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SUBDIVISION AND DEVELOPMENT REGULATIONS**

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Chapter Sixteen
SUBDIVISION AND DEVELOPMENT REGULATIONS

GENERAL PROVISIONS

Sec. 16-1: (Title)

The title of this chapter shall be “Subdivision and Development Regulations for the City of Watseka, Iroquois County, Illinois.”

Sec. 16-2: (Intent and Purpose)

This Title is adopted for the following purposes; to:

- (a) Insure sound, harmonious subdivision development and community growth which will become a permanent community asset by establishing minimum standards for subdivision design and construction.
- (b) Assure the development of land for the highest and best use with all the necessary protection against deterioration and obsolescence which would adversely affect the living environment or tax base.
- (c) Provide common grounds of understanding and a sound working relationship between the City and the developer and to safeguard the interests of the home owner, the subdivider, the investor and the City.
- (d) Control the scattered and premature platting of lots beyond the effective operating range of existing public utilities and improvements.
- (e) Cause the cost of design and installation of improvements in new, platted subdivisions to be borne by the persons purchasing the lots rather than be any direct or indirect burden upon existing property owners beyond the limits of the subdivision who have already paid for the improvements servicing their property.
- (f) Bring about compact development of both homes and public improvements without the delay often experienced through future use of special assessment methods.
- (g) Coordinate new subdivision design with the design of the City as a whole to allow for the proper capacity of all types of improvements on the basis of an orderly sequence of subdivisions as a part of neighborhoods and neighborhoods as a part of the community.
- (h) Secure the rights of the public with respect to public lands and waters.
- (i) Improve land records by establishing standards for surveys and plats.
- (j) Otherwise provide for the health, safety, comfort, and convenience of the residents of the City and surrounding territory.

Sec. 16-3: (Jurisdiction)

These regulations shall be applicable to all subdivisions, resubdivision, and development of residential or non-residential territory within the corporate limits of the City and unincorporated territory not more than one and one-half miles beyond the corporate limits and not included in any other municipality. In the event of overlapping jurisdiction with other municipalities within one and one-half miles of the corporate limits of the City, the extent of jurisdiction of the City shall be as determined and agreed upon between the municipalities or as provided by statute.

Sec. 16-4: (Interpretation)

- (a) In interpretation and application, the provisions of this chapter shall be held to be the minimum requirements.
- (b) Where the conditions imposed by any provisions of this chapter with respect to the use of land are either more restrictive or less restrictive than comparable conditions imposed by any provisions of any other ordinance or any law, resolution, rule or regulation of any kind, the regulations which are more restrictive or which impose higher standards or requirements shall govern.
- (c) This chapter is not intended to abrogate the provisions of any easement, covenant, or any other private agreement with respect to the use of land but no such provision shall operate to lessen the restrictions or lower the standards as provided in this chapter.
- (d) If any subchapter, section, division, sentence, clause, phrase or portion of this chapter is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision and such holding shall not affect the validity of the remaining portions hereof.
- (e) Any proposed plat of subdivision or site plan otherwise in conformity with the provisions of this chapter may be disapproved where the Plan Commission, after full examination and review, makes a definite determination that such proposed subdivision or development would be in conflict with the Comprehensive Plan or detrimental to the best interest of the public health, safety, or welfare.
- (f) Any subdivision or development of land which was not lawfully existing at the time of the adoption of this chapter shall not be made lawful solely by reason of the adoption of this chapter, and to the extent that subdivision of land is in conflict in any manner with the requirements of this chapter, said subdivision of land remains unlawful hereunder.

Sec. 16-5: (Definitions)

For the purpose of this chapter the following definitions shall apply unless the context clearly indicates or requires a different meaning.

ALLEY. A public or private right-of-way primarily designed to serve as secondary access to the side or rear of those properties whose principal frontage is on some other street.

APPLICANT. The person, firm, corporation, partnership or other legal entity seeking approval to subdivide or develop a parcel, including the owner of record, contract purchasers, subdividers, developers and other persons having a proprietary interest in the parcel and their successors.

BLOCK. A tract of land bounded by streets or by a combination of streets and public parks, cemeteries, railroad right-of ways, bulkhead lines or shore lines of waterways or the corporate limits of the City.

BUILDING. Any structure built for the support, shelter, or enclosure of persons, animals, chattels or moveable property of any kind, and which is permanently affixed to the land.

BUILDING SETBACK LINE. The line indicating the minimum horizontal distance between the property line and building, either at the front or side of the lot.

COLLECTOR THOROUGHFARE. A street which carries traffic from minor streets to the thoroughfare system, or between secondary thoroughfares, and is so designated as a collector thoroughfare on the Comprehensive Plan.

COMPREHENSIVE PLAN. The general comprehensive plan of the City, including the Official Comprehensive Plan Map and the provisions of this chapter.

CONCEPT PLAN. Plan filed with the Plan Commission prior to the filing of a preliminary plat or preliminary site plan and which shall contain such information as set forth in Section 16-20.

CORPORATE AUTHORITIES. The Mayor and Council of the City.

CUL-DE-SAC. Local street with only one outlet and having an appropriate terminal for the convenient reversal of traffic movement.

DEVELOPMENT. Any construction, building or improvement on a parcel of land or substantial change in any existing structures, including planned unit developments.

EASEMENT. A right or privilege in the real property of another.

FINAL PLAT. A plat of subdivision meeting the requirements of Section 16-22 in the form proposed or approved for recording.

FRONTAGE. Length of the property line of the lot, lots or tract of land abutting a public street, road, highway or rural right-of-way.

GRADE. The slope of a road, street or other public way as specified by percentage.

LOT. A portion of a subdivision or other parcel of land intended for transfer of ownership or for building development.

LOT LINE. A property boundary line of any subdivision lot or any parcel of land held in separate ownership, except that where any portion of the lot extends into the abutting street or alley, such portion of the lot line thereof shall be deemed to be the street or alley line.

MAJOR THOROUGHFARE. A street of considerable continuity which serves or is intended to serve as the principal traffic artery and is so designated as a major thoroughfare on the Official Comprehensive Plan Map, generally having limited access. Owners or occupants of abutting property or lands and other persons have no legal right of access to or from these thoroughfares, except at such points and in such manner as may be determined by the public authority having jurisdiction over such trafficway.

MARGINAL ACCESS STREET. A street which is parallel and adjacent to a major or collector thoroughfare which provides access to abutting properties and protection from through traffic, and is generally referred to as a frontage road.

MINOR STREET. A street of limited continuity used primarily for access to abutting properties and serving local needs of a neighborhood.

OFFICIAL MAP. The Official Comprehensive Plan Map of the City as designated by this chapter.

OWNER. Any person, firm, corporation, partnership or other legal entity vested with the legal incidents of ownership with respect to the land sought to be subdivided or developed under this chapter.

PARCEL. The tract of land which is the subject of an application under this chapter.

PARKWAY. An unpaved area along or within a public right-of-way reserved for planting of grass, trees, shrubbery or otherwise ornamented to provide a park-like character.

PEDESTRIANWAY or *CROSSWALK.* A right-of-way across or within a block for use by pedestrian traffic, whether designated as a pedestrianway, crosswalk, or however otherwise designated and may include utilities where necessary.

PLAN COMMISSION. The Plan Commission of the City.

PLAT. A plan, map, drawing or chart representing a plan for subdivision of land and depicting the information required by this chapter.

PRELIMINARY PLAT. The plat representing the plan of development of a subdivision and containing the information required under § 16.21, intended to provide the applicant with

preliminary approvals on which he can rely for planning purposes.

PRIVATE STREET. Any street not dedicated or not to be dedicated for public use.

PUBLIC IMPROVEMENTS. Any sanitary sewer, storm sewer, drainage ditch, water main, roadway, parkway, sidewalk, pedestrianway, planting strip, off-street parking area, or other facility for which the City may ultimately assume the ownership or responsibility for maintenance and operation.

PUBLIC STREET. Any street which is dedicated or is to be dedicated for public use.

RESUBDIVISION. A change in a map of an approved or recorded subdivision plat if such change affects any street layout on such map or area reserved thereon for public use, or any lot line, or if it affects any map or plan legally recorded prior to the adoption of any regulation controlling subdivisions.

RIGHT-OF-WAY. A strip of land occupied or intended to be occupied by a street, crosswalk, railroad line, electric transmission line, oil or gas pipeline, water main, sanitary or storm sewer main, or for another special use. The usage of the term *RIGHT-OF-WAY* for land platting purposes in the City shall mean that every *RIGHT-OF-WAY* hereafter established and shown on a final plat is to be separate and distinct from the lots or parcels adjoining such *RIGHT-OF-WAY*, and not included within the dimensions of areas of such lots or parcels.

ROADWAY. A paved portion of a street available for vehicular traffic.

SECONDARY THOROUGHFARE. A street of considerable continuity which serves or is intended to serve as a principal traffic artery between the various sections of the City and is so designated as a secondary thoroughfare on the Comprehensive Plan.

SIDEWALK. That portion of a street or crosswalkway right-of-way paved or otherwise surfaced and intended for pedestrian use only.

SITE PLAN. A plan, map, drawing or chart on which the applicant's plan for the development of land is presented and which he submits for approval in accordance with the provisions of this chapter.

STREET. A public or private right-of-way which affords a primary means of vehicular access to abutting properties, whether designed as a street, avenue, highway, road, boulevard, thoroughfare, or however otherwise designed, but excepting driveways to buildings and alleys.

SUBDIVIDE. The division of land into two or more parcels or lots, and includes resubdivision.

SUBDIVISION.

1. Any parcel of land, vacant or improved, which is divided or is proposed to be divided into two or more lots, parcels, sites, units, plots or interest by any method, including planned unit developments; or
2. Any construction, building or improvement on a parcel of land or substantial change in any existing structures, including planned unit developments.

The following shall not be considered a subdivision and shall be exempt from the requirements of this Title:

- A. The resubdivision of land not involving more than three (3) lots none of which is substandard and not requiring new streets to be dedicated;
- B. The sale or exchange of parcels of land between owners of adjoining and contiguous land providing no substandard lot evolves from the transaction;
- C. The conveyance of parcels of land or interests therein for use as rights of way for railroads or other public utility facilities which does not involve any new streets or easements of access;
- D. The conveyance of land owned by a railroad or other public utility which does not involve any new streets or easements of access;
- E. 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;
- F. Conveyances made to correct descriptions in prior conveyances.

SUBDIVISION ADMINISTRATOR. This person is responsible for enforcing these subdivision regulations. He/she shall bring any violation or lack of compliance herewith to the attention of the corporate authorities. Section 16-11 (A) provides additional clarification.

THOROUGHFARE. A street with a high degree of continuity, including major, secondary and collector streets.

CITY ATTORNEY. The City Attorney of the City.

CITY COUNCIL. The Council of the City.

CITY CLERK. The City Clerk of the City.

ZONING ORDINANCE. The Zoning Ordinance of the City as amended from time to time.

Sec. 16-6: (Effect on Existing Plats and Site Plans)

Nothing in this chapter shall be deemed to require any change in the plats, site plans, construction or designated use of any land or structure in the event that all of the following apply:

- (a) Final plat or site plan approval for such subdivision or development was lawfully issued 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.

Sec. 16-7: (Prohibition of Subdivision)

- (a) No person shall subdivide or resubdivide any parcel of land to which this chapter applies within the planning jurisdiction of the City until a subdivision plat, after review and recommendation by the Plan Commission, has received final plat approval by the corporate authorities as required by this chapter.
- (b) No sale of any parcel of land creating a subdivision to which this chapter applies shall be consummated until a subdivision plat, after review and recommendation by the Plan Commission, has received final plat approval by the corporate authorities as required by this chapter.
- (c) No building permit shall be issued for the construction of any building, structure or improvement on any subdivided lot within the City to which this chapter applies until a plat of subdivision has been recorded following review and recommendation by the Plan Commission and after having received final plat approval by the corporate authorities as required by this chapter. In any such subdivision the building permits shall not be issued prior to the time the street name and traffic control signs have been installed; the bituminous binder course for all roadways have been constructed; and any cash contribution in lieu of land dedications provided in the final plat approval have been received; and any other conditions specified for final approval have been satisfied. No certificate of occupancy shall be granted for the use of any building or structure on a parcel within the City and subject to this chapter until sidewalks and street lights have been installed; and the required sanitary sewer and water facilities have been installed and made ready for servicing the parcel.
- (d) No person shall offer for recording any plat of subdivision to which this chapter applies until such plat, after review and recommendation by the Plan Commission, has received final plat approval by the corporate authorities as required by this chapter.

Sec. 16-8: (Prohibition of Development)

- (a) No person shall commence or cause to be commenced any development within the corporate limits or within the planning jurisdiction of the City until a site plan, after

review and recommendation by the Plan Commission, has received final site plan approval by the corporate authorities as required by this chapter. This requirement of site plan approval does not extend to any of the following:

- (1) Any development involving the construction of one (1) single-family dwelling or one (1) multiple-family dwelling unit.
 - (2) Any non-residential development under single ownership or control involving the construction of any new buildings or structures of a total floor area less than five hundred square feet (500 SF).
- (b) No building permit shall be issued for the construction of any building, structure or improvement on any parcel within the City to which this chapter applies until a site plan, after review and recommendation by the Plan Commission, has received final site plan approval by the corporate authorities as required by this chapter. No certificate of occupancy shall be granted for the use of any building or structure on any parcel of land within the City until all conditions specified for site plan approval have been satisfied.
- (c) No person, firm, business entity or corporation, proposing to develop a subdivision within the jurisdiction of these regulations shall proceed with any construction or development work on the site of proposed subdivision until the City has approved and recorded the final plat for the proposed subdivision, and engineering plans, all fees, charges and contributions have been paid by the developer and letters of credit for public improvements have been posted, all other required governmental permits have been issued and otherwise fully complied with all requisite City ordinances and regulations.

Sec. 16-9: (Offerings or Dedications; Plan of Future Development)

- (a) All offerings or dedications of land to the City for use as streets, highways, alleys, schools, parks, playgrounds or other public uses shall be referred to the Plan Commission for review and recommendation prior to acceptance by the corporate authorities or by another municipal body. Title with respect to all such offerings or dedications of land shall be conveyed in fee simple to the City or as the corporate authorities may direct.
- (b) Where a tract or parcel of land proposed for subdivision is a part of a larger parcel of land to be subdivided at a later date, the applicant shall submit to the Plan Commission, in addition to the preliminary plat, a plan of future development for the remaining land.

Sec. 16-10: (Variations)

- (a) Where the Plan Commission finds that extraordinary hardship or practical difficulties may result from the strict compliance with these regulations, it may recommend variances to these regulations so that substantial justice may be done and the public interest secured, provided that such variances shall have not have the effect of nullifying the intent and purpose of these regulations and further provided that the Plan Commission shall not

recommend variances unless it shall make findings based upon the evidence presented to it in each specific case that:

- (1) The granting of the variance will not be detrimental to the public safety, health or welfare or injurious to other property;
 - (2) The conditions upon which the request for a variance is based are unique to property for which the variance is sought and are not applicable generally to other property;
 - (3) Because of the particular physical surroundings, shape or topographical conditions of the specific property involved, a particular hardship to the owner would result as distinguished from a mere inconvenience, if the strict letter of these regulations are carried out;
 - (4) The variances will not in any manner vary the provisions of the Zoning Ordinance, Comprehensive Plan, Official Map or any other City ordinance.
- (b) In recommending variances, the Plan Commission shall require such conditions as will, in its judgment, secure substantially the objectives of the standards or requirements of these regulations.
- (c) A written request for any such variance shall be submitted by the applicant at the time when the preliminary plat or site plan application is filed for the consideration of the Plan Commission. The request shall state fully the grounds and all of the facts relied upon by the applicant.
- (d) The applicant shall pay any and all fees, costs and expenses of the City and its duly authorized agent that are incurred by the City in the processing of any and all applications pursuant to this chapter.

Sec. 16-11: (Enforcement)

The Public Works Director is hereby appointed as the Subdivision Administrator and shall be responsible for enforcing these subdivision regulations. He/she shall bring any violation or lack of compliance herewith to the attention of the corporate authorities.

Sec. 16-12: (Amendments)

Any amendments to this chapter shall be made by the corporate authorities but only after receipt of recommendations from the Plan Commission.

Sec. 16-13 (Resubdivision of Land)

- (a) Procedure for resubdivision. For any change in a map of an approved or recorded subdivision plat, if such change affects any street layout shown on such map, or area reserved thereon for public use, or any lot line, or if it affects any map or plan legally

reached prior to the adoption of any regulations controlling subdivisions, such resubdivision shall be approved by the Plan Commission and corporate authorities by the same procedure, rules and regulations for a subdivision.

- (b) Procedure for subdivision where future resubdivision is indicated. Whenever a parcel of land is subdivided and the subdivision plat shows one or more lots containing more than one acre of land and there are indications that such lots will eventually be resubdivided into smaller building sites, the Plan Commission or corporate authorities may require that such parcel of land allow for the future opening of streets and the ultimate extension of adjacent streets. Easements provided for the future opening and extension of such streets may be made by requirement of the plat.

Sec. 16-14: (Vacation of Plats)

- (a) Any plat or any part of any plat may be vacated by the owner of the premises, at any time before the sale of any lot therein, by a written instrument, to which a copy of such plat shall be attached, declaring the same to be vacated.
- (b) Such an instrument shall be approved by the Plan Commission and corporate authorities in like manner as plats of subdivisions. The corporate authorities may reject any such instrument which abridges or destroys any public rights in any of its public uses, improvements, streets or alleys.
- (c) Such an instrument shall be executed, acknowledged or approved, and recorded or filed, in like manner as plats of subdivisions; and being duly recorded or filed shall operate to destroy the force and effect of the recording of the plat so vacated, and to divest all public rights in the streets, alleys, and public grounds, and all dedications laid out or described in such plat.
- (d) When lots have been sold, the plat may be vacated in the manner herein provided by all the owners in such plat joining in the execution of such writing.

Sec. 16-15: (Publication)

This chapter is hereby published in pamphlet form as provided by law. The City Clerk is ordered to make copies of this chapter available to all interested parties upon payment of such sums as the corporate authorities shall determine to be adequate to reimburse the general fund of the City for the cost of printing and distributing the same.

PROCEDURE FOR APPROVAL

Sec. 16-20: (Pre-Application Procedure)

In order to discuss the general purpose of the subdivision site plan or development in the context of established planning policies and practices of the City and to insure that

required data is properly prepared and presented before expending the time and money in preparation and review of a preliminary plat or site plan, any person desiring to subdivide or develop land subject to this chapter, before filing a preliminary plat or site plan, may file a concept plan of the subdivision site plan or development with the City Clerk. The concept plan shall contain such information as suggested by the Subdivision Administrator, the Plan Commission and the City Council in order to delineate the concept of the subdivision site plan or development adequately, including but not limited to a plat of survey, a topographical map, soil information, current aerial photographs and a sketch of the proposed development showing a road system and general land use categories. It shall also include information describing the subdivision site plan proposal, such as the number of residential lots, typical lot width and depth, lot sizes, business areas, school playground and park areas, other public areas, proposed restrictive covenants and proposed street and utilities improvements. After preparation of a concept plan, the applicant may also request that he be placed on the agenda of a regular Plan Commission meeting and City Council Meeting, at which time he shall submit the information specified above and gather additional comments, but such request shall be made not less than one week prior to the next regularly scheduled meeting.

Sec. 16-21: (Preliminary Plat or Preliminary Site Plan)

- (a) Any applicant shall first file with the City Clerk an application and fifteen (15) copies of a preliminary plan or preliminary site plan not to exceed 24" by 36" in size. Additional copies may be required as deemed necessary by the subdivision administrator. At the time of concept plan review the Plan Commission may authorize the simultaneous filing of an application for preliminary and final plat or site plan approvals without compliance with separate procedures in particular cases where the nature and scope of the subdivision site plan or development proposed does not require separate review procedures. Preliminary plats containing three (3) lots or less and which do not involve the opening of any new streets may be exempted from the requirement of the filing of a preliminary plat and may be submitted as a final plat.
- (b) Any applications for preliminary plat or preliminary site plan approval shall be filed at least thirty (30) days prior to the regular monthly meeting of the Plan Commission at which presentation will be made. The Plan Commission shall determine whether the application and plat or plan are in proper form and shall not consider the application as filed until all documents are in accordance with the requirements as set forth in the Subdivision Ordinance, and the Plan Commission has been furnished with a statement by the City Clerk that the filing fee has been paid.
- (c) The following general information, where applicable, shall be shown on the preliminary plat or preliminary site plan unless waived by the Plan Commission:
 - (1) The proposed name of the subdivision site plan (which shall not duplicate or resemble the name of any existing subdivision site plan within a radius of five (5) miles).

- (2) Date of preparation, north point and scale of drawing which shall be one inch (1") = 100 feet (100').
 - (3) An identification clearly stating that the map is a preliminary subdivision site plan plat or a preliminary site plan.
 - (4) Legal description of the parcel.
 - (5) The name and address of the record owner or owners, the applicant, and the Illinois registered land surveyor or the licensed professional engineer who prepared the plat with the appropriate seal affixed.
 - (6) A vicinity map showing the general location of the parcel within the City and environs.
- (d) The following conditions, if found to exist on the parcel, shall be shown on any preliminary plat or site plan unless waived by the Plan Commission:
- (1) The location, width and names of all streets within or adjacent to the parcel together with easements, public utility and railroad rights-of-way, and other important features such as municipal boundary lines, section lines, corners and monuments.
 - (2) Contour lines of the parcel and all adjacent land within 100 feet (100') of the boundaries of the parcel showing intervals no greater than:
 - (a) One foot (1') contour intervals for ground slopes less than one-half percent (0.5%).
 - (3) The location and direction of all watercourses and the location of all areas subject to flooding, including:
 - (a) The flowlines of streams and channels showing their normal shorelines and floodway and one hundred year (100-yr) floodplain limits.
 - (b) Lakes, ponds, swamps, marshes, known wetlands and any detention basins showing their normal shorelines, floodway and one hundred year (100-yr) floodplain limits and lines of inflow and outflow, if any.
 - (c) Seeps, springs, flowings and wells.
 - (4) Natural features such as rock outcroppings, wooded areas, wetlands, and isolated preservable trees one foot (1') or more in diameter.
 - (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 the final plat

is recorded or development completed.

- (6) The location and size of existing sanitary, storm and combined sewers, water mains, culverts, drain tiles, drain pipes, catch basins, manholes, hydrants and electric and gas lines within the parcel and in adjacent streets or rights-of-way. If water mains, sewers or electric or gas lines are not on or adjacent to the parcel, indicate the direction and distance to, and size of, the nearest usable facilities.
 - (7) Zoning classifications of the parcel and of lands adjacent.
 - (8) Houses, barns, shacks and other significant improvements.
- (e) The following improvements, if proposed or required, shall be shown on the preliminary plat or site plan, or in supporting documents, unless waived by the Plan Commission:
- (1) Streets and rights-of-way, showing the location, widths, number, names and approximate grades thereof. The preliminary plat shall show the relationship between existing and proposed streets and also show proposed walks, curbs and gutters and street lights.
 - (2) Easements showing width and purpose.
 - (3) Lots showing approximate dimensions, minimum lot sizes and proposed lot and block numbers.
 - (4) Preliminary engineering plan showing size and location of sanitary and storm sewers, water mains, culverts and electric and gas lines.
 - (5) Sites to be dedicated for school, park, playground or other public purposes, together with appropriate acreage of each.
 - (6) Proposed building setback lines.
 - (7) Proposed grading plan of the parcel at intervals of not more than one foot (1') if the overall plan requires changes in the general topography.
 - (8) The floor area and lot coverage of each building or structure and the floor area ratio for each parcel which is the ratio of the square footage of a building or structure to the square footage of the lot.
 - (9) Legally established centerline elevations.
 - (10) Proposed public improvements such as highways or other major improvements as planned by public authorities for future construction on or near the parcel.
- (f) The following supporting data shall be submitted in separate statements or maps

accompanying the preliminary plat or site plan, or, if practical, such data may be shown on the preliminary plat or preliminary site plan, unless waived by the Plan Commission:

- (1) Proof of ownership of the parcel and applicant's interest therein.
- (2) A topographic map extending for a minimum distance of one hundred feet (100') on all sides of the parcel showing existing use and ownership of adjacent lands, showing streets, rights-of-way and dedicated easements, locations of existing structures and elevation of their foundations, approximate direction and gradient of ground slope, including any embankments or retaining walls, railroads, power lines, towers and other nearby residential land uses or adverse influences.
- (3) An aerial map showing the parcel to be subdivided or developed. The map shall include a scale and show a year in which the photograph was taken.
- (4) Existing or proposed annexation agreement which pertains to the parcel.
- (5) Estimated cost of the development.
- (6) Estimated construction and development schedule.
- (7) Generalized landscaping plan.
- (8) Proposed building types.
- (9) Sites, if any, for multiple family dwellings, shopping centers, churches, industry or other nonpublic uses exclusive of single-family dwellings.
- (10) Reserved.
- (11) (a) Profile drawings of each stream, channel, pond and basin on the parcel and on any adjoining land which may affect the layout or drainage of the parcel for a minimum of five hundred feet (500') in each direction, up and downstream, showing elevations of the following:
 1. The bed.
 2. Channel banks, if any.
 3. Size and elevation of sewer and drain outlets and culverts into the stream, channel or basin.
 4. Flood of record elevation.
- (b) The Applicant's engineer shall, in drawing his profiles, extend or project the

established flood of record elevation upstream or downstream for a distance of five hundred feet (500').

- (12) A preliminary drainage plan, designed to handle safely the stormwater runoff, accompanied by maps or other descriptive material showing the following:
 - (a) The extent and area of each watershed tributary to the drainage channels of the parcel.
 - (b) Existing storm sewers and other storm drains to be built and sizes.
 - (c) Existing streams and floodwater runoff channels to be maintained, enlarged, altered, or eliminated, and new channels to be constructed, their locations, cross-sections, and profiles.
 - (d) Existing culverts and bridges, drainage areas, elevations and adequacy of waterway openings and new culverts and bridges to be built.
 - (e) Existing detention ponds and basins to be maintained, enlarged, altered and new ponds or basins to be built with or without dams or flow retention devices.
 - (f) Parking lots shall be so designed so as to not store more than six inches (6") of rain water for detention purposes.
- (g) Upon the determination that the application and preliminary plat or preliminary site plan are in proper form, the Plan Commission shall place the matter on its agenda and shall serve notice upon the applicant of the time and place of the meeting at which the matter will be discussed. The Subdivision Administrator shall also be notified and supplied with copies of the application, preliminary plat or preliminary site plan and other documents.
- (h) The Plan Commission shall forward its written report to the corporate authorities recommending approval or disapproval of the preliminary plat or preliminary site 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 shall be extended by the mutual consent of the applicant and the Plan Commission. If the recommendation is to disapprove, the report shall set forth the reasons for its disapproval and specify with particularity the aspects in which the proposed plat or site plan fails to meet the standards of § 16.23. A copy of the report shall also be forwarded to the applicant.
- (i) The corporate authorities by resolution shall approve or reject the preliminary plat or preliminary site plan within thirty (30) days after its next regularly scheduled meeting following the date of action of the Plan Commission, unless such time is extended by the mutual consent of the applicant and the corporate authorities. If it rejects the plat or site

plan, the resolution shall set forth the reasons for its disapproval and specify with particularity the aspects in which the proposed plat or site plan fails to meet the standards of § 16.23. A copy of the resolution shall be furnished to the applicant.

- (j) Approval of the preliminary plat or plan by the corporate authorities shall not qualify the plat or plan for recording, but shall be considered permission to prepare the final plat or plan with detailed plans and specifications for the proposed subdivision site plan or development. Such preliminary approval shall be effective for no more than one (1) year from the date of approval unless, upon application by the applicant, the corporate authorities grant an extension of time for an additional one (1) year. Such application shall not require an additional filing fee or the submission of additional copies of the plat or site plan. The applicant may rely for planning purposes on any aspect which has received preliminary plat approval during the effective period.
- (k) An applicant shall simultaneously file with the state Department of Transportation, relevant local highway authority or the County Health Department, as appropriate, a copy of the application for preliminary approval of any proposed plat filed with the City. The department or authority receiving the application shall review the application based solely upon safety or access control standards and provide written approval or disapproval to the Plan Commission and to the corporate authorities not later than ninety (90) days from the date the application is received. The ninety (90) day period may be changed by mutual agreement. If disapproved, the department or authority shall provide reasons for the disapproval related to safety or access control standards and identify improvements that will remove the disapproval. The corporate authorities may approve the plat once the improvements have been incorporated into the application or in the event that the department or authority fails to respond in writing to the City within the ninety (90) day period or other period established by mutual agreement.

Sec. 16-22: (Final Plat or Final Site Plan)

- (a) Within one (1) year after receiving preliminary subdivision site plan plat or site plan approval by the corporate authorities, the applicant shall file with the City Clerk an application for the initial unit of development, fifteen (15) copies of a final plat or final site plan not to exceed 24" by 36" in size, an electronic copy in a format acceptable to the subdivision administrator, and one (1) 11" by 17" size copy, in a quantity and form as required by the Plan Commission and in accordance with the Subdivision Ordinance. Any application for final plat or final site plan approval shall be filed at least fifteen (15) days prior to the regular monthly meeting of the Plan Commission in order to receive action at such meeting.
- (b) The following general information, where applicable, shall be shown on the final plat or final site plan, unless waived by the Plan Commission:
 - (1) The date of preparation, north point and scale of drawing, which shall be one inch (1") = one hundred feet (100'), or other scale as approved by the subdivision

administrator.

- (2) Legal description of the parcel.
- (3) The names and addresses of the record land owner, the applicant and the Illinois registered surveyor or licensed professional engineer who prepared the plat with the appropriate 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.
 - (d) All other monuments found or established in making the survey of the parcel or required to be installed by the provisions of this chapter or by an Act revising the law of plats adopted March 21, 1874, as amended, ILCS Ch. 765.
- (5) Lot and block lines with dimensions, bearings or deflection angles, and radii, arcs, points of curvature and tangent bearings. Parcel boundaries and street bearings shall be shown to the nearest ten seconds with the basis of the bearings. All distances shall be shown to the nearest one hundredth of a foot (0.01'). Lot area in square feet for each lot shall be designated.
- (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. For streets on a curvature, all curve data shall be based on the street center line, and in addition to the center line dimensions, the radii and central angles shall be indicated.
- (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, and 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 of identification.
- (8) Lot numbers beginning with the number one (1) and numbered consecutively within each block.
- (9) Block numbers or letters beginning with the number one (1) or letter "A" and

continuing consecutively without omission or duplication throughout the subdivision site plan. 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 site plan of the same name shall be a continuation of the numbering in the original subdivision site plan.

- (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, accurately shown in dimensions.
- (12) The name of each street shown on the plat.
- (13) Street numbers shall be obtained from the City and shown on final plat.
- (14) The name of the subdivision plan.
- (15) Existing and proposed Grading plan of development at the intervals specified in Section 16-21(D)(2) if the overall plan requires changes in the general topography and the regulatory limits of the one hundred (100) year flood frequency event, when applicable.
- (16) Location of adjoining roads, water courses and bodies of water, marshes, rock outcroppings, wooded areas, known wetlands and railroads within one hundred feet (100') of the property.
- (17) 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 where applicable.
- (18) Location of buildings and other structures.
- (19) Location and intensity of outdoor lighting system.
- (20) Use of property within one hundred feet (100') of the boundaries of the site.
- (21) 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.
- (22) Forms of certification as provided for in Appendix A.
- (23) The plat shall have specific language that dedicates all public improvements to the City with the language "Dedicated to the Public."

- (24) The name and mailing address of the City for return of the plat by the County Recorder.
- (c) The following supporting data, where applicable, shall be supplied in separate statements or maps, or, if practical, may be shown on the final plat or site plan, unless waived by the Plan Commission:
- (1) A copy of any restrictions or covenants to be created by record and any charter or by-laws of any property owners' association to be created.
 - (2) The following certificates, which may be combined where appropriate:
 - (a) A certificate signed and acknowledged by all parties having any legal or beneficial interest in the parcel consenting to the preparation and recording of the said plat.
 - (b) A certificate signed and acknowledged by all parties having any interest in the land, dedicating all parcels of land intended for any public use.
 - (c) Certification by the County Clerk showing that all taxes and special assessments due on the parcel have been paid in full.
 - (3) Plans and specifications for the required public improvements, together with the written report of the Subdivision Administrator required by § 16.23(C)(3).
 - (4) Existing soil conditions based upon soil borings prescribed by the Subdivision Administrator in light of the proposed use of the parcel.
 - (5) Landscape plan showing location, type and approximate size of plantings.
 - (6) Architectural elevations for building types.
 - (7) Development data showing number of floors, floor area, height and location of each building and proposed general use for each building and the floor area ratio for the entire development. If a multifamily residential building, show the number, size and type of dwelling units.
 - (8) A final drainage plan providing for the adequate disposition of natural and storm water in accordance with the design criteria and standards of this chapter, indicating location, sizes, types and grades of ditches, catch basins and pipe and connections to existing drainage system. The drainage plan shall depict the existing and proposed one hundred (100) year flood frequency boundaries, when applicable.
 - (9) An existing drain tile survey must be submitted to the City for review and must be incorporated into the development plans.

- (10) A soil erosion control plan providing for the adequate control of erosion and sedimentation, indicating the proposed temporary and permanent control practices and measures which will be implemented during all phases of clearing, grading and construction.
 - (11) In all cases where private central sanitary sewer systems are to be used, the applicant shall secure the necessary permits for installation and operation of the system from the Environmental Protection Agency of the state, the County Health Department and the City. In all cases where private septic systems are to be used, percolation tests shall also be made on each building lot and a copy of the data and a recommendation of minimum lot sizes by the County Health Department shall be submitted to the Plan Commission and the Subdivision Administrator.
 - (12) A schedule showing phasing of other proposed improvements.
- (d) The applicant shall supply the following forms of guarantee to the City:
- (1) An improvement completion guarantee under which the applicant agrees to install any required improvements at his own expense in accordance with the plans and specifications within the time required as a condition of approval. However, for property outside the corporate limits of the City, no such agreement shall be required where the applicant has entered into a similar agreement covering the parcel with the county authorities.
 - (a) Acceptable Improvement Completion Guarantees:
 - 1. Letter of Credit. An irrevocable commercial letter of credit with any financial institution which must be approved by the City Attorney and Subdivision Administrator and which provides for administration of such credit. The letter of credit shall be in an acceptable form as prescribed by the corporate authorities. This is the City-preferred method.
 - 2. Completion bond. A completion bond to insure the construction of the improvements in a satisfactory manner and within the period specified by the corporate authorities. The bond shall be payable to the City and be in a form with surety and conditions as approved by the City Attorney and Subdivision Administrator.
 - (b) Amount of guarantee. The amount of the completion guarantee shall be based on the following:
 - Total cost of the estimated construction, engineering, surveying and fees for the required improvements plus fifteen percent (15%) of such

total for contingencies, and maintenance of improvements and the abatement of construction nuisance and erosion control during the period prior to acceptance of improvements, all as approved by the Subdivision Administrator.

(c) That each improvement completion guarantee shall at least contain the relevant sections from the following list:

1. Mass Grading Improvements: mass grading for public right-of-way and detention ponds, detention pond stabilization, erosion control, and detention pond “As-Built” drawings and storage volume calculations;
2. Underground Improvements: storm sewers, sanitary sewers, water mains, and “As-Built” drawings of same;
3. Basic Roadway Improvements: curb and gutter, roadway base course, roadway binder course, bike trails, street name and traffic control signs, and street lights;
4. Finished Roadway Improvements: final surface course;
5. Parkway Improvements: sidewalks, parkway trees, and parkway restoration;
6. Miscellaneous Offsite Improvements: offsite roadway improvements, offsite storm sewer improvements, offsite sanitary sewer improvements, offsite water main improvements, etc. A separate completion guarantee will be required for each offsite improvement.

(2) For time to time, at the applicant’s request, the Subdivision Administrator may approve reductions in the guarantee to an amount equal to twenty percent (20%) of the original amount of the completion guarantee. The City shall not formally accept any portion of the improvements until one hundred percent (100%) of the project is completed. The City shall approve one hundred percent (100%) reductions in the guarantee only after all of the improvements outlined above, as itemized, have been completed and demonstrated by “as-built” engineering plans provided by the developer and signed and stamped by a professional engineer registered in the State of Illinois (See § 16.80). The reduction shall be by written resolution or letter of the corporate authorities. The resolution/letter completely eliminating the guarantee shall also include acceptance of the public improvements of the specific phase simultaneously upon reduction of a guarantee for the specific phase of the improvements. A maintenance guarantee as then provided by this chapter shall be submitted to the City (including all offsite improvements individually).

1. All guarantees shall be for two and one-half years (30 months) from the date of issuance of said guarantee.

2. Mass grading improvements will not be accepted by the City (i.e., release of Completion Guarantee) until the City has approved that the individual lots have been graded within substantial compliance with the approved development plans.
- (3) A maintenance guarantee to be furnished upon final completion of improvements as prescribed under the § 16.22(D)(1)(c) and prior to acceptance in a form as prescribed under the § 16.22(D)(1)(a) effective for a period of two years (24 months) after the final acceptance of said improvements for the purpose of:
 - (a) Guaranteeing against and securing the correction of any defect in material or workmanship furnished for such improvements, latent in character, and not discernible at the time of final inspection or acceptance by the City.
 - (b) Guaranteeing against and securing the correction of any damage to improvements by reason of settling of the ground, base or foundation thereof. Such maintenance guarantee shall also provide that as such defects develop, the amount held thereunder may be applied by the City for any amounts incurred to correct such defects, and that the balance of such deposit, if any, held at the end of such two (2) year period shall be released by the City to the depositor without interest. The amount of the maintenance guarantee shall be not less than fifteen percent (15%) of the total initial amount of the completion guarantee.
 - (e) Upon the determination that the application and final plat or final site plan are in proper form, the Plan Commission shall place the matter on its agenda and shall serve notice upon the applicant of the time and place of the meeting at which the matter will be discussed. The Subdivision Administrator shall also be notified and supplied with copies of the application, final plat or final site plan and other documents.
 - (f) The applicant may elect to have final approval of a geographic part or parts of the plat that received preliminary approval, and may delay application for approval of other parts until a later date or dates beyond one (1) year with the approval of the corporate authorities; provided, all facilities required to serve the part or parts for which final approval is sought have been provided. In such case only such part or parts of the plat as have received final approval shall be recorded.
 - (g) If the applicant so elects, he may delay furnishing the guarantees required by division (D) of this section until notified that the final plat has been approved by the corporate authorities in all other respects; provided that the signature of the Mayor and the Clerk and the seal of the City not be affixed to the plat until the required guarantees are furnished and approved.
 - (h) The Plan Commission shall forward its written report to the corporate authorities

recommending approval or disapproval of the final plat or final site plan within fifteen (15) days from the date of its regular or special meeting next following the filing of the last required document or other paper which shall be considered the date of filing of the application for final approval of the plat or site plan. The signatures of the chairman and secretary of the Plan Commission shall be affixed to the final plat or final site plan after approval by the corporate authorities. If the recommendation is to disapprove, the report shall set forth the reasons for its disapproval and specify with particularity the aspects in which the proposed plat or site plan fails to meet the standards of § 16.23. A copy of the report shall also be forwarded to the applicant.

- (i) After receiving the final recommendation of the Plan Commission, the corporate authorities, by resolution, shall approve or disapprove the final plat or site plan within sixty (60) days from the date of filing application for final approval of the plat or site plan unless the applicant and the corporate authorities mutually agree to extend this sixty (60) day period. If the final plat or final site plan is disapproved, the resolution shall state the reasons for the disapproval, specifying with particularity the aspects in which the final plat or final site plan fails to meet the standards of § 16.23. A copy of the resolution shall be furnished to the applicant.
- (j) A certified copy of the resolution approving or disapproving the final plat or final site plan shall be filed in the office of the City Clerk attached to said final plat or final site plan. The final subdivision site plan together with all covenants and restrictions shall be recorded by the City Clerk or City designee in the Office of the Recorder of Deeds for the county in which the property is located and returned to the City Clerk or City designee. All recording fees shall be prepaid by the applicant. The City Clerk shall notify the Building Commissioner of the recording of the final plat or final site plan.

Sec. 16-23: (Standards for Review of Plats and Site Plans)

- (a) The Plan Commission shall recommend approval and the corporate authorities shall approve a preliminary or final plat or a preliminary or final site plan unless it makes written findings specifying the manner in which:
 - (1) The design and layout of the subdivision site plan or development does not conform to the provisions of this chapter.
 - (2) The applicant has not made adequate provision to install improvements required by the Plan Commission or corporate authorities under authority of this chapter.
 - (3) The final plat of subdivision or final site plan fails to comply with an approved preliminary plat of subdivision site plan or preliminary site plan.
 - (4) The plat or site plan does not conform to this chapter, the Comprehensive Plan, the Official Map, the Flood Control Ordinance of the City, City ordinances, or established planning policies of the City.

- (5) The provisions for vehicular loading, unloading, parking or circulation on the parcel or onto adjacent public rights-of-way will create hazards to safety or will cause significant burdens on transportation facilities that could be avoided by modification of the plan.
 - (6) The vehicular and pedestrian traffic circulation system creates hazards to safety which could be avoided by modification of the plan.
 - (7) The proposed plan unnecessarily and in specified particulars destroys, damages, or detrimentally alters significant natural, topographic or physical features of the site and development.
 - (8) The proposed landscaping, screening or lighting fails to provide adequate acoustical or visual privacy to incompatible adjacent uses which could be avoided by modification of the plan.
 - (9) The bulk and location of proposed buildings and structures will have significant adverse impact on adjacent property and development of the parcel is not feasible in a manner that will avoid these consequences.
 - (10) The proposed plat or site plan makes inadequate provision for the use and maintenance of open space and this failure may result in a burden on the public or on the adjacent properties.
 - (11) The proposed development will impose an undue burden upon off-site public services, including sanitary sewer, water and storm drainage, which conclusion shall be based upon a written report of the Subdivision Administrator provided that there is no provision in the capital works program of the City to correct the specific burden and that the applicant has not agreed to alleviate that portion of the burden attributable to the proposed development.
 - (12) The subdivision site plan or development is subject to periodic flooding or contains poor drainage facilities and would make adequate drainage of the lots and streets impossible.
- (b) If any of the foregoing standards are cited as justification for disapproving a plat or site plan, the Plan Commission and the corporate authorities shall specify the manner in which the final plat or final site plan could be modified to avoid the specified deficiency or shall state the reasons why the specified deficiency cannot be avoided consistent with applicant's objectives.
 - (c) Before submitting the final plat or final site plan for review, the applicant shall submit engineering plans, details or specifications for all proposed improvements regulated by §§ 16.30 through 16.68 hereof for approval of the Subdivision Administrator.

- (1) Upon the approval of preliminary plat or site plan, the applicant shall have prepared and certified by a licensed professional engineer, drawings for said improvements which shall be submitted in triplicate to the Subdivision Administrator at least fifteen (15) days prior to the presentation of final plat for approval.
- (2) Engineering drawings for required improvements shall contain the following data and information:
 - (a) Plans, details, specifications and cost estimates for street construction, including centerline profile and a grade line for each street with a typical cross-section of the roadway. The profiles of grade lines shall be shown to a scale of one inch (1") equals fifty feet (50') horizontal, and one inch (1") equals five feet (5') vertical. This information shall be shown on standard plan and profile sheets.
 - (b) Plans, details, specifications and cost estimates of proposed storm drainage improvements, including surface drainage, storm sewers and appurtenances and detention or retention basins.
 - (c) Plans, details, specifications and cost estimates of proposed water distribution systems and proposed water supply facilities, if any.
 - (d) Plans, details, specifications and cost estimates of sewage systems and of sewage treatment plants, if any.
 - (e) Plans, details, specifications and cost estimates for proposed sidewalks, or bikeways, if any.
 - (f) Plans, details and specifications and cost estimates of the proposed street lighting system.
 - (g) When unusual conditions exist, the Plan Commission may require additional specifications, plans and drawings as may be necessary for an adequate review of the improvements to be installed.
- (3) The Subdivision Administrator shall cause to be reviewed all engineering drawings in order to determine whether such drawings are consistent with the approved preliminary plat or plan and comply with §§ 16.30 through 16.68. Such drawings shall be distributed to such other persons as may be necessary. If they are in compliance with this chapter, and with the most recent Design Standards adopted by the City, the Subdivision Administrator shall forward a report to the Plan Commission that they so conform and comply. If the plans, details or specifications do not conform or comply, the Subdivision Administrator shall notify the applicant and the Plan Commission of the specific manner in which they do not so conform or

comply.

- (4) The Plan Commission shall not act upon the final plat or final site plan until the engineering drawings have been reviewed by the Subdivision Administrator and a report of compliance or non-compliance has been received by the Plan Commission.
- (5) All costs incurred by the City for the review of plans and specifications by the Subdivision Administrator or his/her designee shall be paid by the subdivider/developer/applicant. Additional services required for complex projects including but not limited to outside legal consultants, special inspectors, or specialists in the stormwater, building, construction, ecology, planning, or related fields shall be paid for by the developer.

Sec. 16-24: (Final Site Plan Approval for Commercial and Industrial Lots)

A. The intent of this section is to establish procedures and standards for the review and approval of site plans to ensure full compliance with all local, state and federal ordinances and regulations and to ensure that a proposed land use or activity is compatible with the character of the surrounding area, the adjacent uses of land, the natural environment, the capacities of public services and will protect the public health, safety and welfare.

(a) This section shall apply to the following:

1. The construction of any new, nonresidential building or structure;
2. The expansion of any nonresidential building or structure;
3. The conversion, in whole or in part, of an existing building from residential to nonresidential use;
4. The construction of any new residential structure containing three (3) or more dwelling units;
5. The modification or expansion of an existing residential structure which results in an increase in the number of dwelling units in the structure to three (3) or more;
6. Any development in any district for which a special use permit is required;
7. The construction or expansion of paved areas, including access drives and parking lots, involving an area of more than one thousand square feet (1,000 SF); or
8. The establishment of a new nonresidential use even if no buildings or structures are proposed.

(b) This Chapter does not apply to the construction or modification of single-family detached homes, two-family homes, agricultural buildings or structures, or existing buildings or premises legally established prior to the adoption of this Chapter unless one or more of the factors described in subsection A of this Section is present.

(c) No land, building, or structure shall be erected or used and no building permit or sign permit shall be issued for a development within the scope of this Chapter unless and

until a site plan has been approved in accordance with this Chapter. No land, building or structure shall be occupied or used and no certificate of occupancy shall be issued until all requirements and conditions of the site plan approval have been implemented and all improvements completed in accordance with an approved site plan.

B. CLASSIFICATION OF PROJECTS:

Any development or construction which is subject to the scope of this Chapter under subsection of this Chapter shall be classified as either a minor or major site plan. The determination of this classification shall be made by the Zoning Officer or City Administrator according to the following criteria:

- (a) Minor Site Plan Review: A project requiring minor site plan review shall be any of the following:
 - 1. An expansion of any nonresidential building or structure not exceeding one thousand square feet (1,000 SF) or ten percent (10%) of the existing floor area, whichever is less.
 - 2. A change in use of an existing building that does not comply with current site design standards such as, but not limited to, landscaping, lighting, parking, signs or drainage.
 - 3. The construction or expansion of paved areas, including access drives and parking lots, involving an area of more than one thousand square feet (1,000 SF) but not more than five thousand square feet (5,000 SF).
- (b) Major Site Plan Review: A project requiring major site plan review shall be any project which is not classified as a minor site plan review.

C. APPLICATION AND REVIEW PROCEDURES:

- (a) Application: Application for site plan approval may be made separate from or in conjunction with an application for land subdivision. The City Council may approve a site plan prior to the platting, division, or consolidation of land conditioned upon such platting, division or consolidation. Site plans for which the proposed use requires a zoning map amendment shall only be acted upon by the City after a map amendment has been approved according to the procedures set forth in the Zoning Ordinance.
- (b) Pre-application Conference: Prior to submitting a site plan application, the applicants or agent may schedule a pre-application conference with the Subdivision Administrator. The purpose of this meeting is to familiarize the applicant with the review procedures and submission requirements and to familiarize the Subdivision Administrator with the nature of the project. No decisions relative to the acceptability of the plan may be made at this meeting. At this time the determination will be made, based on the presented information, as

to whether the project shall be considered a minor or major site plan. The applicant should bring to this meeting any working drawings, plans, sketches, surveys, reports or other such information that will aid the Subdivision Administrator in assessing the project.

1. The applicant will contact the Subdivision Administrator, to schedule a meeting two (2) weeks prior to the requested meeting date. The applicant shall also provide to the City four (4) copies of a three dimensional color rendering of the proposed building or structure two (2) weeks prior to the meeting. This drawing shall depict all four (4) sides of the proposed building or structure, including proposed screening of mechanical equipment and dumpsters. Samples of building materials are strongly encouraged to be submitted at this time as well.
2. The applicant and applicant's architect will then present the building elevations of the proposed project for review and comment. The Subdivision Administrator may advise the applicant of any suggested changes or additions to the proposed elevations at this time.

D. PLAN COMMISSION:

After receiving a recommendation from Subdivision Administrator, the City will schedule a workshop session with the Plan Commission and the City Council (in no particular order) for review of the proposed building elevations and conceptual site layout. Fifteen (15) copies of the conceptual site layout and color rendering of the building shall be provided to Subdivision Administrator one week prior to each scheduled meeting.

E. APPLICATION PROCEDURE:

1. Minor Site Plan: The applicant shall submit a formal application for review and approval of a site plan to the City. The application shall consist of the following:

The applicant shall submit all information requested by the City staff that is deemed necessary to review the minor site plan:

- a. A fully executed and signed copy of the application for site plan review and application fee;
 - b. A fully executed professional fee agreement and deposit;
 - c. All information requested by the City staff that is deemed necessary to review the minor site plan including drawings, sketches, and calculations.
2. Major Site Plan: The applicant shall submit a formal application for review and approval of a site plan to the City. The application shall consist of the following:

- a. A fully executed and signed copy of the application for site plan review and application fee;
- b. Five (5) copies of the site plan and supporting documents as described in subsection D of this Section.
- c. A fully executed professional fee agreement and deposit.
- d. Upon receipt of the application the Subdivision Administrator shall review the completeness of the application and upon determination that the application is complete, forward a copy of the application to City departments or agencies deemed necessary. If the application is incomplete, the Subdivision Administrator shall notify the applicant in writing of this determination and specify what materials or information are required to complete the application. No action will be taken on the application until the application has been determined to be complete.

F. SUBMISSION REQUIREMENTS:

The site plan application shall include at a minimum the following:

- 1. Minor Site Plan: As determined and requested by the Subdivision Administrator.
- 2. Major Site Plan: A drawing or drawings prepared at a scale of not less than one inch (1") = one hundred feet (100') which shall include:
 - a. General Information:
 - (1) Name, address and phone number of the developer.
 - (2) Name, address and phone number of the record owner if different from developer.
 - (3) Name, address and phone number of the architect, engineer, landscape architect, land planner, surveyor or consulting firm responsible for preparing the plan(s).
 - (4) Seal and registration of any architect, engineer, landscape architect or similar professional involved in the preparation of the plan(s).
 - (5) Date of plan preparation/revision.
 - (6) North arrow and scale.
 - (7) Legal description of the property.
 - (8) If applicable, a site data table indicating the gross acreage, net acreage, site coverage percentage, building area(s), floor to area ratio.
 - b. Existing Conditions:
 - (1) Zoning and use of the property.
 - (2) Zoning and use of all adjacent properties.

- (3) The bearings and distance of all property lines and the source of this information.
- (4) Existing topography of the site shown at two foot (2') intervals and extending a minimum of twenty five feet (25') beyond the property lines of the site.
- (5) Building setback lines.
- (6) Location and extent of any water bodies, wetlands, streams and flood plains on or adjacent to the site.
- (7) Location and size of existing trees.
- (8) Location of other notable natural features.
- (9) Location and dimension of any existing easements.
- (10) Copies of any applicable covenants or deed restrictions.
- (11) Location, size, and ground floor elevation of all existing buildings on the site.
- (12) The location and dimension of any other structures or improvements on the site.
- (13) Location, names, and widths of existing streets and rights of way within or adjacent to the site.
- (14) Location and size of any existing storm sewer, water main, sanitary sewer, culverts, drains, field tiles, on-site disposal systems, wells, power or telephone poles, electrical lines, telephone lines, and gas lines on the subject site or of any such entities off-site that will serve the subject site.
- (15) The location, front view and dimension of existing signs.

c. Proposed Development:

- (1) Proposed use and zoning.
- (2) A grading plan showing the proposed changes in the topography of the site at one foot (1') intervals with spot grades provided at significant points.
- (3) The location and dimensions of all provisions for water supply and sanitary sewer.
- (4) A storm water detention/retention plan including storm water runoff and detention calculation. The methods for computing such requirements shall be those specified in the City's Stormwater Management Ordinance.
- (5) The location, elevation, and size of all catch basins, ditches, swales, detention basins and storm sewers.
- (6) An erosion control plan. The requirements for which shall be consistent with the City's Stormwater Management Ordinance.
- (7) The location, dimensions, and foundation/floor elevations of all proposed buildings or expansions on the site.
- (8) The location and dimensions of proposed driveways, parking areas, loading areas, and sidewalks.

- (9) The location, dimensions, front view and materials of proposed signs.
- (10) The location and type of exterior lighting, including a point by point photometric plan if required by the City.
- (11) The location and nature of electrical, telephone, gas, cable or other utility services to be installed at the site.
- (12) Building plans showing at a minimum the floor plans and elevations of all proposed principal and accessory buildings and a schedule of the type and color exterior surface materials. A three dimensional color rendering of the proposed building or structure must be provided.
- (13) Landscape plans including a schedule of all plantings by type and size as well as any berming, fencing, screening, or other hardscape features proposed.

d. Other: Supporting reports, documents, exhibits, etc.

G. REVIEW PROCEDURES:

1. Minor Site Plan:

- a. The City staff shall review the information requested and either approve the minor site plan or prepare a report to the applicant indicating any deficiencies in the site plan in meeting all applicable requirements of this Code. The applicant shall modify the site plan to correct any deficiencies or apply for formal relief or variance for the deficiency if such application is available.
- b. Upon completion of revisions to the minor site plan that correct the deficiencies identified by the City staff, the minor site plan shall be placed on the next available City Council agenda for consideration. The City Council will approve or deny the site plan application based on the approval criteria and standards. The City Council may impose conditions upon the site plan provided they relate to the approval criteria and standards and are necessary to meet the intent of this Chapter. If any formal relief or variance is sought by the applicant it shall follow the adopted procedures for such relief or variance.

2. Major Site Plan:

- a. Written Review: Within twenty (20) days of the application being determined to be complete, any notified city departments or outside consultants shall provide the Subdivision Administrator a written review of the application. These reviews shall evaluate the application's conformance with the approval criteria and standards of this Chapter and

identify any areas in which there are deficiencies in meeting the criteria and standards.

- b. **Staff Report:** The Subdivision Administrator shall prepare a report to the applicant indicating or enclosing the review comments and the applicants' conformance with the review criteria. This report shall be provided to the applicant within thirty five (35) days of the application being determined to be complete. If the staff report does not identify any issues or deficiencies with the plans, an agenda date will be assigned for the application to be reviewed by the City Plan Commission. If, however, the staff report identifies concerns or deficiencies, a staff workshop shall be scheduled prior to scheduling a Plan Commission agenda date.
- c. **Subdivision Administrator Meeting:** If the report identifies any concerns, issues, or deficiencies with the site plan or any areas in which the staff does not believe that the approval criteria are met, the Subdivision Administrator shall schedule a meeting with the applicant. This meeting is intended to provide the applicant with guidance on how the application could be modified to comply with the review criteria and standards or address concerns raised in the review process.
- d. **Pending Application Intentions:** Within ten (10) days of the staff workshop, the applicant shall advise the Subdivision Administrator of his/her intention with regard to the pending application. If the applicant desires to proceed without revisions to the application, the Subdivision Administrator shall schedule a Plan Commission agenda date for the application. If after the staff workshop the applicant chooses to revise the site plan and/or submit additional materials, fifteen (15) copies of these materials shall be submitted.
- e. **Review of Revised Plan:** Within five (5) days of receiving the revised plans/materials, the Subdivision Administrator shall distribute copies to the City departments for review. Each department shall provide a revised written review to the Subdivision Administrator within ten (10) days of receiving the revised plans/materials. Within ten (10) days of receipt of the revised reports, the Subdivision Administrator shall provide the applicant with a revised staff report indicating that all issues or deficiencies previously identified have been addressed or indicating any remaining concerns or deficiencies in the plans.
- f. **Notice of Intention:** Within ten (10) days of receiving the revised staff report the applicant shall notify the Subdivision Administrator in writing of his/her intention with regard to the pending application. The applicant may elect to: 1) proceed to have the application set for a Plan Commission agenda, 2) request another staff workshop or 3) provide revised plans or materials to address the remaining concerns/deficiencies. If the applicant

chooses to conduct another staff workshop or submit additional revisions/information, the procedures shall be the same as before.

- g. Consideration by The Plan Commission: The application shall be placed on the agenda of the Plan Commission for its review and recommendation. The Plan Commission shall be provided a copy of the staff reports regarding the application. After review of the application, the Plan Commission shall, within sixty (60) days, by majority vote of the members present, make a recommendation to the City Council regarding action on the application based on its conformance with the approval criteria and standards. Such recommendation shall be provided to the City Council in writing within thirty (30) days of the Plan Commission's decision.
- h. Consideration by the City Council:
 - (1) Following receipt of the recommendation of the Plan Commission, the City Council shall consider the application and its conformance with the approval criteria and standards and take action on the application within sixty (60) days of the Plan Commission's review.
 - (2) If the applicant submits a revised application or supplemental submissions while the application is under consideration by the Plan Commission or the City Council, the Plan Commission or the City Council shall table the application to allow for review of the new information. The application may be tabled by the Plan Commission or the City Council for a period of time not exceeding the maximum original review periods established in this Chapter.
- i. Conditions of Approval: The City Council may impose conditions on the site plan. Any condition imposed must relate directly to the approval criteria and standards and be necessary to meet the intent of this Chapter.

H. APPROVAL CRITERIA AND STANDARDS:

Criteria and Standards: The Subdivision Administrator, the Plan Commission and City Council shall review the site plan application to ensure that it complies with all of the criteria and standards below:

- 1. Site Configuration: Buildings and structures will meet or exceed setback standards, height and other dimensional standards and be appropriately placed in relation to natural features of the site.
- 2. Buildings: Buildings shall be designed, situated and constructed so as to conform to any applicable design criteria of the City. All buildings shall have a strong visual relationship and design compatibility between the

building, the site, and adjacent development. The exterior appearances and mass of the building(s) shall complement the existing development and character within the surrounding area.

3. Impact on Surrounding Land Uses and Zoning: The proposed site plan will be harmonious with and not harmful or injurious to existing and planned uses in the immediate area. The proposed improvements will be coordinated with improvements serving the site and other properties in the area. The site plan shall meet the intent of this Chapter and the intent of the City Zoning Ordinance.
4. Preservation of Natural Features: The site plan shall demonstrate judicious effort to preserve the integrity of the land, natural topography, drainage, wetlands, watercourses, flood plains, and existing vegetation.
5. Public Services and Utilities: The site plans shall be served adequately with sanitary sewer, public water, and storm sewer and such utilities shall be provided in accordance with the recommendations of the Subdivision Administrator.
6. Signs: Proposed signs shall meet the requirements of all applicable City regulations and shall be generally complementary with surrounding properties and traffic operations. The size, location, design and lighting of the signs shall be considered in relation to adjacent sites, glare, traffic safety, and compatibility with adjoining properties.
7. Exterior Lighting: The site plan shall provide for exterior lighting that meets the following standards:
 - a. At the expense of the developer, all roads, driveways, sidewalks, parking lots and other common areas and facilities in unsubdivided and other developments shall be sufficiently illuminated to ensure the security of property and the safety of persons using such roads, driveways, sidewalks, parking lots and other common areas and facilities. Without limiting the generality of the foregoing standards, the following minimum standards shall apply:
 - (1) For residential uses, lights shall be installed in parking areas containing five (5) or more parking spaces and shall be illuminated between dusk and dawn. For nonresidential uses, lights shall be installed in all parking areas containing five (5) or more parking spaces and shall be illuminated between dusk and dawn, whenever said premises are open for operation. "Open for operation" shall be construed to mean any time that a retail business is open for the sale of goods or services or a retail, office or industrial facility

actually has employees working within or upon said premises, other than guards or watchmen. Lights shall not be more than fifteen feet (15') in height in residential zoning districts, and not more than thirty feet (30') in height in other zoning districts.

- (2) Where lighted areas are required, lighting shall be provided as follows:

	Minimum *	Maximum *
Residential districts	zoning 1.0	2.0
Commercial districts	zoning 1.0	3.0
Industrial districts	zoning 2.5	5.0

*Average ground level foot-candles

Average foot-candles at property line shall not exceed .5 foot-candles as measured at the property line.

- b. All lighting shall be constructed, positioned and maintained in such a way so as not to reflect light either directly or indirectly onto adjacent properties.

8. **Parking and Loading:** The number, location and dimensions of all parking and loading spaces and the design of parking and loading areas shall meet the requirements of all applicable City regulations. All parking lots/areas are to have curb and gutter (B6.12). All commercial parking lots shall be constructed with a minimum of ten inches (10”) of aggregate base course type b, two inches (2”) of hot-mix asphalt binder course, and one and one-half inches (1 ½”) of hot-mix asphalt surface course. It will be at the Subdivision Administrator’s discretion as to whether “heavy-duty” pavement will be necessary for any truck traffic, and what that pavement cross-section will consist of.

9. **Landscaping and Screening:** Landscaping and screening on the site shall be provided in accordance with the following requirements:

- a. Landscaping and screening shall be provided along property lines between nonresidential uses and residential uses.
- b. All yards and open spaces surrounding buildings, parking lots, access drives and streets shall be landscaped with trees and shrubs, and shall be maintained by the property owner.
- c. Trees in front yards shall be planted at a ratio of at least one (1) two and one-half inch (2 ½”) caliper shade tree (as measured

twelve inches (12”) above grade) for every thirty feet (30') of street frontage. Strategic grouping of trees is encouraged, as opposed to even spacing of trees.

- d. Yard areas shall be landscaped at a ratio of at least one (1) shrub or tree for every ten feet (10') of the principal building's nearest exterior wall. Strategic grouping is also encouraged.
- e. For parking areas greater than thirty (30) spaces, a minimum of twenty (20) square feet of interior landscaped area per space shall be provided. In order to qualify as an interior landscaped area, said area shall be located wholly within or projecting inward from the boundaries of the parking area.
- f. All trash enclosure areas and containers shall be fully screened from streets and adjacent properties with a six foot (6') high sight-obscuring fence, wall or landscaped area placed around said facility. All trash enclosures must be placed on a concrete pad sufficient to support said enclosure to the satisfaction of the Zoning Administrator.
- g. All permanent outdoor storage areas of goods, products, materials, supplies, machinery equipment or overnight parking of commercial vehicles shall not be allowed in the front yard. Where permitted, permanent outdoor storage areas of goods, products, materials, supplies, machinery equipment or overnight parking of commercial vehicles shall be enclosed to a height of eight feet (8') above grade and screened to an opacity of not less than seventy five percent (75%). These requirements can be achieved by using any one or a combination of the following methods:
 - (1) The storage area can be screened with trees having a leafy structure or with fences having structural components through which only twenty five percent (25%) of the image is visible.
 - (2) Fences, berms and/or landscaping can be installed to a height where only twenty five percent (25%) of the image is visible.
 - (3) Fences, berms and/or landscaping can be installed having a width or design where only twenty five percent (25%) of the remaining horizontal image is visible.

- 10. Vehicular Access and Circulation: The site plan shall provide for the safe, convenient, un-congested and well defined access and circulation of vehicles (B-40 vehicles with a turning radius of sixty feet (60')). Access to the site shall be designed to minimize traffic conflicts. All curb returns shall be a minimum twenty five foot (25') radius (measured from back of curb). All streets and driveways shall be designed to meet all applicable City regulations. All vehicular aisle widths shall be a minimum of twenty-

six feet (26'), and shall encompass the entire perimeter of all buildings. Parking stalls shall be a minimum 18' deep by 9' wide. Furthermore, all gates (powered or manual) to a site shall have padlocks or bypass opening devices approved and used by the Fire Department. The clear opening through the gate shall be a minimum of two feet (2') wider than the traveled way and shall open inward.

11. Non-motorized Transportation Access and Circulation: Safe, convenient, and aesthetically pleasing pedestrian and bicycle circulation routes shall be provided within and accessing the site. There shall not be any utility structures built within the limits of any pedestrian or bicycle paths, and there shall be a minimum two foot (2') clearance from any pedestrian or bicycle paths to utility structures.
12. Drainage and Storm Water Management: The site plan shall provide for site surface drainage and storm water management facilities that meet or exceed the applicable standards of the City.
13. Driveways: Driveways in commercial areas shall be a minimum of one hundred feet (100') from another driveway or intersection. Depending on the intended use of the property, a traffic analysis may be required in order to verify the placement of driveways, as well as the need for additional off-site roadway improvements (turning lanes/acceleration lanes, etc.). All commercial driveways within the City right-of-way shall be constructed of Portland cement concrete (Class SI) per the City Driveway Ordinance. Concrete for such sidewalks shall conform to the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction.
14. Fire Department Connection: A five inch (5") Storz Fire Department Connection (FDC) with a twenty-two and one-half degree (22.5°) elbow toward the ground shall be provided for the sprinkler/standpipe system for all buildings. The FDC shall be capable of supplying the entire system, and shall be located and visible on a street front or location approved by the Watseka Fire Department. The FDC shall be located between two feet (2') and three and one-half feet (3 ½') from the ground to the centerline on the FDC inlet. There shall be a minimum clearance of five feet (5') on either side with no obstructions to the front of the FDC. A remote FDC shall be required if the distance from the apparatus to the FDC is greater than seventy-five feet (75').

I. AMENDMENTS TO APPROVED PLANS:

- (A) Amendments: An applicant may request a change in an approved site plan. A change in an approved site plan which results in a major change shall require approval of the amendment by the City Council upon after recommendation on the matter by the Plan Commission. All amendments shall follow the procedures

and conditions herein required for original application submittal and review. A change considered only a minor change shall require only the submission of a revised plan to the Subdivision Administrator.

- (B) Determination of Major and Minor Changes: A determination of whether a change in an approved site plan is a major or minor change shall be made by the Subdivision Administrator according to the guidelines below. The applicant may appeal the determination of a major change to the Plan Commission in writing at least seven (7) days prior to the next regular scheduled Plan Commission meeting. The Plan Commission will vote to either uphold or reverse the determination. If the determination is upheld then the amendment shall proceed only according to the procedures set forth herein.

1. Guidelines for Major Change:

- a. A change in the original concept of the development;
- b. A change in the original use or character of the development;
- c. A change in the type of dwelling unit as identified on the approved site plan;
- d. An increase in the number of dwelling units planned;
- e. Rearrangement of lots, blocks, or building tracts;
- f. A change in the character or function of any street;
- g. A reduction in the amount of land set aside for common open space;
- h. An increase or decrease in any building area over five percent (5%);
- i. An increase or decrease over five percent (5%) in any building height;
- j. Significant variations in the design layout of the site plan, such as, but not limited to, the deletion, relocation or addition of on-site improvements such as drives, parking lots, structures, berms, curbs, landscaping, utilities.

2. Guidelines for Minor Changes:

- a. Any minor variations in layout that do not constitute a major change;
- b. An increase or decrease in any building area less than five percent (5%);
- c. An increase or decrease less than five percent (5%) in any building height;
- d. Changes in the species of required trees, shrubs or ground cover designated on the site plan.

Sec. 16-25: (Land Development Review and Construction Observation Fees)

A. LAND DEVELOPMENT REVIEW AND CONSTRUCTION OBSERVATION FEES

All costs incurred by the City for the review of plans and specifications by the Subdivision Administrator or his/her designee shall be paid by the subdivider/developer/applicant. Additional services required for complex projects including but not limited to outside legal consultants, special inspectors, or specialists in the stormwater, building, construction, ecology, planning, or related fields shall be paid for by the developer.

B. PLAT FEES

A fee shall be paid to the City Clerk at the time of submission of the Preliminary and Final Plat. No Plat shall be reviewed by the Plan Commission without a receipt from the City Clerk being exhibited by the owner, subdivider or developer showing full payment of the fee. Payment of the fee is in no way contingent on whether or not the Plat of Subdivision or Development submitted is approved or disapproved. The fee shall be as follows:

Preliminary Plat - One Hundred Dollars (\$100.00) plus one dollar (\$1.00) for each lot within each Preliminary Subdivision or Development Plat submitted.

Final Plat - One Dollar (\$1.00) for each lot within each Subdivision or Development Plat submitted with a minimum fee of Fifty Dollars (\$50.00).

In the event that a Plat calls for development of Residential property, either as Two-Family or Multiple-Family, or as Business or Industrial property, then the fee shall be determined as Two Dollars (\$2.00) per each dwelling unit or Ten Dollars (\$10.00) per acre for Businesses or Industrial Property.

DESIGN STANDARDS

Sec. 16-30: (Conformance to Applicable Rules and Regulations)

- (a) In addition to the design standards established herein, all subdivision site plan plats shall comply with the laws, ordinances, rules and regulations set forth by this section.
- (b) The provisions of ILCS Ch. 65, as amended from time to time.
- (c) The Zoning Ordinance and all other applicable ordinances of the appropriate jurisdiction, including but not limited to, the Stormwater Management Ordinance, Flood Hazard Prevention, and Sediment and Erosion Control Regulations, all as amended from time to time.

- (d) The Comprehensive Plan and Official Map of the City or any portions thereof.
- (e) The special requirements of this chapter and any rules of the City, the Environmental Protection Agency of the state and the County Public Health Department relating to lot size and lot elevation if the subdivision site plan is not served by public water or by a public sewer and provision for one or both of these services has not been made.
- (f) The rules of the State Division of Highways relating to safety of access and the preservation of the public interest and investment in the streets if the subdivision site plan or any lot contained therein abuts a state truck highway or connecting street.
- (g) All design, dimensions, materials and methods of construction of improvements not specifically established in this chapter shall conform to applicable federal, state and City regulations which are located in the office of the City Clerk.

Sec. 16-31: (Streets and Alleys)

- (a) Streets shall be designed and located in relation to existing and planned streets, to topographical conditions and natural terrain features such as streams and existing tree growth, to public convenience and safety, and in appropriate relation to the proposed uses of land to be served by such streets. It is the intent that the street system, whether public or private, encourage safe and efficient traffic flow (B-40 vehicle with a turning radius of sixty feet (60')), as well as provide safe vehicular storage space for stopping and turning movements so as to not conflict at intersecting streets or driveway entrances.
- (b) (1) All streets shall be properly integrated with the existing and proposed system of thoroughfares and dedicated rights-of-way as established on the Official Map.
- (2) All thoroughfares shall be properly related to special traffic generators such as industries, business districts, schools, churches and shopping centers, to population densities and to the pattern of existing and proposed land uses.
- (3) Minor streets shall be laid out to conform as much as possible to the topography, to discourage use by through traffic, to permit efficient drainage and utility systems, and to require the minimum number of streets necessary to provide convenient, safe access to property.
- (4) The rigid rectangular gridiron street pattern need not necessarily be adhered to and the use of curvilinear streets shall be encouraged where such use will result in a more desirable layout. The use of cul-de-sacs and u-shaped streets is not encouraged.
- (5) Proposed streets shall be extended to the boundary lines of the parcel to be subdivided, unless prevented by topography or other physical conditions, or unless in the opinion of the Plan Commission, extension is not necessary or desirable for the coordination of the layout of the subdivision site plan with the existing layout or the

most advantageous future development of adjacent parcels.

- (6) In business and industrial developments, the streets and other accessways shall be planned in connection with the grouping of buildings, location of rail facilities, and the provision of alleys, truck loading and maneuvering areas so as to minimize conflict of movement between the various types of traffic.
- (7) Dual access shall be provided in any subdivision site plan beginning with the initial construction and shall be maintained in suitable condition for passage of private and emergency vehicles.
- (c) Where a subdivision site plan borders on or contains a railroad or highway, the Plan Commission may require a street approximately parallel to and on each side of such railroad or highway, at a distance suitable for the appropriate use of the intervening land, for park purposes in residential districts or for commercial or industrial purposes in appropriate districts. Such distances shall also be determined with due regard for the requirements of approach grades and future grade separations.
- (d) Where a subdivision site plan abuts or contains an existing or proposed highway or major thoroughfare, as shown on the Comprehensive Plan or Official Map, the Plan Commission may require marginal access streets, reverse-frontage with screen planting contained in a nuances reservation, at least ten feet wide, along the rear property line; deep lots with rear service alleys; or such other treatment as may be necessary for adequate protection of residential properties and to afford separation of through and local traffic.
- (e) (1) Street right-of-way widths shall be as specified in Appendix B: Street Design Guidelines.
 - (2) Reserve strips controlling access to public utilities or streets shall be prohibited.
 - (3) When connecting street lines deflect from each other at any one point by more than ten degrees, they shall be connected by a curve with a radius adequate to insure clear sight distances.
- (f) Street grades shall provide proper relation between the street and the first floor elevation of the houses or buildings to permit convenient and economical access to and drainage of the lots. Driveway slopes shall be between two percent and eight percent (2%-8%).
- (g) Street gradients shall be as specified in Appendix B: Street Design Guidelines.
- (h) Tangents (minimum length one hundred feet (100')) shall be introduced between horizontal reverse curves on all streets. Tangents (minimum length fifty feet (50') measured from the right-of-way of the intersecting road) shall be introduced at the end of all curvilinear roads at intersections.

- (i) (1) Streets shall be laid out so as to intersect as nearly as possible at right angles and no new street shall intersect any existing street at less than sixty (60) degrees. A proposed intersection of two (2) new streets at an angle of less than seventy-five (75) degrees shall not be acceptable. Not more than two (2) streets shall intersect at any one (1) point unless specifically approved by the City.
- (2) Street jogs with centerline offsets of less than one hundred fifty feet (150') shall be avoided.
- (3) All street intersections should encourage safe traffic flow.
- (j) No street names shall be used which will duplicate or be confused with the names of existing streets. Existing street names shall be projected whenever possible. Street names shall be subject to the approval of the City.
- (k) (1) Alleys shall be provided in commercial, business and industrial districts, except that the City may waive this requirement where other definite and assured provisions are made for service access, such as off-street loading, unloading and parking, consistent with and adequate for the uses proposed and in accordance with the provisions of the Zoning Ordinance.
- (2) The width of alleys shall be as specified in Appendix B: Street Design Guidelines.
- (3) Alleys in residential areas shall not be permitted, except where deemed necessary by the City.
- (4) Alley intersections and sharp changes in alley alignment shall be avoided, but where necessary, corners may be cut off sufficiently to permit safe vehicular movement.
- (5) Dead-end alleys shall be avoided where possible, but if unavoidable they shall be provided with adequate turnaround facilities at the dead-end, as determined by the Plan Commission.

Sec. 16-32: (Easements)

- (a) Easements shall be provided for drainage and utilities on all side-yard and rear-yard lot lines. These drainage and utility easements shall be at least 5 feet (5') wide on all side-yard lot lines and ten feet (10') on all rear-yard lot lines.
- (b) Easements shall be designed to provide continuity from block to block. No building shall be constructed upon any easement.
- (c) All one hundred (100) year overflow routes shall be contained within an easement referred to as "surface overland flow easements" on the plat of subdivision. Overland drainage easements shall be wider than twenty feet (20') if needed to convey the one hundred (100) year overland drainage flow during emergency conditions while

maintaining a minimum one foot (1') of freeboard from all structures.

- (d) Where a subdivision site plan 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 with the line of such water course and shall include such further width or construction, or both, as will be adequate for the purpose and as determined by the City. Parallel streets or parkways may be required in connection therewith.

Sec. 16-33: (Blocks)

- (a) The lengths, widths, and shapes of blocks shall be determined with due regard to:
 - (1) Provision of adequate building sites suitable to the special needs of the types of uses contemplated.
 - (2) Zoning requirements as to lot sizes and dimensions within the corporate limits of the City.
 - (3) Needs for convenient access, circulation, control and safety of street traffic.
 - (4) Limitations and opportunities of topography.
- (b) Block lengths shall not exceed twelve hundred feet (1200'), or be less than six hundred feet (600'). Cul-de-sacs shall not exceed six hundred feet (600') in length.
- (c) Pedestrian crosswalk easements not less than ten feet (10') wide shall be required by the Plan Commission to provide for pedestrian circulation or access to schools, playgrounds, shopping centers, transportation and other community facilities.
- (d) Blocks or portions thereof intended for commercial or industrial use shall be designed as such, and the plan shall show adequate off-street areas to provide parking, loading docks and other such facilities as may be required by the Zoning Ordinance.

Sec. 16-34: (Lots)

- (a) The lot size, width, depth, shape and orientation shall be appropriate for the location of the subdivision site plan and for the type of development and use contemplated. Lot dimensions shall conform to the requirements of the Zoning Ordinance.
- (b)
 - (1) Residential lot sizes, regardless of jurisdictional boundary, shall meet the minimum requirements herein established and shall comply with the rules and regulations of the State Department of Public Health and the County Health Department.
 - (2) Lots abutting a water course, drainage way, channel or stream shall have a minimum width or depth as required to provide an adequate building site and to afford the

minimum usable area required in this ordinance or the Zoning Ordinance for front, rear and side yards.

- (3) Depths and widths of lots or properties reserved or laid out for commercial, business or industrial purposes shall be adequate to provide for the off-street service and parking facilities required in the Zoning Ordinance.
- (c) All lots shall abut on a publicly dedicated street.
 - (d) Double frontage and reverse frontage lots shall be avoided except where essential to provide separation of residential development from highways or thoroughfares or to overcome specific disadvantages of topography and orientation. A planting screen easement of at least ten feet (10'), and across which there shall be no right of vehicular access, shall be provided along the rear lot lines of lots abutting such highways and major thoroughfares.
 - (e) Side lot lines shall be substantially at right angles or radial to street lines.
 - (f) Where residential lots fronting on thoroughfares are permitted by the Plan Commission, they should be platted with extra depth to permit generous distances between the buildings and such traffic ways. Where lots front on thoroughfares, the normal building setback line shall be increased by an additional twenty feet (20'). Business, commercial, or industrial buildings in residential blocks shall be provided with setbacks at least equal to the setback of the residential properties in that block and shall comply with all applicable zoning requirements.
 - (g) Lots shall be laid out so as to provide positive drainage away from all buildings, and individual lot drainage shall be coordinated with the general storm drainage pattern for the area. Drainage shall be designed so as to avoid concentration of storm drainage water from each lot to adjacent lots.
 - (h) Lots at right angles to each other shall be avoided wherever possible, especially in residential areas.
 - (i) Corner lots for residential use shall have extra width to permit appropriate building setback from and orientation to both streets.
 - (j) Lot lines shall follow municipal boundary lines whenever practicable, rather than cross them.

Sec. 16-35: (Building Setback Lines)

Building setback lines in residential areas of new subdivisions shall conform to the front, side and rear yard provisions of the Zoning Ordinance.

Sec. 16-36: (Construction Entrances)

- (a) All developments of property which are subject to this chapter shall, whenever practicable, provide a construction entrance (per the Illinois Urban Drainage Manual) over the private property being developed for the use of all vehicles and equipment used in connection with such development and the making or delivery of materials and supplies thereto. The construction entrance shall be continuously maintained by the developer in a dust free manner.
- (b) Every construction entrance herein required shall be depicted on the final development plans.

REQUIRED LAND IMPROVEMENTS

Sec. 16-45: (Indemnification and Insurance Requirements)

No subdivision development plan shall be approved by the Plan Commission unless the applicant has included the following indemnification and insurance requirements on the plan:

1. INDEMNIFICATION AND INSURANCE REQUIREMENTS - The Applicant and the Contractor shall indemnify the City of Watseka (“Municipality”) and the Municipal Engineer, their officials, officers, employees, and agents acting in the scope and course of their employment and shall protect them from claims arising out of or in connection with any operation of the Applicant or Contractor including personal injury, death; or, for destruction of or damage to property to the full extent allowed by the laws of the State of Illinois and not beyond any extent which would render these provisions void or unenforceable.
2. The Applicant and Contractor shall also protect the Municipality and the Municipal Engineer by including them as additional insured on their Comprehensive General Liability Insurance Policy. The minimum level of insurance shall be as specified in Section 100 GENERAL REQUIREMENTS AND COVENANTS of the Standard Specifications for Road and Bridge Construction by the Illinois Department of Transportation. “Claims Made” type policies are unacceptable. Certificates of Insurance shall be filed and approved by the Municipality and the Municipal Engineer, a minimum of five (5) days before starting construction. Failure of the Municipality and Municipal Engineer to request said Certificate of Insurance shall in no way be considered a waiver of this requirement.
3. PERSONAL LIABILITY – In carrying out any of their duties or in exercising any power or authority granted to the Municipal Engineer by the Municipality, there shall be no personal liability upon the Municipal Engineer or their authorized representative, it being understood that in such matters they act as agents and representatives of the Municipality. By beginning work, the Applicant and Contractor covenant and agree that they each shall neither commence nor prosecute any action or suit whatsoever against the

Municipal Engineer or Municipality, their officials, officers, employees or agents in any action or omission done or not done in the course of their duties. Further, by beginning work, the Applicant and Contractor agree to pay all attorney fees and all costs incurred by the Municipality or Municipal Engineer, its officials, officers, employees or agents because of any action or suit in violation of this Article.

4. HOLD HARMLESS – The Applicant and Contractor doing work, shall hereby defend, indemnify, keep, and save harmless the Municipality and the Municipal Engineer, and their respective legislative and council members, representatives, agents, and employees in both individual and official capabilities against all suits, claims, damages, losses, and expenses, including attorney’s fees, caused by or growing out of, or incidental to, the performance of the work by the Applicant or the Contractor to the full extent allowed by the laws of the State of Illinois and not beyond any extent which would render these provisions void or unenforceable.
5. CONSTRUCTION OBSERVATION – All materials and each part of detail of the work portrayed on these Plans may be subject at any time to observation by the Municipal Engineer. Observation may be made at the site, or at the source of material supply, whether that is at a mill, plant, ship, etc. The Municipal Engineer shall be allowed access to all parts of the Work and shall be furnished with such information and assistance by the Applicant and Contractor as needed to perform these observations. The Contractor shall be held strictly to the true intent of the Plans in regard to quality of materials and workmanship.

The Municipal Engineer is not responsible for safety on the work site nor does the Municipal Engineer have any duty to review in any manner the adequacy of the Contractor’s safety measures incident to the work portrayed on these Plans.

The Municipal Engineer is not responsible for any construction means, methods, techniques, sequences or procedures for the work portrayed on these Plans.

The Municipal Engineer has no charge of the construction and has no right, duty, or responsibility to stop work because of any Contractor’s failure to follow proper safety precautions. The Municipal Engineer is not responsible for the acts, errors or omissions of any Applicant, Engineer or Contractor, or any of their agents or employees or any other person performing any of the Work portrayed on these Plans.

The Contractor shall, upon written notice from the Municipality, remove or uncover such portions of the finished Work, as it may direct, before the final acceptance of the same. After examination, the Contractor shall restore said portion of the Work to the standard required by these Plans. The expense of uncovering, removing and replacement shall be borne by the Applicant and/or the Contractor; and, not the Municipality nor the Municipal Engineer.

Any reference to “supervision” by the Engineer in the Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction, or any other referenced documents

shall be changed to “observation”.

Sec. 16-46: (Monuments and Markers)

- (a) Iron rods nine-sixteenths inches (9/16”) in diameter and not less than thirty inches (30”) long shall be placed at all corners and angle points of the outside boundary but no further than one-quarter (1/4) mile apart. Iron rods nine-sixteenths inches (9/16”) in diameter and not less than thirty inches (30”) long shall also be set at all corners of lots.
- (b) Each lot shall have a marker board with the lot # on it (built on a 4”x4” post) placed in the center of the lot at the front property line, and shall extend four feet (4’) above finished grade.

Sec. 16-47: (Street Improvements)

- (a) Street improvements shall be provided in each new subdivision site plan in accordance with the regulations set forth in this section and the tables of minimum standards and typical section as set forth as Appendices B and C respectively. The regulations for street improvements are as follows:
 - (1) All streets in single-family residential zoning areas shall be constructed in accordance with this chapter.
 - (2) All streets in multi-family and commercial zoning areas shall be constructed in accordance with collector thoroughfare standards.
 - (3) For industrial and other special use areas as determined by the Plan Commission and the Subdivision Administrator.
 - (4) All street construction, including those listed above, shall conform to the requirements of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition.
- (b) It should be noted that all curb returns shall have a minimum radius of twenty-five feet (25’) (measured from the back of curb).
- (c) It should be noted that no building permit will be issued until such time that the roadway bituminous binder course has been installed.

Sec. 16-48: (Utilities)

- (a) Sanitary sewer systems shall be designed in accordance with the requirements of the City and the State Environmental Protection Agency. No oxidation ponds, seepage lagoons or holding lagoons will be constructed except upon specific approval of the Subdivision Administrator. Sewers may be placed only in public rights-of-way or in easements.

- (b) The drainage system within the development shall be designed to anticipate and provide capacity for drainage from naturally tributary land. Such design shall provide adequate capacity for transmitting such drainage from the other tributary areas on the basis of the ultimate development of such other tributary areas, but such drainage system need not make provision for the retention of drainage from other tributary areas. Drainage, storm water detention and compensatory storage calculations shall be submitted with the plans as required by the Subdivision Administrator. Where storm sewer discharges into an open ditch or natural water course, a concrete headwall may be required according to standards from the Subdivision Administrator.
- (c) All residential, commercial, industrial and community facility buildings or structures shall be served by an adequate water supply and distribution system. The design of the system shall be in accordance with the requirements of the State Department of Public Health.

Sec. 16-49: (Public Utilities)

All utility lines for telephone, cable television and electric service shall be placed entirely underground (minimum depth of twenty-four inches (24”) from finished grade). Said conduits or cables shall be placed within easements or dedicated public ways, in a manner which will not conflict with other underground services. Further, all transformer boxes shall be located so as not to be unsightly or hazardous to the public. The utility lines shall be parallel to and not less than twelve inches (12”) from the property lines. An “x” shall be scribed into the curb at all road crossing locations. Corner markers as required in § 16.46 of this chapter shall not be disturbed by the installation of utility lines.

Sec. 16-50: (Sidewalks)

- (a) Concrete sidewalks shall be provided throughout the subdivision site plan to serve the anticipated needs of its residents. Sidewalks shall be located in accordance with proper land planning procedures and with due regard for public safety and anticipated concentration of pedestrian traffic.
- (b) All sidewalks shall be five feet (5’) wide and typically be installed one foot (1’) from the property line (within the right-of-way). Where practicable, all sidewalks shall be located so that a parkway separates the curbs from the sidewalk.
- (c) Notwithstanding the fact that installation of sidewalks is required to be completed within two (2) years of final plat approval, the corporate authorities may, upon application, grant extensions for up to six (6) months for such sidewalk completion. No more than four (4) such extensions may be granted. No extension shall be granted unless or until the applicant's (developer's) subdivision security bond or letter of credit has been extended to remain valid during the term of any such extension. Nothing herein contained shall be deemed a waiver of the applicant's (developer's) responsibility to complete the sidewalks,

and provided further that if the applicant (developer) transfers ownership of any lot the sidewalk of which has not been accepted by the City, the applicant (developer) and the owner of the lot shall be jointly and severally responsible for the completion and maintenance of the sidewalk.

- (d) There shall not be any utility structures built within the limits of any pedestrian or bicycle paths, and there shall be a minimum two foot (2') clearance from any pedestrian or bicycle paths to utility structures.
- (e) All sidewalks must be in conformance with the latest ADA requirements.

Sec. 16-51: (Landscaping)

- (a) In the event that topsoil is removed, prior to, during or after construction, it shall be replaced to a depth not less than four inches (4") in all lawns and planting areas. Said topsoil shall be provided and spread by the general contractor or subcontractor.
- (b) All unpaved areas within the street right-of-way shall be seeded or restored with natural plantings approved by the City. Before the release of the two (2) year maintenance bond can be recommended by the Subdivision Administrator, all unpaved areas between the edge of the road pavement and the right-of-way line must support an adequate mat of grass. Provisions shall be made to assure the growth of all landscaping.
- (c) Notwithstanding any other provision specified herein, parkway trees are to be planted in the parkway in accordance with the City tree code with at least two (2) street trees per lot and four (4) street trees on a corner lot.
- (d) Protective screen planting may be required to secure a reasonably effective physical barrier between residential properties and adjoining uses to minimize adverse conditions of sight and sound. The screen planting plan shall be prepared by a landscape architect and shall meet the approval of the Plan Commission.
- (e) All stormwater basins shall be designed to enhance water quality, control erosion and sedimentation, and discourage nuisance waterfowl. All storm water basins shall be landscaped as designated in the City Stormwater Management Ordinance.

Sec. 16-52: (Driveways)

Except where improved alleys are existing, prior to the issuance of an occupancy permit, every subdivided lot shall have a driveway paved with an asphalt and/or concrete surface minimally extending from an adjacent public street to the front set back line of the principal structure located on the lot. Driveway slopes shall be between two percent and eight percent (2%-8%).

Sec. 16-53: (Traffic-Calming Devices)

The City may, at its discretion, require the use of traffic-calming devices in the design of roadways within a subdivision.

Sec. 16-54: (Final Plan Approval Requirements)

Upon receiving approval of the development plans by the Subdivision Administrator, the developer's engineer shall submit to the Subdivision Administrator five (5) signed and sealed full-size (24"x36") sets and four (4) signed and sealed reduced-size (11"x17") sets of the final plans, as well as one (1) copy of the final plans and one (1) copy of the plat of subdivision in electronic format as described below:

Media Type

Files may be submitted on the following media types, which are IBM and Microsoft compatible:

CD-ROM

DVD

Flash or "Jump" drive

File Types

All submissions must be in a drawing file format compatible with AutoCAD (current version). If the drawing file is in a micro station format (*.dgn) then a text file must accompany the drawing. This text file must reference the micro station layer number and give a corresponding definition for that layer. ESRI shape files or personal geodatabases are also acceptable.

General Drawing Requirements

The drawing must be drafted at full scale and will contain all existing and proposed objects that are contained in the construction plans.

All files shall be included for submittals. Check that x-referenced or attached files are also submitted.

All utility structures will be drawn as a block with an insertion point. All utility structures shall have a unique block name for the different types of structures.

Layers will be descriptive and numerous enough as to separate utility types as well as determining proposed from existing.

All utilities, which include a direction of flow, will be drafted in the direction of that flow.

All pipes will be drafted such that a single line is drawn and snapped from the center of structure to the center of next structure. Break pipes at structures.

All pipes connected to other pipes without a structure shall also be snapped.

All pipe sizes are to be included as text labels or in a schedule somewhere on the drawing.

Specific Utility Requirements

Storm Sewer

Include the following structures as blocks in addition to the storm pipe:

Manhole
Inlet
Catch Basin
Cleanout
Flared End Section

Sanitary Sewer

Include the following structures as blocks in addition to the sanitary pipe:

Manhole
Grease Trap
Air Release Valve
Lift Stations

Include and differentiate gravity and forced sewer pipes.

Water System

Include the following structures as blocks in addition to the water pipe:

Valve
Reducer
Hydrant
Meter Vaults
Wells

Include and differentiate distribution, service and private pipes.

Parcels

Include any Plat of survey or Plat of Subdivision in one of the accepted drawing file formats.

Lights

Include the following structures as blocks in addition to the electrical wire runs:

Light Pole
Control Box

ENGINEERING SPECIFICATIONS

Sec. 16-60: (Standards)

- (a) The applicant shall install storm and sanitary sewers, a water supply system, detention basins, street grading and pavement, alleys, pedestrian-ways, public utilities, and street lighting in accordance with applicable ordinances and standards of construction of the City.
- (b) No subdivision of land shall be approved by the corporate authorities without receiving a statement signed by the Subdivision Administrator certifying that the improvements described in the applicant's plans and specifications, together with any agreements, are in substantial compliance with ordinances of the City and that they comply with the following standards in this subchapter.

Sec. 16-61: (Sewers)

- (a) Sanitary sewers and sanitary sewer services shall be installed to serve all properties in the subdivision. Sanitary sewerage facilities shall connect with public sanitary sewerage systems. Such improvements shall be installed in accordance with the minimum standards and specifications as contained in Appendix D or as approved by the City Council after recommendation by the Plan Commission.
- (b) Storm sewers shall be installed to serve all properties in the subdivision. Sump pump discharge conveyance pipes, either separate or in combination with storm sewers, shall be installed unless it can be empirically demonstrated that site specific soils exhibit an infiltration rate greater than or equal to 3.2×10^{-3} cubic feet per second per square foot. Generally within rear yard drainage easements, sump pump discharge conveyance systems shall consist of an inlet provided at alternating lot corners with capped service tees for each adjacent lot and installed so as not to interfere with other public utilities. Such improvements shall be installed in accordance with the minimum standards and specifications as contained in Appendix E or as approved by the City Council after recommendation by the Plan Commission.

Sec. 16-62: (Water Supply)

Water distribution facilities, including piping, fittings, hydrants, valves, valve vaults, water services and all other appurtenances adequate for fire and domestic needs shall be installed to serve all properties within the subdivision. Such improvements shall be installed in accordance with the minimum standards and specifications as contained in Appendix F or as approved by the City Council after recommendation by the Plan Commission. At no time shall anyone other than City authorized personnel operate valves or hydrants.

Sec. 16-63: (Trench Backfill)

- (a) All trenches caused by the construction of sewers, sewer services, water mains, water services, and in excavation around catch basins, manholes, inlets and other appurtenances which occur within two feet (2') of the limits of existing or proposed pavements, sidewalks and curb and gutters shall be backfilled and properly compacted with trench backfill material. When in the opinion of the Subdivision Administrator proper compaction of the trench cannot be obtained, a controlled low strength material (flowable fill) shall be utilized.
- (b) Trench backfill shall be compacted in place to ninety-five percent (95%) of maximum density at optimum moisture as determined by the Standard Proctor Test, and as specified in the Appendices to this chapter, for the specific type of improvement.

Sec. 16-64: (Street Improvements)

- (a) The full width of the right-of-way shall be graded to the required section.
- (b) All unsuitable sub-base material shall be removed and shall be replaced with stable, compacted material in conformance with generally accepted engineering practices. Soil test reports are to be submitted to the Subdivision Administrator at the time of plan submittal. Sub-grade stability improvements may be required for soils with an IBR less than six (6) and at the discretion of the Subdivision Administrator. Lime stabilization may be utilized upon receipt of approval by the Subdivision Administrator, and must be in accordance with IDOT Sections 302 and 310.
- (c) Vertical curves shall be used whenever a change in centerline gradient occurs, except where the algebraic difference in gradients is one and one-half percent (1-1/2%) or less. The length of vertical curves shall be established on the basis of design, speed and stopping distance in accordance with standards obtainable from the Subdivision Administrator.
- (d) All pavement thicknesses, including surface, base courses and sub-base courses, shall be designed in accordance with the Illinois Department of Transportation standards. The minimum thicknesses for Class IV streets (as designated in IDOT's Bureau of Design and Environmental Manual) shall be as specified in Appendix C. Proof roll of the sub-base and base course shall be conducted and densities of the sub-base, base course, binder course and surface course of all streets shall be field verified during construction with nuclear methods by a Developer-employed testing service.
- (e) Class III streets (as designated in IDOT's Bureau of Design and Environmental Manual) require design data to be submitted to the Subdivision Administrator at the time of plan submittal and shall always meet or exceed the minimum requirements in Appendix C. However, alternate materials may be considered by the Plan Commission, if

recommended by the Subdivision Administrator, if structurally equal.

- (f) Curbs and gutters shall be constructed on all streets and shall be combination (integral) concrete. Curbs may be constructed integrally with the Portland cement concrete pavement. All curbs and gutters shall be installed in accordance with the minimum standards and specifications as contained in Appendix G or as approved by the City Council after recommendation by the Plan Commission.

Sec. 16-65: (Alleys)

Alley pavement shall conform to the specifications of Section 16-64.

Sec. 16-66: (Sidewalks)

- (a) Sidewalks shall be constructed of Portland cement concrete (Class SI) to a minimum thickness of five inches (5"), except at driveway locations where the thickness shall be a minimum thickness of six inches (6"). An aggregate base with a minimum thickness of four inches (4") shall be provided under all sidewalks and shall be compacted as approved by the Subdivision Administrator. Concrete for such sidewalks shall conform to the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction.
- (b) All sidewalk is to be constructed with 2"x6" forms.

Sec. 16-67: (Street Lighting Improvements)

Street lighting improvements shall be installed to serve all properties within the subdivision. Such improvements shall be installed in accordance with the minimum standards as approved by the City Council after recommendation by the Plan Commission.

Sec. 16-68: (Street Signs)

- (a) The Developer will pay for all street name and regulatory signs and install same in accordance with the Manual on Uniform Traffic Control Devices (latest edition) and consistent with the Traffic Control Plan. The cost of all signage is to be included in the Letter of Credit posted for the improvements. All signs are to be installed within one (1) week of the construction of the roadway bituminous binder. The signs shall meet the following requirements:
 - 1) Signs supports shall be UNISTRUT TELESPAR perforated sign posts 2"x 2", 14 gauge 13' long upright and 2 1/4" x 2 1/4" gauge 3' long or approved equal.
 - 2) A sign map is required for the development to be approved by the City Council & Police Department before signs are to be installed.

- 3) Stop sign - 30" diamond grade V.I.P. stop sign-local streets (reflective).
- 4) Stop sign - 36" diamond grade V.I.P. stop sign-collector/arterial streets (reflective).
- 5) Stop sign - 36" diamond grade V.I.P. stop sign-collector/arterial streets (reflective).
- 6) Speed limit sign - 24" x 30" diamond grade V.I.P. - 25MPH on local streets (see attached).
- 7) Speed limit sign - 24" x 36" diamond grade V.I.P. collector/arterial (see attached).
- 8) Residential street name signs green with 4" white letters - 6" Double Extruded Blade (letters to be reflective) high intensity sheeting (18" Minimum Blade).
- 9) Collector Streets and greater 6" white letters - 8" Double Extruded Blade (letters to be reflective) high intensity sheeting (18" Minimum Blade).

INFRASTRUCTURE IMPROVEMENTS

Sec. 16-75: (Construction Observation)

- (a) All infrastructure improvements required for the development shall be observed during the course of construction by the Subdivision Administrator. All reasonable fees (including reasonable attorney's fees, engineering fees and/or staff cost) associated with such activity, including the reviewing of the plans and specifications for such improvements shall be paid for by the applicant. The applicant may be required to post a deposit with the City to cover the anticipated costs of such services before they are undertaken. In the event that these fees are not paid in a timely manner, the City may, at its sole discretion, draw down on any subdivision improvement/maintenance security which may be available.
- (b) The applicant shall give at least forty-eight (48) hour written notification to the Subdivision Administrator prior to the performance of any of the following:
 - (1) The construction of any roadway or street.
 - (2) The surfacing of any roadway or street.
 - (3) The installation of any curbing or gutters.
 - (4) The grading or backfilling of any open trench or excavation in which any utility facilities, including but not limited to, water lines, sewer lines, and electrical cables

have been installed.

- (5) The construction of any sidewalk.
- (6) The filling, pressure testing, chlorination, or water sampling of any water main.
- (c) Within the forty-eight (48) hour notice period, the Subdivision Administrator may conduct onsite observation to determine that the proposed work complies with the engineering drawing. If, in the opinion of the Subdivision Administrator, the proposed work does not comply with such final drawings, the Subdivision Administrator shall have the authority to order that all such proposed work be terminated until such time as necessary steps are taken to correct any defects or deficiencies. Upon the correction of such deficiencies, the applicant shall again notify the Subdivision Administrator.
- (d) There shall be no development work on Sundays. Development work is allowed on Saturdays, but any necessary City inspections/testing observation must be pre-approved and coordinated with the Subdivision Administrator. Development work hours shall be 7:00 a.m. through dusk for Mondays through Fridays, and 8:00 a.m. through dusk for Saturdays.

Sec. 16-80: (Record Drawing (“As Built”) Requirements)

PART I GENERAL

Record drawings (“as-builts”) are required to provide a means of schematic verification that the intent of the approved engineering design has been met, thereby substantiating that the health, safety, and welfare aspects of the engineering design have been adequately provided by the construction of the project. Secondly, record drawings serve as a reference tool for future location and maintenance operations. The following requirements will be applied to each set of Record Drawings developed for the City of Watseka.

1.1 GENERAL RECORD DRAWING REQUIREMENTS

- A. The first sheet of the set will have a vicinity map in the upper right hand corner.
- B. Record drawings shall be submitted as revisions shown on the original Engineering Plans and as AutoCAD (current version) files. Record drawings will have the original data lined through and the Record data added to the drawing. At no time will the original data be accepted as the Record data.
- C. All record drawings for major projects are required to be 24” x 36” and shall bear the name, address, and telephone number of the firm preparing the drawings and the date the record data is added to the original drawings via the revision block.

- D. Surveyor's/Engineer's statement (with embossed or wet seal and with original signature on each sheet) shall verify that the record drawings reflect the true conditions in the field.
- E. "Record Drawing" shall be labeled on each sheet in 1-inch (1") high letters.
- F. Street names shall be shown on all streets.
- G. If the utility system is to be private (not to be dedicated to local authority), then indicate such on each sheet.
- H. The location and elevation of the benchmarks referenced will be shown on the drawing (and should be the same bench mark datum as the original approved design plans). If the referenced benchmarks are not within the project limits, then complete descriptions of locations must be provided.
- I. Show all easements within the project limits on the record drawings.

1.2 DETENTION POND RECORD DRAWING REQUIREMENTS

- A. Topographic map of the detention area.
- B. Spot elevations on top of bank to confirm minimum design bank elevations as well as spot elevations on any overflow weir.
- C. Observed water elevation at date of the record drawing for wet bottom basins.
- D. Location of top of bank and existing water edges at time and date of taking elevations.
- E. Spot elevations on the bottom of dry bottom basins, or, if requested by the Subdivision Administrator, for wet bottom basins.
- F. A stage/storage table showing the design and as-constructed pond volumes and release rates.
- G. A signed/sealed statement by a Profession Engineer that the detention pond(s) provides the required detention storage and does not exceed the allowable outflow rate(s) per the approved construction plans and hydrology study. If significantly different than the approved drawings (as determined by the Subdivision Administrator), the engineer must submit a revised hydrology study using the as-constructed conditions in order to document this statement.

1.3 WATER SYSTEM RECORD DRAWING REQUIREMENTS

- A. Locate all valves, services (b-boxes), and fire hydrants in two directions (station and offset).
 - 1. Locations shall be perpendicular to the right-of-way and parallel to the water main.

- a. Lot lines may be used to locate water services.
 - b. Permanent structures that are properly located may also be used.
 - c. Radial ties are not acceptable.
2. All horizontal distances shall be shown to the nearest foot. All vertical distances shall be shown to the nearest tenth of a foot.
- B. Show all materials, sizes, and types of valves, pipes, and special fittings (crosses, tees, reducers, etc. – not elbows).
 - C. Elevations shall be given for the top of all structure frames/lids and for the top of all pipes entering/exiting each structure.
 - D. Special detail drawings will be required where installations are not shown on approved engineering drawings for whatever reason or where required for clarity.
 - E. Show location and elevation for pipes where bury depths are greater than six feet (6’).
 - F. Details for water services deviating from typical installation details of the approved engineering plans shall be noted on the record drawings (i.e., instances where the corp stop location is not evident).

1.4 SANITARY SEWER SYSTEM RECORD DRAWING REQUIREMENTS

- A. Locate all wyes, cleanouts and manholes in two directions in the same manner as 1.2 above.
- B. Horizontal dimensions shall be to the nearest foot. Vertical elevations shall be to the nearest hundredth of a foot.
- C. Identify the length, size, material, and slope of all pipe (i.e., 300 feet of 8” PVC SDR 35 at 0.4%).
- D. Elevations shall be given for the top of all manhole covers and for the inverts of all pipes entering/exiting each manhole.
- E. Service laterals are to be identified with location of end of service/plug (station and offset measured upstream).
- F. Details for drop manholes deviating from the details on the approved engineering plans shall be indicated on the record drawings.

1.5 FORCE MAINS RECORD DRAWING REQUIREMENTS

- A. Locate all valves and manholes in two directions in the same manner as 1.2 above.
- B. Show all materials, sizes, and types of valves, pipes, and special fittings (crosses, tees, etc. – not elbows).
- C. Elevations shall be given for the top of all structure frames/lids and for the top of all pipes entering/exiting each structure.

- D. Special detail drawings will be required where installations are not shown on approved engineering drawings for whatever reason or where required for clarity.

1.6 LIFT STATION RECORD DRAWING REQUIREMENTS

- A. Wet well and valve vault size and location shall be indicated along with wet well high and low water levels.
- B. Elevations for top, bottom, inverts, adjacent ground and type and size of lines and fittings for all lines entering or leaving the wet well and valve vault shall be indicated.
- C. Any amended schedules which show pump, motor and electrical data shall be indicated.

1.7 STORM SEWER SYSTEM RECORD DRAWING REQUIREMENTS

- A. Elevations shall be given for the top of all storm sewer structure frames/lids and for the inverts of all pipes entering/exiting each structure.
- B. Any on-site field tiles which remain on-site must be identified on record drawings.
- C. Identify the length, size, material, and slope of all pipe (i.e., 300 feet of 12" RCCP at 1.0%).
- D. Horizontal dimensions shall be to the nearest foot. Vertical elevations shall be to the nearest hundredth of a foot.
- E. Provide elevations and cross sectional information, as well as slope, on all ditches, canals, etc.

1.8 STREET LIGHTING RECORD DRAWING REQUIREMENTS

- A. Provide horizontal ties for light foundations and control cabinets as referenced to the approved plan stationing or coordinates.
- B. Service cables and service transformers shall be depicted in schematic form.

1.9 ELECTRONIC FILE RECORD DRAWING REQUIREMENTS

- A. Include AutoCAD compatible version of all record information as described in Section 16-54.

DEDICATION OF LANDS

Sec. 16-90: (Violations)

- (a) The owner or occupant of any land, building, structure or any part thereof, or any architect, builder, contractor, agent or other person who commits, participates in, assists in

or maintains any violation of this chapter, may each be found guilty of a separate offense and suffer the penalties herein provided.

- (b) Nothing herein contained shall be construed to prevent the City from taking such lawful action as is necessary or appropriate to prevent any violation.

Sec. 16-91: (Penalty)

Any person, firm, corporation, partnership or other legal entity who violates, disobeys, omits, neglects or refuses to comply with or resists the enforcement of this chapter shall be guilty of a misdemeanor and shall upon conviction be fined not less than \$50.00 nor more than \$500.00 for each offense. Each day a violation is permitted to exist shall constitute a separate offense.

APPENDIX A: CERTIFICATION FORMS FOR FINAL PLAT

1. Survey Certification:

State of Illinois)
) SS
County of _____)

I, _____, a professional land surveyor in the State of Illinois, do hereby certify that under the direction of the owner thereof, I have surveyed, subdivided and platted said property into lots and streets all of which is represented on the plat hereon drawn, that part of the (quarter section, section, township, range) of the _____ Principal Meridian described as follows:

(Legal Description)

I do further certify that:

1. The accompanying plat is a true and correct representation of said survey and subdivision as made by me.
2. (Flood Hazard Statement)
3. The property or plat is situated within the corporate limits of the City of Watseka.
4. To the best of our knowledge, all regulations enacted by the subdivision and plat ordinance of the City of Watseka have been complied with in the preparation of this plat.
5. All dimensions are given in feet and decimal.
6. Exterior corners have been monumented with concrete, not less than six inches (6") in diameter and thirty-six inches (36") deep, with a center copper dowel three inches (3") long cast in place, and all interior corners are to be set with 9/16" x 30" iron rods within one year from date of recordation.

Dated at _____, Illinois this _____ day of _____, 20__, A.D.

Illinois Registered Land Surveyor No. ____

(SEAL)

2. Certificate of Ownership:

State of Illinois)
) SS
County of ____)

I, _____, A Notary Public in and for said County and State, do hereby certify that (and _____), Trust officer(s) personally known to me to be the same person(s) whose name(s) are subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed and delivered the foregoing instrument as their own free and voluntary act of the _____ as trustee aforesaid, for the uses and purposes set forth. Given under my hand and Notarial seal this ____ day of _____ A.D. 20__.

_____ (Seal)

(Certification if property under mortgage)

“MORTGAGEE:

BY: _____
Its duly authorized officer

ATTEST:

Its duly authorized officer

I, the undersigned, a Notary Public, in and for said County, in the State aforesaid, do hereby certify that _____, personally known to me to be the _____ of _____ who is the mortgagee, and personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that as such _____ and _____, they signed and delivered the said instrument as _____ and to be affixed thereto, pursuant to authority given by the Board of Directors of said _____ as their free and voluntary act, and as the free and voluntary act and deed of said _____ for the uses and purposes therein set forth. Given under my hand and Notarial seal this ____ day of _____, 20__.

_____ (Seal)

3. Design Engineer Drainage Certification:

To the best of our knowledge and belief the drainage of surface waters will not be changed by the construction of such subdivision or any part thereof or that is such surface water drainage will change, adequate provision has been made for the collection and diversion of such surface waters into public areas or drains which the subdivider has a right to use, and that such surface waters will not be deposited on the property of adjoining land owners in such concentrations as may cause damage to the adjoining property because of the construction of the subdivision.

Dated at _____, this ____ day of _____, A.D. 20__.

_____ (Seal)
Design Engineer

4. School Certificate:

STATE OF ILLINOIS)
) SS
COUNTY OF _____)

This is to certify that the undersigned is the owner of the land described in the attached plat and they have caused the same to be surveyed, subdivided and platted as shown by the plat for uses and purposes as indicated therein, and does hereby acknowledge and adopt the same under the style and title thereon indicated.

We do also acknowledge that the subject property lies within the City of Watseka Unit 9 School District.

Dated at _____, this _____ day of _____, A.D. 20__.

(Owner's Signature)

5. Plan Commission Approval:

STATE OF ILLINOIS)
) SS
COUNTY OF IROQUOIS)

I, _____, Chairman of the City of Watseka Plan Commission, do certify that on this _____ day of _____, 20__, A.D. this plat of subdivision was duly approved by the Plan Commission of the City of Watseka.

Attest: _____ By: _____
Secretary Chairman

6. Corporate Authorities Approval:

STATE OF ILLINOIS)
) SS
COUNTY OF IROQUOIS)

Approved by the Mayor and the City Council of the City of Watseka, Iroquois County, Illinois, this day of _____, 20__, A.D.

Attest: _____ By: _____
City Clerk Mayor

(SEAL)

7. County Clerk Certification:

STATE OF ILLINOIS)
) SS
COUNTY OF IROQUOIS)

I, _____, County Clerk of Iroquois County, Illinois, do hereby certify that there are no delinquent general taxes, or unpaid current general taxes against any of the estate described in the foregoing certificates.

Given under my hand and seal at _____, Illinois, this _____ day of _____, 20 __, A.D.

(SEAL)

County Clerk

8. County Recorder Certification:

STATE OF ILLINOIS)
) SS
COUNTY OF IROQUOIS)

This instrument No. _____ was filed for record in the recorder's office of Iroquois County, Illinois, aforesaid on the _____ day of _____, 20 __, A.D. at _____ o'clock __.M.

County Recorder

9. Detention and Drainage Easements

All easements indicated as detention or drainage easements on this plat are reserved for and granted to the City of Watseka and to their successors and assigns. No buildings shall be placed on said easement, but the same may be used for other purposes that do not adversely affect the storage/free flow of stormwater. Each owner or subsequent purchaser shall be equally responsible for maintaining the easement and shall not destroy or modify grades or slopes without having first received written approval of the City of Watseka.

In the event any owner or subsequent purchaser fails to properly maintain the easement, the City of Watseka shall upon ten days prior written notice, reserve the right to perform, or

have performed on its behalf, any maintenance work to or upon the easement reasonably necessary to ensure adequate stormwater storage and free flow of stormwater through the easement area.

In the event the City of Watseka shall be required to perform, or have performed on its behalf, any maintenance work to or upon the easement, the cost together with an additional sum of ten percent of said cost of completion of the work constitutes a lien against any lot or lots created by this plan which may require maintenance. The lien may be foreclosed by any action brought by or on behalf of the City of Watseka.

10. Surface Overland Flow Easement:

All easements indicated as "SURFACE OVERLAND FLOW EASEMENT" on this plat are reserved for and granted to the City of Watseka. No buildings or other structures shall be erected or maintained in the SURFACE OVERLAND FLOW EASEMENT areas that would adversely affect the free flow of storm water. Each owner or subsequent purchaser shall be equally responsible for maintaining the SURFACE OVERLAND FLOW EASEMENT areas and shall not destroy or modify grades or slopes without having first received prior written approval of the City of Watseka. In the event any owner or subsequent purchaser fails to properly maintain the SURFACE OVERLAND FLOW EASEMENT areas, the City of Watseka or any other unit of local government having jurisdiction over drainage, shall have the right to perform, or have performed on its behalf, any maintenance work to or upon the SURFACE OVERLAND FLOW EASEMENT area reasonably necessary to insure proper flow of storm water and charge the owner or subsequent purchaser for the maintenance work performed.

APPENDIX B: STREET DESIGN GUIDELINES

<i>Street Parking Classification</i>	<i>Right-of-Way Width Allowed</i>	<i>Pavement Width</i>	<i>Design Number Speed</i>	<i>Curb of Lanes</i>	<i>Type</i>	
Major	120-150 ft.	State	55 mph	4-6	B-6.24	no
Arterial		Standards				
Secondary	120 ft.	(2) 24' E-E plus	45 mph	4-5	B-6.24	no

Arterial		30' median				
Major Collector	100 ft.	40' E-E	45 mph	3	B-6.12	no
Minor Collector	80 ft.	36' E-E	40 mph	2-3	B-6.12	yes
Commercial Districts	100 ft.	36' E-E	35 mph	3	B-6.12	yes
Industrial Districts	80 ft.	36' E-E	35 mph	2	B-6.12	no
Local Residential	66 ft.	30' E-E	30 mph	2	M-3.12/B-6.12	yes
Subdivision	100 ft.	(2) 16' E-E plus	30 mph	2	B-6.12	
Boulevard	no	30' median				
Cul-de-sac	130 ft.	100' E-E res.	N/A	N/A	M-3.12/B-6.12	
	yes					
	yes	110' E-E comm/ind.	N/A	N/A		
Alleys	20 ft.	16' E-E	10 mph	1	N/A	
	no					
Bike Trails	20 ft.	10' E-E	20 mph	2		
	N/A	N/A				

Note: The table above to be used as guidelines for various roadway classifications. Actual designs shall be subject to review and approval by Subdivision Administrator.

Street

Minimum Pavement Requirements

<i>Classification</i>	<i><u>Bituminous</u></i>	<i><u>Alternate</u></i>
Major base Arterial* Fabric	6" CA-6 Crushed stone Sub-base 9" Bituminous Base Course 2.5" Bituminous Binder Course 2" Bituminous Surface Course	6" CA-6 Crushed stone Sub- 10" PC Concrete w/ Wire
Secondary Sub-base Arterial* Fabric	4" CA-6 Crushed stone Sub-base 8" Bituminous Base Course 2.5" Bituminous Binder Course 1.5" Bituminous Surface Course	4" CA-6 Crushed stone 8" PC Concrete w/ Wire
Major Sub-base Collector Fabric	4" CA-6 Crushed stone Sub-base 7" Bituminous Base Course 2.5" Bituminous Binder Course 1.5" Bituminous Surface Course	4" CA-6 Crushed stone 7" PC Concrete w/ Wire
Minor Sub-base Collector Base & Commercial Course Districts Course	4" CA-6 Crushed stone Sub-base 6" Bituminous Base Course 2.5" Bituminous Binder Course 1.5" Bituminous Surface Course	4" CA-6 Crushed stone 8" CA-6 Crushed stone 2.5" Bituminous Binder 2" Bituminous Surface
Industrial base Districts Fabric (incl. cul-de-sacs)	6" CA-6 Crushed stone Sub-base 8" Bituminous Base Course 2.5" Bituminous Binder Course 1.5" Bituminous Surface Course	6" CA-6 Crushed stone Sub- 8" PC Concrete w/ Wire
Local Residential Base (incl. entrance, Course cul-de-sacs)	4" CA-6 Crushed stone Sub-base 6" Bituminous Base Course 2.5" Bituminous Binder Course 1.5" Bituminous Surface Course	10" CA-6 Crushed stone 2.5" Bituminous Binder 2" Bituminous Surface

Course		
Alleys	10" CA-6 Crushed stone Base	4" CA-6 Crushed stone
Sub-base	2.5" Bituminous Binder Course 1.5" Bituminous Surface Course	7" PC Concrete
Bike Trails	6" CA-6 Crushed stone Base	2" CA-6 Crushed stone
sub-base	2" Bituminous Surface Course	5" PC Concrete

Note: The table above to be used as guidelines for various roadway classifications. Actual designs shall be subject to review and approval by Subdivision Administrator.

<i>Type</i>	<i>Maximum Gradient</i>	<i>Minimum Gradient</i>	<i>Clear Sight Distance</i>
Arterials Major collectors	6%	0.50%	As approved by the Subdivision Administrator (minimum 500' horizontal curve radius - centerline)
Minor Collectors	6%	0.50%	As approved by the Subdivision Administrator (minimum 300' horizontal curve radius - centerline)
Residential Streets centerline)	8%	0.50%	As approved by the Subdivision Administrator (minimum 175' horizontal curve radius -
Commercial, Industrial	5%	0.50%	As approved by the Subdivision Administrator
Alley- Business*			As approved by the Subdivision Administrator
Alley-			As approved by the Subdivision Administrator

Resident*

*Standards for these streets shall be as indicated or as determined by the Plan Commission and the Subdivision Administrator. See Appendix C.

APPENDIX C: ROADWAY SPECIFICATIONS

(A) General.

- (1) All developments shall be provided with street pavements and appurtenances designed in accordance with this appendix.
- (2) All roadway improvements shall be installed in accordance with the material, installation and testing requirements of the latest edition of the "Standard Specifications for Road and Bridge Construction in Illinois," and the latest edition of the "Supplemental Specifications and Recurring Special Provisions", unless otherwise modified in this section.
- (3) Specification references made herein for manufactured items, such as pipe, cement, aggregates, etc. refer to designations of the American Society for Testing and Materials (ASTM). Design references made herein refer to the American Association of State Highway and Transportation Officials (AASHTO).
- (4) All contractors constructing public roads in the City of Watseka shall be pre-qualified with the Illinois Department of Transportation. Bituminous and concrete plants supplying materials shall be IDOT-certified.

- (5) A permit is required prior to the start of any construction on Public Easement or Right of Ways that would cut, alter, grade or excavate the surface or support for the surface of any street, road, highway, parkway, curb, sidewalk or way within the City of Watseka. A permit may be obtained at the City Hall, 201 Brianna Drive, Watseka, IL 60970.

(B) Basic Design Standards.

- (1) The design of roadways in the City of Watseka shall be in accordance with the general guidelines and typical cross sections found in Appendix B. Variations from these guidelines are required to be approved by the City in advance.

(C) Material specifications. All pavement elements shall conform to the following specifications:

- (1) Bituminous concrete binder courses shall meet HOT-MIX ASPHALT BINDER COURSE IL-19, N-50. Up to 25% RAP will be allowed in binder course.
- (2) Bituminous concrete surface courses shall meet HOT-MIX ASPHALT SURFACE COURSE IL-19, Mix D N-50 unless approved in advance by the Subdivision Administrator. Up to 15% RAP will be allowed in surface course.
- (3) Mix designs and material suppliers shall be submitted to the City thirty (30) days prior to work.
- (4) Bituminous pavers shall have a minimum closed screed width of ten feet (10') and shall be equipped with electronic grade control.
- (5) All concrete roadway construction materials for curb and gutter, concrete pavement, lighting base foundations, etc. shall meet IDOT material requirements for Class SI concrete as applicable.
- (6) Paint and thermoplastic materials used for pavement markings and roadway striping shall meet applicable articles of IDOT Standard Specifications. This work shall be undertaken in accordance with IDOT allowable calendar dates and weather conditions unless approved in advance by City of Watseka.

(D) Testing and Acceptance.

- (1) Contractor shall notify the Subdivision Administrator and the materials testing firm forty-eight (48) hours prior to work or test being performed. If an existing street is to be partially or totally closed, the developer is to notify the City of Watseka Public Works Department, Fire Department, Police Department, and all School Districts forty-eight (48) hours in advance prior to closing.
- (2) Pavement Observation Procedures (including bike paths) shall be as follows:

- Proof roll Sub-grade – (Acceptable proof roll vehicle-14 ton (50,000 gross) Semi-truck 21 ton (73, 000 gross)).
 - A. Before curb and gutter is installed.
 - B. One inch (1”) rut and one inch (1”) roll maximum.
 - C. Repair sub-grade until an acceptable proof roll is obtained.
- String-line Sub-grade.
 - A. Plus one-half inch (+1/2”) maximum.
- Proof roll Sub-base (if applicable).
 - A. No movement-rutting or rolling-allowed.
 - B. Repair Sub-base and other underlying layers if necessary until an acceptable proof roll is obtained.
- String-line Sub-base (if applicable).
 - A. Plus one-fourth inch (+1/4”) maximum.
- Proof roll Aggregate base course (if applicable).
 - A. No movement-rutting or rolling allowed.
 - B. Repair aggregate base course and other underlying layer if necessary until an acceptable proof roll is obtained.
- String-line Aggregate base course (if applicable).
 - A. Plus one-fourth inch (+1/4”) maximum.
- Proof roll Bituminous base course (if applicable).
 - A. No movement rutting or rolling allowed.
 - B. Repair bituminous base course and other underlying layer if necessary until an acceptable proof roll is obtained.
- Density Test Bituminous base course (if applicable).
 - A. On-site density testing is performed by an independent testing firm acceptable to the Subdivision Administrator and cores taken to check thickness per the Subdivision Administrator.
- String-line Bituminous base course (if applicable).
 - A. Plus one-fourth inch (+1/4”) maximum.

- Check Condition of Pavement/Aggregate Prior to base course.
 - A. Bituminous material (prime coat) must be cured prior to placement of binder.
 - B. Priming immediately in front of paver is NOT ALLOWED.

- Density test binder course.
 - A. On-site density testing performed by an independent testing firm acceptable to the Subdivision Administrator and if needed cores taken to check thickness.
 - B. Repair bituminous binder course by removal and replacement for failed areas or a method acceptable to the Subdivision Administrator.

- Check Conditions of Pavement binder course prior to surface course. The Developer is responsible for pavement maintenance including filling potholes when requested by the City.
 - A. Only after one winter season and seventy-five percent (75%) of occupancy permits issued.
 - B. Surfacing shall be completed within three years of installation of the binder.

- (1) Clean pavement and curbs prior to proof roll.
 - C. Proof roll bituminous binder course. No movement-rutting or rolling allowed. Repair binder course by removal and replacement.
 - D. If cracks are greater than one-half inch (1/2") wide and occur over twenty-five percent (25%) of the pavement, then repair bituminous binder course and other underlying layers until an acceptable proof roll is obtained.
 - E. If cracks are less than one-half inch (1/2") wide and occur over twenty-five percent (25%) of the pavement, then repair bituminous binder course by HEATER SCARIFY, overlay method, or a method acceptable to the Subdivision Administrator.
 - (1) If cracks are less than one-half inch (1/2") and less than twenty-five percent (25%) of the area, then repair binder and base course as necessary.
 - (2) If longitudinal and transverse cracking are less than

ten percent (10%) of the length, then repair with mix for cracks.

- (3) If longitudinal and transverse cracks are greater than ten percent (10%) of the length, then repair with crack fill acceptable to the Subdivision Administrator.

F. Remove and replace damaged curb and gutter. The minimum length of removal and replacement is ten feet (10').

(1) Two (2) Rebar dowels are required in replacement sections.

(2) Replacement curb requires two (2) dowel bars at each end. Maximum diameter three-quarter inch (3/4").

(3) Any pavement disturbed by curb replacement shall be saw cut a minimum of eighteen inches (18") wide. Length to be determined by Subdivision Administrator.

(4) Bituminous driveway aprons disturbed by curb removal shall be saw cut a minimum twenty-four inches (24") wide and replaced full width.

(5) Any concrete driveway aprons disturbed by curb removal shall be saw cut at the closest joint and replaced full width.

G. Remove cold patch and replace with hot mix. Place level binder in binder irregularities, trench settlement, etc.

H. Bituminous material (tack coat) will be placed only if the Subdivision Administrator accepts the conditions of the pavement.

I. Bituminous surface course placed on pavement not accepted by the Subdivision Administrator will be removed and replaced.

J. Bituminous material (tack coat) must be cured prior to placement of surface. Priming immediately in front of the paver is not allowed.

➤ Density test bituminous surface course (if applicable).

A. On-site density testing performed by an independent testing firm acceptable to the Subdivision Administrator and cores taken to check thickness.

- B. Repair bituminous surface course by removal and replacement areas or a method acceptable to the City.

MATERIAL TESTING: City Will Observe All Testing Performed

<u>Test Items</u>	<u>Test</u>	<u>Who Performs TEST</u>	<u>Number of Tests</u>	<u>Test Paid By</u>	<u>Test Ordered By</u>
Sub-grade	Proof Roll String-Line	Contractor Contractor	Entire Project Entire Project	Developer Developer	Developer Developer
Aggregate	Proof Roll String-Line	Contractor Contractor	Entire Project Entire Project	Developer Developer	Developer Developer
Structural	Concrete See IDOT Stand.	Testing Firm	Concrete See IDOT Stand.	Developer	Developer
Bituminous Concrete	Rolling Pattern	Testing Firm	Bit. Concrete See IDOT Stand.	Developer	Developer
	Asphalt Temperature	Testing Firm	Bit. Concrete See IDOT Stand.	Developer	Developer
	Nuclear Density Test	Testing Firm	Bit. Concrete See IDOT Stand.	Developer	Developer

** The thickness of the completed pavement will be verified by the cores. A minimum of four (4) core specimens per day are required.*

All firms used for bituminous and concrete testing shall be approved or chosen by the Subdivision Administrator at the Developer’s cost. The testing firms shall be agreed upon at the pre-construction conference meeting. The developer shall notify the Subdivision Administrator a minimum of 48 hours prior to any bituminous paving or concrete placement.

ASPHALT TESTING REQUIREMENTS:

Testing shall consist of all applicable site testing. Site testing shall include establishing a rolling pattern, asphalt temperature, nuclear density test, (see the IDOT Non-QC/QA Testing Requirements), and any other testing deemed necessary by the Subdivision Administrator. The testing company’s technician shall provide verbal test results while paving, and written results within 48 hours to the Subdivision Administrator.

If any individual street has an average density per IDOT requirements of less than minimum requirements, that street shall be deemed as having failed and further testing and/or replacement

shall be required.

The developer will supply the Subdivision Administrator with a list of plants that will be used for work on site. The plant list will include a list of plant codes as they correlate to IDOT approved mixes. This list must be delivered to the Subdivision Administrator 10 working day prior to asphalt being placed. The testing firm's inspector shall fill out the City form, and return it to the Subdivision Administrator, along with a copy of field and lab reports. The testing firm is responsible for all field and lab tests, and reports.

CONCRETE TESTING REQUIREMENTS:

Structural concrete to be tested per the IDOT Non-QC/QA Testing Requirements shall include, but not be limited to, bridges, box culverts, beams, retaining walls, and items noted by the Subdivision Administrator. Nonstructural items, such as curbs and sidewalks will be visually inspected by the City and will also be subject to additional testing as described in the IDOT Non-QC/QA Testing Requirements. The developer must notify the City 48 hours prior to all Concrete placement.

The developer will supply the Subdivision Administrator with a list of batch plants that will be used for work on the site. The batch plant list will also include a list of plant codes as they correlate to IDOT approved mixes. The list must be delivered to the Subdivision Administrator prior to any concrete being placed.

The testing firm's inspector shall fill out the City form, and return it to the Subdivision Administrator, along with a copy of field and lab reports. The testing firm is responsible for all field and lab tests, making, picking up, and breaking of cylinders, and reports.

(E) Striping.

- Raised reflective pavement markers will be required for major collectors, minor and major arterials on centerline skip dash, double yellow centerline turn lanes.
- Stop bars shall be twenty-four inches (24") wide and required at all stop sign locations.
- Crosswalks shall have six inch (6") wide lines at intersections, twelve inch (12") wide bars at school crossings.
- All permanent striping shall be thermoplastic.
- Temporary paint striping shall be required after binder placement on all collector or greater streets.

APPENDIX D: SANITARY SEWER SYSTEM STANDARDS AND SPECIFICATIONS

(A) General.

- (1) All developments shall be provided with sanitary sewers and appurtenances designed in accordance with this appendix.
- (2) All sanitary sewer improvements shall be installed in accordance with the material installation and testing requirements of the "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition, unless otherwise modified in this section.
- (3) Specification references made herein for manufactured items, such as pipe, fittings, and manholes refer to designations of the American Society for Testing and Materials (ASTM), American Water Works Association (AWWA), or of the American National Standards Institute (ANSI).

(B) Basic Design Standards.

- (1) The design of the sanitary sewer system shall be in accordance with the requirements of the City and of the Illinois Environmental Protection Agency's latest edition of Title 35 of the Illinois Administrative Code, Subtitle C, Chapter 11, Part 370.

- (2) All sewers shall be designed to accommodate an ultimate service area as defined by the Subdivision Administrator.
- (3) Sewers shall be placed only in public rights of way or in easements. The location of proposed extensions to the existing sanitary sewer system shall be approved by the Subdivision Administrator.
- (4) Sewer Design Hydraulics.
 - (a) Sanitary gravity sewers shall be designed to provide design flow capacity, without surcharging, using the formula specified in the latest edition of the Illinois Administrative Code.
 - (b) Design mean velocity, flowing full, shall not be less than two feet per second. If velocity exceeds 15 feet per second, erosion and shock protection measures shall be provided.
- (5) Minimum Sewer Size.
 - (a) Minimum sanitary sewer size shall be eight inch (8") diameter.
 - (b) Minimum building sanitary service sewer size shall be six inch (6") diameter.
- (6) Alignment. Sewers shall be laid straight in both horizontal and vertical planes between manholes. Service connections to sewer mains shall be made by factory wye or tee connection only.
- (7) Sewer Size Changes. Sanitary sewer 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 diameters.
- (8) Sanitary Sewer Manholes.
 - (a) At a minimum, 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 shape or pipe size
 - 4. Junctions with other sanitary sewers
 - 5. Access spacing shall be:

SEWER PIPE SIZE (in inches)	MAXIMUM INTERVAL (in feet)
8 – 15	400
18 – 54	500
60 or larger	1,000

- (b) An external drop manhole shall be provided for manholes with any pipe having a difference in invert elevation more than twenty-four inches (24") above the invert of the sewers leaving such manholes. Internal drop manholes are not allowed.
- (c) Where flows, pipe size, or other conditions dictate, special manholes or junction chambers shall be designed and constructed.

(d) Minimum Manhole Diameter.

SEWER PIPE SIZE (in inches)	MANHOLE DIAMETER (in inches)
8 – 18	48
21 – 36	60
For sewers greater than thirty-six inch (36") diameter, manhole shall have offset riser of forty-eight inch (48") inside diameter.	

(e) Adjustment. No more than three precast concrete adjusting rings, nor more than six inches (6") maximum height adjustment shall be allowed.

(9) Sewer Depth. Sanitary sewers shall be constructed with a minimum cover over top of the pipe of four feet (4'), and shall be deep enough to provide an outfall for all sanitary sewage within the ultimate service area, both existing and future.

(C) Material specifications. All sanitary sewer system elements shall conform to the following specifications:

(1) Sewer and service connection pipe.

Gravity sanitary sewer main material shall be in accordance with the following guidelines unless otherwise approved by the City:

24" diameter or under	PVC SDR 26 (less than 20' deep) PVC SDR 21 (20' – 25' deep) PVC DR 18 (over 25' deep) or DISP ANSI 21.51
Over 24" diameter	PVC Profile Pipe DISP 21.51 Interior Lined RCP

(a) Polyvinyl chloride (PVC) pipe and fittings – ASTM D-3034, SDR 26 minimum strength.

(b) Reinforced concrete pipe – circular reinforcement, minimum Class 3, Wall B, ASTM -76, interior lined.

(c) Ductile iron pipe – ANSI A21.51 (AWWA C-151), minimum thickness Class 52 per ANSI A21.51 (AWWA C-150), cement lined. Fittings meeting

C

ANSI 21.10 (AWWA C-110).

- (d) All Force main material shall be Ductile Iron Pipe CL 52 unless otherwise approved by the Subdivision Administrator.

(2) Sewer and service connection pipe joints.

- (a) PVC pipe – flexible elastomeric seal joints, ASTM D-3212.
- (b) Reinforced concrete pipe – continuous O-ring gaskets, ASTM C-361.
- (c) Ductile iron pipe – rubber gasket joints, ANSI A21.11 (AWWA C-111).

(3) Jacking and Boring.

- (a) Casing installation under railroad tracks, pipelines, County and State highways, Township roads, etc. shall be approved by the appropriate agency which has jurisdiction.
- (b) Steel casing pipe shall be in accordance with American National Standards Institute (ANSI) B36.10 with yield strength of 35,000 psi minimum and minimum wall thickness per the following table:

MINIMUM WALL THICKNESS FOR STEEL CASING PIPE

<i>Nominal Inside Diameter (in)</i>	<i>Nominal Wall Thickness (in.)</i>
24 and under	0.375
24 – 36	0.500
36	0.625
> 36	as approved by Subdivision Administrator

- (c) Welds shall be in accordance with the American welding Society (AWS) D1.1 and be continuous circumferential welds. The casing pipe shall have a bituminous coat on the inside and outside surface in accordance with American Association of State Highway and Transportation Officials (AASHTO) M190.
- (d) The void between the casing and conduit shall be filled with pea gravel, flowable fill or other approved method, and ends sealed. Properly installed casing spacers may be used as an accepted alternate.
- (e) Casing chocks shall be stainless steel, restrained chocks manufactured by the Ford Meter Box Co. or approved equal.

- (f) Casing end seals shall be synthetic rubber with stainless steel bonding as manufactured by Pipeline Seal and Insulator, Inc. (PSI), Cascade Waterworks Mfg. Co.-Model CCES, or approved equal.
- (4) Manholes.
- (a) Concrete. Precast reinforced concrete ASTM C-478 with tongue and groove joints sealed with gaskets conforming to ASTM C-443 or bituminous jointing material. Bitumastic material shall be placed between precast reinforced concrete sections and between frame.
 - (b) Pipe seals. All pipe connection openings shall be precast with resilient rubber water-tight pipe to manhole sleeves or seals, per ASTM C-923. Flexible rubber gasketed manhole coupling shall be Kor-N-Seal, A-Lok, or approved equal.
 - (c) Chimney seals. External flexible water-tight rubber sleeves conforming to the applicable requirements of ASTM C-923, with stainless steel bands, shall extend from the manhole cone to the manhole frame and shall be provided on all sanitary manholes. Where conditions prohibit the use of an external seal, an internal seal shall be used. Acceptable products shall be the following: Infi-Shield, Canusa Wrapid Seal, Cretex Chimney Seal and Mac Wrap. Manholes shall not be backfilled until inspected by the City.
 - (d) Top section. Top cone shall be offset type designed to accept an external chimney seal. Flat slabs shall be provided where sufficient height is not available for a cone.
 - (e) Bottom sections. All bottom sections shall be monolithically precast, including bases and invert flowlines. All manhole bases shall be set on a minimum six inch (6”) CA-7 cushion. No structures will be placed in driveways or sidewalks unless approved in advance by City. Unsuitable materials beneath manhole bedding area shall be excavated and replaced with additional CA-7 if so determined by City.
 - (f) Manhole bottoms. Bottom fillets shall conform to bottom half of pipe. Where pipes enter manhole at an angle, curved flow lines shall be formed from inlet pipe(s) to outlet pipe.
 - (g) Steps. Cast in place, fiberglass or steel reinforced plastic conforming to ASTM C478 and O.S.H.A. standards, sixteen inches (16”) on center.
- (6) Castings. Manhole frame and cover – Heavy Duty E.J.I.W. No. 1020A with machined bearing surfaces and self sealing Type A heavy duty lid.

(7) Pipe bedding and cover material and trench backfill. I.D.O.T. gradation CA-7 crushed stone or crushed gravel. meeting the following gradation requirements:

Grad No.	SIEVE SIZE								No.	No.	No.	No.	
	3"	2½"	2"	1½"	1"	¾"	½"	3/8"					
CA7				100	95±5		45±15		5±5	4	16	50	200

(D) Installation requirements.

- (1) Sewer system design and construction shall in all respects be in accordance with the regulations of the Environmental Protection Agency of the State of Illinois. No construction shall commence until a copy of a permit from this agency is filed with the City.
- (2) Notification. Prior to beginning the sanitary sewer installation, the contractor shall give the Subdivision Administrator 48 hour's notice of his intended time of starting work.
- (3) Excavation.
 - (a) The width of trench, at and below the top of pipe, shall not exceed the widths given in Section 20-2.03 of the Standard Specifications.
 - (b) The trench shall be excavated so that a minimum of six inches (6") of CA-7 can be placed as bedding material below the pipe.
 - (c) Where a firm foundation is not found to exist for the bottom of the trench at the required depth due to soft, spongy, or other unsuitable soil, such unsuitable soil shall be removed for the full width of the trench and replaced with well compacted CA-7 material or an equal substitute 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 cushion of CA-7 material having a thickness under the pipe of not less than eight inches (8").
- (4) The contractor shall be responsible for providing a competent individual on site during all trenching operations to insure that all O.S.H.A. and other applicable safety standards are met by construction means and methods.
- (5) Pipe bedding. A minimum of four inches (4") of CA-7 material shall be used as bedding under the pipe. The bedding stone shall be graded along the entire length of

pipe to provide full bearing. The bedding stone shall extend to the spring line of the pipe.

- (6) Pipe cover. CA-7 shall be used as cover material for the pipe. The cover material shall extend from the spring line to twelve inches (12") above the top of all flexible pipe.
- (7) Backfilling. Backfilling of the trench shall be accomplished by careful replacement of the excavated material after the bedding, pipe and cover material have been installed. Any pipe installed under an existing or proposed street pavement, or within two feet (2') of an existing or proposed pavement edge, curb and gutter, bike trail or sidewalk, shall be backfilled to the top of the trench with CA-7 material compacted in lifts not exceeding twelve inches (12") and the final twelve inches (12") with compacted CA-6 material. Jetting of trenches shall be performed as may be required by Subdivision Administrator.
- (8) Laying. The pipe shall be laid accurately to the line and grade as designated. The lubricant, mastic, or other joint material shall be used and installed as recommended by the pipe or joint manufacturers' specifications.
- (9) Separation from water main. The sanitary sewer pipe shall be laid at least ten feet (10') horizontally from any existing or proposed water main. If the sanitary sewer must cross a water main, the top of the sewer pipe must be laid at least eighteen inches (18") below the bottom of the water main pipe. If neither of these conditions can be met, other protective methods as described in the "Standard Specifications for Water and Sewer Main Construction in Illinois" shall be followed.
- (10) Service laterals.
 - (a) Each single family lot shall have one six inch (6") service. Each duplex lot shall have two six inch (6") service lines (one for each unit). Multi family attached/detached and commercial/industrial buildings shall have a minimum of one six inch (6") service line for each unit.
 - (b) Service laterals shall consist of a wye or tee fitting at the sewer main and extension of the specified service pipe to the property line of the lot being served. The service lateral shall slope toward the main at the minimum rate of 1.0%.
 - (c) Where the depth of the sewer main is greater than twelve feet (12') below the surface of the ground, a service riser shall be constructed to an elevation of eight feet (8') below the ground elevation, or as shown on the plans.
 - (d) The service lateral shall be terminated at the lot line five feet left of the center of the lot as viewed from the street and plugged with a water-tight factory plug. The plug shall be backfilled to withstand air test pressure to 5 psi. The

plugged lateral shall be marked by a 4"x4" stake extending four feet (4') above finished grade, and Lot Number painted green on stake.

(e) Curb shall be stamped with an "s" at all sewer service stub locations.

(E) Testing and acceptance.

- (1) General. All the required testing of the sanitary sewer system shall be performed before curb/gutter, pavement or other permanent type surface improvement work begins. All testing shall take place in the presence of the Subdivision Administrator.
- (2) Cleaning. Any pipe containing debris or sediment shall be cleaned prior to testing and televising.
- (3) Air test. All sanitary sewer pipes shall be low pressure air tested in accordance with the Standard Specifications. All sanitary sewer manholes shall be vacuum tested per IEPA regulations.
- (4) Deflection testing. All flexible thermoplastic sewer main pipe shall be deflection tested by pulling a mandrel through the pipe from manhole to manhole. Deflection testing shall be performed a minimum of 30 days after sewer construction for sewer less than 12" in diameter and a minimum of 45 days after sewer construction for sewer 12" and greater in diameter and shall be performed in accordance with the Standard Specifications.
- (5) Televising. All sanitary sewer mains shall be televised a minimum of 180 calendar days after deflection testing is completed. Written report detailing manhole locations, footages of lateral connections, etc. and DVD copy of the televised main shall be provided to the City prior to final LOC reduction.
- (6) Defects. Any piping with dips, cracks, improperly sealed joints, or variations from the approved grades and alignment shall be repaired by removing and replacing the involved sections of pipe. The repaired section of pipe shall then be re-tested. The City may also request other types of testing on the sanitary sewer installation as a condition of initial acceptance.
- (7) Record drawings.
 - (a) Prior to final acceptance of work, "as-built" drawings shall be submitted to the City for review.
 - (b) Upon City approval of "as-built" drawings, two (2) full-size (36"x48") copies (signed and sealed by a Registered Illinois Professional Engineer) shall be submitted to the City, along with an electronic copy in accordance with current City requirements (see Section 16-54).

APPENDIX E: STORM SEWER SYSTEM STANDARDS AND SPECIFICATIONS

(A) General.

- (1) All developments shall include provisions for the construction of storm sewers and appurtenances designed in accordance with this appendix.
- (2) Storm sewer systems shall be installed in accordance with the "Standard Specifications for Road and Bridge Construction in Illinois," and the "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition, unless otherwise modified in this appendix.
- (3) Specification references made herein for manufactured items, such as pipe, fittings, and manholes refer to designations of the American Society for Testing and Materials (ASTM), American Water Works Association (AWWA), or of the American National Standards Institute (ANSI).

(B) Basic design standards.

- (1) All storm sewers, streams, or 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 to the drainage area as identified by the Subdivision Administrator.

Storm water system design and detention shall be in accordance with the City of Watseka Storm Water Detention Ordinance, and subsequent amendments. A minimum velocity of three feet per second shall be maintained in pipes flowing full, in accordance with the guidelines contained in the Illinois Department of Transportation's Drainage Manual. Drainage calculations shall be submitted with the development plans.

- (2) The storm water drainage system shall be separate and independent of the sanitary sewer system.
- (3) Minimum sewer size. Public storm sewers shall not be less than twelve inches (12") in diameter.
- (4) Alignment. Sewer shall be laid straight in both horizontal and vertical planes between manholes.

- (5) Sewer size changes. Storm sewers of different diameters shall join only at structures. The invert elevations shall be adjusted to maintain a uniform energy gradient by matching the 0.8 depth points of the different diameter.
- (6) Storm water inlets.
- (a) Surface drainage inlets shall be provided so that surface water is not carried across any street intersections or parking lot drives. Surface runoff shall not extend a distance of more than four hundred feet (400') along the surface of the ground and shall not build up a flow of more than two cubic feet per second in a ten 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. Inlets shall be provided at all low points.
 - (b) Size - Inlets shall have twenty four inch (24") minimum inside diameter.
 - (c) Adjustment - At least one two inch (2") precast concrete adjusting ring shall be used on each inlet barrel to provide a base for the frame and grate. No more than three (3) precast concrete adjusting rings, totaling six inch (6") maximum height adjustment, will be allowed. Offsetting or corbelling of adjusting rings is not allowed.
- (7) Lot drainage. Positive drainage shall be established for each lot, whether or not it is the intention to construct a building on that lot.
- (8) Catch basins.
- (a) Catch basins shall generally be provided every other lot corner, such that each structure will collect runoff from no more than four (4) adjoining lots. Additional structures shall be provided as determined to be necessary by the Subdivision Administrator.
 - (b) Type C catch basins are allowable for catch basins no deeper than four feet (4') only.
 - (c) Type A catch basins shall be used for all catch basins over four feet (4') deep or if pipe size and configuration prohibits the use of a Type C basin.
- (9) Storm sewer manholes.
- (a) Manholes shall be located as follows:
 - 1. At the termination of all sewers which do not terminate at a catch basin or inlet.

2. Changes in direction, horizontal or vertical.
3. Changes in shape or pipe size.
4. Junctions with other storm sewers.
5. Access spacing shall be:

STORM SEWER PIPE SIZE (in inches)	MAXIMUM MANHOLE INTERVAL (in feet)
12 - 24	300
27 - 36	350
42 - 54	400
60 and greater	500

- (c) Where flows, pipe size, or other conditions dictate, special manholes or junction chambers shall be designed and constructed.
- (c) Manhole size. Manhole size shall be as required to accommodate the intersecting sewer pipes. The following table contains the minimum design sizes:

SEWER PIPE IN SIZE (in inches)	MANHOLE DIAMETER (in inches)
18 or less	48
21 – 36	60
42-48	72

T-Manholes with risers or other appropriate structure approved by Subdivision Administrator shall be used with pipes larger than 48”.

- (10) Sewer depth. Storm sewers shall be constructed sufficiently deep so as to prevent freezing and to provide an outfall for all storm water within the ultimate service area, both existing and future.
- (11) Sewer pipe class. Sewer pipe class shall be determined based upon the "Standard

Specifications for Road and Bridge Construction," latest edition.

(12) All pipes shall be terminated with precast reinforced flared end sections.

(C) Material specifications. All storm sewer system elements shall conform to the following specifications:

(1) Sewer pipe.

- (a) Reinforced concrete pipe (twelve inch (12") diameter and larger), circular reinforcement, minimum Class 3, wall B, ASTM C-76.
- (b) Non-reinforced concrete sewer pipe minimum Class 3, ASTM C-14.
- (c) Reinforced concrete elliptical culvert pipe – minimum Class HE-III or VE-III, ASTM C-507.
- (d) Galvanized corrugated steel culvert pipe – AASHTO M246, Type B, minimum wall thickness 14 gauge. (Shall only be used for culverts upon City approval).
- (e) Reinforced concrete arch culvert pipe – double line reinforcement minimum Class 3, ASTM C-507.
- (f) High Density Polyethylene (HDPE) pipe may be utilized for sump pump discharge conveyance systems when in conformance with all applicable ASTM and AASHTO standards.

(2) Sewer pipe joints.

- (a) Reinforced concrete pipe – ASTM C-443 or ASTM C-361 ("O" ring).
- (b) Reinforced arch or elliptical pipe – ASTM C-877.

(3) Casing pipes. Steel pipe – ASTM A-120, 3/8 inch minimum thickness.

(4) Manholes and catch basins.

- (a) Precast reinforced concrete – ASTM C-478.
- (b) Manhole bases shall be Type A, Precast Concrete.
- (c) Joints. Storm sewer manhole joints shall be sealed with O-ring gaskets or mastic material. Storm sewer pipe connections to manholes shall be mortared.
- (d) Steps. Sixteen inches on center, fiberglass or steel reinforced plastic

conforming to O.S.H.A. Standards.

- (5) Inlets. Precast reinforced concrete – ASTM C-478.
- (6) Castings. All castings shall be set in bituminous mastic material. External frame shields (Infi-Shield, Cretex, or approved equal) shall be required for all storm structures located in paved areas.
 - (a) Manhole frame and cover – Heavy Duty E.J.I.W. No. 1020-Z Frame with 1020 A heavy duty cover.
 - (b) Six inch curb and gutter inlet – Heavy Duty E.J.I.W. No. 7205 with Type M1 grate.
 - (c) Rolled curb and gutter inlet – Heavy Duty E.J.I.W. No. 7525.
 - (d) Depressed curb and gutter – Heavy Duty E.J.I.W. No. 7210 with Type M3 grate.
 - (e) Yard inlet – E.J.I.W. No. 6527 with Type 8 beehive or Type M2 flat grate.
- (7) Bedding stone and trench backfill. I.D.O.T. gradation CA-7, crushed stone or crushed gravel, meeting the following gradation requirements:

Grad No.	SIEVE SIZE											
	Percent Passing											
	3	2½"	2"	1½"	1"	¾"	½"	3/8"	No.	No.	No.	No.
CA7	3			100	95±5		45±15		4	16	50	200
									5±5			

(D) Installation.

- (1) Notification. Prior to beginning the storm sewer installation, the contractor shall give the Subdivision Administrator 48 hour's notice of his intended time of starting work.
- (2) Erosion control. All soil erosion control measures are to be in place prior to and during the installation of the storm water piping and detention system. The soil erosion measures shall be in accordance with the "Procedures and Standards for Urban Soil Erosion Control in Illinois," the General National Pollution Discharge Elimination (NPDES) Permit, the project plans and specifications, or as directed by the Subdivision Administrator.

- (3) Excavation.
- (a) The width of trench, at and below the top of pipe, shall not exceed the widths given in Section 20-2.03 of the Standard Specifications.
 - (b) The trench shall be excavated so that a minimum of six inches of CA-7 can be placed as bedding material.
 - (c) Where a firm foundation is not found to exist for the bottom of the trench at the required depth due to soft, spongy, or other unsuitable soil, such unsuitable soil shall be removed for the full width of the trench and replaced with well-compacted CA-7 material or an equal substitute 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 cushion of CA-7 material having a thickness under the pipe of not less than eight inches (8").
- (4) The contractor shall be responsible for providing a competent individual on site during all trenching operations to insure that all O.S.H.A. and other applicable safety standards are met by construction means and methods.
- (5) Pipe bedding. A minimum of six inches of CA-7 material shall be used as bedding under the pipe for pipe diameters up to twenty four inches (24"). For larger pipes, a bedding thickness of $\frac{1}{4}$ the pipe diameter shall be used. The bedding stone shall be graded along the entire length of pipe to provide full bearing. The bedding stone shall extend to the springline of the pipe.
- (6) Backfilling. Backfilling of the trench shall be accomplished by careful replacement of the excavated material after the pipe and the bedding material have been installed. Any pipe installed under an existing or proposed street pavement, or within two feet (2') of an existing or proposed pavement edge, curb and gutter, bike trail or sidewalk shall be backfilled to the top of the trench with CA-7 material compacted in lifts not exceeding twelve inches (12") and the final twelve inches (12") with compacted CA-6 material.
- (7) Laying. The pipe shall be laid accurately to the line and grade as designated. The lubricant, mastic, or other joint material shall be used and installed as recommended by the pipe or joint manufacturers' specifications.
- (8) Separation from water main. The storm sewer pipe shall be laid at least ten feet horizontally from any existing or proposed water main. If the storm sewer must cross a water main, the top of the storm sewer pipe must be laid at least 18 inches below the bottom of the water main pipe. If neither of these conditions can be met, other methods as illustrated in the "Standard Specifications for Water and Sewer Main Construction in Illinois" shall be followed.

- (9) A four inch (4”) diameter stub for sump pump connection, having minimum length of six feet (6’) outside the structure, shall be provided for each lot adjacent to a rear yard inlet or catch basin. Stub shall be PVC SDR 26 or approved equal. Stubs shall be identified by a four-by-four (4” x 4”) stake placed at the end of the PVC stub which extends four feet (4’) above grade and painted red with lot number.

(E) Testing and acceptance.

- (1) General. All the required testing and correction of defects of the storm sewer system shall be performed before curb and gutter or other permanent type surface improvement work begins.
- (2) Cleaning. Any pipes or manholes containing debris or sediment shall be cleaned prior to acceptance.
- (3) Defects.
 - (a) Any piping with cracks, improperly sealed joints, or variations from the approved grades and alignment shall be repaired by removing and replacing the involved sections of pipe.
 - (b) The Subdivision Administrator may require compaction, leakage, or other types of testing as a condition of the storm sewer system initial acceptance.
- (4) Record drawings.
 - (a) Prior to final acceptance of work, “as-built” drawings shall be submitted to the City for review.
 - (b) Upon City approval of “as-built” drawings, two (2) full-size (36”x48”) copies (signed and sealed by a Registered Illinois Professional Engineer) shall be submitted to the City, along with an electronic copy in accordance with current City requirements (see Section 16-54).

APPENDIX F: WATER SUPPLY SYSTEM STANDARDS AND SPECIFICATIONS

(A) General.

- (1) All development shall include provisions for the construction of water distribution facilities complete with valves, fire hydrants, and other such appurtenances designed in accordance with this appendix. As a minimum, the water distribution system shall provide a service connection(s) near the front 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 for fire protection, the proposed construction shall also include all water main construction and appurtenances within the lot or parcel except service lines.
- (2) Water distribution systems shall be constructed in accordance with the "Standard Specifications for Water and Sewer Main Construction in Illinois" latest edition, and the "Standard Specifications for Road and Bridge Construction in Illinois," latest edition, unless otherwise modified in this appendix.
- (3) Specification references made herein for manufactured materials, such as pipe, hydrants, valves, and fittings refer to designations of the American Society for Testing and Materials (ASTM), the American Water Works Association (AWWA), or the American National Standards Institute (ANSI).
- (4) Contractor shall coordinate all water system work with City of Watseka. Only an authorized representative of the City of Watseka can open, close, or operate a water system valve, unless otherwise approved in advance by Watseka Water Operator.
- (5) Construction shall be staged such that service is maintained to adjacent properties at all times unless otherwise approved in advance by City. Temporary system shutdowns shall not be allowed unless approved in advance by City.

(B) Basic design standards.

- (1) System extension.
 - (a) Extension to the water distribution system shall form a complete network extension or part of a complete network extension that includes all primary mains, secondary mains, and gridiron mains, complimenting the existing distribution system network.
 - (b) Primary mains are those that form the arterial portion of the system. Primary mains under construction within a development are further defined as mains that are twelve inches (12") or larger. Secondary mains shall be sized, looped, and spaced as required for fire flows and shall have a minimum diameter of eight inches (8").

- (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 inches. Dead ends shall be avoided whenever possible and shall not exceed six hundred feet (600') in any case.
 - (d) The maximum number of valves to be operated for a shut down shall be three; four may be allowed in unique cases with the approval of the City.
- (2) Minimum day consumption. For purposes of water main design, minimum day consumption for water main design shall be based on the following table:

TYPE OF ESTABLISHMENT	UNIT	MINIMUM DAY CONSUMPTION* Gal/Day/Unit
Retail	Employee (one shift)	15
Office	Person (one shift)	15
Industrial	Person (one shift)	35
Restaurant	Per seat	10
Theater	Per seat	5
Hotel	Per guest	75

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

For other than residential developments, when the details of the development are not known, the maximum day consumption and fire flow may be estimated by the Subdivision Administrator. Such estimates shall not relieve the owner or developer of the responsibility of providing adequate main capacity for any and all future needs within the development.

- (3) Head losses. Head losses due to friction shall be computed using the Hazen-Williams formula with a "C" factor no greater than 100. Head loss calculations shall be submitted to the City for approval.
- (4) Main 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 that may be selected by the Subdivision Administrator, the fire flows required, in excess of maximum daily

consumptive demands, will be supplied using a "C" factor of 100, ignoring fittings, and with a minimum residual hydrant pressure of 20 psi. Required fire flow shall be computed as detailed in the "Guide for Determination of Required Fire Flow" latest edition, published by the Insurance Service Office. The developer's engineer shall furnish any necessary design calculations to ensure that all water mains are sized to provide ISO fire protection flow rates or the rates shown in the following table, whichever is higher:

Single-Family Residential	2000 GPM @25 psi
Multi-Family Residential	2500 GPM @25 psi
Commercial-Industrial	3500 GPM @25 psi

- (6) Fire hydrant spacing.
 - (a) The maximum distance between fire hydrants shall be three hundred and fifty feet (350'). In addition to this requirement, fire hydrants in commercial/industrial areas shall be located so that the near corner of all construction on the site that could burn will not be further than one hundred and fifty feet (150') from a fire hydrant. Fire hydrants shall be provided so as to provide the required fire flows to structures as described in the "Fire Suppressions Rating Schedule" latest edition, published by the Insurance Service Office. Where water transmission lines or offsite water lines are installed in existing easements, hydrants must be installed at five hundred foot (500') intervals.
 - (b) Fire hydrants shall be placed on private property when the Fire Chief of the Watseka Fire Department determines that fire hydrants are at too great a distance to provide proper protection for multi-family, commercial, or industrial properties. Easements shall be provided for all hydrants on private property.
 - (c) Fire hydrants shall be placed within one hundred feet (100') of all sprinkler and standpipe siamese connections provided on buildings, unless otherwise directed by the Fire Department because of existing or proposed circumstances.
 - (d) Fire hydrants shall be placed at the end of all cul-de-sacs and dead end watermains.
- (7) Valve spacing. A sufficient number of valves shall be provided so that a break or other failure will not affect more than 25 residential units or one thousand feet (1000') of main in non-residential areas.

- (8) Valve vaults. All water main valves 10” and greater must be installed in valve vaults. All water main valves, regardless of size, that are underneath pavement must also be installed in valve vaults.

(C) Material specifications and details. All water distribution system elements shall conform to the following specifications:

(1) Ductile iron pipe.

- (a) Pipe class thickness, Class 52, minimum thickness per AWWA C-151, or as required by AWWA C-150 for various depths, with bituminous coated cement lining.
- (b) Joints – Push-on and mechanical, AWWA C-111, with neoprene gaskets.
- (c) Polyvinyl wrap – AWWA C-105. (Only to be used if warranted by soil conditions.)
- (d) Fittings – Cast or ductile iron, AWWA C-110 and AWWA C-111. Duranton Sac Nut or equal is required on every other bolt on all fittings. All fittings rated to minimum 350 psi.

(2) Valves.

- (a) Ten inch (10”) and smaller – Mechanical joint, epoxy coated cast iron resilient wedge with bronze non-rising stem gate valves, counter-clockwise to open, with O-ring seal conforming to AWWA C-509.
- (b) Twelve inch (12”) and larger – Mechanical joint, epoxy coated iron body, rubber seat, butterfly valve, counter-clockwise to open, AWWA C-504.
- (c) Valves shall have stainless steel bolts and nuts on the bonnet and stuffing box.
- (d) Valve boxes shall be adjustable, two piece cast iron, roadway type with 5-1/4” throat and a no-tilt drop cover lid with “WATER” cast into it in raised letters (Mueller or Tyler). Valve box must have additional upward and downward travel when adjusting to grade.
- (e) PVC or Rubber Valve box stabilizers provided by Valve Box Adapter II for six inch (6”) and eight inch (8”) valves shall be provided.

(3) Fire hydrants.

1/2')

- (a) Mueller Super Centurion 250, painted red, with five and one-half foot (5-
bury.
 - (b) Valve size, 5¼-inch, counter-clockwise to open.
 - (c) Nozzles, two at 2½-inch, one at 4½-inch, with threads conforming to
National Standard Specifications.
 - (d) Breakaway type with the break line flanges located one inch above finished
grade.
 - (e) Hydrant to be installed with MJ swivel Tee with swivel MJ Gland. Retainer
lock flanges (Mega-Lug) should be used on all MJ joints. No spool pieces
allowed.
 - (f) Auxiliary valve to be flanged attachment to the fire hydrant and to be the
same manufacture as the fire hydrant. Auxiliary valves to be keyable and
adjusted to final grade.
 - (g) Fire hydrants shall be thrust blocked behind and under the hydrant shoe.
Hydrant drain fields are required.
- (4) Hydrant valve box.
- (a) Tyler 664-S or Mueller H-10360
 - (b) Lid embossed "WATER".
 - (c) Stabilizer for box shall be used.
- (5) Corporation stops – Mueller H-15000, one inch (1") minimum.
- (6) Service pipe.
- (a) Copper tube, two inch (2") and smaller; Type K (1 inch minimum).
Continuous from corporation stop to curb stop, and curb stop to inside
building. Maximum length shall be one hundred and twenty feet (120').
Exceptions only as may be approved by the Subdivision Administrator. Any
approved exception for length greater than one hundred and twenty feet
(120') will require a minimum one and one-half inch (1 ½") service size
(final size as approved by the Subdivision Administrator).
 - (b) Ductile iron, larger than two inch (2").
 - (c) Mueller flair fittings or equal.
- (7) Curb stop.

- (a) Copper service, Mueller B-25154.
- (b) Ductile iron service, conform to subdivisions (C)(2)(a) and (C)(2)(c) above.

(8) Curb box.

- (a) Copper service, Mueller H-10302 or H-10304.
- (b) B-box shall be Tyler 95E with Stabilizer.
- (c) Ductile iron service, four inch (4") and smaller, conform to subdivision (C)(4) above.
- (d) Ductile iron service, six inch (6") and larger, conform to subdivision (C)(11) below.

(9) Thrust restraints.

- (a) Horizontal reactions – Thrust restraints at all tees, plugged ends, hydrants, and bends between 11¼ degrees and 90 degrees.
- (b) Vertical reactions – Individual designs for each location shall be submitted with the development plans.
- (c) Material – Precast concrete.
- (d) Where undisturbed earth is not available or not likely to be available to back up pressure type concrete thrust blocks, the development plans shall specify Megalug retainer glands or tie rods with or without anchor type thrust blocks. Design data shall be submitted for such specifications. Care shall be taken when pouring concrete so that the mix will not interfere with access to joints or with hydrant drainage.

(10) Casing pipes.

- (a) Casing installation under railroad tracks, pipelines, County and State highways, Township roads, etc. shall be approved by the appropriate agency which has jurisdiction.
- (b) Steel casing pipe shall be in accordance with American National Standards Institute (ANSI) B36.10 with yield strength of 35,000 psi minimum and minimum wall thickness per the following table:

MINIMUM WALL THICKNESS FOR STEEL CASING PIPE

<i>Nominal Inside Diameter (in)</i>	<i>Nominal Wall Thickness (in.)</i>
---	---

24 and under	0.375
24 – 36	0.500
36	0.625
> 36	as approved by Subdivision Administrator

(11) Valve vaults.

- (a) Precast reinforced concrete, ASTM C-478.
- (b) Size: For valves twelve inch (12”) diameter or less, valve vaults shall have a forty eight inch (48”) inside diameter; for pressure connections and valves sixteen inch (16”) and larger, valve vaults shall have a sixty inch (60”) inside diameter.
- (c) Adjustment: No more than three (3) precast concrete adjusting rings with six inch (6”) maximum total height adjustment shall be allowed.
- (d) Bitumastic material shall be placed between all precast concrete sections and adjusting rings and to set castings.
- (d) Valve vaults requiring offset cones shall be positioned so that neither the inside of the cone nor the manhole steps will interfere with the operation of the valve. Valve operating nut shall be accessible through the frame opening.

(12) Castings.

- (a) Manhole frame and cover – Heavy Duty East Jordan Iron Works, Inc. (E.J.I.W.) 1060, with heavy duty gasketed, self-sealing lid cast with "WATER".
- (b) Manhole steps – Fiberglas or steel reinforced plastic conforming to O.S.H.A. standards, sixteen inches (16”) on center.

(13) Pipe bedding cover and trench backfill. IDOT gradation CA-7, crushed stone or crushed gravel meeting the following gradation requirements:

		SIEVE SIZE										
		Percent Passing										
Grad No.	3 ”	2½”	2”	1½”	1”	¾”	½”	3/8”	No. 4	No. 16	No. 50	No. 200
CA7				100	95±5		45±15			5±5		

(D) Installation requirements.

- (1) Environmental Protection Agency permit. Water system design and construction shall, in all respects, 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 Subdivision Administrator.
- (2) Installation. The installation of water mains and appurtenances, including services, shall conform to the requirements of this appendix and shall conform to AWWA C-600.
- (3) Notification. Prior to beginning the water main installation, the contractor shall give the Subdivision Administrator 48 hour's notice of his intended time of starting work.

(E) Water service line - installation and location. A water service line is a water pipe connected at the water main by a brass corporation stop or a ductile iron fitting. Such pipe is extended horizontally at right angles with the water main to the front line of the lot or single building which it is to serve and shall have a minimum burial depth of 60". For all service taps larger than one inch, a service saddle designed for the size and type of water main pipe shall be used. A cast iron curb box shall be installed over curb stops for four inch and smaller gate valves. A valve vault shall be provided for gate valves larger than four inches. The water service line shall be terminated with a brass curb stop or gate valve seven and one-half feet (7.5') from the lot line and five feet (5') right of the center of the lot as viewed from the street. The end of the service line shall be marked with a wooden 4"x4" stake painted blue with lot number, extended four feet (4') above finished grade. Curb shall be stamped "w" at water service location.

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

(G) Separation from sewers. The water main pipe shall be laid at least ten feet horizontally distant from any existing or proposed sewer pipe. If the water main must cross a sewer pipe, the bottom of the water main pipe must be laid at least eighteen inches (18") above the top of the sewer pipe. If neither of these conditions can be met, other protective methods, as described and illustrated in the "Standard Specifications for Water and Sewer Main Construction in Illinois," shall be followed.

(H) Construction requirements.

(1) Excavation.

- (a) The trench shall be excavated so that the water main shall have a minimum of five feet of cover.

- (b) The trench shall be excavated so that a minimum of six inches (6") of CA-7 stone be placed as bedding material. The pipe shall then be covered with a minimum of six inches of the same stone.
 - (c) Where a firm foundation is not found to exist for the bottom of the trench at the required depth due to soft, spongy, or other unsuitable soil, such unsuitable soil shall be removed for the full width of the trench and replaced with well-compacted CA-7 material or an equal substitute 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 cushion of CA-7 material having a thickness under the pipe of not less than eight inches (8").
- (2) The contractor shall be responsible for providing a competent individual on site during all trenching operations to insure that all O.S.H.A. and other applicable safety standards are met by construction means and methods.
- (3) Laying water main.
- (a) The contractor shall keep the trench free from water while the water main is being placed and the pipe joint has been sealed to the satisfaction of the Subdivision Administrator.
 - (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 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, 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 as directed by the Subdivision Administrator. 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.
 - (d) Polyurethane wrapping of water main will be required only in areas where

unsuitable soils are found to exist as determined by the Subdivision Administrator.

(4) 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) Flame cutting of pipe by means of an oxyacetylene torch shall not be allowed.
- (c) All cut in connections for greater than a two inch (2") connection shall be made by cast iron sleeve or City-approved equal.

(5) Trench.

- (a) The trench bottom shall be flat and shall provide full bearing of the length of the pipe.
- (b) Thrust blocks shall be used to prevent movement at all tees, caps, valves, and hydrants.
- (c) Backfilling of the trench shall be accomplished by careful replacement of the excavated material after the pipe and the bedding material (if applicable) have been installed. Any pipe installed under an existing or proposed street pavement, or within two feet (2') of an existing or proposed pavement edge, curb and gutter, bike trail or sidewalk shall be backfilled to the top of the trench with CA-7 material compacted in lifts not exceeding twelve inches (12") and the final twelve inches (12") with compacted CA-6 material.

(6) Fire hydrant.

- (a) Fire hydrants shall be placed as specified herein. There shall be no obstructions within four feet of the fire hydrant. All nozzles shall stand plumb, their steamer nozzle pointing normal to the road. They shall conform to the established grade, with nozzles at eighteen inches (18") above the finished grade.
- (b) A drainage pit two feet (2') in diameter shall be excavated around each hydrant and filled completely with 3/4-inch washed gravel under and around the bowl of the drain opening. No hydrant drainage pit shall be connected to a sewer.

(7) Water main installation. During water main installation, to make a closure between two pipe ends, or between pipe end fittings, or between pipe end and valve, short

lengths shall be used with proper connections or couplings. Repair sleeves shall not be used to make closures during new construction.

- (8) Dewatering. Where 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.
 - (9) 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 Subdivision Administrator at locations approved by the Subdivision Administrator.
- (I) Pressure test.
- (1) As part of the construction, the water mains shall be pressure tested in accordance with this appendix. All testing shall be performed before curb and gutter or other permanent type surface improvement work begins. The Subdivision Administrator shall be notified at least 24 hours before the test. The filling of the water main shall be at a rate set by the City with all hydrants and whips in the open position and slowly closed in the order in which water appears. A form documenting the test procedure and results shall be signed by the contractor and the representative for the City witnessing the test.
 - (2) All newly laid pipe shall be subjected to a hydrostatic pressure of one hundred and fifty pounds per square inch (150 psi), in accordance with AWWA Standard C-600-93 latest edition, Section 4: Hydrostatic Testing. Allowable leakage, measured in gph (gallons per hour) per one thousand feet (1000') of pipeline, as specified in Table 6A of the AWWA Standard C-600-93 shall apply. Duration of each pressure test shall be for a period of not less than two 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. 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.
 - (3) All testing shall be performed before the installation of service lines.
- (J) Preliminary flushing. Prior to chlorination, the main shall be flushed as thoroughly as possible with the water pressure and outlets available. The Subdivision Administrator shall be notified before any water is drawn from City mains. Flushing shall be done after the pressure test is made. Because such flushing removes only the lighter solids, it cannot be relied upon to remove heavy material allowed to get into the main during laying. If no hydrant is installed at the end of the main, a tap should be provided large enough to affect a velocity in the main of at least 2½ feet per second.

(K) Disinfection.

- (1) The preferred point of application of the chlorinating agent shall be at the beginning of the pipeline extension (or any valved section of it) and through a corporation stop in the top of the newly laid pipe. The injector for delivering the chlorine gas into the pipe should be supplied from a tap on the pressure side of the gate valve controlling the flow into the pipeline extension.
- (2) Water from the existing distribution system or any other source of supply shall be controlled so as to flow slowly into the newly laid pipeline during the application of chlorine gas. The rate of chlorine mixture flow shall be in such proportion to the rate of water entering the pipe that the chlorine dose applied to the water entering the newly laid pipe shall be at least 50 ppm, or enough to meet the requirements during the retention period. This may require as much as 100 ppm of chlorine in the water left in the line after chlorination.
- (3) Valves shall be manipulated so that the strong chlorine solution in the line being treated shall not flow back into the line supplying the water. The pipe section being chlorinated shall be kept at a lower pressure than the water system pressure.
- (4) Treated water shall be retained in the pipe long enough to destroy all spore-forming bacteria. This retention period shall be at least 24 hours. After the chlorine-treated water has been retained for the required time, the chlorine residual at the pipe extremities and at other representative points shall be at least 10 ppm.
- (5) In the process of chlorinating newly laid pipe, all valves or other appurtenances shall be operated while the pipeline is filled with the chlorinating agent.
- (6) Water mains shall be disinfected and tested according to the requirements of the "Standards for Disinfecting Water Mains", AWWA C-601 as amended from time to time, and as required by this appendix. All disinfection, as required by this appendix, shall be performed by an independent firm exhibiting experience in the methods and techniques of this operation, and shall be approved by the Subdivision Administrator. The firm shall be bonded and insured and have proof of both in his vehicle (as well as on file with the City). Their insurance shall include the City of Watseka as additionally insured and must include coverage for the handling and transporting of chlorine gas. Furthermore, the firm must comply with all State and Federal regulations regarding the handling and transporting of chlorine gas. City of Watseka personnel must be present during any chlorination work (including the collection of samples). The Subdivision Administrator is to receive 48-hour notification prior to any disinfection work.
- (7) Disinfecting shall be done by the continuous feed method.
- (8) Only authorized City of Watseka employees shall operate water system valves.

- (9) A minimum of two people are required for chlorinating procedures; one to monitor the chlorine at the cylinder and one to monitor the chlorine at the sample (whip) locations.
 - (10) Samples shall only be taken from copper “whips” (not hydrants).
 - (11) All chlorine cylinders shall be secured to the vehicle in a vertical position.
 - (12) Under no circumstances shall any heat be applied directly to the chlorine cylinder.
 - (13) A yoke adaptor for connection to the chlorine cylinder shall be used.
 - (14) Clear neoprene tubing shall be used for the dissemination of the chlorine.
 - (15) A needle valve shall be used for the accurate control of the chlorine.
 - (16) A back-pressure gauge and plastic check valve shall be used.
 - (17) The chlorine assembly shall not use any “quick-connects” or clamps; only threaded fittings.
 - (18) The firm performing the chlorinating shall have an up-to-date certified air pack in their vehicle.
 - (19) All building service lines (four inches in diameter or larger) shall be chlorinated/disinfected only after permanent fittings have been installed. Removal of any such fitting may require the service line to be re-sampled or re-chlorinated at the discretion of the City of Watseka.
- (L) Final flushing and testing.
- (1) No disconnection from existing or connection to new water main are to be performed until the new water main is tested and placed into service. For replacement water mains, all work shall be performed prior to abandoning the existing water main. In the event that an interruption of service is required, the Contractor shall notify all affected users, in writing, at least 24-48 hours in advance.
 - (2) Following chlorination, all treated water shall be thoroughly flushed from the newly laid pipeline at its extremities until the replacement water, throughout its length shall, upon test, be approved as safe water by the Subdivision Administrator. This quality of water delivered by the new main should continue for a period of at least two full days, as demonstrated by laboratory examination of samples taken from a tap located and installed in such a way as to prevent outside contamination. Samples should

never be taken from an unsterilized hose or from a fire hydrant because such samples seldom meet current bacteriological standards.

- (3) After disinfecting and flushing, a minimum of two water samples shall be collected by the contractor on two successive days, with notice given, so that the collection may be witnessed by the City. Bacteriological sampling and analysis of the samples shall be performed by a laboratory approved by the Illinois Department of Public Health and the City. Should the initial treatment result in an unsatisfactory bacteriological test, the procedure shall be repeated until satisfactory results are obtained. The contractor or developer shall pay for the sampling and analysis. Results shall be transmitted by the laboratory directly to the Subdivision Administrator. Test results shall indicate the date the sample was made, the exact locations at which sample were taken, the firm submitting the sample, and the project at which the samples were collected. Sufficient samples shall be collected in order to insure that the system is bacteriologically safe.
- (4) The City shall operate the valves, hydrants, and any other appurtenances to flush the water main after the receipt of satisfactory water samples. Any operation difficulties or deficiencies shall be noted and submitted to the developer or contractor for repair.
- (5) All corporation stops used for testing and chlorination purposes shall be removed and plugged with a tapered brass plug.
- (6) Fire flow testing will be performed by the Superintendent of Utilities.
- (7) Record drawings.
 - (a) Prior to final acceptance of work, "as-built" drawings shall be submitted to the City for review.
 - (b) Upon City approval of "as-built" drawings, two (2) full-size (36"x48") copies (signed and sealed by a Registered Illinois Professional Engineer) shall be submitted to the City, along with an electronic copy in accordance with current City requirements (see Section 16-54).

WATER MAIN TESTING

SUBDIVISION: _____

CONTRACTOR: _____

TEST DATE: _____

TEST PRESSURE:

TEST START TIME: _____

TEST END TIME:

TEST DURATION:

STATIC PRESSURE:

Allowable Water Loss

Pipe Size _____ in. _____ in. _____ in.

Total Lengths _____ ft. _____ ft. _____ ft.

Allowable Calculations FORMULA: $L = \frac{SD\sqrt{P}}{133,200}$

Where:

- _____ L = allowable leakage, in gallons per hour
- _____ S = length of pipe tested, in feet
- _____ D = nominal diameter of the pipe, in inches
- _____ P = average test pressure in pounds per square inch (gauge)

Calculations

Total Allowable Loss Per Hour (Gallons)

Test Number	Date	Allowable Loss	Actual Loss	Pass	Fail

Remarks: _____

Signatures: City Representative _____

Contractor _____

APPENDIX G: CURB AND GUTTER MATERIAL STANDARDS AND SPECIFICATIONS

(A) General.

- (1) All curb and gutter shall be installed in accordance with the material installation and testing requirements of the "Standard Specifications for Road and Bridge Construction in Illinois," latest edition, unless otherwise modified in this appendix.
- (2) Specification references made herein for manufactured items, such as reinforcement, refer to designations of the American Society for Testing and Materials (ASTM).

(B) Curb standards.

(1) Residential.

- (a) Rolled type or barrier combination curb and gutter as approved by the Subdivision Administrator shall be used. See Appendix B for type of curb and gutter. Furthermore, two No. 4 reinforcing bars with a minimum lap of fifteen inches (15") shall be placed continuously in all curb and gutter.
- (b) The back of curb shall be depressed at all sidewalk handicapped ramp locations.
- (c) The top of curb shall be stamped with the letter "W" for water, and "S" for sanitary sewer at the location where the respective service to each lot crosses under the curb.

(2) Commercial/Industrial.

- (a) Vertical face barrier type combination curb and gutter conforming to the dimensions shown in the vertical faced curb and gutter detail shall be used. See Appendix B for type of curb and gutter. Furthermore, two No. 4 reinforcing bars with a minimum lap of fifteen inches (15") shall be placed continuously in all curb and gutter.
- (b) Depressed curb shall be provided at all sidewalk handicapped ramp locations and at all driveways whose locations are known at the time of curb installation. If the driveway location is not known at the time of curb and gutter installation, vertical face barrier curb shall be installed, and the driveway opening will be provided later by the lot owner.
- (c) The top of curb shall be stamped with the letter "W" for water, and "S" for sanitary sewer at the location where the respective service to each lot crosses under the curb.

(C) Material.

- (1) Concrete. Portland Cement concrete (Class SI) having a minimum compressive strength of four thousand pounds per square inch (4,000 psi) in 28 days shall be used. Air entrainment shall be in the 3% to 6% range and slump shall be 2 to 4 inches, except if a slipform paver is used the slump shall be adjusted to meet the requirements of the slip forming process.
- (2) Expansion joint filler. Bituminous preformed expansion joint filler, 3/4-inch thick, and pre-shaped to the profile of the curb shall be used.

- (3) Expansion joint dowels. Smooth steel dowels, 3/4-inch diameter and 18 inches long with pinched stop caps on one end shall be used.
- (4) Reinforcement bars. Reinforcement bars shall be ASTM A-615, minimum grade 40 steel.
- (5) Joint sealant. A cold poured joint compound shall be used.
- (6) Curing compound. Curing compound shall be Type II or III, as specified in Section 722 of the Standard Specification for Road and Bridge Construction.
- (7) Curb base course. Curb base course shall be IDOT gradation CA-7 crushed stone or crushed gravel meeting the following gradation requirements:

Grad No.	SIEVE SIZE											
	3"	2½"	2"	1½"	1"	¾"	½"	3/8"	No. 4	No. 16	No. 50	No. 200
CA 7				100	95±5		45±15		5±5			

(D) Installation.

- (1) Base preparation. The base course shall be CA-7 and a minimum of four inches (4") thick, trimmed or filled as necessary to provide a full depth of curb and gutter as shown in the curb detail. Prior to concrete placement, the base course shall be compacted and proof rolled in accordance with the testing and acceptance requirements below.
- (2) Reinforcement.
 - (a) Two (2) No. 4 reinforcing bars with a minimum lap of fifteen inches (15") shall be placed continuously in all curb and gutter.
- (3) Placing and finishing concrete.
 - (a) Concrete shall be thoroughly tamped to remove all voids. The curb and gutter surface shall be broom finished at right angles to the flow line of the curb and gutter. Any honeycombed areas along the sides of the curb shall be pointed with mortar. The City shall be notified at least 24 hours before pouring the curb.
 - (b) The curb shall be depressed for handicapped ramps at all sidewalk locations.
- (4) Curing and protection. The curb shall be sealed with curing compound as the finishing work proceeds. Protection shall be in accordance with the standard specifications.
- (5) Joints.
 - (a) Expansion joints shall be placed, as a minimum, at all curb radius points and all construction

joints in the curb, and shall consist of expansion joint filler and dowels with end caps.

- (b) Contraction joints shall be saw-cut at twenty foot (20') maximum intervals to a depth of two inches (2"). Sawing shall be done as soon as practical before any random shrinkage cracking occurs and no later than 24 hours after the concrete has been placed. The clean joint space shall be sealed with a cold poured joint compound.

(E) Testing and acceptance.

- (1) Proof roll. The curb and gutter base course shall be proof rolled with a fully loaded dump truck before the curb and gutter is poured. The Subdivision Administrator shall be notified at least 24 hours before proof rolling. Additional proof rolls shall be provided to verify that any unstable areas have been repaired.

(2) Concrete.

- (a) The contractor shall make at least two (2) test cylinders from each concrete pour less than 25 cubic yards, and at least four (4) cylinders for each pour of 25 yards and above, in accordance with ASTM C-31. The contractor shall have the cylinders tested in accordance with ASTM C-39 at 28 days by an independent IDOT-certified testing firm, and the test results mailed directly to the Subdivision Administrator. If the materials tested fail to meet any of the requirements of the tests, the portions of the job for which the particular test was made may be rejected.

- (b) The City may require that the slump and air content of the concrete also be tested. All costs of testing shall be borne by the contractor. Any concrete not conforming to the Standard Specifications will be rejected.

- (F) Defects. Any curb that has been installed at the improper line and grade that is damaged or badly cracked, or that has been installed with improper material shall be removed and replaced as a condition of acceptance.