

UNITED CITY OF YORKVILLE
SUBDIVISION CONTROL ORDINANCE

THE UNITED CITY OF YORKVILLE

Ordinance No. 2004-52

Date Adopted 9-28-04

September 27, 2004

YORKVILLE SUBDIVISION CONTROL ORDINANCE

SECTION

1.00	TITLE
2.00	INTENT & PURPOSE
3.00	GENERAL PROVISIONS
3.01	Jurisdiction
3.02	Interpretation
3.03	Separability
3.04	Rules
4.00	DEFINITIONS
5.00	PROCEDURE FOR SUBMISSION OF SUBDIVISION PLAT
5.01	Concept Plan
5.02	Preliminary Plan
5.03	Final Plan
6.00	REQUIRED INFORMATION TO BE SHOWN ON SUBDIVISION PLANS & PLATS
6.01	Pre-Application Conference Plan
6.02	Preliminary Plan
6.03	Final Plan
7.00	DESIGN STANDARDS
7.01	General
7.02	Public Sites and Open Spaces
7.03	Standards
7.04	Half-Streets
7.05	Alleys
7.06	Street Jogs
7.07	Street Intersections
7.08	Blocks
7.09	Lots
7.10	Easements
8.00	REQUIRED IMPROVEMENTS
8.01	Improvement Requirements Prior to Filing Final Plat
8.02	Subdivision Securities
8.03	Construction Warranty
8.04	Procedure
8.05	Construction and Inspection
8.06	As-Built Plans
8.07	Survey Monuments
8.08	Acceptance of Dedication, Improvements
8.09	Streets
8.10	Sidewalks
8.11	Street Lighting
8.12	Signage, Guard Rails, & Landscaping
8.13	Storm Water Drainage
8.14	Sanitary Sewer System
8.15	Water System
8.16	Over-sizing of Utilities

YORKVILLE SUBDIVISION CONTROL ORDINANCE, CONTINUED

SECTION, CONTINUED

- 9.00 ADMINISTRATION
 - 9.01 Building Permit
 - 9.02 Certificate of Occupancy
 - 9.03 Variations
- 10.00 AMENDMENTS
 - 10.01 Initiation of Amendment
 - 10.02 Processing Application for Amendment
 - 10.03 Decisions
- 11.00 FEE SCHEDULE
 - 11.01 Land-Cash Contributions
 - 11.02 Fees
- 12.00 VIOLATIONS, PENALTY, & ENFORCEMENT
- 13.00 REPEALER
- 14.00 SEVERABILITY
- 15.00 EFFECTIVE DATE
- Exhibit 1 Standard Specifications for Improvements
- Exhibit 2 Park Development Standards

Be it ordained by the City Council of the United City of Yorkville; That the Subdivision Control Ordinance passed and approved by the City Council of the United City of Yorkville on the _____ day of _____, _____, as subsequently amended, be as follows:

SECTION 1.00 - TITLE

This Ordinance shall hereafter be known, cited, and referred to as the Yorkville Subdivision Control Ordinance.

SECTION 2.00 – INTENT & PURPOSE

The regulations of this ordinance are adopted:

To protect the interests of the land owner, the investor in land, the homeowner, and the municipal unit;

To conserve, protect, and enhance property and property values; to secure the most efficient use of land; and to facilitate the provisions of public improvements;

To provide for orderly growth and development; to afford adequate facilities for the safe and efficient means for traffic circulation of the public; and to safeguard the public against flood damage;

To prescribe reasonable rules and regulations governing the subdivision and platting of land; the preparation of plats; the location, width, and course of streets and highways; the installation of utilities, street pavements, and other essential improvements; and the provision of necessary public grounds for schools, parks, playgrounds, and other public open space; and

To establish procedures for the submission, approval, and recording of plats, to provide the means for enforcement of the ordinance, and to provide penalties for violations.

SECTION 3.00 – GENERAL PROVISIONS

3.01 JURISDICTION

3.01.01 This Ordinance shall apply to all subdivision of land within the incorporated limits of the United City of Yorkville, and within its contiguous territory, but not more than one and one-half miles beyond the incorporated limits of the United City of Yorkville.

3.02 INTERPRETATION

3.02.01 Minimum Requirements: The provisions of this Ordinance shall be held to be the minimum requirements for the promotion of public health, safety, and welfare.

3.02.02 Relationship with Other Laws: Where the conditions imposed by any provision of the Ordinance are either more restrictive or less restrictive than comparable conditions imposed by any other ordinance, law, resolution, rule, or regulation of any kind, the regulations that are more restrictive (or which impose higher standards or requirements) shall govern.

3.02.03 Effect On Existing Agreement. This Ordinance is not intended to abrogate any easement, covenant, or any other private agreement, provided that where the regulations of this Ordinance are more restrictive (or impose higher standards or requirements) than such easements, covenants, or other private agreements, the requirements of this Ordinance shall govern.

3.02.04 The Standard Specifications for Improvements shall be hereby included and made a part of this Subdivision Control Ordinance in its entirety.

3.02.05 The Park Development Standards shall be hereby included and made a part of this Subdivision Control Ordinance in its entirety.

3.03 SEPARABILITY

- 3.03.01 Should any section, subsection, clause, or provision of this Ordinance be declared by a court of competent jurisdiction to be invalid, the same shall not affect the validity of the Ordinance as a whole, or any part thereof, other than the part so declared to be invalid.

3.04 RULES

- 3.04.01 In the construction of this Ordinance, the rules contained herein shall be observed and applied, except when the context clearly indicates otherwise:
1. Words used in the present tense shall include the future, and words used in the singular number shall include the plural number, and the plural shall include the singular.
 2. The word "shall" is mandatory, and not discretionary.
 3. The word "may" is permissive.
 4. The masculine gender includes the feminine and neuter.

SECTION 4.00 – DEFINITIONS

- 4.01 The following words and terms, wherever they occur in this Ordinance, shall be interpreted as herein defined:

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

Block: A tract of land bounded by streets, or by a combination of streets, railway right-of-ways, or waterways.

Building Setback Line: A line across a lot or parcel of land, establishing the minimum open space to be provided between the line of a building or structure, and the lot line of the lot or parcel.

City: The Mayor and City Council of the United City of Yorkville, Illinois.

Crosswalk: A strip of land 10' or more in width, dedicated to public use, which is reserved across a block to provide pedestrian access to adjacent areas, and may include utilities, where necessary.

Cul-de-Sac: A street having only one outlet, and an appropriate terminal for the reversal of traffic movement, without the need to back up.

Dead-end Street: A Street having only one outlet.

Density, Gross: A numerical value obtained by dividing the total dwelling units in a development by the gross area of the tract of land upon which the dwelling units are located.

Density, Net: A numerical value obtained by dividing the total dwelling units in a development by the total area of the development, less rights-of-way, parks, storm water management areas, and all other non-residential uses.

Development: Any man-made change to real estate, including:

- a) Preparation of a plat of subdivision;
- b) Construction, reconstruction, or placement of a building or any addition to a building;

- c) Installation of a manufactured home on a site, preparing a site for a manufactured home, or installing a travel trailer on a site for more than 180 days;
- d) Construction of roads, bridges, or similar projects;
- e) Redevelopment of a site;
- f) Filling, dredging, grading, clearing, excavating, paving, or other non-agricultural alterations of the ground surface;
- g) Storage of materials, or deposit of solid or liquid waste;
- h) Any other activity that might alter the magnitude, frequency, deviation, direction, or velocity of storm water flows, from a property.

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

Eyebrow Cul-de-Sac: A cul-de-sac whose center radius point is less than 80 feet from the centerline of the intersecting cross street.

Floodplain: That land adjacent to a body of water with ground surface elevations at or below the base flood or the 100-year frequency flood elevation. The floodplain is also known as the Special Flood Hazard Area (SFHA).

Frontage: The property on one side of a street, between two intersecting streets (crossing or terminating), measured along the line of the street; Or, with a dead-end street, all property abutting one side of such street, measured from the nearest intersecting street and the end of the dead-end street.

Frontage Road: A public or private marginal access roadway, generally paralleling and contiguous to a street or highway, and designed to promote safety by eliminating unlimited ingress and egress to such street or highway by providing points of ingress and egress at relatively-uniform spaced intervals.

Half Street: A Street bordering on or more property lines of a subdivision tract, to which the sub-divider has allocated only a portion of the ultimate and intended street width.

IDOT: Illinois Department of Transportation.

Improvement Plans: The drawing of all required land improvements, prepared by an Illinois Registered Professional Engineer, and all accompanying information as required by the Ordinance.

Improvements: All facilities constructed or erected by a subdivider within a subdivision, to permit and facilitate the use of lots or blocks for a principal residential, business, or manufacturing purpose.

Land Improvement: All required onsite and offsite subdivision improvements, including but not limited to, any sanitary sewage system, water distribution system, storm drainage systems, public utility systems, sidewalk systems, public or private streets, street lighting, street signs, grading and drainage way facilities, pedestrian ways, and retention and detention basins.

Lot: A portion of a subdivision or other parcel of land, intended for transfer of ownership, or for building developments.

Lot Depth: The distance between the midpoint of the front lot line and the midpoint of the rear lot line.

Lot, Double Frontage: A lot, two opposite lot lines of which abut upon streets which are more or less parallel.

Lot Line: The boundary line of a lot.

Lot Width: The distance on a horizontal plane between the side lot lines of a lot, measured at right angles to the line, establishing the lot depth at the established building setback line.

Parcel: The word parcel shall refer broadly to a lot, tract, or any other piece of land.

Parkway: A strip of land situated within the dedicated street right-of-way, either located between the roadway and right-of-way line, or a median located between the roadways.

Parking Lot: An area permanently reserved and/or used for the temporary storage of motor vehicles.

Plan, Concept: A tentative map or drawing which indicates the subdivider's proposed layout of a subdivision, including a site plan indicating existing offsite roadway connections.

Plan, Final: The final plat, plus all accompanying information required by this Ordinance.

Plan, Preliminary: The preliminary plat, plus all accompanying information required by this Ordinance.

Planned Unit Development: Parcel of land or contiguous parcels of land in single ownership or unified control, to be developed as a single entity, the character of which is compatible with adjacent parcels, and the intent of the zoning district in which it is located; the developer may be granted relief from specific land use regulations and design standards in return for assurances of an overall quality of development, including any specific features which will be of benefit to the City as a whole, and would not otherwise be required by the City Ordinances.

Plat: A subdivision as it is represented as a formal document by drawing and writing.

Plat, Final: The final map drawing or chart, on which the subdivider's layout of a subdivision is presented to the City Council for approval, and which, if approved, will be submitted to the County Recorder for recording.

Plat, Preliminary: A tentative map or drawing, which indicates the subdivider's proposed layout of a subdivision, including all proposed improvements.

Re-subdivision: The subdivision of a tract of land that has previously been lawfully subdivided, and a plat of such prior subdivision duly recorded.

Right-of-Way: A strip of land occupied or intended to be occupied by a road, crosswalk, railroad, 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 United City of Yorkville shall mean that every right-of-way hereafter established and shown on a final recorded plat is to be separate and distinct from the lots or parcels adjoining such right-of-way, and not included within the dimensions or areas of such lots or parcels. Rights-of-way intended for roads, crosswalks, water mains, sanitary sewers, the maker of the plat on which such right-of-way is established shall dedicate storm drains, or any other use involving maintenance by a public agency to public use.

Roadway: The paved portion of the street available for vehicular traffic.

Service Drive: A public street, generally paralleling and contiguous to a main traveled way, primarily designed to promote safety by eliminating promiscuous ingress and egress to the right-of-way, and providing safe and orderly points of access at fairly uniformly-spaced intervals.

Sewage Disposal System, Individual: A sewage disposal system, or any other sewage treatment device approved by the Kendall County Department of Public Health, and servicing only one lot.

Sewage Disposal System, Central: A system of sanitary sewers, serving ten or more lots that discharge either into an interceptor sewer or an approved sewage treatment plant.

Sidewalk: That portion of street or crosswalk way, paved or otherwise surfaced, intended for pedestrian use only.

Street: A public or private right-of-way which affords a primary means of access to abutting properties, whether designated as a street, avenue, highway, road, boulevard, lane, throughway, or however otherwise designated, but excepting driveways to buildings.

Street, Half: A street bordering one or more property lines of a tract of land in which the subdivider has allocated but part of the ultimate right-of-way width.

Street, Marginal Access: A minor street which is parallel to and adjacent to a thoroughfare, and which provides access to abutting properties and protection from through traffic.

Street, Estate Residential: A Street of limited continuity, used for access to abutting rural residential properties and local needs of a neighborhood. This street carries less than 1000ADT.

Street, Local Residential: A Street of limited continuity, used primarily for access to abutting rural residential properties and local needs of a neighborhood. This street carries less than 1000ADT.

Street, Major Collector: A street that serves as a main traffic thoroughfare, both within and outside of the City, carrying heavy volumes of traffic. This street carries more than 2500 ADT.

Street, Collector: A Street that collects and distributes traffic, primarily within residential areas. This street carries between 2500 and 12,000 ADT.

Street, Minor Collector: A Street that collects and distributes traffic within intensively developed areas, and is used primarily for internal trips within the planning area. This street carries between 1000 and 2500 ADT.

Street Width: The shortest distance between the backs of the curb or edge of pavement of a roadway.

Sub-divider: Any person or corporation or duly authorized agent who undertakes the subdivision or development of land as defined herein. Also referred to as Developer.

Subdivision: A described tract of land which is to be, or has been, divided into two or more lots or parcels. The term subdivision includes re-subdivision and, where it is appropriate to the context, relates to the process of subdividing or to the land subdivided. For the purpose of this manual, the requirements contained herein shall not apply, and no plat is required, in any of the following instances:

1. The division or subdivision of land into parcels or tracts of five acres or more in size, which does not involve any new streets or easements of access;
2. The division of lots or blocks of less than one acre, in any recorded subdivision, which does not involve any new streets or easements of access;
3. The sale or exchange of parcels of land between owners of adjoining and contiguous land;
4. The conveyance of parcels of land or interests therein for use as right-of-way for railroads or other public utility facilities which does not involved any new streets or easements of access;
5. The conveyance of land owned by a railroad or other public utility which does not involve any new streets or easements of access;

6. 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;
7. Conveyances made to correct descriptions in prior conveyances;
8. The sale or exchange of parcels or tracts of land existing on the date of adoption of this Resolution into no more than two parts, and not involving any new streets or easement of access.

Turn-Around: An area at the closed end of a street or parking lot, within which vehicles may reverse their direction.

Wetlands: As defined by the Illinois Department of Natural Resources.

SECTION 5.00 – PROCEDURE FOR SUBMISSION OF SUBDIVISION PLAT

Instructions for subdivision plat processes leading to approval and plat recording:

5.01 CONCEPT PLAN

- 5.01.01 Application: Petitioners who wish to start the process with a concept plan should at this time submit his application (the original and 35 copies), along with 35 folded copies of his concept plan, a minimum of 15 days prior to the targeted Plan Commission meeting. As part of the application, the petitioner shall also provide the names and addresses of all land owners within 500 feet of the application property to the City's Deputy Clerk, for the purpose of sending certified notices of the required public hearing(s).
- 5.01.02 Review: Petitioner needs to schedule a meeting with the City Administrator, City Engineer, and Director of Public Works, to review access, availability of water, sewer, storm water, and other related technical issues, at least two weeks prior to the targeted Plan Commission.
- 5.01.03 Park Board: Petitioner must attend the scheduled Park Board meeting if the development has a residential component. The petitioner (or his duly authorized representative) will present the Concept Plan, and discuss how it fits into the overall City Park Plan. The Park Board will make a recommendation regarding the petitioner's plan for parks.
- 5.01.04 Plan Commission: Petitioner must attend the scheduled Plan Commission meeting, which will involve an informal public comment session after the petitioner (or his duly authorized representative) presents his Concept Plan.
- 5.01.05 Committee of the Whole: Petitioner must attend the scheduled Committee of the Whole meeting, which will involve a presentation of the Concept Plan by the petitioner (or his duly authorized representative), and informal discussion with the Committee members.

5.02 PRELIMINARY PLAN

- 5.02.01 The preliminary plan is a drawing complying with all provisions of this Ordinance, and when considered necessary by the Plan Commission or the Plan Council, should be accompanied by other engineering drawings concerning required improvements on which final review for adherence to design standards and improvement proposals is based, and from which detailed engineering drawings can proceed.

- 5.02.02 When the petitioner does not wish to present a Concept Plan, he will start with his Preliminary Plan, and at this time submit his application. Petitioner will be invoiced for the required annexation, rezoning, engineering, and other applicable fees, which must be paid in full prior to being placed on the Plan Commission Agenda. A deposit for legal and planning services will also be invoiced, and is due at this time. Payment should be made to the Deputy Clerk, and the United City of Yorkville Administrative Offices. As part of the application, the petitioner shall also provide the names and addresses of all land owners within 500 feet of the application property to the City's Deputy Clerk, for the purpose of sending certified notices of the required public hearing(s).
- 5.02.03 Following a written report from the Plan Council, and after review of the Preliminary Plan and discussion with the Sub-divider on changes and additions that may be required for the plan, the Plan Commission shall make a recommendation in writing to the City Council.
- 5.02.04 After review of the Preliminary Plan and the recommendation of the Plan Commission, the City Council shall discuss with the subdivider the proposed Plan, and shall, within 45 days, act on the Preliminary Plan. The subdivider shall be notified in writing of any conditions of approval or reasons for disapproval.
- 5.02.05 Approval of the Preliminary Plan is tentative only, and shall be effective for a period of twelve months. If the final plat has not been recorded within this time limit, the Preliminary Plan must again be submitted for approval, unless upon application by the subdivider, the City Council grants an extension. An extension period shall not exceed two (2) 12-month periods.
- 5.02.06 Ordinances in effect on the date of Preliminary Plan approval shall govern the preparation of the Final Plan. Ordinances in effect on the date(s) of Final Plat approval(s) shall govern any fees paid or contributions made by the developer.
- 5.02.07 Fees for legal and planning services will be billed based on per-hour range of work being performed. These amounts are deducted from the deposit amount we invoiced earlier, and a statement of account (reflecting the current credit balance) is sent to the petitioner with the consulting bills enclosed. All fees must be current before proceeding to the next stage of the approval process.

5.03 FINAL PLAN

- 5.03.01 Approval of the Preliminary Plan all entitle the subdivider to approval of the Final Plan, provided that the Final Plan:
 - 1. Conforms substantially to the approved Preliminary Plan;
 - 2. Meets all conditions of said approval; and
 - 3. Complies with all applicable, current ordinances.
- 5.03.02 Disapproval of the Final Plan is warranted if:
 - 1. There are more than minor deviations from the approved Preliminary Plan; and/or
 - 2. A new highway, pipeline, or other major improvement shall directly affect the proposed development site.
- 5.03.03 The proposed Final Plat must be accompanied by 12 sets of the proposed improvement plans for review by the plan Council.
- 5.03.04 After reviewing the final plat and applicable minutes from the Plan Council and any discussions on changes and additions that may be required, the Plan Commission shall recommend in writing to the City Council, within 45 days from receipt of the Plan Council minutes, wither approval or disapproval of the Final Plat and its reasons for such recommendation.

- 5.03.05 The final plat then proceeds to The Economic Development Committee which consisting of four (4) City Council members for its further review and recommendation. Project then moves to the Committee of the Whole and then the City Council meeting for approval or disapproval.
- 5.03.06 The proposed Improvement Plans shall be prepared by a Registered Professional Engineer of Illinois, who shall be responsible for the design of all public and land improvements required by this subdivision Ordinance, as provided in the Illinois Professional Engineering Act. The submitted plans shall be sealed by said Professional Engineer, and shall be in conformance with the City's Standard Specifications for Improvements, and these City Specifications shall be the only specifications for the improvements.
- 5.03.07 The Final Plat cannot be submitted to the plan Commission until the Improvement plans are approved and signed by the City Engineer and the City Administrator, and all fees are paid, and all required securities are filed.
- 5.03.08 The Final Plat shall be recorded with the County Recorder of Deeds, within thirty days from the date of final approval, or final approval shall be considered null and void. This requirement shall not apply when delay in recording a plat is due to circumstances beyond the control of the City or developer.
- 5.03.09 Final Engineering Plan: Submit 3 sets of the Final Engineering Plans to the Deputy Clerk at the City Administrative Offices for review and recommendation by the City Engineer.

SECTION 6.00 -- REQUIRED INFORMATION TO BE SHOWN ON SUBDIVISION PLANS & PLATS

The following requirements are held to be the minimum amount of information necessary to convey to the representatives of United City of Yorkville a complete and accurate description of the kind and quality of subdivision proposed. Additional information may be submitted if it will further clarify the proposed subdivision.

6.01 PRE-APPLICATION CONFERENCE PLAN

- 6.01.01 Concept Plan: The Concept Plan may be done free hand, but shall be done with reasonable accuracy and clarity. The scale of the drawing should be 1" = 100', unless clarity or size of drawing dictates otherwise. The following information shall be shown:
 - 1. Name and address of the owner or subdivider;
 - 2. North arrow and scale;
 - 3. Approximate dimensions and area of parcel;
 - 4. Topography -- not greater than 10' contour intervals such as can be obtained from USGS maps;
 - 5. Proposed layout of streets, lots, parks, and non-residential areas, including storm water control;
 - 6. Number of dwelling units, gross and net density;
 - 7. Minimum and average lot sizes;
 - 8. Gross and net area;
 - 9. For multiple-family, commercial and industrial areas:
 - a. Location of buildings;
 - b. Approximate dimensions and area of site;
 - c. Off-street parking, delivery, and pick-up areas;
 - d. Buffer zones.

6.01.02 Existing Conditions: Presence of any of the following shall be shown on the Sketch Plan or an additional sheet:

1. Streams, marshes, bodies of water, wooded areas, wetland, and other significant natural features;
2. Location and direction of all water courses, drainage ways, and areas subject to flooding;
3. Location of storm drains, inlets, and outfalls;
4. Existing buildings;
5. Existing utilities, and utilities proposed for extension;
6. Existing streets and streets proposed.

6.01.03 Location Map: A small-scale map or sketch of the general area, showing the relationship between the proposed subdivision and existing community facilities and rights-of-way, with the proposed subdivision indicated thereon.

6.02 PRELIMINARY PLAN

6.02.01 The Preliminary Plan shall be drawn at a scale of 1" = 100', unless another scale is approved or required by the Plan Commission or the plan Council at the pre-application conference.

6.02.02 The following information shall be shown on all Preliminary Plans:

1. Notation stating "Preliminary Plan";
2. The name and address of the owner, the subdivider, and the engineer, surveyor, and planner preparing the plan;
3. Date, scale, and north arrow;
4. Topography -- not greater than 2' contour intervals.
5. The proposed subdivision name, which shall not duplicate the name of any plat previously recorded in Kendall County;
6. Location of the subdivision on a small-scale drawing of the general area in which the subdivision lies, with the location of the subdivision indicated thereon, including high-water elevations, if known;
7. The recorded length and bearing of the exterior boundaries of the subdivision;
8. Location and names of adjacent subdivisions and the owners of parcels of un-subdivided land within 200' of property;
9. Zoning on and contiguous to the subdivision;
10. Location, widths, and names of all existing and platted streets, alleys, or other known public ways and easements, railroad and utility rights-of-way, parks cemeteries, watercourses, permanent buildings, bridges, and other pertinent data, as determined by the Plan Commission on the lands proposed to be subdivided, and within one hundred, fifty (150) feet of the proposed subdivision;
11. The approximate areas of all parcels of land intended to be dedicate for reserved for public use, or to be reserved in the deeds for the common use of property owners in the subdivision;
12. If the subdivision borders a lake or stream, the distances and bearings of a meander-line established not less than twenty (20) feet back from the average high water mark of the lake or stream, as determined from flood hazard maps or other data, with said distance and source of data noted;

13. Approximate storm water runoff and detention/retention calculations shall be in accordance with the Standard Specifications for Improvements. Offsite tributary drainage areas and discharging routing shall be defined with supporting data as necessary for evaluation;
14. Layout and width of all new streets and rights-of-way, such as highways, easements for sewers and water mains, sidewalks, trees, drainage ways, and other public utilities;
15. Existing trees greater than 6" caliper;
16. Proposed plantings;
17. Legal Description;
18. Site data (See Figure No. 5 in Standard Specifications);
19. Routing to any proposed extensions of existing water and sewer mains, including all pipe sizes, pertinent elevations, and proposed elevations;
20. Internal utility layout, demonstrating sanitary sewer depths, water main looping, storm water routing to and from detention/retention, and locations of existing field tiles;
21. A written statement from the Kendall County Soil Conservation Service (USDA), expressing its opinion of the suitability of the land for the type of land use proposed;
22. A field tile survey, showing locations where exploration trenches were dug, and what was found.

6.02.03 The following information shall be shown for all single-family and two-family areas:

1. Approximate dimensions and minimum lot areas, in square feet;
2. Proposed building set-back lines;
3. Area of property proposed to be dedicated for public use, or to be reserved by deed covenant for use of all property owners in the subdivision with the conditions of such dedication or reservation.

6.02.04 The following information shall be shown for all multiple-family, commercial, industrial, and other non-residential area:

1. Number of units, gross and net densities;
2. Open spaces;
3. Proposed layout of structures;
4. Layout and quantities of all off-street parking and loading areas;
5. Proposed building set-back lines;
6. Area of property proposed to be dedicated for public use, or to be reserved by deed covenant for use of all property owners in the subdivision, with the conditions of such dedication or reservation;
7. Buffer areas;
8. Square feet of buildings for commercial and industrial projects.

6.03 FINAL PLAN

6.03.01 The Final Plan shall be drawn in ink, at a scale of 1" = 100', or larger, on a non-fading, stable, Mylar material. The sheet size for plats or plans shall be not less than 18" x 24", nor larger than 24" x 36". When more than one sheet is used for any document, each sheet shall be numbered consecutively and shall contain a notation giving the total number of sheets in the document, and shall show the relation of that sheet to the other sheets. Final plans shall include all required engineering and landscaping improvements. See Figure No. 6 in Standard Specifications.

6.03.02 The following information shall be shown on all Final Plats:

1. Legal Description. Legal descriptions shall commence at the intersections of Section lines and/or Quarter Section lines when reasonably practical to do so. The developer shall also submit the Final Plat to the City in digital form, in a format acceptable to the City. The coordinate system for the Final Plat shall be NAD27 Illinois State Planes, East Zone, US Foot (IL-E).
2. All monuments erected, corners, and other points established in the field in their proper places. The material of which monuments, corners, or other points are made shall be noted as the representation thereof, or by legend, except lot corners need not be shown.
3. The exact length and bearing of all exterior boundary lines, public grounds, meander-lines, and easements, unless they parallel a noted boundary.
4. The exact width of all easements, streets, and alleys.
5. The dimensions of all lot lines, to the nearest hundredth (1/100) of a foot.
6. Building setback lines on all lots.
7. All lots consecutively numbered within consecutively lettered blocks.
8. The number of degrees, minutes, and seconds of all lot angles or bearings of same, other than 90°, except that when the line in any tier of lots is parallel, it shall be sufficient to mark only the outer lots. When any angle is between a curve and its tangent, the angle shown shall be that between the tangent and the main chord of the curve. When between curves of different radii, the angle between the main chords shall be shown.
9. When a street is on a circular curve, the main chord of the center line shall be drawn as a dotted line in its proper place; and, either on it, or preferably in adjoining table, shall be noted its bearing and length, the radius of the circle of which the curve is a part, and the central angle extended. The lot lines on the street sides may be shown in the same manner, or by bearings and distances. When a circular curve of thirty (30) foot radius or less is used to round off the intersection between two (2) straight lines, it shall be tangent to both straight lines; it shall be sufficient to show on the plat the radius of the curve and the tangent distances from the points of curvature to a point of intersection of the straight lines.
10. The name of each road or street in the plat shall be printed thereon, which name shall not duplicate the name of any other street, unless it is an extension thereof.
11. Abutting state highway lines and streets of adjoining plats shown in their proper location by dotted lines. The width and names of these streets and highways and plats shall also be given.
12. All lands dedicated to public use, including roads, and streets shall be clearly marked.
13. All water courses, drainage ditches, and other existing features pertinent to the subdivision.
14. Where provisions are made for access from any subdivision to any lake or stream, the plat shall show the area over which the access is provided to the lake or stream, together with a small scale drawing, clearly indicating the location of the subdivision in relation to the lake or stream, and the location of the area over which access is provided.

15. Monuments. The description and location of all survey monuments placed in the subdivision shall be shown upon Final Plat. Permanent monuments shall be of concrete, reinforced with one (1) number four (4) vertical rod, and not less than four (4) inches square on top, tapered to six (6) inches square at the bottom, and thirty-six (36) inches long, set flush with the adjacent ground. Each permanent monument shall have a suitable mark in the center of the top.

Permanent monuments shall be erected at all corners or changes in bearing of the exterior boundary. Metal monuments not less than ½ inch in diameter, and 24 inches in length shall be placed in the ground at all lot corners, intersections of streets, intersections of streets and alleys with plat boundary lines, and at all points on street, alley, and boundary lines where there is a change in direction or curvature. All monuments and stakes shall be set in the ground before the streets and alleys are accepted for public maintenance.

16. A Surveyor holding a current, valid registration in Illinois shall perform the survey, and if the error in the latitude and departure closure of the survey is greater than the ratio of one in five thousand (1/5000), the plat may be rejected.

17. Certificates of Approval to be shown on Final Plat, as applicable:

1. Surveyor
2. Owner
3. Notary
4. City Administrator
5. Township Highway Commissioner, if applicable
6. County Supervisor of Highways, if applicable
7. Illinois Department of Transportation, if applicable
8. City Clerk
9. City Plan Commission, Chairman
10. Mayor
11. County Clerk
12. County Recorder
13. City Engineer
14. School District Certificate
15. Drainage Overlay Certificate, if applicable

SECTION 7.00 – DESIGN STANDARDS

7.01 GENERAL

- 7.01.01 When laying out a subdivision, the developer shall:

1. Take into account, and comply with, officially adopted plans;
2. Conform to existing street patterns where such streets are contiguous to the proposed subdivision or may reasonably be projected through the subdivision;
3. Design the arrangement of uses in relation to topography and drainage conditions;
4. Consider all natural features, such as streams, lakes, ponds, tree cover, etc., and incorporate these features into the development;
5. Consider street names. Streets that are extensions of, or obviously in alignment with, existing streets shall bear the name of the existing streets; however, no other streets shall bear names which duplicate or nearly duplicate so as to be confused with the names of existing streets;
6. Reserve a minimum of one historical street name from the list on file in the Engineer's office, prior to the recording of Final Plat, as set forth in the Historical Street Name Resolution;

7. Take into account future development, including street and utility extensions;
8. Consider the implementation of traffic calming measures, which the City may require on a case-by-case basis.

7.02 PUBLIC SITES AND OPEN SPACES

- 7.02.01 Where a proposed park, playground, school, or other public use shown on any official adopted City, Township, County, or State plan or map is located in whole or in part in a subdivision, appropriate public agencies and governing bodies shall be given an opportunity to begin, within one year from the date of recording of the Final Plat, procedures to acquire said acreage.

7.03 STANDARDS

- 7.03.01 The United City of Yorkville "Standard Specifications for Improvements", and the Yorkville Park Board "Park Development Standards" shall be incorporated herein, and shall apply to any and all development, not only subdivisions.

7.04 HALF-STREETS

- 7.04.01 Half-streets shall be prohibited, except where essential to the reasonable development of the subdivision, and in conformity with the other requirements of these regulations, and where the Plan Commission finds it will be practicable to require the dedication of the other half when the adjoining property is subdivided. A right-of-way width of not less than forty- (40) feet, and a pavement width of not less than twenty-two and one-half (22-½) feet, shall be required for the half-street. Where a half-street is adjacent to a tract to be subdivided, the other half of the street shall be platted and constructed within such tract. In cases where half-streets are accepted, the owner and subdivider shall be required to grade and improve the half-street, the same as all other subdivision streets.

7.05 ALLEYS

- 7.05.01 Alleys shall be provided in all commercial and industrial districts, except that the City may waive this requirement where another definite and assured provision is made for service access, such as off-street loading and parking consistent with, and adequate for, the uses proposed.
- 7.05.02 Alleys shall not be approved in residential areas, unless necessary because of topography or other exceptional circumstances.
- 7.05.03 Alley widths shall be not less than twenty-four (24) feet.
- 7.05.04 Dead-end alleys shall be prohibited.

7.06 STREET JOGS

- 7.06.01 Street intersection jogs with centerline offsets of less than one hundred, fifty- (150) feet shall be prohibited.

7.07 STREET INTERSECTIONS

- 7.07.01 Streets shall be laid out so as to intersect as nearly as possible at right angles. Proposed intersections at angles of less than eighty- (80) degrees shall not be acceptable.

7.08 BLOCKS

- 7.08.01 The length, width, and shapes of blocks shall be such as are appropriate for the locality and the type of development contemplated, but block length in residential areas shall not exceed on thousand, three hundred, and twenty (1320) feet, nor have less than sufficient width to provide two tiers of lots of appropriate depth between street lines, except that one tier of lots may back onto a limited access highway, railroad right-of-way, or major street, provided suitable screen-planting contained in a no-access reservation strip along the rear property line is provided.
- 7.08.02 Paved and fenced pedestrian crosswalks, not less than ten (10) feet wide, may be required by the Plan Commission through the center of blocks more than nine hundred (900) feet long, where deemed essential to provide circulation or access to schools, playgrounds, shopping centers, transportation, and other community facilities. Paving shall be three (3) inches of bituminous concrete surface course on ten (10) inches of compacted CA-6 base. Fencing shall be four (4) feet high, continuous chain-link fence on both sides of the walkway on an easement.

7.09 LOTS

- 7.09.01 All lots shall meet the minimum depth, width, and area requirements of the Zoning Ordinance.
- 7.09.02 The size, shape, and orientation of lots shall be appropriate for the location of the subdivision, and for the type of development and use contemplated.
- 7.09.03 Depth and width of properties reserved or laid out for commercial and industrial purposes shall be adequate to provide for off-street service and parking facilities.
- 7.09.04 Fronting of residential lots onto State and County highways is prohibited. Also prohibited is the fronting of residential lots onto any proposed major thoroughfare or major collectors, as designated by the Comprehensive Plan. Subdivision entrances for residential uses, and/or major entrances for commercial, industrial, and institutional uses shall be located not less than thirteen hundred (1300) feet apart, center-line to center-line, unless topography or existing street locations dictate otherwise.
- 7.09.05 Excessive depth in relation to width shall be avoided.
- 7.09.06 All lots shall front or abut on a public street.
- 7.09.07 Side lot lines shall be substantially at right angles or radial to street lines.
- 7.09.08 Double frontage and reversed frontage lots shall be avoided, except where necessary to overcome specific disadvantages of topography and orientation, and where a limited access highway, railroad right-of-way, major street, or similar situation exists; in which case, double-frontage lots shall be provided with suitable screen-planting contained in a no-access reservation strip along the rear property line and the right-of-way. When deemed necessary by the Plan Commission, double-frontage lots shall have additional depth to further protect the proposed use from rear lot line traffic.
- 7.09.09 Subdivisions must include the entire parcel being divided, and may have no exceptions or exclusions; and shall not contain "leftover" pieces, corner, or remnants of land.
- 8.09.10 Lot widths shall be measured at the building setback line, and may be reduced ten (10) percent at the end of a cul-de-sac, providing the lot area meets the requirements of the Zoning Ordinance.
- 7.09.11 Corner lots shall have a buildable area equal to or greater than the smallest interior lot on the same block.

7.10 **EASEMENTS**

- 7.10.01 Easements shall be provided at the rear of all lots. Such utility easement shall be at least ten (10) feet wide on each lot, and normally centered upon the rear or side lot lines. Easements will be required for all storm water control facilities and for overflow routes. The City may require wider easements and easements at other locations to accommodate proposed utilities and to provide space for future utilities.
- 7.10.02 Easements shall be provided at the side of all lots, and shall be at least five (5) feet wide on each lot, immediately adjacent to the property line.
- 7.10.03 Easements shall be provided along both sides of all right-of-ways, immediately adjacent and parallel to, said right-of-way. This easement shall be for utilities. Evidence shall be furnished to the Plan Commission that the individual utility companies have reviewed easements, and any easement provisions to be incorporated on the plat or in the deeds, or the organization responsible for furnishing the service involved.
- 7.10.04 Where a watercourse, drainage channel, stream, or other body of water traverses a subdivision, appropriate dedications or easement provisions, with adequate width or construction to accommodate observed, computed, or anticipated storm water drainage through and from the subdivision, shall be made. The width of the easement shall be dependent on the area of land drained by the watercourse, and wide enough to allow access for construction and maintenance equipment.
- 7.10.05 Screen-planting easement(s) may be required in accordance with the Landscape Ordinance. If said easement is to also be used for public utilities, only such plant materials that have an ultimate growth not exceeding fifteen (15') feet shall be used.

SECTION 8.00 – REQUIRED IMPROVEMENTS

8.01 **IMPROVEMENT REQUIREMENTS PRIOR TO FILING FINAL PLAT**

- 8.01.01 Upon approval of both the Final Plan and the plans and specifications for the required subdivision improvements by the Plan Commission, Director of Public Works, and the City Engineer, and upon approval of the appropriate agencies as evidenced by State and County permits, where required, the subdivider shall construct and install the required subdivision improvements prior to filing the Final Plat with the Plan Commission for final approval. If construction does not begin within four (4) years of Final Plan approval, the subdivider may be required to revise the plan to comply with new City requirements.

8.02 **SUBDIVISION SECURITIES**

- 8.02.01 In lieu of construction on 8.01 above, the subdivider shall post with the City of Yorkville, a construction guarantee in the form of an Irrevocable Letter of Credit or irrevocable bond, payable to the United City of Yorkville, sufficient to cover the full cost, plus ten (10) percent, of the required improvements, as estimated by the engineer employed by the subdivider and approved by the City Engineer, to assure the satisfactory installation of required improvements as outlined in this Section, and contained in the approved plans and specifications. A Surety shall issue the Bond or Letter of Credit posted or Bank recognized by the State of Illinois, and approved by the City Attorney, and shall carry a rating sufficient to cover the cost of construction. The subdivider shall use the standard Bond Form or Letter of Credit Form used by the City of Yorkville. Construction guarantee shall not be reduced to below fifteen (15%) percent of the approved engineer's estimate prior to acceptance of the public improvements by the City. The construction guarantee shall not expire for at least one year. Subsequent renewals of the construction guarantee shall also be for a period of at least one year.

8.03 CONSTRUCTION WARRANTY

- 8.03.01 The subdivision irrevocable bond or Letter of Credit shall be released after an appropriate City Council Resolution accepting the improvements for public ownership. This subdivision Letter of Credit will not be released until a one-year Maintenance Bond or Letter of Credit is posted with the City Clerk for ten (10) percent of the Land Improvement cost, to ensure that any and all improvements will properly function as designed, with no defects after the City Council formal acceptance.

8.04 PROCEDURE

- 8.04.01 Not more than ten (10) months after Preliminary Plan approval, four (4) copies of the proposed final plans and specifications, engineer's estimates prepared and sealed by a professional engineer currently registered with the State of Illinois, and Subdivision Bond or Letter of Credit, shall be filed with the City Engineer, and shall provide all necessary information for the following, as applicable:

1. Streets;
2. Curbs and gutter;
3. Storm drainage, including storm sewers and storm water detention, building storm drains (footings, roof, etc);
4. Comprehensive drainage plan, including grades of surface drainage ways;
5. Sanitary sewerage system;
6. Water supply and distribution;
7. Public utility locations;
8. Street lights;
9. Sidewalks
10. Street signs, guard rails, and other special requirements;
11. Parkway trees; and
12. Payment in full of all City fees.

8.05 CONSTRUCTION AND INSPECTION

- 8.05.01 Written notice to proceed shall be obtained from the City Engineer prior to beginning any work covered by the approved plans and specifications for the above improvements. Authorization to begin work will be given upon receipt of all necessary permits, including all culvert permits required when proposed new or changed subdivision roads intersect any presently-existing road, and work must proceed in accordance with construction methods of Sections 8.05 through Section 8.16, and the City's Standard Specifications for Improvements.
- 8.05.02 Construction of all improvements required by this Ordinance must be completed within two years from the date of approval of the Final Plat, unless good cause can be shown for granting an extension of time.
- 8.05.03 The sub-divider shall pay all expenses incurred by the City of Yorkville to provide field inspections and testing of all construction work and materials before, during, and after construction.
- 8.05.04 On-street parking during build-out of the development shall be limited to one side only of all streets. In general, parking will not be allowed on the side of the street where fire hydrants are located. The developer shall post signage, as required by the Yorkville Police Department.
- 8.05.05 Dumpsters, work trailers, and construction materials shall not be stored or located in roadways or public right-of-ways at any time, without exception.

8.06 AS-BUILT PLANS

- 8.06.01 After completion of all public improvements, and prior to final acceptance of said improvements, the subdivider shall make, or cause to be made, a map showing the actual location of all valves, manholes, stubs, sewer and water mains, and such other facilities as the Director of Public Works shall require. This map shall bear the signature and seal of an Illinois Registered Professional Engineer. The presentation of this map shall be a condition of final acceptance of the improvements, and release of the subdivision Bond or Letter or Credit, assuring their completion. The coordinate system for As-Built drawings shall be NAD27 Illinois State Planes, East Zone, US Foot (IL-E). The "as-built" plans shall be submitted on reproducible Mylar, and also on computer diskette in a format acceptable to the City.

8.07 SURVEY MONUMENTS

- 8.07.01 Permanent and any other monuments required in this Ordinance shall be installed prior to the approval of the Final Plat.

8.08 ACCEPTANCE OF DEDICATION, IMPROVEMENTS

- 8.08.01 Final acceptance of the dedication of open space or other public areas shall mean the responsibility for the maintenance of the same. Approval of the Final Plat does not constitute final acceptance.
- 8.08.02 Approval of the Final Plat shall be dependent upon presentation of proof of responsibility for the maintenance of all community improvements.
- 8.08.03 All public improvements shall be accepted only by Resolution of the City Council, after a formal Petition for approval has been submitted by the subdivider to the City Clerk. Such Petition shall be filed after completion of the public improvements. The City Engineer and the Director of Public Works shall, within thirty (30) days from receipt of such Petition, make recommendations in report form to the City Council. All Petitions shall be acted upon by the City Council within thirty- (30) days from receipt of such recommendations of the City Engineer and Director of Public Works. A Maintenance bond will then be required in the amount of ten (10) percent of the cost of the Land Improvements, as specified in this Ordinance, after City Council acceptance.

8.09 STREETS

- 8.09.01 Street improvements shall be installed by the developer, shall be in accordance with the table of minimum standards herein, and in accordance with the City's Standard Specifications for Improvements. Right-of-ways at intersections shall have a twenty-five (25) foot radius or chord where right-of-way lines intersect.

8.10 SIDEWALKS

- 8.10.01 Concrete sidewalks shall be installed by the developer within all subdivisions, on both sides of the street or roadway, to a minimum width of five (5) feet, as specified in the City's Standard Specifications for Improvements.

8.11 STREET LIGHTING

- 8.11.01 A complete, functioning street light system shall be installed by the developer, at his expense, in all subdivisions as specified in the City's Standard Specifications for Improvements.

8.12 **SIGNAGE, GUARD RAILS, AND LANDSCAPING**

- 8.12.01 Street signs of the quantity and type approved by the Director of Public Works shall be installed at each intersection, and shall indicate the street names as shown on the Final Plat. The City shall order and install the street name signs. The subdivider shall reimburse the City for said cost. The subdivider shall also supply and install regulatory and warning signs, as directed by the Yorkville Police Department.
- 8.12.02 Steel plate beam guardrails shall be placed along the shoulder of any street, where street construction has resulted in an embankment greater than six (6) feet in height.
- 8.12.03 All areas of street right-of-way that are not paved shall be seeded or sodded. Provisions shall be made to assure the growth of all landscaping.
- 8.12.04 All improvements herein shall be as specified in the City's Standard Specifications for Improvements.

8.13 **STORM WATER DRAINAGE**

- 8.13.01 Surface water drainage improvements consisting of storm sewers and/or open channels, inlets, catch basins, manholes, and/or detention facilities, shall be designed and constructed to adequately drain the area being developed, and also all of such other areas that naturally drain through the area being developed.
- 8.13.02 If the surface water drainage will be changed by the construction of the subdivision, adequate provision shall be made for collection and diversion of such surface waters into public areas, or drains which the subdivider has a right to use, and such surface waters shall not be deposited on the property of adjoining land owners, in such a manner as to cause erosion or other damage.
- 8.13.03 Designed planning of surface water drainage facilities shall be performed by, or under the supervision of, a Professional Engineer, registered in the State of Illinois. The storm water drainage system shall be as specified in the City's Standard Specifications for Improvements.
- 8.13.04 It will be the homeowner's responsibility to maintain any drainage course across his property, and to keep it free from features that restrict natural drainage.

8.14 **SANITARY SEWER SYSTEM**

- 8.14.01 All subdivisions and units therein shall be required to provide connection to the sanitary sewer system, including required sewer extensions off-site, to the sizes and depths as required by the City. The sanitary sewers shall be extended to the far boundaries of the development, as directed by the City. All costs of these improvements will be borne by the developer. The sanitary sewer system shall be as specified in the City's Standard Specifications for Improvements.

8.15 **WATER SYSTEM**

- 8.15.01 All subdivisions and units therein shall be required to provide connection to the United City of Yorkville's public water supply system, including required water main extensions off-site, to the sizes required by the City, and all costs shall be borne by the developer. All developments must provide a looped, double-fed water system, and extensions to the boundaries of the development, as directed by the City, shall also be included in the water system, to be funded by the developer. The water system shall be as specified in the City's Standard Specifications for Improvements.

8.16 OVERSIZING OF UTILITIES

- 8.16.01 When, in any subdivision, now within the City, or within one and one-half (1 ½) miles of the City limits, which normally would require a certain size water main, sanitary sewer, and/or storm sewer, but which for the purpose of complying with the plan of development of the City's Comprehensive Plan, to provide adequate utilities, not only to the particular subdivision, but also to subdivisions which in the future may become a part of the City, and where the City Engineer and the Director of Public Works have determined that water and/or sewer mains of a larger diameter are required, then the City Engineer or the Director of Public Works shall inform the subdivider, builders, and developers of the subdivision by a written notice of that fact, and require them to install such oversized utilities and at the same time, in said notice, inform them of the size(s) to be installed.
- 8.16.02 Watermain shall be considered oversized if it is larger than the size needed to supply the required fire flows of the development, not the minimum pipe size allowed by ordinance. The required fire flow rate for all residential areas shall be 1500 gpm. The required fire flow rate for commercial and industrial areas shall be 3250 gpm. The required fire flow rate within five hundred feet of a school site shall be 3375 gpm.
- 8.16.03 Upon being so notified as provided for in this section, no subdivider, builder, or developer shall install any utility in such subdivision of any size other than that specified to him by the aforesaid notice.
- 8.16.04 At such time as the installation of said oversized utilities shall have been completed in accordance with the plans and specifications submitted to the City of such installation, and also in accordance with the notice specified in this Section, and all such installations shall have been inspected and approved by the City as provided for by the Ordinances of the City of Yorkville, then the City may enter into an agreement to allow the developer to recover the difference of the cost at current prices, as of the time of said installation, between the development's required utilities which were originally planned to be used, and the cost of the oversized utilities which the City directed to be used. Said agreement may be in the form of a recapture agreement, cash payment(s), rebates of fees to the developer, or some other consideration as may be approved by the City Council.

SECTION 9.00 – ADMINISTRATION**9.01 BUILDING PERMIT**

- 9.01.01 No building permit shall be issued for the construction of any building, structure, or improvement to the land, or any lot within a subdivision as defined herein, which has been approved for platting or re-platting, until all requirements of this Ordinance have been fully complied with. In no case will a building permit be issued until all fees have been paid, a grading plan approved, an "all-weather" road in place to serve this property, along with functioning drainage facilities, water system, and sanitary sewer system. Exceptions may be made for model home units.

9.02 CERTIFICATE OF OCCUPANCY

- 9.02.01 A certificate of occupancy may be issued for the use of any structure within a subdivision approved for platting or re-platting provided that all required utilities have been installed and are capable of servicing the subdivision, all roadways have the bituminous binder laid, and mutual agreement between the City Engineer and the Building Code Official has transpired. The final grading plan must be submitted and approved prior to a Certificate of Occupancy.

9.03 VARIATIONS

- 9.03.01 Where the Zoning Board of Appeals finds that extraordinary hardships or particular difficulties may result from the strict compliance with the Ordinance, the Zoning Board of Appeals is hereby empowered to consider such matters after receiving written application from the subdivider. If applicable, the Zoning Board of Appeals may recommend, in writing, to the City Council, variations or exceptions to the regulations, subject to specified conditions, so that substantial justice may be done and the public interest secured, provided that such variations or exceptions shall not have the effect of nullifying the intent and purpose of this Ordinance or the Comprehensive Plan.
- 9.03.02 The standards and requirements of the Ordinance may be modified in the case of large-scale developments when the Zoning Board of Appeals finds that a plan and program for a new village, complete community, shopping center, industrial park, or neighborhood unit provides adequate public open spaces and improvements for circulation, recreation, and service needs of the tract when fully developed, and which also provides such covenants or other legal provisions to assure conformity and achievement of the plan.
- 9.03.03 The Zoning Board of Appeals shall not recommend variations or exceptions to the regulations of this Ordinance unless it shall make findings based upon the evidence presented in each specific case, that:
1. Due to the particular physical surroundings, shape, or topography 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 the regulations was carried out;
 2. The conditions upon which the request for a variation is based are unique to the property for which the variation is sought and are not applicable, generally to other properties within the same zoning classification;
 3. The alleged hardship was not created by any person presently having an interest in the property;
 4. The granting of the variation will not be detrimental to the public safety, health, welfare, or interest to other properties or improvements in the neighborhood in which the property is located.
- 9.03.04 Variation requests that affect surrounding properties under the circumstances below shall not be approved:
1. Impairment of an adequate supply of light and air to adjacent properties;
 2. Substantial increase in the traffic congestion in public streets;
 3. Increase the danger of fire;
 4. Endanger the public safety;
 5. Significantly diminish or impair property values within the neighborhood; or
 6. Noncompliance with the spirit of intent of the restrictions imposed by the Zoning Ordinance.

SECTION 10.00 – AMENDMENT

10.01 INITIATION OF AMENDMENT

- 10.01.01 The Mayor and City Council, the Plan Commission, the Zoning Board of Appeals, or any resident of the City of Yorkville, or any person residing within 1½ miles of the corporate limits of the City, may propose amendments.

10.02 PROCESSING APPLICATION FOR AMENDMENT

- 10.02.01 An application for an amendment shall be filed with the City Clerk. The application shall be accompanied by such plans or data, and such other information, as specified by the Plan Commission, and shall include a statement, in writing, by the applicant and adequate evidence showing that the proposed amendments will conform to the standards set forth herein. Copies of such application shall be forwarded by the City Council to the Plan Commission with the request to hold a public hearing.
- 10.02.02 Publication: The City Clerk shall cause a notice of time, place, and purpose of such hearing to be published in a newspaper published within the City of Yorkville, not more than thirty (30) days nor less than fifteen (15) days in advance of such hearing.
- 10.02.03 Hearing on Application: Upon receipt in proper form of the application and statement referred to above, the Plan Commission shall hold at least one public hearing on the proposed amendment. However, the Plan Commission may continue from time to time the hearing without further notice being published.
- 10.02.04 Findings of Fact and Recommendation of the Plan Commission: Within forty-five (45) days after the close of the hearing on a proposed amendment, the Plan Commission shall make written findings of fact, and shall submit same, together with its recommendations to the Mayor and City Council.

10.03 DECISIONS

- 10.03.01 The Mayor and City Council, upon receiving the recommendation of the Plan Commission, may grant or deny any proposed amendment in accordance with applicable Illinois Statutes, or may refer to the Plan Commission for further consideration.
- 10.03.02 If a recommendation submitted by the plan Commission to the City Council for a proposed amendment is not acted upon by the City Council within forty-five (45) days of the date upon which such application is received by the Mayor and City Council, it shall be deemed to have been approved.

SECTION 11.00 – FEE SCHEDULE

11.01 LAND CASH CONTRIBUTIONS

- 11.01.01 Sub-dividers shall comply with any School and/or Park Land-Cash Ordinance in effect at the time of Final Plat approval. The City may require that all or part of the park cash contribution be paid prior to recording any Final Plat of Subdivision of a development.

11.02 FEES

- 11.02.01 Before the Plan Commission approves the Final Plat, the subdivider shall pay to the United City of Yorkville, all fees, reimbursements, and/or deposits due at that time for any of the Subdividers' developments in the city.

SECTION 12.00 – VIOLATION, PENALTY, ENFORCEMENT

- 12.00.01 Any person, firm, or corporation who violates, disobeys, omits, neglects, refuses to comply with, or who resists enforcement of any of the provisions of this Ordinance shall be fined not less than fifty dollars (\$50.00), nor more than two hundred dollars (\$200.00) for each offense. Each day that a violation is permitted to exist shall constitute a separate offense.
- 12.00.02 The City Engineer is hereby designated and authorized to enforce this Ordinance. However, it shall also be the duty of all officers, citizens, and employees of the City, particularly of all members of the Engineering, Police, and Public Works Departments, to assist the City Engineer in reporting to him any new construction, reconstruction, improved land uses, or upon any apparent violation.

SECTION 13.00 – REPEALER

- 13.00.01 All Ordinances or parts thereof conflicting with the provisions of this Ordinance are hereby repealed to the extent of such conflict.

SECTION 14.00 – SEVERABILITY

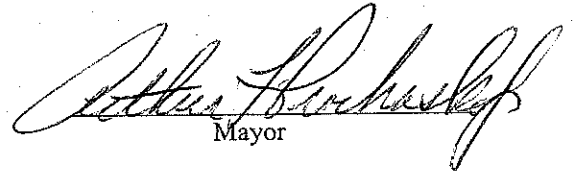
- 14.00.01 If any section, subsection, sentence, clause, phrase, or portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining proportions hereof.

SECTION 15.00 – EFFECTIVE DATE

15.01 This Ordinance shall be in full force and effect from and after its due passage, approval, and publication, as provided by law.

Passed and approved by the Mayor of the United City of Yorkville, Kendall County, Illinois,

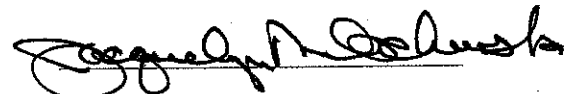
This 28 day of Sept, 2004.


Mayor

Passed and approved by the City Council of the United City of Yorkville, Kendall County, Illinois,

This 28 day of Sept, 2004.

ATTEST:


City Clerk

SEAL

RICHARD STICKA

VALERIE BURD

MARTY MUNNS

JOE BESCO

1
5
5
5
5

WANDA OHARE

LARRY KOT

PAUL JAMES

ROSE SPEARS

5
5
1
5

RESOLUTION FOR THE
UNITED CITY OF YORKVILLE
STANDARD SPECIFICATIONS FOR IMPROVEMENTS

Resolution No. 2004-39

These Standards apply to all infrastructure improvements, and may be modified as needed upon the advice of the City Engineer for special identified situations or conditions. All contractors shall give the City Engineer's office a minimum 48-hour notice of all work and of all required approvals. Failure to obtain these required approvals will require extensive testing, removal and replacement, and a ban for a minimum of one year, from working on the City's right-of-way. Subdividers that have been unfaithful in previous City agreements or developments, or who owe the City payments, will not be allowed to have work performed for them within the public right-of-way. Resident engineering inspection shall be provided through the City Engineer's office, and all such costs shall be charged to the developer by the United City of Yorkville. Required written approvals will not be given until outstanding bills are paid in full. The developer's improvement Letter of Credit or other subdivision securities will also be liable for all such costs. The developer shall be responsible for layout and staking engineering, as well as for record drawings by a registered Professional Engineer. These Specifications for Improvements shall become a part of each and every project approved by the United City of Yorkville, and no other specifications will take precedence.

All improvements included in the United City of Yorkville's Standard Specifications for Improvements, unless noted herein, shall conform to the latest editions of the State of Illinois "Standard Specifications for Road and bridge Construction", the "Manual on Uniform Traffic Control Devices", and all amendments thereto. These documents shall be considered as included within the City of Yorkville Standard Specifications for Improvements, and in the case of a conflict of requirements, the most stringent shall apply.

Prior to starting construction of any project, the developer shall attend a pre-construction meeting and bring a representative from each contractor, a list of all contact persons that can be reached at any time, and a complete schedule of all work to be performed.

No work is to start until the City Engineer and the City Administrator have approved the engineering plans, and the pre-construction meeting has been held. The City Engineer must approve any changes to the approved plans in writing. The City Engineer or a representative will, upon discovery of improper material or installation practices, issue a written document to the contractor, stating that failure to stop and correct such deficiencies will result in the City's refusal to accept such improvements or to issue any further building permits, or to perform required inspections.

The subdivider shall obtain and keep in force insurance coverage for Worker's Compensation, and Employer's Liability, Commercial General Liability, Commercial Automobile Liability, and Umbrella Liability, as described in IDOT's "Standard Specifications for Road and Bridge Construction". The United City of Yorkville shall be named as an additional insured. The insurance coverage shall remain in effect until the City accepts the entire development.

The City will not consider acceptance of the public improvements in a development until it is at least fifty (50) percent built out, or three years after the roadway binder course is paved, whichever is sooner.

Blasting will not be allowed.

September 27, 2004

ROADS

All roadways shall conform to the Illinois Department of Transportation (hereinafter termed IDOT) "Standard Specifications for Road and Bridge Construction", unless modified herein. Horizontal and vertical geometric for right-of-ways and roadways shall conform to the City Standards, listed in Figure 2.

Surface course must not be placed until at least seventy- (70%) percent of the adjacent, private improvements are in place. However, in no case shall the surface course be placed until the binder course has been in place for at least one full winter season. In no case shall the surface course be delayed more than three (3) years after the binder course has been installed.

The subgrade shall be graded and compacted to a hard, uniform surface, matching the slopes of the surface course. It shall have no rutting and shall completely drain to the outer edges. It shall be proof rolled by the contractor with a fully loaded (gravel) 10-cubic yard dump truck and witnessed by and approved in writing by the City Engineer's representative (hereafter termed City Engineer) before proceeding to build the roadway. All unsuitable subgrade shall be removed and replaced with compacted, stable clay material or shall be replaced with compacted CA6 limestone on an approved, non-woven roadway fabric (6.5 oz. minimum). Other geo-grids may be required for certain conditions. All bituminous mixtures shall be delivered and handled so that the bituminous mixture immediately behind the paver screen is at or above 270 degrees F. All asphalt delivered to the project shall be covered when the temperature is at or below 70 degrees F.

All subgrades, other than approved granular subgrades, shall be completely covered with a subgrade fabric (Amoco 4551 or approved equal), with a full 18 inches of overlap. Subgrade Fabric shall also be used on lime-stabilized sub grades. It shall be placed neat and tight, without wrinkles, tears, or defects. Construction equipment shall not be allowed to drive on the fabric until it has a minimum of four inches cover of granular base material. The City Engineer shall approve in writing the subgrade fabric installation prior to placing base material. The subgrade fabric shall extend a minimum of twelve inches beyond the back of each curb.

In areas where undercutting of the subgrade is required, the bottom of the excavation shall be lined with a woven geotextile (Amoco 2002 or approved equal), and backfilled with CA-3 aggregate.

The aggregate base course shall be compacted to a minimum of 95% Modified Proctor and shall be free of all dirt and debris. The course shall be proof rolled, as described above, and witnessed by and approved in writing by the City Engineer before proceeding to build the roadway. A bituminous prime coat shall be applied to the aggregate base course prior to paving.

The bituminous concrete binder course shall be placed only upon the written approval of the City Engineer. All asphalt must be laid utilizing a good-quality, properly-functioning, tracked or wheeled asphalt laying machine, utilizing fully-automatic, electronic sensing control from a stringline for the initial course, and from a minimum fifteen (15') foot ski for all other lifts. The bituminous binder course shall be proof rolled as described above, and witnessed by, and approved in writing, by the City Engineer before proceeding with the surface course. All repairs must be made as directed by the City Engineer. All bituminous pavement patches shall be at least fifty (50%) percent thicker than the pavement being patched.

Also, the binder course shall be bump tested by the contractor, and witnessed by the City Engineer, and all areas exceeding one-half inch (1/2") bumps, including header joints and any patch joints, shall receive a leveling course prior to surfacing. Areas of excessive patching will automatically receive a level course prior to surfacing. Prior to any leveling course or surface course, the streets shall be flushed clean and free of all dirt and debris. A bituminous tack coat will be required. Minimum temperature requirements for laying asphalt will be 5 degrees F higher than that allowed by IDOT specifications.

The bituminous concrete surface course shall be placed only upon the written approval of the City Engineer. All asphalt must be laid utilizing good-quality, properly functioning, tracked or wheeled asphalt laying machine, utilizing fully automatic, electronic sensing control from a minimum 15-foot ski. The surface course shall be bump tested by the contractor, and witnessed by the City Engineer. All bump test penalties specified by IDOT specifications shall be quadrupled, and areas that have an excessive amount of one-half inch (1/2") bumps shall be completely removed and replaced, not just the bump itself. Minimum temperature requirements for laying bituminous surface course will be five (5) degrees F higher than that allowed by IDOT specifications. The surface elevation of the asphalt at the concrete gutter shall be 1/4 inch higher than that of the adjacent concrete. All streets shall have a cross slope of 2% from the centerline to the concrete curb.

Areas of segregated binder course and/or surface course shall be removed and replaced at the direction of the City Engineer. Segregated asphalt is the uneven distribution of course and fine materials in the asphalt characterized by pavement textures different from the surrounding material, and can usually be seen by the naked eye.

Pavements constructed from Portland Cement Concrete shall be designed in conformance with American Concrete Pavement Association Publications IS 184P and IS 061P, as amended.

Combination concrete curb and gutter will be required on all roadways. All curb and gutter shall be placed on an aggregate base with a minimum thickness of four inches, but in no case shall the curb and gutter subgrade be higher than one inch below the adjacent roadway subgrade. The height of the gutter flag shall be ten (10") inches, unless directed otherwise by the City Engineer. As noted previously, the roadway subgrade fabric will extend over the curb and gutter subgrade, and beyond by a minimum of twelve (12") inches. The concrete curb and gutter shall be reinforced with two #4 deformed bars, placed three (3") inches from the bottom, spaced twelve (12") inches apart, centered on the total width of the curb and gutter. Machine-placed concrete curb and gutter is to be utilized wherever practical, utilizing a minimum Class X concrete, and a five (5%) percent minimum air-entrainment. Plastizers will be allowed, but chlorides will not. An approved spray-on curing compound with red fugitive coloring shall be applied immediately after finishing, and a sealer, WR Meadows TIAC, or approved equal, shall be applied after seven days. The resident engineer shall be notified of these applications, and proof of purchase, with material specifications, will be required. The concrete curb and gutter shall have the required slip bar expansion joints, and 3/4 inch deep sawed contraction joints will be required every 15-20 feet, within 24 hours after each pour. Minor honeycombing on the two outer, vertical surfaces will be allowed, but they must be patched in an approved manner, and witnessed by the City Engineer, prior to backfilling. The clay backfill behind the curb shall be placed and compacted prior to placing aggregate base course.

Roadway extensions and stubs will be required as part of the development, with full improvements where needed, for future growth. Additional lanes, access improvements, traffic signalization, etc., may be required, at the developer's expense. The developer shall reimburse the City for two of each street name and regulatory signs and posts required, and the City will install them. All signs shall be high-intensity, as approved by the Director of Public Works. All pavement markings shall be thermoplastic. The developer shall reimburse the City for the cost of replacing any signs that are missing, stolen, or damaged prior to final acceptance.

The developer, to comply with these Standard Specifications for Improvements, shall improve existing roadways running through, or adjacent to, the development.

Half-streets are discouraged, but where they are necessary, on advice of the City Engineer, the minimum width street will be twenty-four (24') feet from the edge of pavement to the back of curb, on the development side of the roadway. Street lighting, sidewalk, and landscaping on the development side will be required. Temporary tee turn-arounds will be required on all streets stubbed for future roadway extension, as recommended by the City Engineer, and shown on the Final Plat. Paving for the tee will extend from right-of-way line to right-of-way line, to a length of fifteen (15') feet, and two radii of fifteen (15') feet. The pavement beyond the road edge shall be three (3") inches of bituminous concrete surface course, on a ten- (10") inch CA6 aggregate-compacted base, with pavement fabric. Concrete curb and gutter will not be required around the tee, and sidewalk will not required through the tee. The developer extending the street in the future shall remove the excess paving and base, place topsoil, and seed the area disturbed, construct the additional curbing so that the curb and gutter is continuous and uninterrupted from one development to another, and resurface for a distance of thirty (30') feet, including header joints, as approved by the City Engineer.

When a development includes construction along State and County highways, or other heavily traveled road, the developer shall post advance-warning signs. The developer shall consult with the Yorkville Police Department concerning the types and locations of signs, and shall obtain a permit from the appropriate jurisdictional agency prior to erecting the signage.

The City may require the roadway design to include traffic-calming measures. These measures may include, but not be limited to, curvilinear roadway layout, landscaping beyond the requirements of the Landscape Ordinance, traffic tables, and fog lines.

If a development includes the construction or modifications of traffic signals, the new signals shall be designed to have light-emitting diode (LED) lights. The traffic signal shall also have a battery backup device.

All new roadways shall be designed in accordance with IDOT Circular 95-11, or the most recently adopted IDOT standard for the design of flexible and full-depth bituminous pavements. The following minimum design criteria shall be used when applying the design method:

Design period = 20 years	Class II Roadway
Traffic Factor Equations for 80,000 lb. Vehicles	2.0% traffic growth rate
AC viscosity of AC-20	Subgrade Support Rating of Fair

Local Residential Roadways

Local Residential Roadways are intended to carry an average daily traffic (ADT) volume of less than 1000. The right-of-way width shall be 66 feet. The bituminous concrete surface course shall be a minimum of 1.5 inches in thickness of Class "T" Superpave mixture. The bituminous concrete binder course shall be a minimum of 2.5 inches in thickness. The aggregate stone base shall be 10 inches in thickness of clean, crushed CA-6 gradation gravel or limestone. The roadways shall be bound with B-6.12 combination concrete curb and gutter to a width of thirty feet from back of curb to back of curb (B-B). The street radius for all intersecting streets shall be a minimum of thirty feet to the back of curb. The edge of pavement shall be cleaned and sealed with rubberized asphalt cement hot-poured joint sealer.

Estate Residential Roadways

Estate Residential Roadways are intended to carry an average daily traffic (ADT) volume of less than 1000. The right-of-way width shall be 70 feet. The bituminous concrete surface course shall be a minimum of 1.5 inches in thickness of Class "T" Superpave mixture. The bituminous concrete binder course shall be a minimum of 2.5 inches in thickness. The aggregate stone base shall be ten inches in thickness of clean, crushed CA-6 gradation gravel or limestone. The roadway surface shall be 28 feet wide with two 12.5-foot wide through-lanes. The lane edges shall be striped with a four-inch thermoplastic pavement marking. The roadway up to and including the aggregate stone base shall be 32 feet wide to provide a 2-foot wide aggregate shoulder (nominal thickness of at least 12 inches), and also to allow for future widening. Mailbox turnouts will be paved, using driveway specifications to determine thickness.

Minor Collector Roadways

Minor Collector Roadways are intended to carry 1000-2500 ADT. The right-of-way width shall be 70 feet. The bituminous concrete surface course shall be a minimum of 1.5 inches in thickness of Class "T" Superpave mixture. The bituminous concrete binder course shall be a minimum of 4.5 inches in thickness. The aggregate stone base shall be 12 inches in thickness of clean, crushed CA-6 gradation gravel or limestone. The roadways shall be bound with B-6.12 combination concrete curb and gutter to a width of 34 feet B-B. The street radius for all intersecting streets shall be a minimum of thirty feet to the back of curb. Minor collector roadways may provide direct access to adjacent private lots. The edge of pavement shall be cleaned and sealed with rubberized asphalt cement hot-poured joint sealer.

Collector Roadways and Commercial/Industrial Roadways

Collector Roadways are intended to carry 2500-12,000 ADT. The right-of-way width shall be 80 feet. These design standards shall also apply to all roadways directly serving commercial or industrial zoned areas. The bituminous concrete surface course shall be a minimum of 1.5 inches in thickness of Class "T" Superpave mixture. The bituminous concrete binder course shall be a minimum of 4.5 inches in thickness. The aggregate stone base shall be 12 inches in thickness of clean, crushed CA-6 gradation gravel or limestone. The roadways shall be bound with B-6.12 combination concrete curb and gutter to a width of 39 feet B-B. The street radius for all intersecting streets shall be a minimum of 40 feet to the back of curb. Collector roadways shall not provide direct access to adjacent lots in residential-zoned areas. The edge of pavement shall be cleaned and sealed with rubberized asphalt cement hot-poured joint sealer.

Major Collector Roadways

Major Collector Roadways are intended to carry more than 12,000 ADT. The right-of-way width shall be 100 feet. The bituminous concrete surface course shall be a minimum of 1.5 inches in thickness of Class "T" Superpave mixture. The bituminous concrete binder course shall be a minimum of six inches in thickness (2 lifts required). The aggregate stone base shall be 16 inches in thickness of clean, crushed CA-6 gradation gravel or limestone. The roadways shall be bound with B-7.18 combination concrete curb and gutter to a width of 51 feet (four 12-foot lanes) B-B. The City Engineer may require an additional 12-foot center turn lane, as deemed appropriate. The street radius for all intersecting streets shall be a minimum of 50 feet to the back of curb. The edge of pavement shall be cleaned and sealed with rubberized asphalt cement hot-poured joint sealer.

An alternative bituminous base course may be approved by the City Engineer, and B6-18 or B6-24 combination concrete curb and gutter may be required, based upon specific site drainage needs.

Boulevards

Boulevard-style roadways shall have a minimum width of 28 feet B-B for approaches to intersections. The minimum pavement width in other areas shall be 20 feet B-B.

SIDEWALK

Non-reinforced, concrete sidewalks will be required on both sides of all roadways. They shall be a minimum of four (4') feet wide where four (4') feet wide walks now exist, and five (5') feet wide in all other locations. All sidewalks shall be five (5") inches in thickness. They will be a minimum of six (6") inches in thickness across driveway approaches. All sidewalks shall have an aggregate base of CA 7, with a minimum thickness of two inches (five inches across driveway approaches). All concrete shall be Class X, with a minimum of five (5%) percent air-entrainments. Sidewalks shall slope two (2%) percent towards the street. Approved curing and sealing compounds are required, as specified previously for concrete curb and gutter. The back of the sidewalk shall be placed twelve (12") inches from the right-of-way line, unless directed otherwise. The sidewalk shall have a light broom finish. Formed contraction joints are required, at a spacing of five (5') feet. Expansion joint material, one-half inch in thickness, and full-depth, shall be placed every 100 feet. The subgrade for the sidewalk shall be uniform, neat, and compacted to a minimum 90% modified proctor.

Spalling or chips will not be allowed to be patched. All such areas will be removed from contraction joint to contraction joint, and replaced. All sidewalks will be in place prior to acceptance of the public improvements by the City, which includes in front of vacant lots. These areas must be protected during future construction.

No sidewalks are required in Estate-residential subdivisions. However, in the event sidewalks are not provided, a paved trail that abuts every lot must be provided, that meets the City's standards, specifically a ten (10') foot width, with an exit and entrance identification, consisting of two (2'') inches of asphalt on eight (8'') inches of CA6 aggregate. Dedicated easements at least fifteen (15') feet wide must be provided for the trail.

DRIVE APPROACHES

Drive approaches must be constructed to one of the following:

1. Six inches, minimum of Class X concrete, with a minimum of five (5%) percent air-entrainment, over six inches minimum CA6 aggregate base over a 90% modified proctor compacted subgrade, with curing and sealing treatments, as specified above, under concrete curb and gutter. Expansion joint material, one-half (1/2'') thick and full-depth, shall be installed at the curb and at the sidewalk.
2. Two inches, minimum of Class I bituminous concrete surface course, over a minimum base of eight (8'') inches of CA6 aggregate over a 90% modified proctor compacted subgrade. The concrete sidewalk will be constructed through the drive approach, and any construction damage to the concrete sidewalk or curb will cause removal and replacement of those improvements. Drive approaches will not be constructed steeper than eight (8%) percent.
3. In Estate-residential subdivisions, all driveways must be paved with brick, asphalt, or concrete, and must have a concrete culvert with flared end sections. Culvert diameter shall be twelve (12'') inches or greater, as required by the City.

PARKWAYS AND PARK SITES

All parkways, park sites, and other open spaces shall be landscaped and designed in accordance with the City of Yorkville's Landscape Ordinance and the Park Development Standards, as amended from time to time.

Any existing trees within a development deemed by the Parks Department and Public Works Department to be dead, dying, or of an undesirable species shall be removed by the developer. The developer shall not remove or cut down any trees without the prior consent of the Parks Department and Public Works Department, or as indicated in the approved landscape plan.

STREET LIGHTING SYSTEM

All streets shall have a complete street lighting system designed by a professional engineer. A street light will be required at all intersections, all curves, at all ends of cul-de-sacs, and at a maximum spacing of 300 feet. In Estate-residential subdivisions, street lights shall be required at intersections, and at a maximum spacing of 500 feet, with lights also placed at curves and at the end of dead-end streets. The poles shall be concrete with butt-type foundations. The City Engineer may require a streetlight to be placed at other points, as may be necessary in the public interest in unusual or special conditions. They shall be located at side lot lines, and on the opposite side of the street from the water main, wherever possible, and shall be set two feet from back of curb to face of pole. Occupancy permits cannot be issued until all streetlights in that phase of the development are installed, complete, and operational.

All exterior lighting of private property in new developments shall be designed, located, and mounted at heights no greater than twenty (20') feet above grade for non-cutoff lights, and forty- (40') feet above grade for cutoff lights. The lighting plan, photometrics, and shop drawings for lighting equipment shall be submitted prior to issuance of a building permit. Glare shall be minimized to the extent practical by orienting lights away from the public right-of-way and abutting properties, or by planting vegetation to provide screening. Exterior lighting shall be designed, located, and mounted so that the maximum illumination measured horizontally at the lot line does not exceed one (1') foot-candle.

Light Distribution: Luminaries of the Type II distribution as approved by the Illuminating Engineering Society (herein termed IES) shall be used, except at intersections where Type II or Type IV IES distribution shall be used. The City Engineer may designate the IES Type V distribution luminaries be used in the public interest under unusual or special conditions.

Individual Control: On individual control of lights, the photoelectric control shall be mounted on top of the luminaire.

Line Drop: Voltage drop shall be no greater than three (3%) percent from power supply to the last pole, with no wire size smaller than No. Six (6) Type RHH or RHW Underground Service Cable (USC). All streetlights shall operate at 120 volts, except for those on major streets.

Power Supply Location: Connection to the power supply shall be made to comply with Commonwealth Edison Company rules and regulations, as amended from time to time.

Conduit: All driveways, street, and sidewalk crossovers shall have two (2") inches of HD PVC conduit, used as raceways for underground cable.

Underground Cable: All underground cable shall be direct-buried cable, placed at a depth at least thirty- (30") inches below the normal finished grade. Three cables (Black, White, Green) shall be run from the pole to the power supply. Any underground cable broken more than once prior to Final Acceptance shall be replaced from the power source to the pole or from pole to pole.

Splices: All cable on the underground cable section shall be continuous, and no splicing shall be made underground. All necessary splices shall be made above ground level.

Underground Cable Location: Underground cable shall be installed in a trench not less than two feet from the back of the curb, except that in no case shall the underground cable be installed under the sidewalk.

Grounding: A copper-clad ground rod shall be placed at each pole. The rod shall be minimum 5/8-inch diameter, and ten (10') feet long.

Fusing: All underground feeders shall be fused at or below their rated capacity. Each standard shall contain in-line fuse holders, with proper fusing in series with each underground conductor to protect the luminaire located on that pole.

Maintenance Prior to Acceptance: Once streetlights are operational, the Yorkville Public Works Department shall perform normal maintenance, even though the Yorkville City Council has not accepted the streetlight system. Normal maintenance consists of investigating the cause of an outage, and repairing it if the cause is a burned out lamp, fuse, or photocell. All other repairs shall be referred to the developer. The cost of performing normal maintenance prior to acceptance by the Yorkville City Council shall be paid from a "Streetlight Normal Maintenance" deposit established by the developer prior to recording the Final Plat. The deposit shall be \$300.00 per pole, or other such amount, as may be determined by the Yorkville City Council, from time to time. If the deposit proves insufficient, the developer shall replenish the deposit within thirty- (30) days of written request by the City Engineer. The Yorkville City Council shall return any unused funds to the developer upon acceptance of the streetlight system.

Streetlight Standard and Bracket: Local streets shall use 906 B19-AD4, American Concrete Company pole and bracket, or approved equal. Luminaire shall be mounted 19'9" above the street, shall have a four-(4') foot arm. The pole shall be buried a minimum of five (5') feet below grade and backfilled with crushed CA6 limestone, watered, and compacted around the butt of the pole. The bracket is to be furnished with the pole.

The luminaire shall be a General Electric Company No. M2RR15S1N2AMS3F, or approved equal with the 1-1/4" side mount built-in ballast. The luminaries shall be fitted with General Electric Company "Lucalox" high-pressure sodium lamps LU 150/55/D, or approved equal, with GE Company ANSI specification "S55" high-pressure sodium ballasts (or approved equal) or American Electric 115 15-S-RN-120-R2-DA-4B.

Major Collector Streets: The lighting pole shall be Stress Crete E340-BPO-G, with Style 210 low rise tapered aluminum davit, or approved equals. The davit outreach length shall be eight (8') feet. The luminaire shall be mounted thirty- (30') feet above the street. The pole shall have an embedment depth of five (5') feet, and be backfilled with CA 6 limestone.

The streetlight system shall be operated through controller(s) in ground-mounted cabinets. The controller and luminaire shall operate at 240 volts. The controller shall be housed in a pad-mounted Type NEMA 3R enclosure. The exterior of the cabinet shall have a bronze tone powder-coat finish. The approximate dimensions of the cabinet shall be 42"H x 36"W x 12"D. A Com Ed meter socket shall be provided on the exterior of the cabinet.

The manufacturer or distributor shall guarantee streetlight standards, luminaries, ballast, lamps, and cables for their proper use, for one year, from the date of acceptance.

Testing: The subdivider shall manually trigger the photocell in order to have each street light burn continuously for at least 48 hours. During this burn test, amperage readings shall be taken, and must be within ten (10%) percent of the connected load, based on equipment ratings.

Parking Lot Lighting: Parking lots in areas zoned Business, Residential, or Office-Research, shall be provided with lighting necessary to achieve a minimum average of 2.0 foot-candles, as measured across the entire parking lot, and a maximum of 1.0 foot-candles, as measured at the adjoining property lines. Parking lots in areas zoned Manufacturing shall have a minimum average lighting intensity of one foot-candles, per square foot. Lighting shall be designed to avoid casting direct light or glare onto adjacent residential property.

STORM SEWER SYSTEM

A complete storm sewer system shall be required, consisting of closed conduits to an approved storm water storage system. All storm sewers within the public right-of-way and easements parallel to and adjacent to public right-of-way shall be reinforced concrete pipe (RCP), with a twelve (12") inch minimum diameter. Storm sewers in rear yards and side yards may be high-density polyethylene (H.D.P.E.) of a manufacturer and design, to be approved by the City of Yorkville. All roadways will have a system of inlets/catch basins, tied directly to the storm sewer. These storm water collection locations will be on both sides of the street, with a maximum longitudinal flow interval of 300 feet. All such collection points will be an inlet except the last structure before entering a storm sewer main shall be a catch basin with a two-foot sump. Catch basins or open-lid structures shall not be located over the sewer main. All backfill is to be a CA7 aggregate. All storm sewer roadway crossings from structure to structure must be backfilled with CA7 aggregate and completely encapsulated in an approved drainage fabric. In this manner, the curb subgrade, the storm crossings, and the inlets and catch basins create a roadway underdrain system for longer roadway life.

The City may require that storm sewers be constructed along the centerline of individual roadways at certain locations. Those locations shall normally be limited to within 100 feet of the lowest sag vertical curve of a roadway. Where these locations occur within a horizontal curve of the roadway, storm manholes shall be placed at the centerline of individual roadways.

If subgrade conditions are excessively sensitive to moisture or other special conditions, a capped, perforated, plastic underdrain may be required under the curb and gutter. All storm water conduits 12" diameter and larger shall be internally televised in color just prior to City acceptance, and shall be free of defects, sags, dirt, and debris. All non-RCP storm sewers shall also be mandrel tested (similar to sanitary sewer testing) just prior to City acceptance. All parking lots shall be drained internally, and directed by pipe to the storm sewer. Storm sewers shall extend to the limits of the development with proper sizing, as approved by the City Engineer, based upon current and future runoff conditions, to pick up and safely carry through the development any and all upstream bypass flows.

All new homes with basements or crawl spaces shall have a direct, underground conduit to the storm sewer system. Fill-in lots in areas with no storm sewer within 500 feet shall not be required to have this direct connection. Minimum depth of cover for these lines shall be 30 inches. All discharges shall have an approved automatic diverter valve immediately outside the house and a check valve inside the house. Multiple collection lines of four inch and six inch HD PVC will be allowed by an approved design. Terminal and junction points shall be at two-foot diameter precast concrete inlets with open-lid castings. The pipe from the house shall be a 2" minimum HD PVC with cemented joints. The connection to the storm sewer shall be through a neat, tight fitting, bored hole into the concrete pipe. After insertion of the sump pump discharge pipe into the concrete storm sewer pipe, the joint shall be sealed with hydraulic cement. In no case shall the sump pump discharge pipe extend beyond the inner surface of the concrete storm sewer pipe. Connections, however, shall be into a structure wherever practical.

Individual storm sewer services shall not be required in areas of the development where soil and ground water conditions indicate that sump pumps would run very infrequently. If the developer does not wish to install storm sewer services, he shall perform soil borings at regular intervals (300' to 400' grid typical) during the Final Plan preparation stage, to determine soil types and ground water elevations. Boring locations are subject to approval by the City. Each boring shall extend at least 20 feet below existing ground elevations and be referenced to the development benchmarks. If the boring logs show granular soil and also show ground water elevations at least five (5') feet below planned basement floor elevations, then individual storm sewer services shall not be required in that area of the development. During excavation of every basement in that area, the developer shall verify (with City representative present) that the granular soil and deep ground water conditions exist. If either condition is found not to exist at a building location, the developer shall construct a storm sewer service to that building, in conformance with these Standard Specifications.

The design of the storm water collection system shall be for a ten (10) year storm, running just full. The only exception to this is where the receiving storm water system has less capacity and here the new system of conduits shall be designed for a five (5) year event, running just full. The minimum velocity shall be 2.5 fps and the maximum shall be 8 fps. The storm sewer pipe shall have a minimum cover of three (3') feet. Storm sewer manholes shall be five (5') feet internal diameter, constructed of reinforced concrete, and shall be placed at a maximum spacing of 500 feet. Storm sewer manholes may be four (4') feet internal diameter when the largest sewer entering/leaving the manhole is 18" diameter, and the orientation of sewers connecting to the manhole is such that there is at least 12" of precast wall between the openings provided for sewers. The use of adjusting rings is limited in height to eight (8") inches. Inlet and/or catch basin frames and grates shall be Neenah No. 3015, East Jordan No. 7010, or approved equal. Whenever possible, castings for curb drains shall have a fish logo to discourage dumping of oils, pesticides, and other inappropriate items into the storm sewer system.

Where a continuous grade is carried across an inlet or catch basin casting, the open-vented cover shall be used, Neenah No. R-32868V, East Jordan No. EV-7520, or approved equal. All manhole castings shall be Neenah No. R-1030, East Jordan No. 105123, and Type B cover, or approved equal. All type B covers shall have "City of Yorkville" and "Storm" cast into the top, and shall be concealed pickhole type. All sections of the manholes shall be completely sealed and butyl rope, including the casting. Manholes shall not be allowed in the pavement, curb, gutter, or sidewalk. All flared end sections 15" or larger shall have grates.

In Estate residential developments, a ditch shall be required on both sides of the street, and shall have a minimum profile slope of one (1%) percent (side slope 4:1 on the street side, and 3:1 on the lot side).

For developments ten acres in size or larger, the developer may use computer-based methods to determine stormwater storage volumes. The specific method and parameters used in employing the method shall be subject to the approval of the City Engineer.

For developments less than ten acres in size, the storm water storage system shall be designed utilizing a Modified Rational Method, as described below:

1. $Q = (C_m) iA$, where a run-off co-efficient or C_a is calculated for the site based upon actual proposed surface coverage. C_m then equals 1.25 times C_a .
2. The following run-off co-efficient shall be utilized as minimums:

<u>Surface</u>	<u>C</u>
Grass	.50
Asphalt/Concrete	.98
Roof	1.00
Detention	1.00

3. The maximum release at the designated 100-year level is 0.15 cfs/acre. The City Engineer shall reduce this allowable release rate where the downstream accepting system is experiencing drainage problems such as the Elizabeth Street swale where all receiving discharges are limited to 0.10 cfs/acre. The outlet structure design shall address the two-year (0.04 cfs/acre) and the 25-year (0.08 cfs/acre) storm control, in addition to the 100-year event.
4. When depressional compensatory storage is provided by increasing the volume of a stormwater detention basin, the maximum allowable release rates of the basin shall be reduced, as directed by the City of Yorkville to approximate the pre-development release of the depressional area, and realize the full storage potential of the enlarged basin.
5. The minimum size restrictor shall be a four-inch by twelve-inch long HD PVC pipe. The design must be designed for easy maintenance and cleaning during a storm event. The discharge shall be directly to a downstream storm sewer if one is available within a reasonable distance. If not, the discharge will be to the surface, with approved energy dissipation and downstream erosion protection.
6. The rainfall intensities to be utilized are those established by the Illinois State Water Survey's Bulletin #70, as amended for the specific City of Yorkville area. In designating the required storm water storage volumes, the maximum value calculated using the various events should be utilized. See Figure 3 for a sample calculation.
7. The storm water storage areas must have containment for twelve inches of additional storm water storage, with an approved calculated overflow area at six inches above calculated 100-year elevation. This overflow shall have an erosion concrete curtain wall, with a minimum thickness of 8 inches, a minimum depth of three feet below grade, and a length to extend a minimum of four feet beyond the limits of the overflow on either end. This wall is not to be formed, but is to be trenched or excavated into natural soil, or into the compacted fill, and is to be finished flush to the ground.
8. Storm water storage areas shall be covered by an easement, including access thereto, such that should the owner not maintain said area as necessary, the City can cause such corrections and bill the owner, including any and all administrative costs.

9. The engineering plans shall have a full sheet dedicated to the soil erosion and sedimentation control requirements for the development, including silt fencing, straw bales, drainage fabric, etc. Failure to properly maintain this system may result in major storm sewer cleaning within the site and in the offset storm system. The City reserves the right to place a hold on all building permits and inspections if the soil erosion and sedimentation control plan is not properly maintained. Keeping the streets clean is part of this plan, and failure to do so will result in these actions. The developer shall establish a Street Cleaning deposit with the City of Yorkville, in the amount of \$5000.00. If the streets are not cleaned within 48 hours of a written request by the Director of Public Works, the City shall have the streets cleaned, and subtract that cost from the deposit. The developer shall replenish the deposit to the full amount if it falls to less than \$1000.00. The Yorkville City Council shall return any unused portion of the deposit to the developer upon acceptance of the streets.
10. The developer shall establish basins onsite where concrete ready-mix trucks must wash out after delivering their load. Signs shall be posted at each entrance to the development to warn truck drivers of the requirement to wash out at specific sites, and notify them of the fine for non-compliance (up to \$100.00 for each offense). Each entrance sign shall include a simplified map of the development, to show the locations of the washout basins in the development. A sign shall also be posted at each washout basin, to identify the site. The developer shall maintain all signs, basins, and appurtenances in good condition until the City accepts the public improvements.

Washout basins shall be located outside of the public right-of-way, parks, and all public utility easements. They shall be located in relatively low-traffic areas, and be at least fifty- (50') feet from storm drains, open drainage facilities, and watercourses, unless approved otherwise by the City Engineer. Basins shall have a minimum twelve (12") inch thick CA-3 aggregate approach of sufficient width over a woven geotextile fabric, to reduce tracking of mud onto roadways. The washout area shall be contained by an earthen berm, and be at least ten (10') wide by ten (10') long. The maximum depth of a washout basin shall be three feet. When the volume of a washout basin is 75% full, the developer shall remove the hardened concrete and transport it to a legal landfill. Burying waste concrete onsite shall not be permitted.

The developer shall incorporate the items necessary to comply with this requirement, as well as provisions for maintenance, onto the erosion and sediment control plan sheet. All signage, washout basins, and appurtenances shall be in place before the first building permit is issued.

11. The engineering plans shall have one or more full sheets dedicated to the Final Grading of the entire site. The minimum grade for all grass areas shall be two (2%) percent, except that swale areas may be at one (1%) percent if it is over an approved, piped underdrain. Slopes shall be shown with arrows at all locations from all break points. A grading plan on an 8-1/2" x 11" paper for the actual building must be submitted for each building permit submitted, and will become a part of the building permit. All top of foundation elevations will be a minimum of two (2') feet, and a maximum of three (3') feet above the street centerline elevation, measured at the center of the lot in question, unless the City Engineer directs otherwise, based on site-specific conditions. Drives must be at a minimum slope of two (2%) percent, and maximum slope of eight (8%) percent towards the curb flow line from the garage. When the forms for the foundation are ready to pour, a top of foundation elevation and location certification of a registered surveyor or engineer, as approved by the building inspector, is required prior to pouring the concrete into the forms. The tolerance here is 0.15 feet lower and 0.5 feet higher, and behind all applicable setback and easement lines.

12. Requests for an occupancy permit must include an as-built grading plan, signed and sealed by a registered land surveyor, showing the original, approved grades and slopes, along with the actual grades, just prior to the occupancy permit request. The actual grades must fall within a tolerance of 0.15 feet in order to receive an occupancy permit. Top soiling and seeding or sodding, if applicable, must be in place prior to the final grading plan. All City-incurred costs of reviewing these grading plans shall be the responsibility of the developer. Note that specific building codes, ordinances, and permitting procedures, which may be established by the United City of Yorkville, shall supersede these requirements.
13. General grading and landscaping of the storm water areas shall be designated according to the Park Development Standards, Landscape Ordinance, and these Standard Specifications. The City may require that storm water detention and retention facilities, as well as grading, landscaping, and stormwater collection systems, incorporate currently acknowledged Best Management Practices to improve storm water quality. These may include, but are not limited to, naturalized detention basins, bio-swales, low impact design standards, perforated storm sewer, designs that reduce the degree of connected impervious areas, designs that encourage infiltration of stormwater, etc.

Wet ponds shall have a maximum allowable depth of two feet between the normal water level and the high water level corresponding to the Ten-Year Frequency Storm. The City may require wetland-type plantings and appropriate grading around the perimeter of wet ponds.

The developer shall provide a soil report, prepared by a licensed professional engineer, to determine whether or not lake lining will be required. Vertical or nearly vertical edge treatment will require an approved method, allowing a child to easily climb out of the water.

Storm sewers discharging to a stormwater basin shall be designed such that the sewer invert at the discharge point is no lower than 6" below the normal water level of the basin, and the top of sewer is no lower than the ten-year high water level of the basin.

14. Storm water storage basins shall operate independently of any watercourse or water body receiving the discharge from the basins. Bypass flows from upstream areas should bypass the storm water storage facility, where practical. The entire development shall be examined under the premise that all storm sewers are blocked and full when a 100-year event occurs, and the development can pass these flows without flooding homes. All overflows are to be contained within the right-of-way, or where absolutely necessary, through special drainage easements. All buildings shall have the lowest water entry a minimum of 18 inches above the elevations determined for this bypass situation.
15. Storm water detention shall not be required under the conditions listed below. The City reserves the right to require detention on any parcel of land if special circumstances exist, and to require that sewer be constructed as necessary, to carry away the storm water.
 - a) Proposed development or re-development of the existing lots zoned single-family detached, or duplex residential, less than 2.5 acres in gross area.
 - b) Proposed development or re-development of existing lots zoned other than single-family detached or duplex residential, that are less than 1.25 acres in gross area.

WATER SYSTEM

1. All water mains shall be Class 52 ductile iron pipe, conforming to the latest specification requirements of ANSI A21.5.1. Mains shall be cement lined, in accordance with ANSI A21.4. Fittings shall conform to ANSI 21.10. Gate valves shall be resilient wedge type, conforming to the latest revised requirements of AWWA specification C509. All water mains are to be polyethylene wrapped. Main line valves 10" diameter and larger are to be installed in a vault. Smaller main-line valves shall either be installed in a vault, or have a Trench Adapter valve box, similar to those used at fire hydrants. No vaults or valve boxes shall be in the pavement or sidewalk.
2. Water services up to 3" diameter shall be type "K" copper, conforming to the latest revised specification requirement of ASTM B88. Minimum size for residential units shall be one inch in diameter. Corporation stops shall be McDonald No. 4701, Mueller H-15000, or Ford F-600. Curb stops shall be McDonald No. 6104, Mueller H-15154, or Ford B22-333m, with Minneapolis pattern B-boxes, similar to McDonald N.5614 or Mueller H-10300.
3. Minneapolis type B-boxes shall be installed in the right-of-way, but not in the sidewalk or driveway.
4. Fire hydrants shall be one of the following:
 1. Clow F-2545 (Medallion)
 2. Mueller A-423 Super Centurian
 3. Waterous WB-67-250

Hydrants shall have a 5-1/4" main valve assembly, one 4-1/2" pumper nozzle, and two 2-1/2" hose nozzles, with national standard threads, a national standard operating nut, and above ground break flange. The installation of the hydrant shall conform to AWWA 600 standards. Auxiliary valve boxes shall either be Trench Adapter Model Six by American Flow Control, Clow F-2546 with F-2493 cover, or approved equal. For valve boxes other than those by American Flow Control, the box shall be attached to the hydrant barrel with grip arms, as manufactured by BLR Enterprises, or approved equal.

5. Inspections and Installation: All water mains shall be designed and installed in accordance with the Standard Specifications for Water Mains in Illinois. Upon completion, water mains shall be subjected to hydrostatic pressure test of 150-psi average for up to 4 hours. Allowable recovery shall conform to the Standard Specifications for Water & Sewer Main Construction in Illinois. The water operator in charge or person authorized by the water operator in charge shall be present during all testing. The developer shall use the pressure gauge supplied by the City for the test.
6. New water main shall be disinfected in accordance with AWWA standard C601. Water will be tested to assure that 50 mg/l of CL2 is in disinfected water. Sampling shall be taken by water operator in charge or persons authorized by the water in charge. Water must pass two consecutive days of sampling tests by a state approved lab.
7. Water mains shall be minimum eight inches internal diameter, with a cover of five feet, six inches below finished grade. Watermain stubs to hydrants shall be at least six inches internal diameter. City water mains and hydrants shall be placed of the North and West sides of the streets, unless approved otherwise the City Engineer. Valves shall be installed each second consecutive hydrant, at intersecting lines, and other locations as required, such that a minimum number of services will be affected during a main isolation.

Fire hydrants shall be installed throughout the subdivision at each intersection and at intervals not exceeding the requirements of two fire hydrants serving any point of any building, or 300 feet along the roadway, whichever is more stringent. Special conditions may dictate a closer spacing, as approved. Fire hydrants shall be located on the property line, except at corners, and shall be set two feet minimum and three feet maximum from the curb back to the face of the pumper nozzle. Where there is no curb and gutter, the face of the pumper nozzle shall be between 18 inches to 20 inches above finished grade line (sidewalk to curb).

Base elbow of hydrant shall be properly thrust blocked, and shall be provided with clean, washed CA7 aggregate and polyethylene covering. All hydrants and any adjustment fittings shall receive one field coat of red paint, as recommended by the manufacturer, prior to final acceptance.

8. All tees, bends, fire hydrants, and valves shall be adequately blocked with pre-cast blocks and poured in place thrust blocking against undisturbed earth.
9. Services shall be equipped with corporation stop, curb stop, and buffalo box. The buffalo box shall be set in the parkway, on the centerline of the property, approximately centered between the back of sidewalk and the adjacent right-of-way line. Service trenches beneath or within two feet of proposed driveways, sidewalks, or other pavements shall be backfilled full-depth with aggregate. Except as permitted below, the underground water service pipe and the building drain, or building sewer, shall be not less than ten feet apart horizontally, and shall be separated by undisturbed or compacted earth. The water service pipe may be placed in the same trench with the building drain and building sewer if the conditions listed below are met:
 - A. Local conditions prevent a lateral separation of ten feet;
 - B. The bottom of the water service pipe at all points shall be at least 18 inches above the top of the sewer line at its highest point. All water and sewer services must be inspected and approved by the building inspector prior to backfilling.
 - C. The water service pipe shall be placed on a solid shelf, excavated at one side of the common trench, and shall have no joints from the buffalo box to the water meter inside the house; and
 - D. The material and joints of sewer and water service pipe shall be installed in such a manner, and shall possess the necessary strength and durability to prevent the escape of solids, liquids, and gasses there from under all known adverse conditions, such as corrosion, strains due to temperature changes, settlement, vibrations, and superimposed loads.
10. Depth of bury shall be 5'6" below finish grade. No joints will be allowed between the corporation stop and the curb stop.
11. All watermain shall be looped and double fed, and shall be extended to the far limits of the development, and in size appropriate for future development, as directed by the City Engineer. Recapture and over-sizing may be applicable.
12. The developer shall reimburse the City of Yorkville for the cost of water to fill and test new watermains, and also for the cost of laboratory tests after chlorination. The water cost shall be at the bulk rate charged by the City of Yorkville at that time. The volume of water shall be calculated as the volume of two and one-half times the lengths and diameters of new watermains.
13. Watermain proposed to cross existing city streets shall be constructed by directional boring. Open-cut construction shall not be allowed without consent from the Public Works Director.
14. Connections to existing watermains shall employ line stops to minimize the disruption of service to existing residents.

SANITARY SEWER SYSTEM

A complete sanitary sewer system is required for all new development. The minimum internal size of sanitary sewer main shall be eight inches in diameter. The top of the sewer main shall be a minimum of three feet lower than the lowest floor elevation at all service connection locations, but not less than eight feet below finished grade, wherever possible. Should the sewers serving a particular development not be deep enough to serve the basement, as noted above, then overhead plumbing will be required. However, all levels of the building must be served by gravity, with only the below-grade levels being served by a pump unit. The City Engineer may require that certain buildings not have subgrade levels due to special situations.

The sanitary sewer shall be extended to the development's far extremes, as directed by the City Engineer, for proper and orderly growth. The city Engineer will also direct the sizing and grades for the sewer, so as to fit the overall plan for the City. The City strongly discourages the use of lift stations, but if the City Engineer approves the use of a public lift station, the following shall be required as a minimum:

- A. The pumps shall be submersible, with a back up pump and well-designed wet well.
- B. The station building shall be a brick structure with conventional-pitched roofing and paved access. The building shall comply with all International Building Code regulations, and shall be heated and ventilated. The subdivider shall follow normal building permit procedures, and pay the normal fees for construction of the lift station building.
- C. The unit will be equipped with a back-up power source, utilizing natural gas as a fuel, and can operate on manual or fully automatic mode, complete with a variable exercise mode.
- D. The motor control center shall have a solid-state duplex logic. Sewage level in the wet well shall be measured with a pressure transducer. A dial-out alarm system matching that currently in use in the City shall be provided.
- E. The City Engineer must approve any and all lift stations, and may require other improvements.
- F. There shall be good-quality noise control, and all electronic components shall be explosion-proof.
- G. Force mains shall be sized to carry the initial, intermediate, and ultimate flow rates from the tributary area, at a velocity of between 3.0 and 6.0 feet per second. Material shall be watermain quality Ductile Iron with polyethylene encasement. Gate valves in vaults shall be constructed in the force main at intervals not exceeding 600 feet, to allow quick isolation in the event of a leak. Blow-off valves in vaults shall be constructed at high points in the force main, and shall discharge to sanitary sewers, where possible. Force mains shall be tested at 150-psi for two hours, similar to watermain testing.
- H. The sub-divider shall maintain an inventory of each size and type fuse, relay, and other plug-in type devices used in the lift station motor control center, as recommended by the manufacturer. These items shall be housed in a wall mounted metal cabinet. The subdivider shall also supply a heavy-duty free standing metal shelf with not less than square feet of shelf space, and one (1) fire extinguisher rated for Type A, B, and C fires.
- I. The sub-divider shall provide start-up training to the Public Works Department personnel, and shall provide three sets of Operations and Maintenance Manuals for all equipment at the lift station.
- J. Underground conduit shall be heavy-wall PVC.

- K. The exterior of the wet well shall be waterproofed. The City may require the wet well to have a minimum internal diameter of up to eight feet.

Sewer construction cannot start until the Illinois Environmental Pollution Agency (IEPA) has notified the City Engineer that approvals have been secured. Sanitary sewer pipe shall be PVC plastic pipe, with a minimum SDR 26. All pipe and fittings shall be pressure rated in accordance with ASTM D-2241 and ASTM D-3139 (per AWWA C-900) for sizes 6-15 inches. Solvent joints are not permitted.

All public sanitary sewers will be air and mandrel tested (7-point minimum) by the developer, at his expense, under the supervision of the City Engineer. One copy of the report shall be forwarded to the Yorkville-Bristol Sanitary District, and one report shall be forwarded to the City Engineer.

All testing will be done in conformance with the "Standard Specifications For Water and Sewer Main Construction in Illinois", current edition.

All public sanitary sewers shall be internally televised in color and recorded on videotape and written log by the developer, at his expense, under the supervision of the City Engineer, to ensure that the sewers are straight, unbroken, tight, and flawless. There must be good-quality lighting for a sharp and clear image of all sewer segments. Poor quality images will result in re-televising the system, at the developer's expense. The videotape must clearly mark the segment being televised through manhole numbering, and the image must clearly identify the footage as it progresses through the pipe. One copy of the complete videotapes and written log shall be forwarded to the Yorkville-Bristol Sanitary District, and one complete set shall be forwarded to the City Engineer.

All manholes will be required to be internally vacuum tested by the developer, at his expense, under the supervision of the Engineer. This test will check the integrity of the complete structure, from the invert to the casting, including all adjusting rings. One copy of the test results shall be forwarded to the Yorkville-Bristol Sanitary District, and one copy shall be forwarded to the City Engineer. Vacuum testing of each manhole shall be carried out immediately after assembly backfilling, and rough grading, and shall be witnessed and approved by the City Engineer. All lift holes shall be plugged with an approved non-shrinking grout. No grout will be placed in the horizontal joints before testing. All pipes entering the manhole shall be plugged, taking care to securely brace the plugs from being drawn into the manhole. The test head shall be placed at the inside of the top of the casting and the seal inflated in accordance with the manufacturer's recommendations. A vacuum of ten inches of mercury shall be drawn and the vacuum pump shut off. With the valve closed, the time shall be measured for the vacuum to drop to nine inches. The manhole shall pass if the time is greater than 60 seconds for a 48-inch diameter manhole, 75 seconds for a 60-inch manhole, and 90 seconds for a 72-inch manhole. All manhole castings shall be Neenah No. R-1030 frame, East Jordan No. 105123, and Type B cover, or approved equal.

If the manhole fails the initial test, necessary repairs shall be made with a non-shrink grout, while the vacuum is still being drawn. Retesting shall proceed until a satisfactory test result is obtained. If the rim of a sanitary manhole needs to be reset or adjusted after successful vacuum testing, but before the expiration of the one-year warranty period, it shall be sealed and adjusted properly in the presence of the City Engineer. Failure to do so will require the manhole to be vacuum tested again.

All manhole frames shall be Neenah No. R-1030, East Jordan No., 105123, or approved equal, with Type B covers. All Type B covers shall have "City of Yorkville" and "Sanitary" cast into the lid, and shall have concealed pick holes with a machined surface and watertight rubber gasket seals. All manhole segments, including the frame and adjusting rings, shall be set with butyl rope joint sealant. Manholes shall be minimum four-foot diameter, and shall not be located in pavement, curb, gutter, or sidewalk.

All sanitary sewer manholes shall be provided with approved cast in place rubber boots (flexible manhole sleeve), having a nominal wall thickness of 3/16" with a ribbed concrete configuration and with stainless steel binding straps, properly sized and installed for all conduits.

All manholes shall be reinforced precast concrete, and shall be located at intersections and spaced at a maximum interval of 300 feet, except that a closer spacing may be required for special conditions. The maximum allowable amount of adjusting rings shall be eight inches in height using as few rings as possible. All manholes shall be marked at the time of construction with a four-inch by four-inch hardwood post neatly installed vertically and with a minimum three-foot bury and a minimum four-foot exposed. The top one-foot of the post shall be neatly painted white.

Wells and septic systems are allowed in Estate-residential developments that are not within 250 feet of water and/or sewer service. When each lot is within 250 feet of water and/or service, that lot may maintain their septic and/or well only until failure of the septic or well. At that time the lot must, if within 250 feet of the sewer and/or water line hook-up to the sewer and/or water, as the case may be, connect to the City utilities at the lot owner's sole expense. After connection to the City Sanitary Sewer System, individual septic fields shall be abandoned by pumping out the tank, knocking in the cover, and filling with dirt or stone in accordance with Health Department regulations.

TRAFFIC STUDY

A traffic study may be required, and shall include:

1. Levels of service for existing conditions;
2. Levels of service for post-construction conditions;
3. All calculations shall be conducted according to the "Highway Capacity Manual";
4. Recommendations as to additional/limited access, additional lanes, signalization, etc.

If the City of Yorkville requires a traffic study for a development, that study will be contracted for by the City, and paid for by the developer. The developer shall establish a Traffic Study deposit with the City of Yorkville, in an amount to be determined by the City Engineer. The City shall return any unused portion of the deposit to the developer upon approval of a Final Plat or Site Plan.

If the land use plan of the development changes during the approval process, the developer may be required to make additional deposits to fund re-analysis and revisions to the Traffic Study.

The need or requirement for a traffic impact study shall be determined during the concept or preliminary planning stage of the proposed development. The developer/subdivider shall meet with City of Yorkville officials during one of these stages for the purpose of determining the traffic study requirements. When the City of Yorkville requires that a traffic study be prepared based upon the above, the study shall include, but not be limited to, addressing the following issues:

INTRODUCTION: A general description of the proposed development, including its size, location, the political jurisdiction in which the site is located, the boundary limits of the study area, and any other information needed to aid in the review of the development's traffic impacts.

PROJECT DESCRIPTION: A description of the existing and proposed land uses of the development. If alternative land uses are being proposed, the highest trip generation uses shall be assigned for each land use.

SITE ACCESSIBILITY: A clear and concise description of the proposed ingress/egress points to the proposed development, including a sight distance analysis.

EXISTING EXTERNAL ROADWAY NETWORK: A description of the existing external roadway networking the vicinity of the proposed development, to include functional classification, primary traffic control devices, signalized intersections, roadway configurations, geometric features (curves and grades), lane usage, parking regulations, street lighting, driveways servicing sites across from or adjacent to the site, and right-of-way data. The area of influence shall be determined by the traffic generated from the site, the trip distribution of traffic, and the trip assignment of the traffic generated by the development over the surrounding area road network.

EXISTING AM, PM, & TOTAL DAILY TRAFFIC VOLUMES: Existing AM, PM, and total daily traffic volumes for access driveways (if existing), intersections, and the roadway network in the site vicinity shall be determined and displayed on a graphic(s) in the final report. To determine AM and PM existing traffic volumes, machine counts and/or manual counts shall be conducted during a three-hour period of the morning, between approximately 6:00 AM to 9:00 AM of an average or typical weekday, and also between approximately 3:00 PM to 6:00 PM, on an average or typical weekday. Peak hour counts may be required on Saturday and/or Sunday, depending on the proposed land use. All AM and PM peak hour counts shall be recorded and summarized in fifteen-minute increments, and be included in the Appendix of the final report. Manual counts shall include vehicle classifications, i.e. passenger cars, single-unit, multi-unit trucks and buses. Traffic counts shall show both entering and exiting traffic at the proposed access points (if existing), in addition to turning and through traffic movements at critical intersections.

TRIP GENERATION RATES AND VOLUMES: Trip generation rates and volumes for each type of proposed land use shall be determined for the AM and PM peak hours, and total daily volumes may be required on Saturday and/or Sunday, depending on the proposed land use. The trip generation rates shall be calculated from the latest data available contained in the Institute of Transportation Engineer's "Trip Generation Manual". If trip generation rates for a specific land use are not available from the "Trip Generation Manual", the United City of Yorkville shall approve the substitute rates.

SITE-GENERATED TRIP DISTRIBUTION & ASSIGNMENT: The most logically traveled routes in the vicinity of the development shall be used for trip distribution and assignment purposes. The directional distribution of site-generated traffic approaching and departing the development should be shown in both graphic and tabular form. All assumptions used in the determination of distribution and assignment shall be clearly stated.

EXISTING, PLUS SITE-GENERATED TRAFFIC VOLUMES: Existing, plus site-generated traffic volumes for the AM and PM peak hours, and total daily traffic for access drives, intersections, and the roadway network in the site vicinity shall be determined and displayed on a graphic(s) in the final report. Traffic volumes shall show both entering and exiting traffic at the proposed access points, in addition to turning and through traffic movements at critical intersections.

FUTURE TRAFFIC (EXISTING, PLUS SITE-GENERATED) VOLUMES: Future traffic (existing, plus site-generated traffic volumes) for the AM and PM peak hours, and the total daily traffic for access drives, intersections, and roadway network in the site vicinity shall be determined and displayed on a graphic(s) in the final report. Projected increases in the external (non site-related) roadway traffic must also be determined. The selection of a horizon year for which traffic operation conditions are to be characterized may be considered as the date full build-out and occupancy is achieved. If the project is a large multi-phased development in which several stages of development activity are planned, a number of horizon years may be required, that correspond to the bringing on line of major development phases. Horizon dates should be times to coincide with major stages of the overall project, or to coincide with increments of area transportation system improvements.

INTERSECTION CAPACITY ANALYSIS: Proposed access driveways and influenced intersections shall be subject to an existing, plus projected, capacity analysis. Projected traffic conditions shall include the effects of any committed developments within the influenced area. The existing and projected levels of service derived from the analysis shall be used to aid in the evaluation of design and operation alternatives of the access driveways and influenced intersections. The capacity analysis shall be in accordance with the techniques described in the most recent edition of the Transportation Research Board's "Highway Capacity Manual", Special Report 209.

SIGNALIZATION WARRANTS: If it is anticipated that the development's driveway(s) or existing external non-signalized intersections will satisfy signalization warrants, a warrant analysis shall be conducted, using the projected volumes determined from the trip generation. The results of such an analysis shall be tabulated in the traffic impact study.

CONCLUSIONS AND RECOMMENDATIONS: Clear and concise descriptions of the findings shall be presented in the final report. These findings shall include all recommended improvements for access facilities, internal roadways and intersections, and external roadway and intersection improvements.

DRIVEWAY AND PARKING LOT PAVING

ALL DRIVEWAYS AND PARKING LOTS SHALL BE PAVED AS PER THE FOLLOWING SPECIFICATIONS:

1. ASPHALT:

A. RESIDENTIAL

Two-inch I-11 bituminous concrete surface, over eight-inches (minimum) of compacted CA6 limestone or crushed gravel.

B. COMMERCIAL/INDUSTRIAL

Three-inch I-11 bituminous concrete surface, over ten-inches (minimum) of compacted CA6 limestone or crushed gravel.

2. CONCRETE:

A. RESIDENTIAL

Six-inch Class X, over six-inches (minimum) of compacted CA6 limestone or crushed gravel.

B. COMMERCIAL/INDUSTRIAL

Eight-inch Class X, over eight-inches of compacted CA6 limestone or crushed gravel.

3. PAVING BRICK:

A. RESIDENTIAL

Paving brick over one inch of sand and eight inches of compacted CA6 limestone or crushed gravel.

4. SEALCOAT:

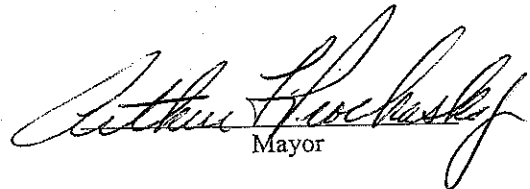
A. COMMERCIAL/INDUSTRIAL

An A3 seal coat, as defined by the IDOT's Standard Specifications for Road and Bridge Construction, may be allowed on areas behind the building, when used as a temporary surface, not to exceed three years, after which it must be paved to the above specifications. The same base should be ten inches (minimum) of compacted CA6 limestone or crushed gravel.

This Resolution shall be in full force and effect from and after its due passage, approval, and publication, as provided by law.

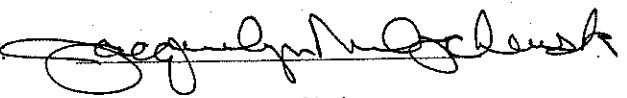
Passed and approved by the Mayor of the United City of Yorkville, Kendall County, Illinois,

This 12 day of October, 2004.


Mayor

Passed and approved by the City Council of the United City of Yorkville, Kendall County, Illinois,

This 12 day of October, 2004.

ATTEST 
City Clerk

SEAL

RICHARD STICKA

VALERIE BURD

MARTY MUNNS

JOE BESCO



WANDA OHARE

LARRY KOT

PAUL JAMES

ROSE SPEARS

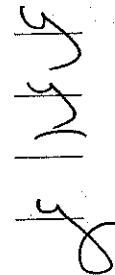


FIGURE 2

Street	Minimum Right-of-Way Width	Minimum Roadway Width	Minimum radius to Centerline of Horizontal Curves	Minimum Length of Vertical Curves	Tangent between Reverse Curves	Maximum Gradient	Minimum Gradient	Clear Sight Distance
Expressways	200 ft		1000 ft	30x*	200 ft	5%	0.50%	500 ft
Local Expressways	100 ft		1000 ft	30x*	200 ft	5%	0.50%	500 ft
Collector, Major	80-100 ft	51 ft	1000 ft	30x*	200 ft	5%	0.50%	500 ft
Collector, Minor	70 ft	34 ft	400 ft	30x*	200 ft	5%	0.50%	400 ft
Local, Minor for Row houses & Apts	66 ft	30 ft	150 ft	15x*	100 ft	8%	0.50%	200 ft
Minor, for Single Family Residence	66 ft	30 ft	100 ft	15x*	100 ft	8%	0.50%	200 ft
Cul-de-Sac Street **	66 ft	30 ft	100 ft	15x*	100 ft	6%	0.50%	200 ft
Turn-around Diameter	130 ft	100 ft						
Length (Maximum)	600 ft ***							
Business & Industrial Districts	80-100 ft	39 ft	500 ft	30x*	200 ft	5%	0.50%	500 ft

* x = algebraic difference in rules of = grade. Where x is less than 3, then 3 shall be substituted for the actual value.

** See definitions.

*** The maximum length of a cul-de-sac shall be measured along its center line, between the center line of an intersection through street and the maximum extent of the turn-around right-of-way.

Minor Collector streets shall not have intersecting streets or drives any closer than 200 feet apart. Major Collector streets shall not have intersecting streets or drives any closer than 400 feet apart.

FIGURE NO. 3

DETENTION POND VOLUME CALCULATIONS, CONTINUED

2- Year Detention Pond Volume

Subdivision Name:

Sample For Standard Specifications

Date:

Duration (Hour)	Intensity (In/hr)	Runoff (CFS)	Storage Rate (CFS)	Required Volume (acre-ft)
0.250	3.28	14.268	14.108	0.291
0.500	2.24	9.744	9.584	0.396
1.000	1.43	6.221	6.061	0.501
2.000	0.90	3.915	3.755	0.621
3.000	0.65	2.828	2.668	0.661
4.000	0.53	2.306	2.146	0.709
5.000	0.44	1.914	1.754	0.725
6.000	0.38	1.653	1.493	0.740
8.000	0.31	1.349	1.189	0.786
10.000	0.26	1.131	0.971	0.802
12.000	0.22	0.957	0.797	0.790
15.000	0.18	0.783	0.623	0.772
18.000	0.16	0.696	0.536	0.797
21.000	0.14	0.609	0.449	0.779
24.000	0.13	0.566	0.406	0.804

Composite "C" factor determination

Type of Area	Acres	"C" Factor	CxA
Grass	1.000	0.500	0.500
Pavement	1.000	0.980	0.980
Wet/Green Detention	1.000	1.000	1.000
<u>Rooftop</u>	<u>1.000</u>	<u>1.000</u>	<u>1.000</u>
TOTALS	4.000		3.480

"C" = 0.870

Cm = 1.25 x C = 1.088

Allowable Run-off = 0.04 cfs/acre

Allowable Run-off = 0.16 cfs

Required detention volume = 0.804 acre-feet

FIGURE NO. 3

DETENTION POND VOLUME CALCULATIONS, CONTINUED

25- Year Detention Pond Volume

Subdivision Name:

Sample For Standard Specifications

Date:

Duration (Hour)	Intensity (In/hr)	Runoff (CFS)	Storage Rate (CFS)	Required Volume (acre-ft)
0.250	5.96	25.926	25.606	0.529
0.500	4.08	17.748	17.428	0.720
1.000	2.59	11.267	10.947	0.905
2.000	1.63	7.091	6.771	1.119
3.000	1.18	5.133	4.813	1.193
4.000	0.97	4.220	3.900	1.289
5.000	0.82	3.567	3.247	1.342
6.000	0.69	3.002	2.682	1.330
8.000	0.56	2.436	2.116	1.399
10.000	0.46	2.001	1.681	1.389
12.000	0.40	1.740	1.420	1.408
15.000	0.33	1.436	1.116	1.383
18.000	0.28	1.218	0.898	1.336
21.000	0.25	1.088	0.768	1.332
24.000	0.23	1.001	0.681	1.350

Composite "C" factor determination

Type of Area	Acres	"C" Factor	CxA
Grass	1.000	0.500	0.500
Pavement	1.000	0.980	0.980
Wet/Green			
Detention	1.000	1.000	1.000
<u>Rooftop</u>	<u>1.000</u>	<u>1.000</u>	<u>1.000</u>
TOTALS	4.000		3.480

"C" = 0.870

Cm = 1.25 x C = 1.088

Allowable Run-off = 0.08 cfs/acre

Allowable Run-off = 0.32 cfs

Required detention volume = 1.408 acre-feet

FIGURE NO. 3

DETENTION POND VOLUME CALCULATIONS

100- Year Detention Pond Volume

Subdivision Name:

Sample for Standard Specifications

Date:

Duration (Hour)	Intensity (in/hr)	Runoff (CFS)	Storage Rate (CFS)	Required Volume (acre-ft)
0.250	8.20	35.670	35.070	0.725
0.500	5.60	24.360	23.760	0.982
1.000	3.56	15.486	14.886	1.230
2.000	2.24	9.744	9.144	1.511
3.000	1.62	7.047	6.447	1.598
4.000	1.30	5.655	5.055	1.671
5.000	1.10	4.785	4.185	1.729
6.000	0.95	4.133	3.533	1.752
8.000	0.77	3.350	2.750	1.818
10.000	0.64	2.784	2.184	1.805
12.000	0.55	2.393	1.793	1.778
15.000	0.46	2.001	1.401	1.737
18.000	0.39	1.697	1.097	1.631
21.000	0.35	1.523	0.923	1.601
24.000	0.32	1.392	0.792	1.571

Composite "C" factor determination				
Type of Area	Square Feet	Acres	"C" Factor	CxA
Grass	43560	1.000	0.500	0.500
Pavement	43560	1.000	0.980	0.980
Wet/Green Detention	43560	1.000	1.000	1.000
<u>Rooftop</u>	<u>43560</u>	<u>1.000</u>	<u>1.000</u>	<u>1.000</u>
TOTALS	174240	4.000		3.480

"C" = 0.870

Cm = 1.25 x C = 1.088

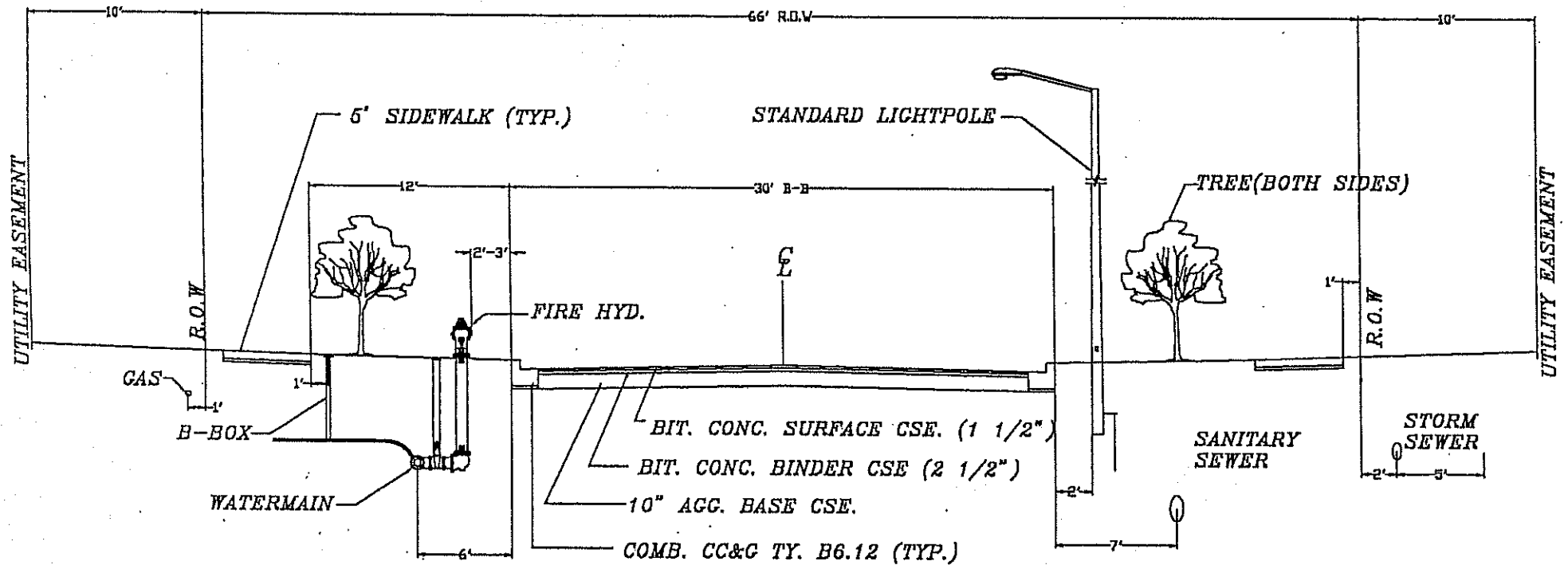
Allowable Run-off = 0.15 cfs/acre

Allowable Run-off = 0.60 cfs

Required detention volume = 1.818 acre-feet

FIGURE 4

THE UNITED CITY OF YORKVILLE



* NOTE: PAVEMENT FABRIC SHALL
BE PLACED BENEATH AGGREGATE
BASE IN NON-CRANULAR
SUBGRADE AREAS.

TYPICAL LOCAL RESIDENTIAL STREET X-SECTION

NOT TO SCALE

FIGURE NO. 5

CHECK LIST FOR PRELIMINARY PLANS

SECTION 1: WRITTEN DOCUMENTS

	Not Applicable	Acceptable	Deficient
1. A land use application containing the following:			
A. A statement of planning objectives to be achieved by the plan	_____	_____	_____
B. A time schedule of the proposed development of the area covered by such preliminary plan	_____	_____	_____
C. Exceptions or variations to City Zoning or Subdivision Ordinances being requested as part of the plan, including the specific section of the Ordinance.	_____	_____	_____
2. A boundary survey of the area covered by such preliminary plan, prepared and certified by a registered Illinois surveyor.	_____	_____	_____

SECTION 2: GENERAL PLAN INFORMATION

1. A rendered outline of the area covered by such preliminary plan drawn at a scale of not less than 1 inch equals 100 feet.	_____	_____	_____
2. The plan must contain the following information:			
A. Scale	_____	_____	_____
B. North Arrow	_____	_____	_____
C. Original and Revised dates	_____	_____	_____
D. Name and address of owner of record	_____	_____	_____
E. Name and address of site plan designer	_____	_____	_____
F. Current zoning of the property	_____	_____	_____
G. All categories of proposed land use	_____	_____	_____
3. The following information regarding contiguous property:			
A. Location of contiguous property	_____	_____	_____
B. Zoning of contiguous property	_____	_____	_____
C. Land use of contiguous property	_____	_____	_____
4. The following site data provided in the lower right corner:			
A. Size of property in square feet or acres	_____	_____	_____
B. Square footage and percent of site coverage with buildings	_____	_____	_____
C. Square footage and percent of site coverage with pavement	_____	_____	_____
D. Number of parking spaces to be provided	_____	_____	_____
E. Number of parking spaces required by zoning ordinance	_____	_____	_____
F. Number of proposed buildings/dwelling units/lots	_____	_____	_____

SECTION 3: PLAN DATA REQUIREMENTS

1. A site location map.
2. Dimensions of the property.
3. A topographical survey of the area covered by such preliminary plan at two-foot contour intervals drawn at not less than one inch equals one hundred feet.
4. A detailed plan for the treatment of any proposed stormwater detention or retention facilities.
5. Existing or proposed public roads, streets, and alleys, including classifications, width of right-of-way and paved surfaces, and existing and proposed sidewalks.
6. Dimensioned building setbacks, and as applicable; areas for off-street parking, trucking maneuvering and service, and open space/recreational facilities.
7. A schematic of existing or proposed public utility systems, including the size of sanitary sewers, storm water lines, & streetlights.
8. Existing vegetation and plantings.
9. Any other information required by the City, to clearly show the proposed site plan elements.

FIGURE NO. 6

CHECK LIST FOR FINAL PLANS

SECTION 1: WRITTEN DOCUMENTS

	Not Applicable	Acceptable	Deficient
1. A land use application containing the following:			
A. A statement of planning objectives to be achieved by the plan.	_____	_____	_____
B. A development schedule, indicating the approximate dates for construction of the Final Plan.	_____	_____	_____
C. Petitioners proposed covenants, restrictions, and conditions to be established as part of the Final Plan.	_____	_____	_____
D. Exceptions or variations to City Zoning or Subdivision Ordinances being requested as part of the Final Plan, including the specifics of the Ordinance.	_____	_____	_____

SECTION 2: GENERAL PLAN INFORMATION

1. Must be drawn to accurate engineering scale.			
2. Must contain the following information:			
A. Scale	_____	_____	_____
B. North Arrow	_____	_____	_____
C. Original and Revised dates	_____	_____	_____
D. Name and address of owner of record	_____	_____	_____
E. Name and address of site plan designer	_____	_____	_____
3. The following information regarding contiguous property:			
A. Location of contiguous property	_____	_____	_____
B. Zoning of contiguous property	_____	_____	_____
C. Land use of contiguous property	_____	_____	_____
4. Site data to be provided in lower right hand corner:			
A. Legal Description	_____	_____	_____
B. Size of property in square feet and acres	_____	_____	_____
C. Current Zoning	_____	_____	_____
D. Square footage & percent of site coverage with buildings	_____	_____	_____
E. Square footage & percent of site coverage with pavement	_____	_____	_____
F. Square footage & percent of site coverage with landscaping	_____	_____	_____
G. Number of parking spaces required by zoning ordinance	_____	_____	_____
H. Number of parking spaces to be provided	_____	_____	_____
I. Number of buildings	_____	_____	_____
J. Number of dwelling units	_____	_____	_____
K. Breakdown of dwelling unit bedroom types	_____	_____	_____
5. Landscape data to be provided in lower left hand corner:			
A. Number of plantings by type	_____	_____	_____
B. Size of plantings at installation	_____	_____	_____
C. On-center spacing for hedges (Should be 3 feet apart)	_____	_____	_____
D. Caliper size of all trees at installation	_____	_____	_____

FIGURE NO. 6

CHECK LIST FOR FINAL PLANS, CONTINUED

SECTION 3: PLAN DATA REQUIREMENTS

1. Dimensions of property.
2. Existing and proposed public and private streets, right-of-ways, driveways, all principal and accessory buildings and their uses, dimensioned building setbacks, lot sizes, sidewalks, off-street parking, service areas, open spaces, and recreation facilities.
3. Preliminary architectural plans for all residential buildings, in sufficient detail to show basic building plan.
4. The existing and proposed vehicular and pedestrian circulation systems, indicating their inter-relationship and proposed treatments of points of conflict.
5. Existing and proposed utility systems, including sanitary sewers, water, electric, gas, telephone, and cable television lines, including their sizes.
6. Proposed public and private lighting systems.
7. Existing and proposed easements for utility services.
8. Proposed signage, indicating location and size.
9. Existing vegetation and plantings.
10. Proposed berming and fencing.
11. The location and size in acres or square feet of all areas to be conveyed, dedicated, or reserved as common open space, public parks, recreational areas, school sites, and similar semi-public uses.
12. Any other information necessary to clearly show the proposed site plan elements.

Ordinance No. 2008 13

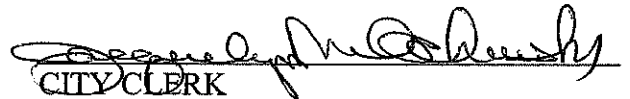
**AN ORDINANCE REPEALING OLD PARK DEVELOPMENT STANDARDS AND ADOPTING NEW
PARK DEVELOPMENT STANDARDS FOR THE UNITED CITY OF YORKVILLE**

BE IT ORDAINED by the Mayor and City Council of the United City of Yorkville, Kendall County, Illinois, as follows:

Section 1. That the United City of Yorkville Park and Recreation Department Park Development Standards dated June 1, 2003, approved by the Corporate Authorities on July 22, 2003, are hereby repealed in their entirety, and the United City of Yorkville Park and Recreation Department Park Development Standards dated February 12, 2008, a copy of which is attached as *Exhibit A*, are hereby approved in their stead.

Section 2. This Ordinance shall be in full force and effect upon its passage, approval, and publication as provided by law.

ADOPTED by the City Council of the United City of Yorkville, Kendall County, Illinois, this 26 day of February 2008.


CITY CLERK

ROBYN SUTCLIFF



GARY GOLINSKI



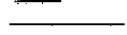
WALTER WERDERICH



ROSE ANN SPEARS



JOSEPH BESCO



ARDEN JOSEPH PLOCHER



MARTY MUNNS



JASON LESLIE



26 **APPROVED** by me, as Mayor of the United City of Yorkville, Kendall County, Illinois, this day of FEBRUARY 2008.



MAYOR

Exhibit A

Park Development Standards

(see attached)

**UNITED CITY OF YORKVILLE
PARK AND RECREATION DEPARTMENT**

PARK DEVELOPMENT STANDARDS

February 12, 2008

Repealing, revising, and replacing Park Development Standards dated June 1, 2003 with
revisions dated November 15, 2004

TABLE OF CONTENTS

SECTION 1: DEFINITIONS.....	4
SECTION 2: OPEN SPACE SYSTEM AND GUIDELINES.....	6
A. Categories of Open Space.....	6
1. Environmental Capacity.....	6
2. Shaping Capacity	7
3. Recreational Capacity	7
B. Land/Cash Dedication Ordinances.....	8
SECTION 3: PARK DEVELOPMENT TIMELINE AND PROCEDURES.....	10
SECTION 4: PARK IMPROVEMENT STANDARDS.....	11
A. Park Design	11
1. Size	
2. Location	
3. School/Park Site	
4. Service Area	
5. Dimensions	
6. Street Frontage	
7. Adjoining Developments	
B. Timing of Dedication and Acceptance.....	12
1. Final Grading	
2. Boundaries	
3. Natural State	
4. Environmental Assessment	
C. Utilities.....	12
D. Topsoil	13
1. Suitable Material	
2. Unsuitable Material	
3. Topsoil respreading	
4. Soil stockpile	
E. Grading/Filling	14
SECTION 5: DETENTION AND RETENTION BASINS.....	15
A. General	15
B. Retention Basins (Wet Ponds).....	15
1. Design	
2. Planting Specifications	
C. Detention Basins (Dry Ponds).....	18
1. Design	
2. Planting Specifications	
D. Maintenance	21

E. Inlet and Grate	24
F. Turf Grass	24
G. Mulching	25
H. Greenways/Wetlands/Floodplain Areas.....	26
I. Conservation and Protection Areas	26
J. Lakes	26
SECTION 6: NATURAL AREAS	27
A. General	27
B. Management Practices.....	28
C. Development Standards.....	28
SECTION 7: PLANTING SPECIFICATIONS	29
A. Existing Vegetation.....	29
B. New Landscaping	29
1. Planting Standards	
2. Backfill Mixtures	
3. Planting	
4. Planting Operation	
5. Watering	
6. Mulching/Wrapping	
7. Pruning Procedures	
SECTION 8: PATHWAYS AND TRAILS	33
A. Trail Standards	33
B. Inventory of Existing Facilities	33
C. Trail Access	34
D. Roadway and Crossing Signage.....	34
E. Sight and Stopping Distance	35
F. Widths and Clearances	35
G. Trail and Roadway Bridges.....	36
H. Cross Sections	36
I. Subgrade and Base Course	37
J. Surface Course	37
K. Additional Site Improvements	38
L. Trail Conversions	38
SECTION 9: PLAYGROUND IMPROVEMENTS	39
SECTION 10: DEVELOPER OBLIGATIONS.....	41
A. General	41
B. Turf.....	41
C. Planting	41
REFERENCES.....	43

SECTION 1: DEFINITIONS

- A. Standard Specifications: Whenever reference is made to the "Standard Specifications" it shall be understood to mean the latest issue of the "Standard Specifications for Road and Bridge Construction" (SSRBC) and subsequent revisions of the "Supplemental Specifications and Recurring Special Provisions" of the Illinois Department of Transportation, or the "United City of Yorkville Standard Specifications for Improvements" (SSI).
- B. Developer: Refers to and means the individual, corporation, co-partnership or other person or organization who or which has desires to bring a new subdivision or planned unit development within the corporate limits of the United City of Yorkville.
- C. Americans with Disabilities Act: (ADA) Refers to the federally mandated Act passed in 1990, and/or State Accessibility guidelines (Section 504), whichever may be more stringent.
- D. Buffer yard: Areas designed to reduce the sound or visual impact on the neighboring community or houses. Buffer yards can be made by planting of shrubs or a mixture of vegetation. Buffer yards must comply with the Landscape Ordinance.
- E. Conservation Area: Natural area identified as having rare plant or animal species, or areas identified within the Parks Open Space Master Plan. This area may include or be identified as a fen, watershed, or other area identified to have historic value needing preservation or protection.
- F. Detention (Dry Ponds): Areas designed to hold storm water runoff for a determinate amount of time (typically 48 hours), then drain to a dry condition.
- G. Flood Plain: That land adjacent to a body of water with ground surface elevations at or below the base flood or the 100 year frequency flood elevation. The floodplain is also known as the Special Flood Hazard Area (SFHA).
- H. Private facilities and parks: Parks or facilities that are secluded from the general population; or owned and controlled by a person or group rather than the public or municipality.
- I. Public Open Space: Any publicly owned open area, including but not limited to the following: parks, playgrounds, conservation, trails, greenways, etc.
- J. Retention (Wet Ponds): Areas designed to hold storm water and natural groundwater on a permanent basis. Retention areas are designed with normal and high water levels, and an overflow point for large storms.

- K. Public Sidewalk: That portion of street or crosswalk, paved or otherwise surfaced, intended for pedestrian use only.
- L. Trail: A bituminous path a minimum of ten (10') feet wide that provides active recreation opportunities through shared-use trails that connect throughout the City.
- M. Wetlands: As defined by the Illinois Department of Natural Resources (IDNR) as "land that has a predominance of hydric soils and that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions" (Interagency Wetlands Policy Act of 1989). Or as defined by the US Army Corp of Engineers (USACE).
- N. AASHTO: Whenever reference is made to the AASHTO it shall be understood to mean the "Guide for the development of bicycle facilities" and subsequent documents referencing pedestrian or bicycle facilities published by the American Association of State Highway and Transportation Officials.
- O. CMAA: Chicago Metropolitan Agency for Planning, formerly titled the Northeastern Illinois Planning Commission (NIPC).

SECTION 2: OPEN SPACE SYSTEM AND GUIDELINES

The Chicago Metropolitan Agency for Planning (CMAP) states that: "Open space provides more than recreational opportunities; it is land that society needs to conserve as natural, cultural, historic, and agricultural resources. One of the most common misconceptions regarding open space and recreation is that the two terms are synonymous. A strong relationship does exist between open space and outdoor recreation but, in most cases, recreation is something separate and distinct from open space."

Therefore, a park is open space, but open space is not necessarily a park.

A. CATEGORIES OF OPEN SPACE

The National Recreation and Park Association (NRPA) has developed six (6) categories of open space that the United City of Yorkville has simplified into three recognized categories of land capacity: environmental, shaping, and recreational. The United City of Yorkville has determined that acquisition and development of land meeting the recreational and environmental requirements of its residents is its role in the fabric of the community. These functions are subdivided into both local and regional classifications. The Parks Department's responsibilities pertain to the local classifications.

1. ENVIRONMENTAL CAPACITY - protects natural and or cultural resources from development.

- a. Natural Resource Park (Linear Greenway/Trail System) - is utilized as a buffer zone, watershed, or conservation area, and affords a passive appearance with managed natural habitats and plant ecosystems. These areas can be used to protect fragile or rare ecosystems. Often these areas require management to maintain sustainability and preserve healthy biodiversity of plant life.

When utilized as a linear greenbelt and/or trail corridor, natural areas can serve as environmental bridges, supporting the movement of wildlife between other larger areas. When combined with public use areas, development can include open play areas, pedestrian and bicycle paths, park benches, picnic and rest areas, and water oriented facilities. Detention or retention ponds can be included in these areas. In instances where this classification of park is flood prone, construction of permanent structures is discouraged. The public use infrastructure should remain supplementary to the functional classification of lands described.

- b. Conservation of local resources, such as streams, wetland habitats, and forests.
- c. Preservation of environmental and/or historic resources in conjunction with local historic preservation agencies.

2. SHAPING CAPACITY - provides relief from extensive urbanization and promotes the integration of neighborhoods. City, county, state, and federal planning agencies commonly define this land as "land that shapes a community and is reflected in greenbelts, county forest preserves, state, and national parks." This category is also reflected in local ordinances stipulating density formulas and open space requirements for subdivisions.
3. RECREATIONAL CAPACITY - provides space for single or multiple, active and passive recreation activities.
 - a. Mini-Parks – The mini-park is used to serve isolated or limited recreational needs. Mini-parks are often tot lots, created to serve a resident population too distant from a community park, or in an area with high density populations. The mini-park is larger than one (1) acre in size. Development is usually limited, requiring no parking or extensive site work.
 - b. Neighborhood Parks – The neighborhood park is intended as a supplement to or substitute for a play lot where population density, geographic barriers or distance preclude easy access. Examples of such facilities include: play apparatus areas for pre-school and elementary children; hard surface areas for hopscotch, shuffleboard, tetherball, four-square; court games for basketball, volleyball, badminton, tennis, etc.; and open play areas for softball, football, soccer, and winter sports. The minimum park size for a neighborhood park is five (5) acres. The concept of development emphasizes spontaneous rather than higher organized play. The playground should be easily accessible to pedestrian use.

Neighborhood parks can have additional special use classifications to include activities such as active play and specialized courts. These parks may be combined with school sites. Although any classification of park can be located next to a school, the age of users makes it preferable that neighborhood parks and elementary schools share a common boundary.

- c. Community Parks - The community park is larger than ten (10) acres, and development is intended for people of all ages. It is preferred that the park be centrally located and serve at least four neighborhoods. Amenities found in a neighborhood park shall be included, supplemented by large multipurpose open spaces. Internal walk patterns for pedestrians and bicycle paths are desired to connect the various functions. It should be accessible by motorized and non-motorized traffic. Adequate off-street parking shall be provided in accordance with amenities constructed. The classification may also serve as a neighborhood park facility for the area in which it is located.
 1. Athletic Parks – Multiple athletic fields in one location, representing the functional needs of each agency, which can be located in close proximity

to schools where the public and students can share facility use. The location and design shall satisfy one or more of the following requirements: (1) avoid duplication of land and facilities unless existing facilities are over utilized; (2) coordination of services, and (3) diminish capital expenditures and satisfy the needs of each agency. Development should be similar to the neighborhood park.

2. Sports Complex - Developed to meet the needs of specific users groups and local athletic associations for practice, team, and tournament play. These sites have adequate parking and are located on good traffic routes. They may also be located to take advantage of bicycle and pedestrian trail systems. Fields should be as multipurpose as possible, so a wide variety of flexibility can be maintained. It is best to allow for additional space when acquiring sports complex space, as needs and trends are subject to constant change.
3. Special Use Parks - Intended for single interest activities and large enough to accommodate the demand. Examples include: tennis center, outdoor education center, museum, conservatory, golf course, children's farm, sports complex, skate park, splash / spray park, swimming pool / aquatic center, etc. Since users are going to come from a distance, the site should be near major vehicular access routes and regional bike trails.
- d. Regional Parks – The regional park attracts people from outside the community. Regional parks shall be a large piece of property, greater than forty (40) acres in size with more than one major attraction or function. The regional park can encompass any neighborhood and community classifications.

B. LAND / CASH DEDICATION ORDINANCES

1. The United City of Yorkville Land Cash Ordinance requires ten (10) acres per 1,000 population be donated for parks as part of the subdivision or planned unit development approval process. The contribution of land cash is in accordance with the City Land Cash Ordinance. It is for these stipulated acres that the following standards have been developed. These standards will also act as guidelines for land donated to satisfy other functions of open space.

The ultimate population density to be generated by a subdivision or planned unit development shall bear directly on the amount of land required to be dedicated for park and recreation sites. The acreage of land dedication requirement shall be determined by obtaining the total population of the development times ten (10) acres per 1,000 population. Total population is determined by applying the estimated ultimate population per dwelling unit table to the number of respective units in the development. Each single family home will be calculated to have four

bedrooms; Duplex unit will be calculated as 50% two bedroom units and 50% three bedroom units; Town home and apartments will be calculated with two bedrooms.

2. When available land is inappropriate for park, or recreational use, the City shall require a cash contribution. This is based on the land cash calculation and the value per acre of the land based on the "Fair market value". The amount of land cash distribution shall be determined by Staff and Board analysis of the site and relationship to neighboring parks.
3. In cases approved by the Park and Recreation Board, the contribution of land cash can be a mixture of 50% land 50% cash, or other agreed upon contribution combination.
4. A developer may donate the land together with cash for park development upfront to have the construction of the park expedited. Front funding for park development is preferred. Otherwise, a 75% build-out standard for the subdivision shall be set in place for park development.
5. No land cash credit shall be given for the following:
 - a. Exclusively private facilities & parks.
 - b. Retention or detention areas, measured at the top of the bank.
 - c. Lands located within the 100 year floodplain.
6. Full or partial credit will be given for the following:
 - a. Active wet areas (lakes, rivers, creeks), historical areas, conservation areas, etc., that are identified to have recreational or conservation value. This will be considered on a case-by-case basis. Studies shall be required to verify historical and/or conservation areas.
 - b. Paths or trails constructed and dedicated in an exclusive easement to the City, or paths identified as infrastructure or connecting trails to a regional trail system. Partial credit may be given for undeveloped exclusive easements dedicated to the City for future trail development.
 - c. Land donations that are usable and/or classified as developable for use by the general public.

SECTION 3: PARK DEVELOPMENT TIMELINE AND PROCEDURES

- A. The Park and Recreation Board and staff will plan the development of the park and/open land site with the following guidelines [whenever possible]. There may be occasions when a developer provides development support in advance to a subdivision being built which may require these procedures to be adjusted or altered.
1. Based on the established Land Cash Ordinance a developer donates park land to the United City of Yorkville Park and Recreation Department for future use and development.
 2. The Park and Recreation Board and staff determines park utilization and design in conjunction with the Parks Open Space Master plans to establish needs and determine priority and fiscal needs.
 3. The staff recommends annual budget projections for park development based on available fiscal resources.
 4. A Concept plan by the Park Planner or United City of Yorkville Staff indicates park design and preliminary cost projections.
 5. Whenever possible, a public meeting is held for residents of the surrounding subdivision and impacted area for input.
 6. A finalized concept plan and cost projection is developed and submitted to the Park Board for approval and a recommendation is given to the City Council for development.
 7. Timeline is established for project management.
 8. Project / Park plan work begins until completion.

SECTION 4: PARK IMPROVEMENT STANDARDS

A. Park Design: The following criteria are considered desirable traits for a park to be acceptable to the United City of Yorkville:

1. Size: Park size shall meet the requirements of the Park Department Master Plan, and the approval of the Park Board. Plan must also be approved per City Staff comment.
2. Location: Park location shall be close to the geographic center of the population served, or as approved by the Park Board.
3. School/Park Site: Park and school property located in the same development may be located and developed in the best interest of both parties.
4. Service Area: Shall serve residential areas within one-half (½) mile radius from pedestrian barriers. A pedestrian barrier is defined as:
 - a. Any street presently classified or planned by the United City of Yorkville, Kendall County, or State of Illinois as major arterial street or highway.
 - b. Any street with speed limits over 30 miles per hour.
 - c. Collector streets with an average daily traffic count exceeding 3500 cars and stop signs or stop lights further than one-half mile (½) mile apart.
 - d. Railroad tracks.
 - e. Natural barriers.
 - f. Land use barriers.
5. Dimensions: Parks shall have a minimum dimension of 450 feet on all sides if the acreage of the park allows.
6. Street Frontage: Street frontage shall be the full length of the park on a minimum of two of its sides. Said streets shall be local or collector streets within the neighborhood. Additional access lots provided shall be a minimum of forty (40') feet in width. Where a school site is adjacent to a park site the school site can be considered as one of the two required street frontages.

Reasons for street frontage include:

- a. Enhanced security and visibility.
 - b. On-street parking availability.
 - c. Encourages users to access the park through trail or sidewalk connections.
 - d. Encourages neighborhood to take ownership and responsibility for their park.
7. Adjoining Developments: Whenever possible, the dedicated parcel shall be combined with dedications from adjoining developments.

B. Timing of Dedication and Acceptance: All requirements stated herein for acceptance of the site shall be completed to the satisfaction of the City.

1. Final grading

- a. The City encourages, whenever possible, that at the time rough grading and placement of topsoil is completed on the first residential structure of a particular unit development, the park site(s) should also be completed, ready for grading and seeding or sodding.
- b. The City will verify that all requirements have been met and the site is ready for turf. Final acceptance of the site is determinate on the condition of the turf as stated herein these requirements.
- c. In cases of more than one park site, or linear parkways, the developer shall determine a schedule of completion with the approval of the City.

2. Boundaries: The developer shall be required to install permanent metal boundary markers at each corner of the park site. Markers shall be of typical federal style aluminum marker four (4") inches in diameter that can be placed on top of a rebar.

3. Natural State: The City has the option to require conveyance of areas designated to be maintained in a natural state prior to commencement of any site work. A separate site-specific plat of conveyance shall be prepared and submitted prior to issuance of any permits. The developer is responsible for securing all areas to be conveyed in a natural state with temporary fencing from the time the areas are platted to conveyance of the remainder of the site.

4. Environmental Assessment: For all lands to be dedicated to the City, the developer shall provide a minimum of a Phase I Environmental Assessment, produced by a recognized consultant. This assessment shall check for hidden, or unknown environmental factors including, but not limited to, buried or contaminated soils and aquifers, underground storage tanks, and dump sites.

C. Utilities: Unless otherwise authorized by the City, each park site shall be fully improved with water, sanitary sewer, storm sewer, and electric service to a location specified and approved by the City.

1. At the time of installation of public improvements in the subdivision or planned unit development. The location shall be approved by the City and shown on the approved engineering plans.
2. The site shall be free of all private gardens, woodpiles, swing sets, sump pump discharge pipes, and other items that give the impression that a portion of the site is part of the adjacent property. No sump pumps shall discharge directly onto the site,

unless connected to a catch basin on the site if approved by local authorities and the United City of Yorkville. No private utilities, water, sewer, or drainage lines shall be located on City property. Any overflow path must be approved by City Staff.

3. No Public Utility Drainage Easement, including storm sewer and overland stormwater management, can be located through or across a future park site. The park site cannot function as a storm water control facility unless the site is a detention basin that is to be conveyed to the City or the developer is given City approval from the City.
4. Perimeter easements area allowed by Staff approval.

D. Topsoil

1. Suitable material:

- a. Topsoil shall be a loamy mixture (USDA Loam, Sandy Loam, or Silty Loam soil) with an organic content between five (5%) percent and ten (10%) percent. At least 90% must pass the 2.00 mm (No. 10) sieve and the pH must be between 5.0 and 8.0, from the "A horizon" of local soil profiles. Topsoil shall be capable of supporting the germination of vegetation. It shall not contain toxic substances harmful to plant growth.
- b. Topsoil shall be typical of the locality of the work, friable with good tilth, free from large roots, sticks, weeds, brush, subsoil, clay lumps, or stones larger than one (1') inch in diameter or other litter and waster products.
- c. Subbase for paved surfaces (asphalt courts, paths, etc.) shall be clay that meets the requirements of Section 204 of the Standard Specifications. It shall be free from topsoil, organic matter (roots, tree stumps, etc.), rocks larger than three (3") inches in size, and building debris.

2. Unsuitable material:

- a. For paved areas, the soil cannot be highly organic soil; contain topsoil, roots, tree stumps, vegetable matter, trash, and debris.
- b. Any unsuitable material found on the site must be removed from the site and legally disposed of.

3. Topsoil respreading:

- a. Topsoil shall be spread to a minimum depth of six (6") inches across all lawns, clay and embankment filled areas, constructed berms, sledding hills, excavated areas, and over backfilled areas of all other construction.

- b. All irregularities or depressions in the surface due to weathering or other causes shall be filled or leveled out before the topsoil is placed. All topsoil finish grades will provide positive drainage over all areas covered.
 - c. If the existing surface has become hardened or crusted, it shall be disked or raked (broken up) to provide a bond between the surface and the topsoil to be applied.
4. Soil stockpile: Contractor shall not stockpile any topsoil or other soil materials on the park site without written authorization from the City.

E. Grading / Filling

- 1. All park areas shall maintain a minimum slope of two (2%) percent, or two (2') feet in 100 feet, and a maximum slope of three (3%) percent, or three (3') feet in 100 feet. The developer shall submit grading plans to the City for review during the grading approval process.
- 2. Drainage swales may be located on private property, either in the yards of residential units that border the park or in homeowner's association property. The park site should have a uniform slope from one end of the property to another.
- 3. There shall be absolutely no burying permitted of site debris, construction debris or rubbish, or any other extraneous matter on the park site(s). Areas to receive approved fill shall receive clean fill, free of large boulders, concrete, or other debris. The park site may not be used as a borrow pit.
- 4. At all times during construction, the Developer shall take appropriate precautions and prevent the discharge and/or dumping of hazardous wastes, liquid or solid, from his or other's operations on any sites within the development, including those to be dedicated to the City. Local Police and Fire Departments shall be notified of any temporary storage of hazardous materials during construction.
- 5. Environmental Assessment - For all lands to be dedicated to the City, the Developer shall provide a minimum of Phase I Environmental Assessment, produced by a recognized consultant. This assessment shall check for hidden, or unknown environmental factors including, but not limited to, buried or contaminated soils and aquifers, underground storage tanks, and dump sites.
- 6. An as-built of the final grading of the site is required upon completion. This includes the submittal of an AutoCAD drawing in digital format with grades shown in one (1') foot intervals within 60 days of a written request by the City.

SECTION 5: DETENTION AND RETENTION BASINS

- A. General: It is not the practice or desire of the City to accept retention/detention basins as part of a neighborhood park. Any variance from this practice must be approved by Staff and Park Board.
1. Special consideration may be given for acceptance of detention/retention ponds if they are adjacent to other park areas and meet usability criteria at the discretion of the Staff and Board.
 2. This may include, but not be limited to, safe access, fishing, incorporated trail systems, overlooks, or natural habitats. At no time shall the City accept said basins only for storm water management purposes.
 3. Should detention or retention ponds be part of the local donation, they shall meet the following requirements:
 - a. Construction shall be in accordance with engineering drawings approved by the City and shall meet all applicable City standards.
 - b. All changes to the plans including, but not limited to, percent of slope, grading, depth of top soil, location of structures or other improvements shall not be implemented without written approval unless first approved in writing by the City.
 - c. Basins shall comply with state statute regarding distance from right-of-ways.
 - d. Best management practices are encouraged, which includes the addition of rain gardens, natural water infiltration systems, meandering drainage practices, and maintenance practices typical of naturalized basins.
- B. Retention Basins (Wet Ponds)
1. Design: Retention ponds shall be designed to facilitate a low degree of maintenance through natural plantings and to reduce potential hazards for users and maintenance staff.
 - a. No pond shall be less than two (2) acres in size. BMP Practices implemented to create naturalized drainage patterns can allow for a reduction in basin size.
 - b. Pond configuration
 1. Pond configuration shall be natural in appearance featuring varying slopes running down to the shoreline. Shoreline shall undulate at varying degrees around the pond perimeter. Shoreline areas selected for the planting of aquatic

and emerging aquatic vegetation, slope requirements shall be appropriate to ensure healthy growth and development of the specified vegetation type.

2. An area six (6') feet wide measured from the shoreline around the entire perimeter of the pond shall slope towards the pond at the rate of two (2%) percent to five (5%) percent. No slope beyond the six-foot strip shall exceed a 5:1 slope (20%).
3. Pond configuration shall have provisions in the plans to allow access for dredging, grate maintenance, and accommodation of maintenance requirements or needs. The City and developer shall jointly determine final shoreline configuration.
4. These areas shall be designed to a minimum depth of six (6') feet below normal water level. If fish are to be maintained, 25% of the pond shall be a minimum depth of twelve (12') feet. These areas must have a safety shelf that is five (5') feet to ten (10') feet in width at a depth of two (2') feet below the normal water elevation. The slope to the bottom of the pond beyond this safety shelf shall be 2:1 and the slope up from the safety shelf to the normal water level shall be a maximum of 3:1.

c. Inlets/ Sedimentation

1. All storm water inlet points must have calculated desilting basins below the required six (6') foot depth.
2. Desilting basin volume shall be 500 ft³ (cubic feet) per acre of tributary impervious area.
3. The developer shall provide engineering plans, estimating probable quantities of sediment from the watershed at five-year intervals for a 25 year period.
4. The developer shall construct sediment basins to handle the aforementioned sediment.
5. A cleaning/dredging plan shall be included with the plans.
6. The City shall approve all engineering and installation. Existing Public Ordinances and annexation agreements shall regulate all additional storm water design considerations and management.

d. Buffer yards/Trails

1. In areas where a trail occurs between the property line and a pond, there shall be a minimum fifty (50') foot wide buffer between the property line and the high-water level line. The fifty (50') foot wide buffer will be broken down into a minimum twenty (20') foot wide area between property line and outside edge of the path, and a minimum twelve (12') foot wide area between the inside edge of path and the high-water level line.
2. In areas where there are no paths between the property line and a pond, there shall be a minimum thirty (30') foot wide buffer between the property line and the high-water level line.

e. Aeration:

1. Developers shall incorporate aeration systems into all retention basins that do not incorporate a constant flow of water. The City shall approve all engineering and installation.

f. Erosion Control:

1. Protection against erosion and water level fluctuations is required. The use of rip-rap and retaining walls as a sole means of shoreline protection will not be permitted. Stabilization shall be provided through one of the following means:
 - a. Complete establishment of perennial ground cover, water tolerant grasses, or natural vegetation to the approval of the City standards.
 - b. Construction of retaining walls.
 - c. Use of rip-rap underlain by gravel and filter fabric.

2. Wetland Basin Planting Specifications:

a. Soils:

1. Hydric soils as classified by the U.S. Department of Agriculture, Soil Conservation, or the National Technical Committee for Hydric Soils.

b. Plant material:

1. Seedlings, Tubers, Rhizomes and Other Propagule Materials: Shall have at least one viable shoot or growing point capable of initiating above ground growth.
2. Plugs: Cubes or cylinders of soil containing crowns, stems, roots and rhizomes with one-half (1/2") inch or more diameter and depth sufficient to

contain rhizomes and the majority of the fibrous root systems. All plants shall be well established and have a minimum shoot height of twelve (12") inches at the time of installation (minimum one year old plants.) Plants larger than specified may be used if approved by the City.

3. All plugs shall be free of Purple Loosestrife (*Lythrum salicaria*) and Cattail (*Typha angustifolia*) seeds, seedlings, and propagules.
4. Plants shall be of local origin (within 200 mile radius of project site), hardy under the climatic conditions at the project site, free from insects and diseases, and having the appearance of health, vigor, and habit normal for the species.
5. Substitutions of plants will not be permitted unless authorized in writing by the City.

c. Planting timeline

1. Planting shall occur where water is present and when the soil is completely saturated.
2. Plants shall be hand-planted by hand carefully and firmly in place on the spacing specified to the minimum depth necessary to anchor them in wetland soil.
3. If submersion of plants is required, plants shall be placed in meshed bags with non-lead weights attached to each plant and then dropped into the water.
4. The beginning and termination dates for planting shall be as follows and shall not be adjusted except as approved by the City in writing:

Spring: May 1 to June 15

Fall: August 15 to September 15

d. Herbivore Protection:

1. Steel posts, wood posts, box protection, or overhead protection are all acceptable methods of herbivore management that shall be provided to protect the plantings. Herbivore management shall be provided to protect the plantings. Herbivores are defined as, but not limited to protection from geese, ducks, muskrats, carp, and rusty crayfish.

C. Detention Basins (Dry Ponds)

1. Design: Requirements for detention basins shall satisfy design criteria as set forth in the Grading Section of these Standards. Consideration will be given only to basins for the dual use of detention and recreation. In order to facilitate the review of park areas, the proposed outline of the detention basin at the two-year, 10-year, and 100-year high water line shall be illustrated on the preliminary plan or the P.U.D. plat.

- a. Basin configuration:

1. The basin shall be natural in appearance featuring varying slopes running down to the basin bottom. Plantings shall reflect the soil and moisture content, which includes, but is not limited to: wet-mesic, mesic prairie, etc. Slope requirements shall be appropriate to ensure healthy growth and development of the specified vegetation type.
2. The bottom slope shall be a minimum of two (2%) percent except that a zero (0%) percent slope will be allowed directly over the underdrain pipes.

- b. Inlets:

1. These areas shall be designed with an underdrain, subject to the approval of the City, so that ponding beyond the storage does not occur and that a good stand of grass can be maintained.
2. All incoming and outgoing conduit shall have concrete flared end sections or poured in place headwalls with grates.
3. Two (2') foot inlets can be placed over the low flow pipe.
4. The maximum water depth below the HWL shall be four (4') feet.

- c. Buffer yards/Trails

1. Buffer yards shall include natural plantings of trees, evergreens and shrubs.
2. In areas where a pedestrian/bicycle trail occurs between the property line and basin, there shall be a minimum fifty (50') foot wide buffer between the property line and the high-water level line. The fifty (50') foot wide buffer will be broken down into a minimum twenty (20') foot wide area between property line and outside edge of the path, and a minimum twelve (12') wide area between the inside edge of path and the high-water level line.

3. In areas where there are no paths between the property line and a basin, there shall be a minimum thirty (30') foot wide buffer between the property line and the high-water level line.

2. Planting Specifications

a. Soils:

1. Topsoil shall be a loamy mixture (USDA Loam, Sandy Loam, or Silty Loam soil) with an organic content between five (5%) percent and ten (10%) percent. At least 90% must pass the 2.00 mm (No. 10) sieve and the pH must be between 5.0 and 8.0, from A horizon of local soil profiles. Topsoil shall be capable of supporting the germination of vegetation. It shall not contain toxic substances harmful to plant growth.
2. Topsoil shall be typical of the locality of the work, friable with good tilth, free from large roots, sticks, weeds, brush, subsoil, clay lumps, or stones larger than one (1") inch in diameter or other litter and waste products.
3. Topsoil for paved surfaces (asphalt courts, paths, etc.) shall be clay soil that meets the requirements of Section 204 of the Standard Specifications. It shall be free from topsoil, organic matter (roots, tree stumps, etc.), rocks larger than three (3") inches in size, and building debris.

b. Plant Material:

1. Seed quantities indicated shall be the amounts of pure, live seed per acre for each species listed. Pure, live seed shall be defined as the sproutable seed of a specified variety and calculated as the product of the viable germination times the purity. The seed (pounds per acre) are designed to yield specific amounts of pure, live seed per acre based on the pure, live seed percent values listed in Table II of Article 1081.04 of the "Standard Specifications." Seed which, according to tests, has actual pure live seed yield less than the intended yield; will have the specified quantity adjusted to meet the intended pure, live seed yields.
2. All seed shall be guaranteed by the vendor to be true to name and variety. Whenever a particular origin is specified, all seed furnished shall be guaranteed to be from that origin. The contractor shall provide the prairie/wetland/forb seed mix showing the percentage by mass (weight) of each of the kinds of seed.
3. All prairie/wetland/forb seed shall have the proper stratification and/or scarification to break dormancy for the appropriate planting season.

4. Legumes: Inoculate all legumes with the proper rhizobia and rate at the appropriate time prior to planting.
5. Seed Mix: The seed mix for the prairie/wetland seed and forbs shall be as shown on the plans or as attached to these specifications.

c. Seeding Time:

1. Prior to seeding, the ground surface shall be smooth, dry, friable and of uniformly fine textures.
2. No seed shall be sown during high winds or wet conditions.
3. All prairie grass seeding shall be done with a drill-type seeder. The optimum depth for seeding shall be one-quarter ($\frac{1}{4}$ ") inch.
4. All forb seed shall be mechanically or hand broadcast. Forb seed shall not be incorporated into the soil, or otherwise buried, but shall be rolled to ensure good soil/seed contact.
5. Broadcasting seed, mechanically or by hand, will only be allowed in inaccessible areas. The seed shall be covered with a thin layer of topsoil and rolled to place seed in contact with the soil. The optimum depth is one-quarter ($\frac{1}{4}$ ") inch.
6. No hydraulic seeding (hydro-seeding) is allowed.
7. The beginning and termination dates for prairie or wetland seeding shall be as follows and shall not be adjusted except as approved by the City in writing:

Spring: May 1 to July 1

Fall: September 15 to October 1

8. All seeding requires erosion control blanket. See point G for specifications.

D. Maintenance: After all initial work has been completed satisfactorily according to the specifications, the following establishment and maintenance work shall be performed by the Contractor for a period of three (3) years or until 90% of the plant material is established as outlined in the contract. The three year establishment and maintenance period shall start the following growing season after all the initial seeding/maintenance work is completed as specified and approved by the City. For initial spring seeding completed by July 1st, the maintenance period shall start September 1st. For fall seeding completed by October 1st, the maintenance period shall start May 1st.

1. Maintenance, including watering, mowing, herbicide application, and burning will be required to assist the native vegetation in growth and reduce the competition of weeds until all plant material has established and matured and been accepted by the owner.

- a. First Year

1. Inspection

- a. Contractor shall inspect planting and/or seeding areas June 1, June 15, June 30, and not more than every 30 days thereafter during the first growing season following completion of the seeding and report findings to the City.

2. Evaluation:

- a. Planting and/or seeding areas will meet or exceed the following performance criteria by the end of the first growing season following seed installation: 95% overall aerial vegetative cover with no areas larger than 100 square feet with less than 75% cover, seedlings of a minimum of two planted grass species found, and seedlings of a minimum of three planted wildflower species found.

3. Weed Control

- a. Review the site and treat all noxious weeds with a herbicide by a "wicking application" and hand weeding as appropriate once per month from May through September. (Herbicide by spray application will not be allowed because of overspray and the drifting down of herbicide killing the plant material below the weeds.)
 - b. When the vegetation reaches the height of twelve (12") inches, the Contractor shall mow it to a height of six (6") inches. No more than two mowing per season is necessary. (Mowing the site helps to control weeds and allows prairie/wetland plants to compete.)

4. Species Enrichment

- a. Overseed or re-plant thin, bare, or weedy areas with the appropriate seed mix or plant materials per dates as specified.
 - b. Plant herbaceous plugs for greater impact (optional).

- b. Second Year

1. Inspection

- a. Contractor shall inspect planting and/or seeding areas once a month from May through October during the second growing season and report findings to City.

2. Evaluation

- a. Planting and/or seeding areas will meet or exceed the following performance criteria by June 30 of the second growing season

following seed installation: 95% overall aerial vegetative cover with no areas larger than 100 square feet with less than 75% cover, seedlings of at least 25% of all seed species found. These performance criteria will be maintained throughout the second growing season.

3. Controlled Burn

- a. Prepare and obtain a controlled burn permit from the IEPA in January.
- b. Conduct controlled burn in early spring. (Burning is necessary to reduce the non-native weeds while promoting the desired mesic/wet-mesic species.) Weather conditions may necessitate schedule changes and shall require City approval.
- c. Review site and mow areas that did not burn.
- d. If there is not enough "fuel" to have a successful controlled burn, mowing as specified in Section 3.08,D.,1.,b. shall be performed in lieu of burning.

4. Species Enrichment

- a. Overseed thin, bare, or weedy areas per seeding dates as specified.
- b. Plant herbaceous plugs for greater impact (optional).

3. Weed Control

- a. Review the site and treat all noxious weeds with a herbicide by a "wicking application" and hand weeding as appropriate once per month from May through September. (Herbicide by spray application will not be allowed.)
- b. When the mesic/wet-mesic vegetation reaches the height of twenty-four (24") inches, the Contractor shall mow it to a height of twelve (12") inches. Only one mowing per year is necessary.

c. Third Year

1. Inspection

- a. Contractor shall inspect planting and/or seeding areas once a month from May through October during the third growing season and report findings to City.

2. Evaluation

- a. Planting and/or seeding areas will meet or exceed the following performance criteria by June 30 of the third growing season following seed installation: 99% overall aerial vegetative cover with no areas larger than 100 square feet with less than 90% cover, seedlings of at least 50% of all seed species found. These performance criteria will be maintained throughout the third growing season.

3. Controlled Burn

- a. Prepare and obtain a controlled burn permit from the IEPA in January.

- b. Conduct controlled burn in early spring. Weather conditions may necessitate schedule changes. Such changes shall require City approval.
- c. Review site and mow areas that did not burn.

4. Species Enrichment

- a. Overseed thin, bare or weedy areas per seeding dates as specified.
- b. Plant herbaceous plugs for greater impact (optional).

5. Weed Control

- a. Review the site and treat all noxious weeds with a herbicide by a "wicking application" and hand weeding as appropriate once per month from May through September. (Herbicide by spray application will not be allowed.)
- b. When the mesic/wet-mesic vegetation reaches the height of twenty-four (24") inches, the Contractor shall mow it to a height of twelve (12") inches. Only one mowing per year is necessary.

2. Final Inspection and Acceptance

- a. Acceptance of the work will be determined through a naturalized basin report submission to the City that has been reviewed and approved. The percentage of species planted with area present and apparent as live plants must meet IDNR and USACE standards.
- b. If the performance standards are not met, the contractor shall reseed, replant, and remulch as specified herein all unacceptable areas to the satisfaction of the City.

E. Inlet and grate design

- 1. All grates for drainage inlets shall be bicycle safe and accessible per the ADA when placed in walkways or drives.
- 2. All trash covers for storm inlets shall have a maximum opening of three and one-half (3.5") inch square to prevent a child's head entrapment. All grates on drain culverts and pipe inlets and outlets shall be bolted in place.

F. Turf Grass

- 1. Developers shall install turf grass in agreement with the City. This work shall occur after the placement of all topsoil, fine grading, and installation of sidewalks, pathways, and plant material.

2. All park access points of 100 ft. width or less shall be sodded. Sodding procedures shall be in compliance with all City regulations regarding sodding and watering practices.
3. The seed shall be a premixed Bluegrass / Ryegrass mixture approved by the City. The mixture shall be by weight a 70% mixture of three (3) Kentucky Bluegrasses (equal percentages) and a 30% mixture of three (3) perennial Ryegrasses (equal percentages). The mixture shall be sown at the rate of 220 lbs. per acre. All seed shall be certified 98% purity and 80% germination.
4. Prior to seeding, all lawn areas shall be fertilized with an approved starter fertilizer at an approved rate. The fertilizer shall be cultivated into the top three inches of the topsoil.
5. The seeding season for turf grass shall be as follows and shall not be adjusted except as approved by the City in writing:

 Spring: April 1 to May 15
 Fall: August 15 to October 1
6. The developer shall reseed all areas that do not germinate and repair all eroded areas and reseed them until 90% germination has taken place. All other aspects of maintenance will be done by the City after the property is accepted.

G. Mulching

1. Erosion Control Blanket: All seeded areas less than 3:1 slope shall be mulched within twenty four (24) hours of seeding.
 - a. Seeding areas designated to receive erosion control blanket shall be covered with biodegradable seed blanket as specified.
 - b. All seeded areas of slopes steeper than 4:1, the bottom of swales and around drainage structures, should be covered with erosion control blanket the same day as seeded.
 - c. The blanket shall be laid out flat, evenly and smoothly, without stretching the material. The blankets shall be placed so that the netting is on the top and the fibers are in contact with the soil.
 - d. For placement in ditches, the blankets shall be applied in the direction of the flow of the water and butted snugly against each other.
 - e. All blankets shall be stapled in place, using four (4) staples across the upstream end at the start of each roll and placing staples on four (4') foot centers along each side. A common row of staples shall be used along

seams of adjoining blankets. All seams shall overlay at least two (2") inches. On slopes, the blankets shall be applied either horizontally or vertically to the contour and stapled in place similar to ditch applications except that the staple space interval shall be six (6') feet.

2. Areas seeded with an annual temporary mix to prevent erosion until permanent seeding is completed, does not require mulching.
3. Turfgrass seeding areas shall be mulched in accordance with the 'Standard Specifications'. Contractor is responsible for obtaining all water for the work.
4. All seeded areas less than 4:1 slope should be mulched within 24 hours of seeding using straw with tackifier.

Straw – rate: two (2) tons (4000 lbs.) per acre

Mulch binder for straw – 40 lbs. per acre

- H. Greenways/Wetlands/Floodplain Areas: For areas of natural habitat re-establishment or enhancement such as floodplains, wetlands, or greenways, the Developer shall submit complete installation and maintenance plans to the City prior to acceptance of the development plat.
- I. Conservation and Protected Areas: For areas to be dedicated, as a conservation or protected area, an environmental study including a topographic map shall be completed by the developer identifying the endangered and protected areas, summary of floristic quality, wetland, and floodplain maps and inventory of wildlife, vegetation, and habitats. Watershed areas shall be identified with recommendations for management. All studies shall be completed prior to the land dedication. Developer shall comply with all City wetland standards.
- J. Lakes: Any body of water considered a lake, or large body of water, will be considered on a case-by-case basis. Preliminary submissions should include a condition report, and future maintenance requirements.

SECTION 6: NATURAL AREAS

- A. General: It is not the practice or desire of the City to accept any natural area, including, but not limited to woodlands, greenways, or conservation areas, as part of a park. Any variance from this practice must be approved by Staff and Park Board.
1. Special consideration may be given for acceptance of natural areas if they are adjacent to other park areas, include threatened or endangered plants, specimen trees species, wildlife habitat, create a vital link in the parks master plans, and meet usability criteria at the discretion of the Staff and Board.
 2. This may include, but not be limited to, safe access, incorporated trail systems, overlooks, or natural habitats.
 3. Woodlands: should woodlands be part of the local donation, they shall meet the following requirements:
 - a. A tree survey, as outlined in the Landscape Ordinance, shall be completed and submitted. This shall include the site topography and future development plans.
 - b. Outflow from subsurface drains must not be allowed to pass through the riparian forest in pipes or tile thus circumventing the treatment processes.
 - c. Outflow is not allowed to be directly piped into riparian forests. Backyards shall slope to the side of the lot and drain into an inlet, or follow a swale to the street. Turfgrass runoff shall not directly infiltrate the woodland.
 - d. It can be expected that the developer will assume responsibility to bring the woodland to park standards. In cases where existing trees and shrubbery are present on the site, deadwood, undesirable trees, and thinning of dense growth, which may include branches or entire trees and shrubs, shall be removed. All stumps shall be ground to twelve (12") inches below grade, backfilled and restored in accordance with grading and seeding requirements. Improvements standards includes, but are not limited to, the following items:
 1. Clear understory trees
 2. Remove dead or decaying material
 3. Remove hanging tree limbs
 4. Clear vines from trees
 5. Clear underbrush
 6. Clear invasive species and noxious weeds
 7. Perform a prescribed burn (by certified contractor)
 8. Clear fence or repair damaged fence

B. Management Practices: If the natural area is to be conveyed to the City or Homeowner's Association. Details and specifications must be included with the landscape plan submittal. The following methods/practices must be followed to manage the natural area:

1. Best Management Practice (BMP) this shall include, but is not limited to minimizing site disturbance, providing tree protection, installing silt fence, etc. Changes to the plans including, but not limited to, percent of slope, grading, depth of top soil, location of structures or any other improvements shall not be implemented unless first approved in writing by the City.
2. Integrated Pest Management (IPM) use a combination of manual, mechanical, biological, chemical and preventative techniques to minimize the impact of insects, diseases, and unwanted vegetation. Common chemicals used in forest land management are generally pesticides (insecticides, herbicides, and fungicides) and fertilizer. These chemicals are used to control pests - including insects, diseases, and unwanted vegetation - and to enhance tree growth.
3. Streamside management zones (SMZs) includes land and vegetation areas next to lakes and streams where management practices are modified to protect water quality, fish, and other aquatic resources. These areas are complex ecosystems that provide food, habitat and movement corridors for both water and land communities. Also, because these areas are next to water, SMZs help minimize nonpoint source pollution to surface waters.

C. Development Standards: City staff will evaluate the condition of the natural area to be dedicated. A report submitted by the developer will outline the items the developer is responsible for completing prior to conveyance. The report shall include, but is not limited to, the following items:

1. Environmental Assessment
2. Species survey/habitat
3. Historical survey/Archaeological study
4. Wetland survey

SECTION 7: PLANTING SPECIFICATIONS

A. Existing vegetation includes, but is not limited to, trees, shrubs, grasses, perennials, groundcovers and wildflowers shall be protected during the construction process if determined by the City to be preserved. Development plans shall include methods of protecting such vegetation during the developer's construction process.

B. New Landscaping

1. Planting Standards

- a. All landscape material shall meet the standards of the "American Standard for Nursery Stock" (ANSI Z60.1-2004) of the American Standard of Nurserymen.
- b. All plant material must be grown in Northern or Central Illinois.
- c. The limits for the source of plant material shall be zones 5a and 5b in Northern Illinois only. Plant hardiness zones shall be as designated in the current Miscellaneous Publication No. 814, Agricultural Research Service USDA. All Illinois counties located in sub-zone 5a shall be considered a part of sub-zone 5b.
- c. The plants and material shall be inspected by the City at the nursery and project site if they so desire. The City reserves the right to tag material prior to digging.
- d. Trees planted in parks shall be a minimum size of:

SHADE.....	2 ½" caliper BB
ORNAMENTAL	2 ½" caliper BB (single stem)
.....	6' BB (multi-stem)
EVERGREEN	6' BB

Plants marked "BB" are to be balled and burlapped, and shall be dug with a sufficient quantity of earth taken equally on all sides and bottom of the plants to include the depth of the roots according to species. The balls shall be prepared in a workmanlike manner and firmly bound.

2. Backfill mixtures

- a. Backfill may be excavated topsoil. The backfill shall, at the time of planting, be in a loose, friable condition.
- b. Mixture for backfilling plant holes of all deciduous trees, shrubs, and evergreen plant material shall consist of approved topsoil as needed to match the level of existing grade.

- c. Mixture for broadleaved evergreens shall consist of one-half ($\frac{1}{2}$) volume topsoil mixed with one-half ($\frac{1}{2}$) volume uncompressed sphagnum peat moss or one-third ($\frac{1}{3}$) volume topsoil, one-third ($\frac{1}{3}$) volume sphagnum peat moss and one-third ($\frac{1}{3}$) volume coarse sand pH 6.5 or lower.
- d. The beds for groundcovers, perennials, annuals, etc., shall consist of one-half ($\frac{1}{2}$) volume topsoil, one-fourth ($\frac{1}{4}$) volume peat moss and one-fourth ($\frac{1}{4}$) volume mushroom compost (composted manure). Beds shall be cultivated to a depth of six (6") inches and be raked smooth during the process of plant installation.

3. Planting

- a. Regardless of calendar date, trees must be dormant at the time they arrive at the site of the work or storage site. If trees are dug in-season, they must be properly watered and sheltered until the time of planting.
 - 1. Spring Planting: This work shall be performed from the time the soil can be worked until the plant, under field conditions, is not dormant. Evergreen planting shall terminate on May 15, perennial planting shall terminate on May 15.
 - 4. Fall Planting: This work shall be performed from the time the plant becomes dormant until the ground cannot be satisfactorily worked except that evergreen planting shall be performed between September 1 and October 31 and perennial planting shall be between August 15 and September 15.
- b. Excavation of Plant Holes
 - 1. The sides of all plant holes shall be angled at approximately 45 degrees. All plant holes shall be dug in such a manner that the inside surfaces of the hole shall be in a loose friable condition prior to planting. Glazed or compacted sides will not be permitted.
 - 2. The equipment used to dig the plant holes must be approved by the City Staff.
 - 3. Plant holes shall be twice the diameter of the root ball. The root ball shall set on compacted, undisturbed earth.
 - 4. On slopes, the depth of excavation will be measured at the center of the hole.
- c. Planting Procedures
 - 1. All plants shall be placed in a plumb position and set at the same depth as they grew in the nursery field. Backfill shall be placed around the root system.

2. Tamping or watering shall accompany the backfilling operation to eliminate air pockets. Set the base of the tree trunk two inches above the surrounding soil.

4. Planting Operation

- a. Plants shall be set in the center of the holes, plumb and straight at such a level that after settlement, the crown of the ball will be slightly above finished grade.
 1. All balled and burlapped plants shall have the twine or ropes removed that secures the burlap to the trunk of the plant.
 2. All wire baskets around the ball of the tree shall be cut away from the top one half of the ball.
 3. The top one-third ($\frac{1}{3}$) of burlap shall be removed from the balls after setting the plant in the hole.
 4. Container grown plants shall have the container removed with care as to not break the ball of soil that contains the root system. If the root system is "pot bound", scarify before placing in the hole.
 5. A circular water saucer with the soil shall be constructed around each individual plant.

5. Watering

- a. A thorough watering of trees, with a method approved by the City shall follow the backfilling operation. This watering shall completely saturate the backfill and be performed during the same day of planting. After the ground settles as a result of the watering, additional backfill shall be placed to match the level of the finished grade.
- b. Approved watering equipment shall be at the site of the work and in operational condition prior to starting the planting operation.
- c. All water must be provided by developer or contractor.

6. Mulching/Wrapping

- a. Immediately after watering, plants shall be mulched. A layer of wood chips shall be used to cover the circular water saucer to a depth of four (4") inches when settled.

- b. All mulching shall be kept in a minimum of six (6") inches from the trunk of all trees and shrubs.
- c. Immediately after planting, trunks of all deciduous trees shall be wrapped spirally from the ground to the lowest major branch (after pruning) overlapping the wrap at least one-third ($\frac{1}{3}$) of its width. Trees shall not remain wrapped during the summer months.

7. Pruning Procedures

- a. Qualified personnel, experienced in horticultural practices and operations, shall perform all pruning. The method and location of pruning and the percentage of growth to be removed shall meet the approval of the City. All pruning shall be done with sharp tools in accordance with the best horticultural practices.
- b. Pruning shall consist of thinning the twigs or branches as dictated by the habit of growth and the various types of the trees to be pruned, and as directed by the City. The leader and terminal buds shall not be cut unless directed by the owner.
- c. The ends of all broken and damaged roots one-quarter ($\frac{1}{4}$) inch or larger shall be pruned with a clean cut, removing only the injured portion. All broken branches, stubs, and improper cuts of former pruning shall be removed.
- d. Evergreens shall not be pruned except to remove broken branches.

SECTION 8: PATHWAYS AND TRAILS

A. Trail Standards

1. The following standards shall be used in design and development of both local and regional trails:
 - a. The design and development of the trail system shall be in accordance with the most recent Guide for the Development of Bicycle Facilities, as published by the American Association of State Highway and Transportation Officials (AASHTO).
 - b. A minimum design speed of 20 mph shall be used for bicycles on the trail. When the grade exceeds four (4%) percent, a design speed of 30 mph is advisable.
 - c. The minimum horizontal radius of curvature at 20 mph shall be at 30 feet, and at 30 mph, 90 feet.
 - d. For most trail applications, the super-elevation rate shall vary from a minimum of two (2%) percent to a maximum of approximately five and one-quarter (5.25%) percent. The minimum super-elevation rate of two (2%) percent will be adequate for most conditions.
 - e. Grades
 - i. Vertical grade on the trail shall be kept to a minimum, although it may not be possible in some areas. A grade of five (5%) percent should not be longer than 800 feet. A grade of eight (8%) percent (12:1) will be the maximum to allow for handicapped accessibility.
 - ii. Horizontal grade shall slope the trail surface in one direction at the maximum rate of two (2%) percent.
 - iii. The grade for trails adjacent to and part of an existing roadway shall be the same as the roadway.
 - iv. A ten (10') foot wide area with a maximum slope of 20:1 shall be adjacent to both sides of the trail.

B. Inventory of Existing Facilities

1. An inventory and site analysis of the existing conditions and facilities along the proposed trail shall be conducted to determine their effect and relationship on the design, development, and usage of the trail. The site analysis includes, but is not limited to the following:
 - a. Review of the proposed trail locations to determine their impact on all adjacent property owners and land uses.

- b. A review of the proposed trail locations, structures, and adjacent facilities for all historical, unique, or local significance.
- c. Analysis of all bridges and drainage structures to determine their compliance with the local and state minimum loading requirements, if applicable.
- d. Identification of significant or unique ecosystems.

C. Trail Access

- 1. Appropriate ingress and egress to the trail system shall be designed for all authorized users, emergency and maintenance vehicles. Entry points shall be designed to control and prevent access by unauthorized vehicles.
 - a. Major entry points are located at or near the beginning and termination of the trail, at major or special points of interest along the trail, and at locations to provide maintenance of the trail.
 - b. Minor entry points are locations along the trail for the purpose of allowing users to enter the trail.
 - c. Road crossings shall be considered entry points and access will be provided.
 - d. Parking facilities, information for users (park signs, trail I.D. signs, information signs, traffic signs, display cases, etc.), site amenities (bike racks, benches, picnic tables, drinking fountains, etc.), access for maintenance, emergency and security vehicles, items to prevent unauthorized use and assist with security (bollards, drop gates, fencing, etc.), landscaping for aesthetics and function (shade, screening, delineation and beautification) shall be considered at appropriate ingress and egress locations.

D. Roadway and Crossing Signage

- 1. Approved standard precautions and signage shall be used in the design of the trail at intersections with the roadway.
 - a. Warning signs identifying an intersection with a roadway shall be posted a minimum of 200 feet before the intersections.
 - b. Stop signs shall be posted for the trail user at the intersection of the roadway. A sign with the cross street name shall be located below the stop sign.
 - c. Striped crosswalks shall be the same width as the trail and shall consist of two parallel six (6") inch white thermoplastic lines.

- d. All roadway crossings must be ADA compliant with red concrete with truncated dome stamp installed at each intersection.
2. A uniform signage system incorporating the Park and Recreation Department and the United City of Yorkville sign standards shall be designed for the trail. Where applicable, signage in conjunction with roadways should conform to the guidelines of the Manual on Uniform Traffic Control Devices (MUTCD). Signage shall be placed on posts or on the pavement, or on both where necessary. All signage shall be approved by the Parks Department prior to installation. The signage shall include the following:
 - a. Rules and regulations for usage of the trail (posted at all major access points).
 - b. Information, interpretative, points of interest, directional, and warning signs (posted as applicable).
 - c. Park identification signs.
 - d. A four (4") inch wide yellow centerline stripe shall be used to separate opposite directions of travel on primary trails, as determined by Staff.

E. Sight and Stopping Distance

1. Sight and stopping distance is the distance required to see an obstruction, react to it, and brake to stop. The formulas and charts in the Guide for the Development of Bicycle Facilities shall be used for each special location to insure minimum safe sight and stopping distances. For example: A five (5%) percent grade would require approximately 260 feet of stopping distance.

F. Widths and Clearances

1. The paved width and the operating width required for a shared use path are primary design considerations. The current width for all primary trails shall be ten (10') feet, not including the area needed for shoulders. A reduced width of eight (8') feet can be used at the approval of Park Department and City Staff.
 - a. There will be good horizontal and vertical alignment providing safe and frequent passing opportunities.
 - b. During normal maintenance activities the path will not be subjected to maintenance vehicle loading conditions that would cause pavement edge damage.
 - c. A minimum two (2') foot wide level graded shoulder with grass is required on each side for safety clearance.

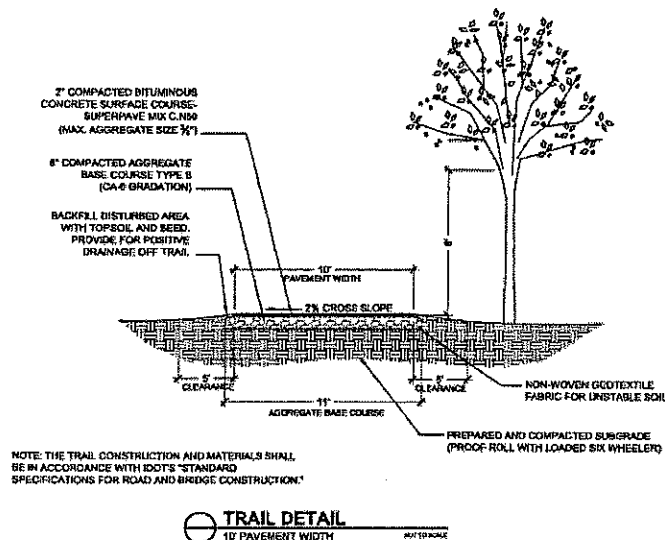
- d. Vertical clearance shall be a minimum of eight (8') feet above the trail.

G. Trail and Roadway Bridges

1. Bridges shall be installed to connect trails across valleys, streams, creeks, ravines, etc.
 - a. New bridges shall be constructed with a minimum width of ten (10') feet. On existing bridges, an eight (8') foot width is acceptable.
 - b. Bridges designed for bicycles shall be designed for pedestrian live loads. Where appropriate, the design shall accommodate maintenance and emergency vehicles. A barrier shall be provided to prevent use by unauthorized vehicles.
 - c. A minimum clearance width for trails shall be the same as the approaching paved trail. The desirable clearance width shall be the minimum two (2') feet towards the handrail side.
 - d. Handrails, barriers, or fences shall be a minimum of forty-two (42") inches high and located on both sides of the trail where appropriate. Taller barriers or fence sections may be desired at locations such as a highway or ravine.
 - e. On all bridge decks, bicycle safe expansion joints shall be used at all joints and transition points.

H. Cross Sections

1. The trail surface shall be suitable for bicyclists, joggers, roller bladers, walkers, etc. and it shall be handicap accessible. The trail shall be designed to accommodate the wheel loads of occasional emergency, patrol, construction and routine maintenance vehicles. The following cross sections as shown in the detail below are typical for the majority of the applications.



I. Subgrade and Base Course

1. The area shall be excavated to the depth required, graded, and compacted. Geo-textile fabric Amoco 4551 shall be used for subgrade stabilization in areas of non-granular soils. Twelve (12") inch diameter or greater RCP pipe with flared-end-sections with metal grates shall be used for all culverts with the opening of flared-end-sections a minimum of two (2') foot from the trail edge.
2. Aggregate base course (Type B): eight (8") inch compacted thickness of aggregate base course of crushed limestone (CA-6 gradation) shall be placed and compacted on the prepared subgrade.
3. A subgrade proof-roll for trails will be required. The proof-roll vehicle shall be a tandem-axle dump truck carrying at least 14 tons of aggregate. A delivery ticket confirming the weight of aggregate is required. Any subgrade deflections in excess of two (2") inches will require over-excavation of the subgrade and a follow-up proof-roll after the aggregate base is placed. If the subgrade passes the proof-roll test with no deflections in excess of two (2") inches, then no additional proof-rolls will be required. Any deflections in excess of one (1") inch during follow-up proof-rolls will require thickening of the asphalt section by an amount to be determined by the city.

J. Surface Course

1. Limestone screening surfaces shall consist of limestone screenings (FA-5) with a minimum compacted thickness of two (2") inches to be placed and compacted on the prepared aggregate base course. The finished surface shall meet all minimum slope requirements, and be free of ruts, depressions, or humps.
2. Bituminous concrete surface course shall be two (2") inch compacted thickness of bituminous asphalt surface course and shall be placed on the prepared aggregate base course. The finished surface shall meet all minimum slope requirements and compaction tests and be free of ruts, depressions, or humps.
3. The concrete surface should be a minimum thickness of five (5") inches of concrete on an aggregate base course, and six (6") inches thick where it crosses driveways, farm lanes, or other areas where vehicular traffic is anticipated. The concrete shall have a minimum breaking point of 3500 p.s.i. at 28 days and the finished surface should have a cross slope of one-quarter ($\frac{1}{4}$ ") inches per foot. Broom finish tooled joints every six (6') feet. Expansion joints every 100 feet.
4. Stamped concrete must follow the IDOT standard.
5. Porous pavement can be used for trails and must follow the most current industry standards and installed by a contractor knowledgeable in the trade. All designs are subject to City approval.

6. Concrete pavers are not desired for bike trails unless they are incorporated into a trail head and will meet the industry standards for concrete pavers.

K. Additional Site Improvements

1. Sitting areas: Areas specifically designated where trail users may safely stop and site and/or rest adjacent to or away from the trail. Sitting areas will be located in conjunction with existing or proposed parks, historic, scenic, or unique points of interest.
 - a. Each location will be individually designed and take into consideration the existing features of the site and trail alignment.
 - b. The design of a sitting area will be an integral part of the final approved site plan for the park.
 - c. The design of a sitting area along the trail itself will not interfere with user traffic.
2. Landscaping: Additional landscaping may be required to buffer residential, commercial, or industrial as recommended by Staff.
 - a. The landscape plan approved must be compliant with the City's Landscape Ordinance.
 - b. Fencing may be considered (where necessary) because of right-of-way space limitations. The fencing shall be appropriately designed to be consistent with the character of the location and trail system. Fencing must meet the ordinance requirements and be approved by the City.

L. Trail Conversions

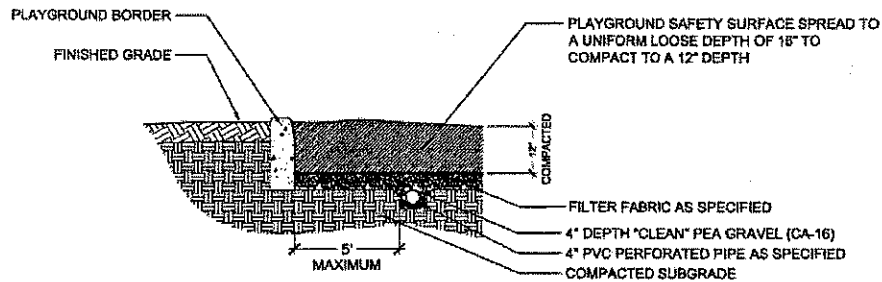
1. Existing gravel trails must be graded, and receive additional crushed limestone (CA-6 gradation) for proper grading and drainage, compacted, and paved with one of the surface treatments under 'Surface Course'.

SECTION 9: PLAYGROUND IMPROVEMENTS:

- A. Playground or other park improvements desired by the developer must submit all construction methods, including, but not limited to, equipment, materials, grading, and drainage.
- B. Playgrounds shall be designed with accessible curbing, concrete retaining curb, and surfacing as shown on the following details.

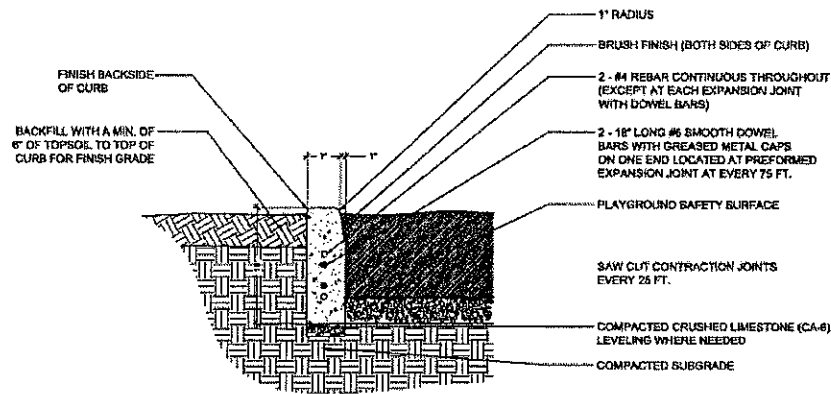
PLAYGROUND SAFETY SURFACE

1. The playground safety surface shall be an engineered wood fiber made from virgin hardwoods, with no chemicals or recycled or used materials.
2. It shall meet or exceed all required playground surfacing guidelines and comply with A.D.A. requirements for wheelchair accessibility and shock absorbtency.
3. The City shall receive a sample of the wood fiber surface and the name of the supplier for approval.



SAFETY SURFACE AND DRAINAGE DETAIL

NOT TO SCALE



PLAYGROUND CONCRETE CURB DETAIL

NOT TO SCALE

- C. Until acceptance by the Park Board, the developer shall maintain any park improvements in a safe and clean condition, including inspections for dangerous objects, vandalism, and wear and tear. Turf must be fully established and all improvements and requirements specified in this document must be completed prior to City acceptance.

SECTION 10: DEVELOPER OBLIGATIONS

The following items are regulations and requirements of all developer improved park land until accepted by the City.

A. General

1. All rubbish and debris including, but not limited to, old tires, construction material, fencing, tree houses, trash, and other material not desired by the City, shall be removed from the site.
2. The City shall not be held liable for any damages that may occur on such a park site, and shall be held free and harmless from any and all claims that may be submitted.
3. All storm water structures shall include proper grates and covers to protect the public and shall be maintained free of debris to ensure unrestricted flow of storm water runoff.

B. Turf

1. Turf shall be mowed at regular intervals and shall not exceed four and one-half (4.5") inches in height.
2. Areas of erosion, including but not limited to swales, slopes and around storm structures shall be repaired/restored in accordance with grading and seeding requirements. All areas within ten (10') feet of on-site structures shall be sodded rather than seeded for erosion control purposes. Full establishment of turf is required before acceptance.
3. In cases where existing trees and shrubbery are present on the site, deadwood and undesirable trees or thinning of dense growth shall be removed. This may include branches or entire trees and shrubs. All stumps shall be ground to twelve (12") inches below grade, backfilled and restored in accordance with grading and seeding requirements.
4. Fully established turf is defined as 90% free of weeds and bare spots, vigorously growing, and containing a well established root system with multiple blades per plant.

C. Planting

1. Maintenance shall begin immediately after the planting is completed and shall continue until final inspection and acceptance. This shall consist of weeding, watering, mulching, spraying, resetting plants to proper grades or upright position, repair of water saucers or other work that is necessary to maintain the health and satisfactory appearance of the plantings.

2. Watering: Additional watering, up to 50 gallons per tree, shall be performed at least once within every 30 days during the months of May through October. The schedule for watering within the 30 day increment will be determined by the City. Should excessive moisture conditions prevail, the owner may delete any or all of the additional watering cycles or any part of said cycles. The contractor shall not be relieved in any way from the responsibility for unsatisfactory plants due to the amount of supplemental watering.
3. Weeding: Weeds and grass growth shall be removed from within the earthen saucer of individual trees and from the area within the periphery of the mulched plant beds. This weeding shall be performed at least once during the months of May through October. The City will determine the weeding schedule. The contractor shall not be relieved in any way from the responsibility for unsatisfactory plants due to the extent of weeding.
4. The contractor shall guarantee all plant material for a period of one (1) year from the date the plants are accepted by the City.
5. All plant material, which dies within 30 days after being planted, shall be replaced immediately and be considered part of the original planting. The guarantee period of one (1) year shall take effect from the date of planting.

REFERENCES

Guide for the Development of Bicycle Facilities, AASHTO, 1999
Illinois Department of Transportation Standard Specifications, 2002
Kendall County Trails and Greenways Plan, 2004
United City of Yorkville Land Cash Ordinance
United City of Yorkville Park Development Standards, 2004
United City of Yorkville Standard Specifications for Improvements
Yorkville Parks and Recreation Department, Bicycle/Pedestrian Trail System,
Standards and Design, 2002

STATE OF ILLINOIS)
) ss
COUNTY OF KENDALL)

ORDINANCE No. 2005-59

**ORDINANCE AMENDING THE CITY'S STANDARD SPECIFICATIONS FOR
IMPOVEMENTS (^{Resolution}~~ORDINANCE~~ 2004-39) REFERENCED IN CITY CODE
SECTION 11-5-9 REGARDING THE RELEASE RATE FOR STORMWATER IN
THE AUX SABLE CREEK WATERSHED**

Whereas the United City of Yorkville has taken up, discussed and considered amending the City's Standard Specifications (Resolution 2004-39, referred to in Section 11-5-9 of the City Code) specifically referring to the allowed release rate for the Aux Sable Creek watershed, and

Whereas the Mayor and City Council have discussed that it may be prudent to amend said Standard Specifications (Resolution 2004-39) to change the 100-year release rate for all developments tributary to the Aux Sable Creek to .10 cfs/acre, and

WHEREAS, all other release rates contained in said Standard Specifications shall remain unchanged.

NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE UNITED CITY OF YORKVILLE, upon Motion duly made, seconded and approved by a majority of those so voting, that the City's Standard Specifications (Resolution 2004-39), which is referenced in City Code Section 11-5-9 is hereby amended as follows:

"The 100-year release rate for all developments tributary to Aux Sable Creek is established at 0.10 cfs/acre."

This Ordinance shall be effective upon the date of passage.

WANDA OHARE



VALERIE BURD



DEAN WOLFER



ROSE SPEARS

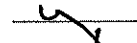


JOSEPH BESCO

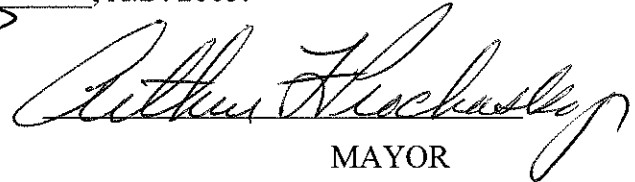
PAUL JAMES

MARTY MUNNS

JASON LESLIE

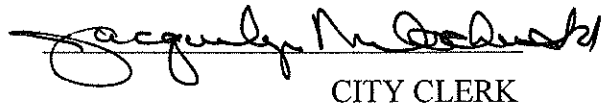


Approved by me, as Mayor of the United City of Yorkville, Kendall County,
Illinois, this 12 Day of July, A.D. 2005.


MAYOR

Passed by the City Council of the United City of Yorkville, Kendall County,
Illinois this 12 day of July, A.D. 2005.

ATTEST:


CITY CLERK

Prepared by:

John Justin Wyeth
City Attorney
United City of Yorkville
800 Game Farm Road
Yorkville, IL 60560