- F. Issuance of a Building Permit. No building permit shall be issued without a concurrent application for the issuance of a grading permit. In the case of an internal building change, that is a change occurring completely within a building, or as provided in C. Grading Permit Exceptions above, a grading permit will not be required. The issuance of a building permit and the grading permit shall be concurrent.
- G. Issuance and Administration of Grading Permits.
1. The Director of Public Works & Engineering or authorized designee will be responsible for the issuance of all grading permits, and shall be responsible for the administration of this Section.
 2. If the work described in the grading permit has not been substantially completed within one (1) year of the date of issuance, the permit shall be expired and be cancelled by the Director of Public Works & Engineering. No work shall proceed on the cancelled permit until a new grading permit has been issued by the City.
- H. Final Grade Survey. Immediately after the final grading has been accomplished, but before seeding, sodding or landscaping takes place, the permittee shall conduct a final rough grade survey to determine if the grading has been done in conformity with the approved grading plan. The final grade survey must be submitted and approved by the Director of Public Works & Engineering or authorized designee prior to the issuance of a final occupancy.
- I. Easements. Whenever a natural watercourse, waterway, drainage, swale or the like draining five (5) tributary acres or more, crosses through a parcel of any part of a parcel, a drainage easement will be required before a grading permit or a building permit will be issued. The Director or Public Works & Engineering will verify the total tributary area draining through the subject parcel or part thereof, and the expected runoff to determine the required capacity of the natural watercourse and make recommendations on size of permanent easements.
- J. Protective Ground Cover; Specifications. Immediately after final grading has been accomplished and approved by the City, protective groundcover shall be installed. The protective groundcover shall be installed within the growing season in which the occupancy permit is to be issued. If weather does not permit the installation of protective groundcover, a cash bond in an amount sufficient to guarantee the completion of installation of the protective groundcover shall be furnished; however in no case shall the completion of the installation of the protective groundcover be more that the current growing season, or June 15th of the next growing season. Alternative protective

groundcover other than grass or sod must secure approval of the Director of Public Works & Engineering at the time the grading plan is reviewed.

K. Seeded Areas. All portions of the parcel not having pavement, sidewalks or other similar type materials placed thereon are to be provided with protective groundcover. If the protective groundcover is seed, seed blanket, and/or hydro-seed, the following suggestions are made in preparing the area:

1. Place top soil on area to be graded an average depth of six (6) inches and grade as required to finished grades established on the approved grading plan.
2. Prepare a firm seed bed free of clods or stones.
3. Apply fertilizer in sufficient rates of application to establish satisfactory growth in the seeded area.
4. Select a suitable seeding mixture that will produce permanent groundcover within a reasonable time.
5. Broadcast the seed uniformly over the parcel.
6. Apply mulch on all sites where slopes exceed ten (10) feet in length and where slopes are steeper than four (4) feet horizontal to one (1) foot vertical.
7. On grassed waterways, where sod is not used, a fibrous or synthetic erosion control netting shall be applied. The fibrous or synthetic erosion control netting shall be secured with six inch (6") long metal staples or No. 8 wire along all edges at twelve inches (12") on center. All joints are to overlap in the netting a minimum of four inches (4") and secured with staples a minimum of four inches (4") apart.

L. Sodded Areas. Where protective groundcover is to consist of sod, it is suggested the permanent lawn areas to be sodded be prepared in the following manner:

1. All areas shall be provided with adequate top soil having an average thickness of six (6) inches and graded as required to finished grades established on the approved grading plan. Top soil shall be scarified as required.
2. A dense cultivation sod of bluegrass, bromegrass or rescue shall be installed. Only moist, fresh sod shall be used.

3. Sod should be installed in Spring or Fall or as moisture requirements are met and when the ground is not frozen.
4. Sufficient irrigation shall be provided to insure the growth of newly installed sod. The obligation to furnish irrigation when sprinkling restrictions are in effect remain the responsibility of the permittee.

M. Approval of Ground Cover. The Director of Public Works & Engineering may approve a ground cover of a substance other than grass, as long as the groundcover maintains the proposed storm water runoff capabilities of the area to be so landscaped in substantial conformity with the degree of groundcover that would be accomplished if grass were installed so long as the substance other than grass is not injurious to the health, safety and welfare of the surrounding residents.

N. Conditional Occupancy Permit.

1. If a parcel cannot be final graded because of adverse weather conditions or other conditions beyond the control of the permittee, the Building Official, with concurrence from the Director of Public Works & Engineering may issue a conditional occupancy permit. The conditional occupancy permit shall be effective for only the reasonable number of days sufficient to sustain the adverse weather conditions or the other conditions that were beyond the permittee's control. In those instances where a conditional occupancy is to be issued, the permittee shall furnish a cash bond in an amount sufficient to guarantee the installation and successful growth of the protective groundcover. In no case shall the cash bond be in excess of the total cost to the City to have the work done by an outside contractor.
2. At the time of issuance of a conditional occupancy permit, the permittee, builder or owner shall sign a document informing them of the provisions necessary to obtain a final occupancy permit. The document referred to herein shall be signed by the permittee, builder or owner prior to the time the conditional occupancy permit is issued. At the time of application for a conditional occupancy permit, the Building Official shall determine the reasonable number of days for permittee's compliance with the requirements of a final occupancy permit based upon the weather conditions or other conditions that made the issuance of a final occupancy unreasonable because of the conditions.

O. Non-Conformity with Approved Plans. Any deviation from the approved grading plans as attached to the grading permit shall require the following: the resubmission of a grading plan indicating what changes are necessary as a result of the noncompliance with the approved grading plans. The revised grading plan application shall include the same information as required in the case of application for the original grading permit. All work on the parcel shall terminate until the time as new grading plans are submitted by the

permittee and approved by the City. All persons aggrieved by a decision of decisions of the Director of Public Works & Engineering shall have the right of appeal to the Corporate Authorities by serving a seven (7) days' written notice on the Corporate Authorities. A hearing on the appeal shall be conducted with notice given to adjoining property owners in all cases involving appeals that may have a substantial adverse effect on adjoining property.

P. Final Occupancy Permit. Upon completion of the final grading and the installation of protective groundcover in substantial conformity with the approved plans, a final occupancy permit shall be issued to the holder of the grading permit; however, in those cases where nonconformity with the City ordinances do not permit the issuance of a final occupancy permit, the permit shall not be issued. Determination of conformity with the approved grading plans shall be made by the Director of Public Works & Engineering.

Q. Grading Permit Fees.

1. Review and Inspection. The fee for a grading permit shall be ~~\$50~~ \$100 for a detached single-family home and ~~\$25~~ \$50 per unit for a multiple family building. The fee shall be considered to cover the City's expenses related to the review of the proposed grading plan, top of foundation spot survey, final grade survey and the inspection of the final grade and landscaping.

2. Re-reviews/Re-inspections. The permittee shall be required to pay a fee of ~~\$25~~ \$100 for the third and all subsequent re-views of grading surveys and inspections. Re-reviews and re-inspections will not be performed until all fees have been paid.

3. Plan preparation/surveys. All costs for providing grading plans, grading surveys or any other material required to be furnished by this section shall be underwritten by the permittee at the permittee's expense.

4. Reimbursement of Additional Fees. At its discretion, the City may elect to hire a professional consulting firm to complete grading plan or survey reviews and/or inspections. The permittee shall reimburse the City any and all engineering review and inspection fees incurred that exceed the amounts collected in 1 and 2 above.

R. Vacant Property. Vacant property shall be graded and maintained in conformity to the established streets grades at curb level. The lot shall be maintained free from the accumulation of rubbish and all other unsafe or hazardous conditions which endanger the life, safety or health of the public. Provision shall be made to prevent the accumulation of water or damage to any adjoining property. The lot shall be properly maintained with suitable groundcover to prevent soil erosion or accumulation of weeds.

SECTION 153.50.140 PUBLIC UTILITIES

- A. All lines for electronic sounds and signals, telephone, and electric services shall be placed in easements and entirely underground. Where electronic sounds and signals, telephone, and electric service lines are placed underground entirely throughout a developed area, the conduits or cables shall be placed within easements or dedicated public ways in a manner which will not conflict with other underground services. All transformer and terminal boxes shall be located so as to not be unsightly or hazardous to the public.
- B. All underground electrical sounds and signals, telephone and electrical service lines to a single-family home or to a two-family dwelling shall be installed along the side lot line and then along the rear of the building if necessary, rather than running the service lines through the middle of the rear yard.
- C. All gas mains shall be placed within street rights-of-way or within easements.
- D. Underground utility work shall not commence until the appropriate public utilities have been staked and the Director of Public Works & Engineering or authorized designee has inspected, reviewed and approved their proposed location.

SECTION 153.50.150 PARKWAY LANDSCAPING

- A. General All subdivisions shall provide for the landscaping of all parkways and areas to be dedicated to the public, in accordance with this Section and other City ordinances.
- B. Authority The Director of Public Works & Engineering or authorized designee has the authority to require and/or grant permission for planting and maintaining trees and other landscaping on public streets and municipal and other properties, including private property, when such trees and landscaping are installed or maintained pursuant to this Section.
- C. Areas to be Graded and Sodded
 - 1. All areas within the dedicated street area or other public areas and all swales draining more than two (2) lots shall be graded and sodded in an approved manner, unless otherwise specifically approved in writing by the Director of Public Works & Engineering or authorized designee. Unless otherwise approved, such swales shall be sodded with a minimum width of sodding of ten (10) feet. Restoration work shall be subject to the approval of the Director of Public Works & Engineering or his/her designee.
 - 2. Areas to be sodded shall be graded smooth and topped with at least six (6) inches of black dirt after compacting and removal of stumps, trees that cannot be saved, boulders

and other debris. These areas shall be sodded in accordance with Section 644 of the Standard Specifications for Road and Bridge Construction.

3. Preparation of Seed Bed

- a. In areas containing existing trees, grading and tilling activity shall be completed in a manner least disruptive to the health of the tree(s).
- b. After the areas to be seeded have been brought to proper grades, the area shall be thoroughly tilled to a depth of at least three (3) inches by discing, harrowing, or other approved methods until the condition of the soil is acceptable.
- c. Fertilizer shall be distributed uniformly at the rate of four hundred (400) pounds per acre and shall be incorporated into the soil to a depth of at least three (3) inches by discing, harrowing or other approved methods.

4. Planting Planting shall be done by hydro-seeding with a mulching material unless otherwise approved by the Director of Public Works & Engineering, during March, April, the last two (2) weeks of August, September, and the first two (2) weeks of October; but no soil will be sown during high winds, nor until the surface is suitable for working and is in proper condition for seeding.

D. Prohibited Parkway Trees

1. Ash trees shall be prohibited within the City of Lockport.
2. Prohibited parkway trees. The following trees shall not be allowed for planting in parkways unless otherwise approved by the Director of Public Works & Engineering.
 - a. Elms (Siberian, Chinese)
 - b. Willows
 - c. Poplars
 - d. Box Elders
 - e. Soft Maples
 - f. Ornamental (Crab trees, flowering shrubs, fruit trees)
 - g. All upright Evergreens
 - h. Ash
 - i. Bradford Pear
3. Prohibited parkway trees under utility lines. In addition to the prohibited parkway tree list above the following trees shall not be allowed for planting in parkways when overhead utility lines are present unless otherwise approved by the Director of Public Works & Engineering.
 - a. Silver maple
 - b. Norway maple
 - c. Sugar maple
 - d. Oak
 - e. Bradford Pear
 - f. Pine
 - g. Sycamore
 - h. Ash
 - i. Honeylocust
 - j. Willow
 - k. Linden
 - l. Spruce

E. Approved Parkway Trees

Trees to be planted in the City parkways shall be selected from the tree appendices listed below, unless in the opinion of the Director of Public Works & Engineering, the tree will not survive, be a nuisance in the location or locations indicated, or result in an over-population of a species in the area. Trees in the appendices are trees which may be approved and not necessarily a recommendation. Tree Appendix A contains a list of trees approved in parkways when overhead utilities are not present. Tree Appendix B contains a list of approved parkway trees when overhead utilities are present.

Tree Appendix A: Approved Parkway Trees when overhead utilities lines are not present.

- *1. Norway Maple
 - Schwedler Maple
 - Crimson King Maple
 - Emerald Queen
 - Summer Shade
- 2. Red Maple
 - October Glory
 - Red Sunset
 - Cardinal
- 3. Sugar Maple
- 4. European Black Alder
- 5. Hackberry
- 6. European Beech
- 7. Copper Leaf Beech
- 8. Ginko or Maidenhair Tree (male only)
- *9. Honey Locust (thomless and seedless)
 - Majestic
 - Skyline
 - Shademaster
 - Imperial
 - Sunburst
 - Moraine
- 10. Kentucky Coffee Tree
- 11. European Larch
- 12. Northern Red Oak
- 13. Burr Oak
- 14. English Oak
- *15. Linden
 - Greenspire
 - Redmond
- 16. Horsechestnut
- 17. Sweet Gum
- 18. Kwanzan Cherry
- 19. Sargent Cherry
- *20. Hybrid American Elm
- 21. Others as approved by the Director of Public Works & Engineering

(*) Those species which have been found to be most compatible with the range of conditions found in the City of Lockport.

Tree Appendix B: Approved Parkway Trees when overhead utilities lines are present.

Common name	Botanical name	Height x Width	Height of power line under which the tree can be planted	Useful characteristics
Hedge maple	<i>Acer campestre</i>	30' x 30'	40' primary	Yellow fall color
Tartarian Maple	<i>Acer tataricum</i>	25' x 30'	35' primary	Red fruit, yellow fall color, tolerant of dry alkaline soils
Purple blow maple	<i>Acer truncatum</i>	25' x 20'	35' primary	Good pest resistance, yellow-orange-red fall color.
American hornbeam / Ironwood	<i>Carpinus caroliniana</i>	20' x 25'	30' primary	Orange-red fall color, slow growing. Flowers appear in spring.
Winter king hawthorn	<i>Crataegus viridis</i> 'winter king'	25' x 25'	35' primary	Few, if any thorns. White flowers which turn red to purplish red in fall.
Amur maackia	<i>Maackia amurensis</i>	30' x 35'	40' primary	Slow growing, pest resistant, tolerant of dry soils and full sun, creamy white pea like flowers.
Hophornbeam	<i>Ostrya virginiana</i>	30' x 20'	40' primary	Hop-like fruit, slow growing
Other trees permitted as approved by the Director of Public Works & Engineering				

Certain species listed in the above appendices have special requirements which must be provided by the developer in order to insure the trees survive in a healthy condition. These requirements sometimes include well drained soils, acid soils, or other conditions. It is the developer's responsibility to denote in the Development Plan or Subdivision Plat what measures, if any, have been taken to survey existing conditions to insure compatibility with each planting specie he proposes and what modifications, if any, he proposes to provide to existing conditions in order to insure final conditions which are compatible with each proposed specie.

All crippled, deformed and physically damaged trees, regardless of species shall be removed and replaced if an inspection by the City indicates recovery and normal development cannot be expected. All trees infected with non-curable disease that will

result in deformation, death, and infection of other trees, shall be removed and replaced with healthy species.

The location of planting sites shall take into consideration height restrictions, underground utilities. Appropriate species shall be considered for these accommodations.

F. Variety in Planting

1. Diversification of tree species selection is desired to be as great as possible. For every linear mile, and succeeding mile or fraction thereof, of parkway in a development, a minimum of four (4) different species is required. Deviation from the above will be considered only after a written request is made to the Director of Public Works & Engineering for his review and approval.
2. An approved master tree-planting schedule shall be submitted and must be approved by the Director of Public Works & Engineering.

G. Requirements for Planting Trees

1. Trees

- a. All plants shall conform in size and grade to "American Standard for Nursery Stock."
- b. All plants will be handled and planted in accordance with accepted horticultural practices and professional standards as published by the Illinois Landscape Contractors Association in "A Uniform Set of Workmanship Standards in Landscape Specifications."
- c. Specified varieties of any species shall be specimen type trees and shall be first class representatives of their normal species and varieties. They shall have well developed root and branch systems, reasonably straight stems, and a well-defined single leader.
- d. Trees shall be nursery grown with a good compact, fully developed fibrous root system which has been developed by proper cultural treatment and is sufficient enough to insure plant growth.
- e. Parkway trees shall be required for all street right-of-ways, including public and private streets. Trees shall be planted in the parkways not less than four (4) feet from any sidewalk or curb and spaced not less than forty (40) feet and not more than fifty (50) feet apart and not less than one (1) per lot. However, at a street corner, trees shall be located at least thirty (30) feet from the intersection of street right-of-way lines. If it has been determined by the Director of Public Works & Engineering that parkway trees cannot or should not be planted in the parkway, the number of parkway trees required shall not

be reduced and shall be planted elsewhere on the property as approved by the Director of Public Works & Engineering.

- f. All overstory trees shall have a minimum trunk diameter of two and one-half (2.5) inches, as measured at DBH. Trees shall be northern nursery grown (hardiness zone 5 USDA MAP). Trees shall have been transplanted twice, the last transplanting not less than four (4) years prior to planting. All trees shall be tagged and identified as to species, size, and place of origin. Tags shall remain in place until inspection and approval by the Director of Public Works & Engineering is done both at the nursery and at the final planting site. All trees shall be balled and burlapped. All trees shall have straight trunks and good branching. Branches shall begin from five (5) to six (6) feet above ground level and shall be high quality representatives of their species in all regards, including general shape.
- g. Each tree shall be planted plumb and at the same level as where it stood in the nursery in relation to finished grade. Backfill shall be black top soil properly fertilized with organic fertilizer and shall be thoroughly watered when the hole is two-thirds (2/3) full of topsoil.
- h. All spoils, shall be removed from the site.
- i. After watering, the filling shall be completed and the soil thoroughly tamped. After planting, a four (4) inch depth mulch of wood chips or an approved equal shall be applied over the disturbed ground and a shallow watering basin provided around the tree.
- j. All digging of trees in the nursery and all planting shall be done during the proper season.
- k. Each tree shall be staked when necessary with a two (2) inch square stake six (6) feet long. The stake shall be driven plumb two (2) feet into the ground adjacent to the tree. Each tree shall be tied at the top with a figure eight hitch consisting of AWG #14 wire encased in a section of rubber hose at the tree. If necessary, guide wires shall be used where more support for the tree is needed.
- l. All trees shall be maintained until established. All trees not in a vigorous growing condition after one (1) growing season shall be replaced at the beginning of the next succeeding planting season, at no cost to the City.
- m. Tree pits shall be at least eighteen (18) inches wider than the diameter of the ball, have vertical sides and a depth of at least twenty-four (24) inches below finished grade.

2. Shrubs

Shrubs, bushes, or evergreen bushes existing in the public ground or dedicated right-of-way shall not exceed thirty (30) inches in height. Deciduous trees in the public ground or dedicated right-of-way shall be maintained with their branches not lower than six (6) feet from the ground. Existing evergreen trees shall be allowed to remain as are. Notwithstanding the foregoing provisions, no planting, fence or other obstruction to vision shall be maintained on a dedicated right-of-way, alley, other public ground, or other property if it is detrimental to the public health, safety or welfare.

SECTION 153.50.160 PROTECTION AND RESTORATION REQUIREMENTS

- A. Introduction A portion of the proposed construction required in connection with a subdivision or development is often located in or adjacent to areas with existing surface or underground improvements. The intent of this Section is to codify City requirements relative to construction affecting existing and future improvements and the restoration of existing improvements. Plans and specifications presented for City approval shall provide for the implementation of the requirements of this Section.
- B. Hand Excavation Where working space will permit, trenches may be excavated by machine provided that by so doing, public and private improvements will not be subjected to damage. If, however, excavation by machine methods cannot be made without material damage being done, hand excavation shall be employed.
- C. Bracing and Sheet piling Open-cut trenches shall be sheeted and braced as required by any governing Federal or State laws and as may be necessary to protect life, property and the work.
- D. Trench Side Slopes The contractor may, where working conditions and right-of-way permit, excavate pipeline trenches with sloping sides above the top of the conduit only.
- E. Short Tunnels Trees, fire hydrants, sidewalks and other obstructions may be encountered, the proximity of which may be a hindrance to open-cut excavation. In such cases, the contractor shall excavate by means of short tunnels in order to protect such obstruction against damage.
- F. Piling Excavated Material All excavated material shall be piled in a manner that will not endanger the work and that will avoid obstructing sidewalks and driveways. Fire hydrants under pressure, valve pit covers, valve boxes, curb stop boxes, or other utility controls shall be left unobstructed and accessible until the work is completed. Gutters shall be kept clear or other satisfactory provisions made for street drainage. Natural watercourses shall not be obstructed.

- G. Structure Protection Temporary and permanent support, adequate for protection and maintenance of all underground and surface structures, drains, sewers, water mains, service lines, and other obstructions encountered in the progress of the work shall be required. Structures which have been disturbed shall be restored.
- H. Protection of Property and Surface Structures Trees, shrubbery, fences, poles and all other property and surface structures shall be protected during construction operations. Any fences, poles or other man made surface improvements which are moved or disturbed shall be restored to their original condition after construction is completed. Any trees, shrubbery or other vegetation which are approved for removal shall be removed completely, including stumps and roots. Responsibility for any damage or claims for damage caused by construction operations to shrubbery or other landscape improvements which were not authorized for removal shall be assumed by the developer. Settlement of any damage or claims for damage shall be made by the developer as soon as possible and in a manner satisfactory to Director of Public Works & Engineering or authorized designee.
- I. Interruption to Utilities and Damage to Surface Improvements All reasonable precautions shall be taken against damage to existing utilities. In the event of a break in an existing water main, gas main, sewer or underground cable, the developer shall immediately notify a responsible official from the organization operating the utility interrupted. The developer shall lend all possible assistance in restoring service and shall assume all costs, charges or claims connected with the interruption and repair of such services. In the case of City utilities, the cost of such work will be billed to the developer as follows:
1. Wages will be billed at two and one-half (2.5) times the wages expended.
 2. Equipment rates will be charged based directly upon the most current published rental rates of the Illinois Department of Transportation.
 3. A flat service fee of two hundred dollars (\$200.00) will be charged on each and every emergency call as a mobilization fee. All other emergency repair work by the City, as well as any other work that may be performed by the City at the request of the developer, will be performed at the above rates.
- J. Traffic Control All work within public rights-of-way shall conform to the requirements of the Manual on Uniform Traffic Control Devices. The provisions of this Manual will be enforced when:
1. An opening is made into the existing pavement.
 2. Construction takes place adjacent to the edge of the existing pavement.
 3. A utility crossing is made beneath the existing pavement.
 4. It is necessary to close a lane of traffic due to construction operations.
- A full lane closure will be required whenever construction is underway or whenever a vehicle is parked in the lane normally used for through traffic, (even if this facility is on a four-lane roadway). Written permission for such a lane closure must be obtained from the

Director of Public Works & Engineering or authorized designee prior to commencing construction. Signage will be required in accordance with the Manual on Uniform Traffic Control Devices. No construction operation shall commence until such time that all required signs and barricades have been erected.

Unless written authorization is obtained from the Director of Public Works & Engineering or authorized designee, all openings in any pavement or traveled way will be backfilled prior to the end of each working day. All excavations shall be backfilled with FA-6 sand, and a temporary asphalt surface patch of at least two (2) inches in thickness shall be constructed. In lieu of an asphalt patch, a steel plate (minimum of one (1) inch of thickness) over the excavation may be approved by the Director of Public Works & Engineering or authorized designee upon request by the developer.

- K. Pavement Crossings Unless otherwise specifically approved by the Director of Public Works & Engineering or authorized designee, all conduits crossing existing pavements shall be installed by tunneling, jacking or auguring. When the carrier pipe is a conduit intended to operate under internal pressure, a casing pipe of adequate strength for all applied loads shall be used. The nearest face of pits or other open excavations on each side of a traveled pavement shall be at least ten (10) feet from the edge of the pavement.
- L. Restoration of Existing Improvement Surfaces The contractor shall restore all permanent-type pavements, sidewalks, driveways, curbs, gutters, trees, shrubbery, lawns, fences, poles, and other property and surface structures removed or disturbed during or as a result of construction operations to a condition which is equal in appearance and quality to the condition that existed before the work began. The surface of all improvements shall be constructed of the same material and match in appearance the surface of the improvements which were removed. All pavement and restoration limits are per the discretion of the Director of Public Works and Engineering and will be determined and based on logical termini regardless of actual disturbance area.
- M. Removal of Pavement, Sidewalks, Driveway and Curb When a conduit is located along or across an improved surface, the width of the trench at the top of the excavation shall be held as nearly as possible to the maximum width indicated in the Standard Specifications for Water and Sewer Main Construction in Illinois. Where concrete pavements, sidewalk, driveway or curbing is cut, the width of the cut shall exceed the actual width of the top of the trench at subgrade by twelve (12) inches on each side. Exposed surfaces of Portland cement concrete or asphalt shall be cut with a pavement saw before breaking. Care shall be taken in cutting to ensure that a straight joint is secured.

- N. PCC Pavement Surface Where the existing pavement surface is Portland cement concrete, the pavement replacement shall match existing pavement thickness except the pavement thickness shall not be less than that shown on the City of Lockport Standard Detail #70-12.
- O. Hot-Mix Asphalt Pavement Surface with Flexible Base Where the existing pavement surface is asphalt and the base consists of a flexible material such as aggregate, asphalt, pozzolanic materials or soil cement, the pavement replacement shall be installed in accordance with the City of Lockport Standard Details.
- P. PCC Sidewalks, Driveways, Curbs and Gutters Where necessary to remove and replace Portland cement concrete sidewalk, driveways, curb, and combination curb and gutter, replacement items shall be constructed or patched in accordance with the City of Lockport Standard Details.
- Q. HMA Driveways Where necessary to remove and replace asphalt driveways, the pavement replacement shall be installed in accordance with the City of Lockport Standard Details.
- R. Cultivated Lawns When cultivated lawns are damaged, the areas so damaged shall be restored by furnishing and placing top soil and furnishing and placing sod as detailed in this Section.
1. Top soil shall be furnished and placed to a depth of six (6) inches in accordance with Section 211 of IDOT's Standard Specifications for Road and Bridge Construction. The work to be done includes preparing the subgrade, removal of surplus earth, filling all irregularities or depressions in the planting area due to settlement, weathering or other causes, furnishing, placing, raking, and rolling top soil, and all incidental work. The furnished top soil shall consist of loose, friable, loamy, non-acid soil, rich in organic matter, and free from clay, and/or other objectionable matter. Before top soil is placed, the area to be covered shall be shaped, trimmed and finished so that the specified amount of top soil shall bring the area to the proper grade. If the existing surface has become hardened or crusty, it shall be raked or otherwise loosened to provide a suitable bond with the top soil. The top soil shall be deposited and spread over the planting surface, left with a smooth surface and carefully rolled.

2. Furnishing and placing sod shall include preparing the ground surface and furnishing, transporting and placing the sod and other materials required in the sodding operation, all in accordance with Section 252 of IDOT's Standard Specifications for Road and Bridge Construction. The sod shall be well-rooted Kentucky Bluegrass on private property and salt-tolerant sod within the public rights-of-way. Each piece of sod shall be well covered with turf grass, shall be free from noxious weeds and other objectionable plants, and shall not contain substances injurious to growth. The grass shall be cut to a length of not less than two (2) inches, nor more than four (4) inches before the sod is cut. The consistency of adherent soil shall be such that it will not break, crumble, or tear during handling and placing of the sod. The sod shall be cut in square or rectangular pieces with its shortest side not less than twelve (12) inches nor more than eighteen (18) inches long. The cut sod shall be not be less than two (2) inches thick. Sod which has been cut more than thirty-six (36) hours prior to placing shall not be used without the approval of the Director of Public Works & Engineering or authorized designee. All sod in stacks shall be kept moist and protected from exposure to the sun and wind, and from freezing. Agricultural ground limestone and fertilizer nutrients shall be included as required. Regular watering shall be provided until the sod is well established.
- S. Cleanup Before acceptance of subdivision or development improvements, all pipes, manholes, catch basins, inlets, valve vaults, fire hydrants, and other appurtenances shall be cleaned of all debris and foreign material and all fire hydrants shall be field painted.
- T. Saw Cutting When necessary to remove sections of existing pavement or sidewalk, the edges of the portion to be removed shall be cleanly cut to full depth with a wet concrete saw.

CHAPTER 153.70

ADMINISTRATION AND ENFORCEMENT

Sections:

- 153.70.010 Building Permits
- 153.70.020 Certificates of Occupancy
- 153.70.030 Severability
- 153.70.040 Enforcement
- 153.70.050 Fees
- 153.70.060 Penalties
- 153.70.070 Amendments

SECTION 153.70.010 BUILDING PERMITS

All requirements of this Chapter shall be fully complied with before any Building Permit shall be issued by the City Building Official for the construction of any building, structure, or improvement to the land or any lot within a subdivision as defined herein. Furthermore no building permit shall be issued until a Final Subdivision Plat or Final Development Plan has been approved and the following improvements necessary to serve the development have been completed: public water system, public sanitary sewer system, storm sewer system, stormwater detention basin (excluding landscaping), roadways providing access to the subject lots with only the final surface course remaining to be completed, and rough grading of the development according to the approved final engineering plans.

SECTION 153.70.020 CERTIFICATES OF OCCUPANCY

A Certificate of Occupancy shall not be granted by the City Building Official for the use of any structure within any subdivision or development until the required utilities and appurtenances have been installed and made ready to serve the property; and that roadways providing access to the subject lot or lots have been constructed, or are in the process of construction with only the final surface course for the street remaining to be completed; the water meter has been installed and made ready to service the parcel; the sidewalks, driveways, and parking areas are installed; the street lights, the required number of parkway trees for that lot, and street signs have been installed; and that subdivision or development improvements comply with this Chapter and other applicable ordinances and rules and regulations of the City.

SECTION 153.70.030 SEVERABILITY

If any section, paragraph, clause, phrase or part of these regulations is for any reason held invalid, the validity of the remaining provisions of these regulations, and the application thereof to any person or circumstances, shall not be affected thereby.

SECTION 153.70.040 ENFORCEMENT

This Chapter of the Municipal Code shall be enforced as follows:

- A. It shall be the duty of the Director of Community & Economic Development or authorized designee to enforce Chapters 153.10 General Provisions, 153.20 Development Review Procedures and Requirements, and the Landscaping Ordinance and to serve notice by letter or citation to such persons or companies as are in violation of these Sections.
- B. It shall be the duty of the Director of Public Works & Engineering, or authorized designee, to enforce Chapters 153.30 Subdivision Requirements and Standards; 153.40 Procedures for Approval and Acceptance of Improvements; and 153.50 General Design Standards and Specifications and to serve notice by letter or citation to such persons or companies as are in violations of these Sections.
- C. For Chapters and/or Sections not specifically listed in A. or B. and for Sections of certain Chapters listed in A. or B. that address both Planning and Engineering content, enforcement of and/or notification of violations to these Chapters and/or Sections may be by either the Director of Community & Economic Development or authorized designee, or the Director of Public Works & Engineering, or authorized designee, depending on the related professional discipline of the Chapter or Section.
- D. After notification, the Director of Community & Economic Development or authorized designee and/or Director of Public Works & Engineering, in his/her sole discretion shall allow such reasonable time as may be needed to correct any deviation noted in this Chapter. After such time, the Director of Community & Economic Development or authorized designee and/or Director of Public Works & Engineering, may proceed with any of the following steps:
 1. Assignment of fines and penalties as provided in Section 153.70.080.
 2. Assignment of fines or initiation of corrective action by the City as provided in the appropriate Section of this Chapter, including issuance of stop work orders.
 3. Refusal to proceed with the applicant's approval process as outlined in this Chapter.
 4. Refusal to certify to the Corporate Authorities that the subdivision or development is in conformance with the plans approved by the Corporate Authorities.
 5. Other action that the City Administrator may deem to be appropriate, after consulting with the Director of Community & Economic Development or authorized designee and/or Director of Public Works & Engineering.

SECTION 153.70.050 FEES

A. Planning Application and Review Fees

1. Concept, Preliminary and/or Final Plat or Plan: Upon presentation of any subdivision and/or development plan, the Applicant shall pay a non-refundable application and review fee of the following:

a. Application Fee: \$250 plus \$10 per acre of land or fraction thereof in the proposed subdivision or development.

b. Review Fee:

1) Concept and/or Preliminary Plan

a) Less than three (3) acres: \$2,000

b) 3.01 to 5.00 acres: \$3,000

c) 5.01 to 10.00 acres: \$4,000

d) Greater than ten (10) acres: \$5,000

2) Final Plan / Final Plat

a) Less than three (3) acres: \$1,000

b) 3.01 to 5.00 acres: \$2,000

c) 5.01 to 10.00 acres: \$3,000

d) Greater than ten (10) acres: \$4,000

2. Amendments to Concept, Preliminary and/or Final Plat or Plan Application and Review Fees: Upon presentation of an amendment to an approved, Concept, Preliminary and/or Final Plat or Plan, the Applicant shall pay a non-refundable application and review fee of:

a. Application Fee: \$100 plus \$10 per acre of land or fraction thereof in the proposed subdivision or development.

b. Review Fee: \$2,000

B. Annexation, Annexation Agreement and/or Developer's Agreement Review Fees Upon presentation of an application to annex into the City of Lockport, or submission of an Annexation, Annexation Agreement and/or Developer's Agreement, and/or any amendment to the above, the Applicant shall pay a non-refundable fee of the following amount:

1. Residential developments (excluding planned unit developments):

Less than 2 acres:	\$ 225
2 acres to less than 5 acres:	\$ 300
5 acres to 10 acres:	\$1,000
10+ acres:	\$2,000
2. Nonresidential developments, planned unit developments, and/or mixed use planned unit developments: \$1,500 + \$100 per acre for every acre over two (2) acres.
3. Publication Costs: All developments shall reimburse the City for publication costs associated with the Annexation Public Hearing or other hearings prior to execution of the Annexation Agreement or Developer's Agreement.

C. Engineering Plan Review and Inspection Fees

1. Concept Plan Review Fee: At the time of application for review of a Concept Plan, the applicant shall pay a non-refundable engineering review fee of the following:

Less than 3 acres:	\$ 1,500.00
3 acres to less than 5 acres:	\$ 1,500.00
5 acres to less than 10 acres:	\$ 4,000.00
10 acres to less than 30 acres:	\$ 4,000.00
30 + acres:	\$ 4,000.00
2. Preliminary Plat/Plan Review Fee: At the time of application for review of a Preliminary Plat/Plan, the applicant shall pay a non-refundable engineering review fee of the following:

Less than 3 acres:	\$ 5,000.00
3 acres to less than 5 acres:	\$ 5,000.00
5 acres to less than 10 acres:	\$ 8,500.00
10 acres to less than 30 acres:	\$ 8,500.00
30 + acres:	\$ 8,500.00
3. Final Engineering Review Fee: At the time of final Engineering submittal, the applicant shall pay a non-refundable engineering review fee in the amount of 2% of the design engineer's estimate of probable cost of total public and private site improvements, as approved by the Director of Public Works & Engineering, which includes but is not limited to: mass grading, stormwater management facilities, sanitary sewer, water mains, storm sewers, street improvements, street lighting, sidewalks, landscaping, erosion control, street signs, traffic control signs. The estimate shall be

delineated into the on-site and off-site public improvements and private improvements, when applicable, as estimated by the design engineer and approved by the Director of Public Works & Engineering.

4. Final Engineering Inspection Fee: At the time of posting the required Letter of Credit or Performance Bond, the applicant shall pay a non-refundable inspection fee in the amount of 2% of the design engineer's estimate of probable cost of total site improvements as approved by the Director of Public Works & Engineering. Inspection fees shall be in addition to the required Final Engineering Review Fee in item 3 above.
 5. Reimbursement of Additional Fees: At its discretion, the City may elect to hire a professional consulting firm to complete engineering plan reviews and /or inspections. The Developer shall reimburse the City any and all engineering review and inspection fees incurred that exceed the amounts collected in items 1-4 above, through the project's completion; as determined by the Director of Public Works & Engineering and the City's acceptance of all public and private improvements associated with the project.
- D. Stormwater Management Permit Fee: After the completion of the review of the final engineering documents for any subdivision or development requiring a City of Lockport stormwater management permit, the Applicant shall pay a non-refundable stormwater permit fee in the amount of \$250 for all developments.
- E. Other Fees: The applicant, or petitioner, as the case may be, shall be obligated to reimburse the City of Lockport for any fees incurred by the City for hiring professional consultants (legal, land planning, financial or other professional consultants) that may be required in the review of the application.
- F. Excessive Number of Reviews & Fees: The review fees listed above allow for three (3) reviews to be completed by staff and any consultants engaged by the City to complete the required reviews of Concept Plans, Preliminary Development Plans or Subdivision Plats, and Final Development Plans or Subdivision Plats. Should additional plan or plat reviews be necessary due to circumstances created by the applicant, the City may at its discretion, charge an applicant an additional review fee equal to one-half (1/2) the original review fees submitted at the time of application for each subsequent review. The applicant shall pay these fees to the City before any further review of the plan/plat is commenced.

SECTION 153.70.060 PENALTIES

Any person who fails to comply with, or violates any of the provisions of this Title shall be subject to a fine of not less than one thousand dollars (\$1,000.00) and not more than five thousand dollars (\$5,000.00), and a separate offense shall be deemed committed for each day the violation continues.

SECTION 153.70.070 AMENDMENTS

For the purpose of promoting the public health, safety and general welfare, the Corporate Authorities may from time to time amend the regulations imposed by this Title.