

<b>Topic:</b>	Subdivision Regulations; Tree Preservation & Protection; Erosion & Sedimentation Control; Landscaping
<b>Resource Type:</b>	Regulations
<b>State:</b>	Missouri
<b>Jurisdiction Type:</b>	Municipal
<b>Municipality:</b>	City of Kirkwood
<b>Year (adopted, written, etc.):</b>	1994
<b>Community Type - applicable to:</b>	Urban; Suburban
<b>Title:</b>	City of Kirkwood Subdivision Code
<b>Document Last Updated in Database:</b>	April 14, 2017

### ***Abstract***

Kirkwood Subdivision requirements have two main environmental components. The first falls under Article 7, Minimum Design and Development Standards. The regulations require due regard for topography, watercourses, slopes etc. and are geared towards environmental protection. The second falls under Article 8, the Improvements section. This requires that improvements made to a site consider site grading and specific tree planting/replanting requirements.

### ***Resource***

#### APPENDIX B

#### SUBDIVISION\*

Art. I.	Short Title, § 1
Art. II.	Purpose, § 1
Art. III.	Definitions, § 1
Art. IV.	General Regulations, §§ 1-3
Art. V.	Procedure, §§ 1-5
Art. VI.	Requirements, §§ 1-5
Art. VII.	Minimum Design and Development Standards, §§ 1-7
Art. VIII.	Improvements, §§ 1-15

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\***Editor's note**—Appendix B contains Ord. No. 5615, adopted July 12, 1973. Said ordinance is set out herein as enacted, including arrangement, article designations, catchlines and numbering. Absence of a history note following a particular section or subsection in App. B indicates that such section or subsection derives unchanged from Ord. No. 5615; conversely, a history note enclosed in parentheses following a particular section or subsection indicates amendment by the ordinance or ordinances included in such history note.

**Cross references**—Buildings, construction and housing, Ch. 5; fire prevention and protection, Ch. 8; heating, air conditioning and ventilating, Ch. 11; streets and sidewalks, Ch. 20; utilities, Ch. 23; Zoning, App. A.

- Art. IX. Inspections and Fees, § 1
- Art. X. Waivers and Exceptions, § 1
- Art. XI. Building Permit, § 1
- Art. XII. Enforcement, § 1
- Art. XIII. Record of Plats, § 1
- Art. XIV. Violations and Penalty, § 1
- Art. XV. Validity, § 1

BILL NO. 8394

ORDINANCE NO.8290

AN ORDINANCE DELETING APPENDIX B "SUBDIVISION" OF THE KIRKWOOD CODE OF ORDINANCES AND INSERTING IN LIEU THEREOF A NEW APPENDIX B OF THE KIRKWOOD CODE OF ORDINANCES WHICH ESTABLISHES REGULATIONS AND STANDARDS GOVERNING THE SUBDIVISION OF LAND WITHIN THE CITY OF KIRKWOOD, MISSOURI; PROVIDES FOR WAIVERS AND EXCEPTIONS; PROVIDES FOR THE ADMINISTRATION AND ENFORCEMENT OF THE VARIOUS REGULATIONS AND STANDARDS; PRESCRIBES PENALTIES FOR THE VIOLATION OF ITS PROVISIONS; PROVIDES FOR THE SEVERANCE OF PROVISIONS;

WHEREAS, the Planning and Zoning Commission of the city of Kirkwood, Missouri, did recommend on January 5, 1994, the City Council adopt amendments to the regulations and standards governing the subdivision of land within the City of Kirkwood, and

WHEREAS, the City Council has fully considered the proposed amendments and finds their adoption to be in the best interests of the citizens of this city.

NOW THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF KIRKWOOD, MISSOURI, as follows:

#### **ARTICLE I. SHORT TITLE**

##### **Sec. 1.**

This ordinance, and ordinances supplementary or amendatory hereto, shall be known and may be cited as "The Subdivision Code of the City of Kirkwood, Missouri."

#### **ARTICLE II. PURPOSE**

##### **Sec. 1.**

The purpose of this ordinance is to provide rules, regulations and standards to guide land subdivision within the City of Kirkwood, Missouri, in order to promote the public health, safety, convenience and general welfare of the municipality. It is to be administered to insure the orderly growth and development of the community, the conservation,

protection and proper use of land, and adequate provision for traffic circulation, utilities, and other municipal services.

### ARTICLE III. DEFINITIONS

#### Sec. 1.

Terms used in this ordinance are defined as follows:

- (1) Alley. A minor right-of-way used primarily for vehicular access to the rear or side of properties otherwise abutting on a street.
- (2) Block. An area of land, consisting of a series of lots, entirely surrounded **by** streets, streams, rights-of-way, parks, etc., or a combination thereof.
- (3) Boundary adjustment. An adjustment to lot lines of platted lots or other lawful parcels for the purpose of adjusting the sizes of buildings, frontages, configuration of buildable lots, or consolidation of existing lots which does not create any additional buildable lots.
- (4) Building line (setback). A line or lines on a plat designating the area outside of which buildings may not be erected, except as permitted in the zoning ordinance.
- (5) Condominium Plat. A survey of the parcel and of all units of a multi-unit structure for the purpose of compliance with the "Condominium Property Act", Chapter 448 of the 1986 Revised Statutes of Missouri.
- (6) Easement. A grant by property owner to the public, a corporation, or a person of the use of land for a specified purpose.
- (7) Improvement plans. The engineering plans showing types of materials and construction details for the proposed subdivision improvements.
- (8) Improvements. Street pavements, sidewalks, pedestrian walkways, water mains, sanitary sewers, storm sewers, sewage treatment and disposal plants, street signs, survey monuments, landscaping, street light installations, and other similar items.
- (9) Lot. A platted parcel of land intended to be separately owned, developed, or otherwise used as a unit.
- (10) Lot area. The total horizontal surface area within the boundaries of a lot exclusive of any area designated for street purposes, private or public.
- (11) Lot corner. A lot abutting upon two (2) or more streets at their intersection.

- (12) Lot, double frontage. A lot having frontage on two (2) nonintersecting streets, as distinguished from a corner lot.
- (13) Pedestrian way. An easement or right-of-way dedicated to public use to facilitate pedestrian access to adjacent streets and/or properties.
- (14) Plat. A map or drawing, to scale, of a tract of land proposed for subdivision showing such information as is required elsewhere in this ordinance.
- (15) Right-of-way. A strip of land reserved or acquired by dedication, prescription, condemnation, gift, purchase, eminent domain, or any other legal means occupied or intended to be occupied by a street, sidewalk, railroad, utility, sewer, or other similar use. In the case of a private street, the right-of-way shall be dedicated to the property owners or trustees for street maintenance purposes.
- (16) Street. A general term denoting a public or private way which affords the principal means of vehicular access of abutting property. The term includes all facilities which normally occur within the right-of-way; it shall also include such other designations as highway, thoroughfare, parkway, throughway, road, pike, avenue, boulevard, lane, place, and/or court, but shall not include an alley, driveway, common driveway, driveway easement, or a pedestrian way.
- (17) Street, collector (secondary). A street designed to carry traffic from several minor streets to the system of major streets, or a street located in a zoning district other than a single family residential district.
- (18) Street, dead end (cul-de-sac). A street having only one end open for vehicular traffic and the other permanently terminated by a turn around for vehicles.
- (19) Street, major (primary). A street designed or used primarily for high vehicular speeds or heavy volumes of traffic on a continuous route. The following streets are hereby designated as major streets: Kirkwood Road, Big Bend Road, Manchester Road, Geyer Road, Adams Avenue, Dougherty Ferry Road, Woodlawn Avenue, Leffingwell Avenue, Ballas Road, Essex Avenue, Marshall Road, and any street with an average daily traffic of five thousand (5,000).
- (20) Street, minor (neighborhood). A street of limited continuity in a single family residential zoned district which serves or is intended to serve the local needs of a neighborhood, and is used primarily for access to abutting properties.
- (21) Street, private. A private way which affords the principal means of vehicular access to abutting property.
- (22) Subdivision.

(a) The division of a lot, tract, or parcel of land into two (2) or more lots, sites or parcels for the purpose of either immediate or future sale or building development, including, also, the resubdivision of land or lots; providing, however, that the sale or exchange of parcel, of land to or between adjoining owners, where such sale or exchange does not create additional lots, shall not be considered a subdivision; also

(b) The dedication of a new road, highway, street, alley, pedestrian way or public way, or of a public easement; or

(c) The dedication of property for the widening of an existing road, highway, or street to conform with the minimum street right-of-way requirements of this ordinance.

#### **ARTICLE IV. GENERAL REGULATIONS**

##### **Sec. 1.**

(a) No land within the limits of the City of Kirkwood shall be subdivided after the adoption of these regulations without complying with the provisions of this ordinance.

(b) No building construction or improvement, such as sidewalks, water supply, storm water drainage, sewage facilities, gas service, electric service, street lighting, or the grading, paving or surfacing of any street, shall hereafter be made within any such subdivision by any owner or owners or his or their agent, or by any public service corporation at the request of such owner or owners or by his or their agent until the final plat for the subdivision and also the plans for the improvements thereto have been properly reviewed by the planning and zoning commission and officially approved by the council of the City of Kirkwood.

(c) Where a tract of land is proposed to be subdivided in several stages over a period of years, and the subdivider requests approval in parts, he shall submit a detailed plan of the entire tract to be developed at the time of submission of request for the first section, with appropriate sectioning to demonstrate to the planning and zoning commission that the total design, as proposed for the entire subdivision, is feasible. The planning and zoning commission may give preliminary approval to the overall plan and final approval on the parts as submitted from time to time.

(d) The provisions of this ordinance shall be held to be the minimum requirements necessary in the subdivision of land.

(e) Where a tract of land to be subdivided abuts a street requiring additional right-of-way for future widening purposes, any width taken shall not be subtracted from the net area for building sites and shall not increase the front building setback line.

(f) All interpretations of these rules and regulations are reserved to the administrative bodies referred to herein.

## **Sec. 2. Boundary Adjustments.**

(a) Purpose. The purpose of this section is to allow adjustments to lot lines of platted lots or other lawful parcels for the purpose of adjusting the sizes, frontages, or configuration of buildable lots; or consolidation or division of existing lots, subject to the provisions for B-4 or B-5 developments described below.

(b) Boundary adjustment criteria. Boundary adjustments must meet the following criteria:

(1) No additional, divided, or consolidated buildable lot shall be created by any boundary adjustment, except for B-4 or B-5 development plans approved by the City Council which contain a cross-easement agreement or other form of agreement, provided that the property remains under the terms and conditions of the development plan.

(2) The resulting lot or lots shall not be reduced below the minimum sizes and dimensions required by the City of Kirkwood Zoning Code, except for B-4 or B-5 development plans approved by the City Council which contain a cross-easement agreement or other form of agreement, provided that the property remains under the terms and conditions of the development plan.

(3) Boundary adjustments shall be allowed for lawful lots existing in noncompliance with minimum area, frontage, and dimensional requirements of the City of Kirkwood Zoning Code, provided that the resulting adjustment of lot lines does not increase the degree of noncompliance of any lot with the zoning code.

(c) Procedure.

(1) A boundary adjustment shall be accomplished by plat prepared by a surveyor licensed in the State of Missouri and shall include an adequate legal description of the boundaries of the original lots and of the adjusted lots.

(2) The boundary adjustment plat or plats shall be submitted to the Department of Public Works and City Clerk for review and approval prior to its recording with the Recorder of Deeds of St. Louis County. No further approval shall be required by the City.

(d) Fee. At the time of submitting the plat to the City, a fee of \$100 shall be paid to defray the administrative costs incidental to reviewing and signing the plat.

### **Sec. 3. Condominium Plats.**

(a) Purpose. The purpose of this section is to allow administrative review and approval of condominium plats as defined by Chapter 448 of the Revised Statutes of Missouri.

(b) Condominium Plat Criteria. The condominium plat shall comply with the requirements of a condominium plat as established by Chapter 448 of the revised Statutes of Missouri.

(c) Procedure. The plat shall be submitted to the Department of Public Works and City Clerk for review and approval prior to its recording with the Recorder of Deeds of St. Louis County.

(d) Fee. At the time of submitting the plat to the City, a fee of \$100 shall be paid to defray the administrative costs incidental to reviewing and signing the plat.

## **ARTICLE V. PROCEDURE**

### **Sec. 1. Preliminary considerations.**

In order to make the most of opportunities related to the proposed subdivision and to conserve time, effort, and expense, the owner or subdivider should consult with the engineering department of the city and with other public officials prior to the preparation of the preliminary plat for the subdivision.

### **Sec. 2. Sketch Plan.**

(a) Prior to submitting a preliminary plat of a subdivision of any land within the City of Kirkwood, a developer may submit to the Public Works Department a sketch plan for the tract which shall include the following information, which may be based on sources of information other than field survey data:

1. Location map
2. Tract boundary lines
3. Location of existing structures
4. Tree masses
5. Scale, with north arrow and date
6. Existing streets and water courses within the tract
7. Approximate location of proposed streets.

8. A rough sketch of the site plan showing the general layout of the lots with approximate sizes and dimensions.

(b) The Public Works Department shall review and evaluate the sketch plan as soon as practical and shall advise the developer the merits and feasibilities of the proposed subdivision.

(c) No fee is required for the filing and review of the sketch plan.

### **Sec. 3. Filing of preliminary plat.**

(a) A subdivider desiring approval of a preliminary plat of a subdivision of any land lying within the City of Kirkwood shall submit to the Planning and Zoning Commission a written application for such approval prepared on printed forms furnished by the commission. Such application shall be accompanied by plans and information prepared in accordance with the requirements set forth in Article VI of this Ordinance.

The completed application and prints of the required drawings shall be submitted no later than ten (10) days prior to the Planning and Zoning Commission meeting at which initial consideration is desired.

(b) At the time of filing the application for approval of the preliminary plat, a fee of twenty-five dollars (\$25.00) per lot shall be paid. Said amount shall not be returned to the applicant upon failure to meet the requirements of this Ordinance or to submit a final plat in proper form, but shall be used to defray the administrative costs incidental to processing the preliminary plat by the Council, the Planning and Zoning Commission, and their officers or employees.

(c) The preliminary plat shall be reviewed by the Planning and Zoning Commission and the City Council to determine whether the plat is in harmony with the Comprehensive Plan of the City.

(d) If the preliminary plat is reviewed by the Planning and Zoning Commission, the City Council shall be notified in writing of their recommendation. The Council may approve the preliminary plat, may modify the plat and/or conditions of approval, or deny the preliminary plat.

(e) If the preliminary plat is approved by the Council by resolution, the applicant is authorized to proceed with the preparation of the final plat.

(f) Preliminary approval by the City Council shall confer upon the applicant the following rights for a one-year period from the date of approval:

(1) That the general terms and conditions under which the preliminary approval was granted will not be changed.



(2) That the applicant may submit on or before said expiration date the whole or part or parts of said plat for final approval. In the case of a subdivision being developed in stages, the applicant may elect to have final approval delayed for a period not to exceed three (3) years from the date of preliminary approval for the remaining portions of the plat, after submission of one portion within the specified period. Failure to submit the remaining portions for approval in final plat form within the three (3) year period from the date of preliminary approval will require reprocessing of the application for preliminary approval.

(Ord. No. 8410, §1, 4-6-95)

#### **Sec. 4. Approval of final plat.**

(a) The final plat, prepared in accordance with the requirements set forth in Article VI of this ordinance, shall be submitted to the Planning and Zoning Commission for approval. In addition to the actual final plat itself the submission shall include the following items:

- (1) Prints of final plat as required by the Public Works Department.
- (2) Prints of improvement plans for subdivision.
- (3) Evidence of approval by Metropolitan St. Louis Sewer District of all plans for sanitary and storm sewer installations and sewage disposal facilities.
- (4) Detailed estimate of the cost of the proposed improvements, prepared by subdivider's engineer.
- (5) Performance guarantee approved by the city attorney, assuring completion of the proposed improvements.

(b) Following the approval of the final plat, as so submitted, by the Planning and Zoning Commission such approval shall be endorsed on the original tracing of the plat over the signature of the chairman or vice chairman of the commission and the attest of the secretary, and the plat, so approved together with all supporting data shall be forwarded to the city council for final approval.

(c) Approval of the final plat by the city council shall be by ordinance and shall be certified on the document to be filed for record over the signature of the city clerk and the seal of the City of Kirkwood. After the city council has approved the performance guarantee posted by the subdivider, the final plat, endorsed with the approval of the city council, together with a certified copy of the ordinance granting such approval, shall be filed for record in the office of the St. Louis County Recorder of Deeds at the sole expense of

the subdivider within ninety (90) days of the passage of the ordinance or said ordinance and subdivision plat approval shall become null and void.

(d) Within ten (10) days after the recording of the final plat, the subdivider shall file with the city clerk one (1) mylar print and two (2) paper prints of the recorded plat all of which shall bear the print of the recorder's stamp thereon.

#### **Sec. 5. Subdivisions in flood hazard areas.**

(a) All subdivision applications for areas located within the flood hazard areas as that term is defined in the Code of ordinances shall be reviewed with respect to the following criteria:

(1) The proposed development is consistent with the need to minimize flood damage.

(2) Subdivision proposals greater than five (5) acres or fifty (50) lots, whichever is lesser, include regulatory flood elevation data.

(3) Adequate drainage is provided so as to reduce exposure to flood hazards.

(4) All proposed public utilities and facilities are located so as to minimize or eliminate flood damage.

(b) No subdivision application for areas located within a flood hazard area shall be approved by the city council without a favorable finding of fact with respect to each criterion set forth in subsection (a) above.

(Ord. No. 8553, §1, 10-3-96)

**Cross references**-Flood damage prevention, §5-69 et seq.; F-1 floodplain districts, App. A, Art. VIII, §1.

### **ARTICLE VI. REQUIREMENTS**

#### **Sec. 1. Professional studies, legal services, and associated fees.**

(a) The City has and continues to reserve the authority to charge and collect reimbursement for third-party building plan, site, or other review of the application including, but not limited to, civil engineer, traffic engineer, landscape architect, urban forester, arborist, legal, City Attorney, or any other professional costs and associated expenses. The City may implement an administrative escrow and/or deposit procedure whereby funds are deposited with the City in an amount equal to estimated third-party costs.

(b) If the City makes a determination that an application requires professional services, the City may utilize its own professional staff such as the City Attorney's Office, Planner, City Engineer, or City Forester, or may engage a professional to conduct the study and deliver the results to the City. The applicant shall pay the cost of the professional service plus administrative costs to the City of Kirkwood to retain the professional.

(c) The professional services shall not commence without agreement of the applicant as to the costs of such study and the deposit with the City of the estimated fee for the professional services plus administrative costs of ten percent (10%) of estimated cost of the services or a minimum of \$100. The applicant shall be refunded any overpayment at the conclusion of the professional report, except the administrative cost to the City which is a non-refundable fee.

(d) The professional report or study shall become the property of the City for its sole use.

(Ord. No. 9201, §1, 11-21-02)

## **Sec. 2. Preliminary plat.**

(a) The preliminary plat submitted by the subdivider shall be drawn to scale of not less than one inch equals one hundred feet (1" = 100'); provided, however, that if the resulting drawing would be over thirty-six (36) inches in shortest dimension, a scale as approved by the commission may be used. The preliminary plat shall be prepared by a land surveyor or professional engineer, registered to practice in the State of Missouri, and may be drawn from sources of information other than field survey.

(b) The following items shall be either shown on or accompany the preliminary plat.

- (1) A location map.
- (2) Sanitary sewage disposal method.
- (3) Storm water management.
- (4) Proposed name and location of the subdivision.
- (5) Names and addresses of the owner, subdivider, land planning consultant, and the engineer or surveyor who prepared the plat.
- (6) Existing and proposed street right-of-way and pavements, including any proposed dedication strips for widening existing streets; approximate gradients, types and width of pavements; location of curbs, sidewalks, walkways, planting strips; and other pertinent data.

- (7) Layout of lots, showing approximate dimensions and number.
- (8) Parcels of land proposed to be dedicated, or reserved for schools, parks, playgrounds or other public, semi-public, or community purposes.
- (9) Easements, existing and proposed, showing locations, widths and purposes.
- (10) Building setback lines for front, side, and rear of each lot.
- (11) Location and size of nearest water main and fire hydrant, storm sewer, sanitary sewer, and other utilities.
- (12) Location, type and approximate size of utilities to be installed.
- (13) Tract boundary lines showing dimensions, bearings, angles and references to known land lines and monuments.
- (14) Topography of the tract, existing and proposed, shown at contours at vertical intervals of two (2) feet if the general slope of the site is less than ten percent (10%) and at vertical intervals of five (5) feet if the general slope is ten percent (10%) or greater. U.S.G.S. data will be acceptable).
- (15) Tree masses and all individual trees having a diameter of eight (8) inches or greater shall be shown as to be lost or saved. All individual trees having a diameter of eight (8) inches or greater shall be identified as to species.
- (16) Location of existing structures.
- (17) Scale, north arrow and date.
- (18) Multiple dwelling unit subdivisions shall show the following calculations:
  - (a) Gross area of tract.
  - (b) Area in streets.
  - (c) Net area of tract.
  - (d) Maximum number of units allowed.
  - (e) Total number of units proposed.
  - (f) Parking ratio.
  - (g) Distances between structures.

(c) A tree study prepared and endorsed by an or arborist certified by the International Society of Arboriculture or a forester certified by The Society of American

Foresters and shall be required when the subdivision contains a significant tree or trees (significant trees shall be live trees of a species suitable for the urban environment having a diameter of eight inches or greater). The study shall provide a professional opinion regarding the survivability of significant trees existing on the site and appropriateness of the proposed tree replacement and landscaping. The City may require a professional study under the provisions of this code if the petitioner fails to provide such study or it is determined the study is inadequate or deficient.

Ord. No. 9201, §2, 11-21-02)

### **Sec. 3. Final plat.**

(a) The final plat may include all or only a part of the preliminary plat which has already received approval. (See Article IV).

(b) The final plat is to be prepared from an accurate survey made by a land surveyor, registered to practice in the State of Missouri, and shall be drawn on tracing cloth, drafting film, or equivalent on one or more sheets whose maximum dimensions can be thirty-six (36) inches by thirty-six (36) inches. Scale of the drawing shall be one hundred (100) feet or less to the inch. If more than one sheet is required, a key map shall be provided on Sheet #1, showing the entire subdivision at reduced scale.

(c) The final plat shall contain the following information:

(1) Boundary lines, with dimensions and bearings or angles, which provide an accurate survey of the tract.

(2) All section, township, and range lines and the boundary lines of municipalities, sewer, school, and other established districts within or adjoining the subdivided area.

(3) Accurate location of all existing and recorded streets intersecting the boundaries of the tract and the lines and record owners of all adjoining lands with book and page numbers of the recorded deeds.

(4) Reference to recorded subdivision plats of adjoining platted ground by record name and date.

(5) Accurate description of the boundary of the tract by metes and bounds, or otherwise, together with a statement of the included area calculated to the nearest one hundredth of an acre.

(6) Right-of-way lines of streets and other rights-of-way and the property lines of all lots and other tracts, with accurate

dimensions, bearings and curve data, including radii, arcs, points of tangency, and central angles.

(7) Name and right-of-way width of each street, alley, or other right-of-way.

(8) Location, dimensions, and purpose of each easement.

(9) Each lot line and an identification system for all lots and blocks.

(10) The area in square feet for each tract, site parcel, or lot in the subdivision.

(11) Purposes for which sites, other than residential lots, are dedicated or reserved.

(12) Building setback lines for front, side, and rear yard of each lot.

(13) Location, type, material, and size of all survey monuments and lot markers, including bench marks, with elevations referenced to mean sea level datum.

(14) Subdivision title or name, north arrow, scale, and date.

(15) Certificate of registered land surveyor covering execution of survey and preparation of subdivision plat.

(16) Certificate of the owner creating the subdivision, dedicating all street rights-of-way, dedicating all public areas with statement of the use or uses for which dedicated, granting easements with statement of the use or uses for which granted, establishing building lines, and referring to the restrictions of all types and trusts which will run with the land and become covenants in the deeds for lots.

(17) Certificates of all owners and holders of deeds of trust, the plat as prepared and releasing from the lien created by said deeds of trust all land dedicated to public use on the plat.

(18) Certificate indicating approval of the plat by the Planning and Zoning Commission of the City of Kirkwood, prepared for signature of the chairman and attest by the secretary of the commission.

(19) Certificate indicating approval of the plat by the council of the City of Kirkwood, prepared for execution by the city clerk over the seal of the City of Kirkwood.

(20) The record plat shall show the outboundary of the subdivision tied to the Missouri coordinate System 1983 in accordance with the current Missouri Minimum Standards for Property Boundary Surveys, and the coordinates of the exterior corners shall be shown on the plat.

(d) The final plat submittal shall include a digitized version of the plat in a format compatible with the City's mapping software. The surveyor who is sealing the record plat must submit a signed and sealed letter indicating the attached disk is an accurate representation of the final version of the Record Plat.

(Ord. No. 9087, §§1-2, 11-1-01)

#### **Sec. 4. Improvement plans and specifications.**

The final plat submission shall be accompanied by plans and specifications for the improvements required under Article VIII. The plans and profiles of all streets, storm and sanitary sewers, water lines and drainage structures, together with drainage area maps, shall be prepared on standard plan and profile sheets, twenty-four (24) inches by thirty-six (36) inches, by a professional engineer, duly registered to practice in the State of Missouri. The plans shall cover the details of all improvements required under Article VIII. The plans and specifications must be submitted to and approved by the city engineer prior to their submission to the City Council with the final plat. Plans for storm and sanitary sewer installations shall be approved by Metropolitan St. Louis Sewer District as well as the city engineer. A five hundred dollar (\$500.00) deposit shall be submitted to the city as part of the performance guarantee to be released after the city receives "as built" drawings of the drainage facilities and same are approved by the public works director.

If the subdivision contains a significant tree or trees, the final plat submission shall also be accompanied by a tree study of the final improvement plans providing the City with a professional opinion signed and endorsed by an arborist certified by the International Society of Arboriculture or a forester certified by The Society of American Foresters, regarding the survivability of significant trees existing on the site, any changes from the preliminary plan proposal, and the appropriateness of the landscaping proposed for the subdivision. This study shall include tree protection methods for each tree and the dollar value of each tree designated to be saved. The dollar value of the tree(s) shall be based on the date contained in the International Society of Arboriculture's "Guide for Tree Appraisal." If the petitioner fails to provide this study or it is inadequate or deficient, the City may require a professional landscaping study under the provisions of this code.

(Ord. No. 9201, §3, 11-21-02)

## **Sec. 5. Performance guarantee.**

(a) Before approval of the final plat by the City Council, a performance guarantee shall be required from the subdivider in the amount of the estimate, approved by the city engineer for the total cost of the proposed improvements. The performance guarantee shall run to the city council and be with good and sufficient surety, satisfactory to the council, and as approved by the city attorney, conditioned upon the installation (including maintenance during the development period) of the required improvements within two (2) years after the approval of the final plat. If, at the end of the two (2) year period all of the improvements have not been completed, the Public Works Department shall (1) extend the period, (2) take action to obtain the necessary monies from the surety to complete the improvement, or (3) take action to obtain the necessary monies from the surety to hold in the City treasury until the improvements may be completed.

(b) The performance guarantee shall guarantee the total required improvements but may be reduced upon written authorization of the Public Works Director upon completion of specific improvements provided the released amount does not exceed 75 percent of the estimated cost for the specific improvement or 75 percent of the total initial amount of the performance guarantee. The total amount remaining in the performance guarantee shall continue to guarantee completion of all improvements until completely released in accordance with (c) below.

(c) Upon completion of all improvements and final inspection; and approval and acceptance by the City of improvements which will be maintained by the City, the Public Works Director may release the remaining 25 percent of the performance guarantee.

(d) The performance guarantee may be held by the City until the City is provided written certification that improvements that have been constructed meet the standards and have been accepted for maintenance by other agencies such as the Metropolitan Sewer District, Kirkwood Water, Kirkwood Electric, St. Louis County Department of Highways and Traffic, and Missouri State Highway Department.

## **ARTICLE VII. MINIMUM DESIGN AND**

### **DEVELOPMENT STANDARDS**

#### **Sec. 1. General.**

In the design of each subdivision, or portion thereof, the subdivider shall conform to the principles and standards of land subdivision that will encourage good development patterns as set out in this article. Subdivisions shall provide for the coordinated development of adjacent parcels of property.

#### **Sec. 2. Street design.**



(a) Street layout shall provide access to all lots and parcels of land within the subdivision. Street jogs of less than one hundred twenty-five (125) feet shall be prohibited. Cul-de-sacs shall not exceed one thousand (1,000) feet in length as measured from the nearest intersecting street or turn-around. The centerline of a newly-platted street shall not be located closer than 250 feet from the center diameter of a cul-de-sac except when no other public street access is available to serve the parcel being developed.

(b) Minor, or neighborhood streets, shall be designed so as to discourage through traffic. Subdivision streets shall be platted to allow the distribution of traffic throughout the City.

(c) All platted streets shall be public rights-of-way dedicated to the City of Kirkwood. Private streets shall be prohibited.

(d) Reserved strips controlling access to streets shall be prohibited.

(e) Minimum widths of street rights-of-way shall be as follows:

- (1) For major or primary streets-Sixty (60) feet.
- (2) For secondary or collector streets-Sixty (60) feet.
- (3) For minor or neighborhood streets-Fifty (50) feet.
- (4) For cul-de-sac streets serving less than nine (9) single family residential lots, including corner lots, with additional easements as required - Forty (40) feet, with approval of the Planning and Zoning Commission for the purpose of reducing site grading.

(f) All cul-de-sacs shall terminate in a circular right-of-way with a minimum radius of fifty-five (55) feet with a five-foot wide easement for street, sidewalk, and utilities along the perimeter.

(g) Subdivisions that adjoin or include existing streets that do not conform to the required right-of-way widths shall dedicate additional width along either or both sides of such streets. When the subdivision is located on one side of an existing street or road, a minimum of one-half (1/2) of the required right-of-way shall be provided, measured from the center line of the right-of-way as originally established.

(h) Streets shall be laid out to intersect as nearly as possible at right angles.

(i) If the angle of intersection of two (2) streets is less than sixty (60) degrees, the radius of the arc at the intersection of the property lines shall be approved by the Public Works Department. At the intersections of other streets, the property line corners shall be rounded by arcs with radii of not less than twenty (20) feet, or chords of such arcs.

(j) At intersections of streets with alleys, the property line corners shall be rounded with radii of not less than fifteen (15) feet or chords of such arcs.

(k) Intersection of more than two (2) streets at one point shall be prohibited.

(l) Where parkways or special types of streets are proposed, the Planning and Zoning Commission may modify the standards in the design of such parkways and streets to be followed in the design of such parkways or streets.

(m) Horizontal visibility on curved streets and vertical visibility on all streets shall be maintained along the center line as follows:

- (1) Major or primary streets-Five hundred (500) feet.
- (2) Collector or secondary streets and parkways-Three hundred (300) feet.
- (3) Minor or neighborhood streets-One hundred fifty (150) feet.

(n) Horizontal curvature measured along the center line shall have a minimum radius as follows:

- (1) Major or primary streets-Five hundred (500) feet.
- (2) Collector or secondary streets and parkways-Three hundred (300) feet.
- (3) Minor or neighborhood streets-One hundred fifty (150) feet.

(o) All changes in grade shall be connected by vertical curves to provide a smooth transition and the required sight distance.

(p) Between reversed curves on major streets, there shall be a tangent of not less than one hundred (100) feet; and on collector and minor streets, such tangent shall be not less than forty (40) feet.

(q) Maximum grades for streets shall be as follows:

- (1) Major streets - Not greater than six percent (6%).
- (2) Collector streets - Not greater than ten percent (10%).
- (3) Minor or neighbor streets - Not greater than ten percent (10%), however, grades up to twelve percent (12%) may be approved by the Planning and Zoning Commission for the purpose of reducing site grading.
- (4) At street intersections:

1. The grade of collector and minor streets shall not be greater than four percent (4%) for a distance of fifty (50) feet from the center of the intersection.

2. The grade of major streets shall not be greater than three percent (3%) for a distance of fifty (50) feet from the center of the intersection.

(5) The maximum grade of a cul-de-sac shall not be greater than five percent (5%).

(6) Street grades may exceed these limitations when recommended by the Planning and Zoning Commission and approved by the City Council for the purpose of conforming the street grade to the contour of the existing land to reduce overall site grading and preservation of site vegetation.

(r) The minimum grade of any street gutter shall not be less than two percent (2%).

(s) No street shall have a name which will duplicate, or so nearly duplicate as to be confused with, the name of an existing street, unless the proposed street is an extension of or in alignment with an existing street; in which case, the duplication shall be mandatory. All street names of new streets on the subdivision plat shall be approved by the U.S. Post Office before the final plat is submitted for approval.

(t) Alleys shall be prohibited in residential areas but may be included in commercial and industrial areas, when approved by the Planning and Zoning Commission where needed for loading, unloading, or access purposes for the public benefit.

(u) Dead-end streets or alleys shall be prohibited except when provided with a cul-de-sac as provided in this code.

(v) If a private driveway easement is approved by the Planning and Zoning Commission as a waiver under Article X of this ordinance, then the building line shall in no event be less than fifteen (15) feet from any road maintenance easement; and no more than two (2) lots shall be served by a common driveway or by a private driveway easement.

(w) If a waiver is granted for private streets, the private streets shall be constructed to the same standards as public streets. Maintenance of private streets shall be the sole responsibility of the property owners or trustees of the subdivision. When streets are proposed as private, the developer shall provide a trust indenture establishing the method for providing continuous maintenance of the streets, street lights, storm water, and other facilities which normally occur within the right-of-way or street easement. The front yard area (building line) on a private street shall be measured from the street right-of-way line.

(Ord. No. 9149, §1, 3-21-02)

### **Sec. 3. Blocks.**

(a) Blocks shall not exceed twelve hundred fifty (1,250) feet in length.

(b) Blocks shall be of sufficient width to permit two (2) tiers of lots of appropriate depth, except where an interior street parallels a limited access highway or railroad right-of-way.

(c) Within blocks more than seven hundred (700) feet in length the Planning and Zoning commission may require, at or near the middle of the block, a public walkway connecting adjacent streets or public areas, shopping centers, etc. Such walkway shall be at least ten (10) feet in width of right-of-way and shall be dedicated to public use for pedestrian purposes only.

#### **Sec. 4. Lots.**

(a) Except as otherwise provided in the Kirkwood Zoning Code such as under a Community Unit Plan provision, all lots shall meet the minimum area; the front, side, and rear yard requirements; and the minimum width requirements of the zoning district in which the subdivision is located.

(b) All lots shall abut and have access to a public street on a public right-of-way dedicated to the City of Kirkwood, St. Louis County, or the State of Missouri.

(c) All lots shall have at least ninety (90) percent of the required width of the front building line as frontage on the right-of-way line except for lots with frontage on cul-de-sac and turnarounds, which shall have at least fifty (50) percent of the required width of the front building line as frontage on the right-of-way line.

(d) Side lines of lots shall be at approximately right angles to straight streets and on radial lines on curved streets.

(e) Double frontage lots should not be platted, except that, where desired along major streets, lots may face -on an interior street and back on such thoroughfare. In the event double frontage lots are created on adjacent property, appropriate screening shall be approved by the Planning and Zoning Commission.

(f) Corner residential lots shall be 10 percent wider on both street frontages than the required zoning width to permit appropriate set backs.

(g) Lots of a flag configuration which could place a dwelling unit behind a dwelling unit, shall not be platted. Lots which conform to 4(c) above shall not be considered lots of a flag configuration.

(h) The size, shape, and orientation of lots and the orientation of structures shall be designed to provide desirable building sites logically related to topography, natural features, streets, parking areas, common land (if any), other structures, and adjacent land uses. Due regard shall be given to preserving natural features which would add

attractiveness and value to the neighborhood such as large trees, unusual rock formations, water courses, and sites which have historical significance, scenic views, and similar assets.

(i) In single-family residential zoning districts, the building area of a lot, which is defined as the area enclosed by the side yard, rear yard, and front building lines, shall accommodate a rectangle with front and back each equal to one-half the zoning district lot width requirement and the sides equal to the following: R-1, 36 feet; R-2, 32 feet; R-3, 28 feet; R-4, 24 feet.

## **Sec. 5. Easements.**

(a) Easements for utilities shall be provided. Such easements shall have a minimum width of ten (10) feet, and, where located along interior lot lines shall normally be taken from one lot. Before determining the location of easements on the plat, the developer shall discuss the plan with the local utilities companies in order to assure proper placement for the installation of services. Adequate sewer and drainage easements, as required by Metropolitan St. Louis Sewer District, shall be provided.

(b) Wherever a subdivision is traversed by a watercourse, drainage channel, or stream there shall be provided a drainage right-of-way which shall be for the purpose of widening, straightening, improving or protecting the stream at the subdivision's expense as a part of the subdivision improvements. The width of the drainage right-of-way shall be adequate for any necessary channel relocations and straightenings, and the plan shall be reviewed with and approved by Metropolitan St. Louis Sewer District prior to final approval by the city.

(c) Common ground easements, such as cul-de-sac islands, shall be dedicated to the trustees of the aforementioned subdivision for landscape maintenance. No above-ground structure, other than required streetlights or other public utilities in accordance with the approved improvement plans, may be constructed or installed within a cul-de-sac island without authorization by the city.

## **Sec. 6. Environmental Protection and Common Ground.**

(a) In the subdividing of any land within the City of Kirkwood, due regard shall be shown for all natural features, such as tree growth, watercourses, or other similar elements which, if preserved, would add attractiveness to the proposed development.

(b) The natural topography shall be retained wherever possible in order to reduce excessive storm water run-off onto adjoining property and to avoid extensive regrading of the site.

(c) Location and floor elevations of all proposed buildings shall be carefully studied in relation to proposed street grades, existing topography, trees, and pertinent site features in order to preserve all such features insofar as possible and desirable.

(d) Consideration shall be given to increasing the setback or front building line from that required in the zoning district in which the subdivision is located in order to retain, whenever possible, existing topography, rock formations, large trees natural features, natural water courses, historical sites, or other similar assets.

(e) The building area of a lot shall not be within fifty (50) feet of the center line of an existing water course, nor be on a slope of twenty-five (25) percent or greater grade.

(f) To protect adjacent and downstream property from the effects of erosion and siltation, the Planning and Zoning Commission may require common ground be preserved in a natural state for areas within thirty-five (35) feet of the center line of an existing water course or on slopes of twenty-five (25) percent or greater grade.

(g) The minimum area of any parcel of land designed as common ground shall be five thousand (5,000) square feet and have a minimum 20-foot wide access to public right-of-way. There may be more than one parcel of common ground in a subdivision; however, each parcel shall have no less than the foregoing minimum area. Common ground located within cul-de-sacs shall be exempt from this requirement.

(h) If construction activities disturb land or entails the grading or excavation of a surface area of five acres or greater, a land disturbance permit shall be obtained from the Department of Natural Resources.

#### **Sec. 7. Nonresidential subdivisions.**

In addition to the principles and standards of this ordinance which are appropriate to the planning of all subdivisions, the subdivider of a subdivision intended for nonresidential use shall demonstrate to the satisfaction of the Planning and Zoning Commission that the street, parcel, and block pattern proposed is specifically adapted to the uses anticipated, and is compatible with other uses in the vicinity. For such proposals the following principles and standards shall be observed:

(a) Proposed industrial parcels shall be suitable in area and dimensions to the type or types of industrial development anticipated.

(b) Street right-of-way and pavement shall be adequate to accommodate the type and volume of traffic anticipated.

(c) The Planning and zoning commission may impose special requirements with respect to street, curb, gutter, street light, planting, sidewalk, utility, and other improvements to meet special needs.

(d) Lots which are platted adjacent to residential uses or residential zoning districts shall have increased width, depth, and/or area to provide adequate space for screening and/or buffering as required by the Zoning Code.

(e) No public or private street shall be platted which connects to a minor existing street which has residential zoning districts on both sides.

## **ARTICLE VIII. IMPROVEMENTS**

### **Sec. 1. General.**

(a) Improvements shall be provided by the subdivider in each new subdivision in accordance with the standards and requirements of this article.

(b) Improvements shall be constructed in accordance with the standard specifications of the Department of Highways and Traffic of St. Louis County, Missouri, except as amended in the Subdivision Code.

(c) These construction standards may be modified when the modification at least equals the specific construction requirement, meets the intent of the construction standard, provides the City with a superior product, and/or incorporates the latest construction standards/practices of the St. Louis County Department of Highways and Traffic and the modification is approved in writing by the Director of Public Works.

(d) The City shall not accept any public improvement for public maintenance until completion and final inspection and approval by the Director of Public Works.

### **Sec. 2. Site Grading/Environmental Protection.**

(a) Grading of the subdivision site shall be done in accordance with the final improvement plan approved by the City Council unless the City Council, in its sole discretion, authorizes grading following the review of the grading plan and as part of the City Council approval of the preliminary plat. No clearing of trees eight (8) inches or larger in caliper shall be permitted until grading is authorized by the City Council as set forth above.

(b) A grading plan shall be included in the preliminary plat showing existing and proposed contours at intervals sufficient to clearly show the slope of the existing ground surfaces and the extent of the proposed grading. It shall be prepared on a plat showing the subdivision layout as proposed on the final plat, the location and first floor elevation of each building proposed to be built in the subdivision, and all existing trees eight (8) inch caliper and larger and other pertinent site features which could be affected by site grading.

(c) The slope of the finished ground surface between lots, between adjacent properties and between lots and streets shall not be steeper than two (2) horizontal to one vertical when in cut, nor steeper than three (3) horizontal to one vertical in fill.

(d) The grading plan will be examined and approved or rejected by the Planning and Zoning Commission and the City Council on the basis of factors such as preservation of the natural features of the site, providing adequate drainage of the area, protection of

adjacent and downstream property from the effects of erosion and siltation, the location and gradient of streets, access to lots from streets, and similar criteria.

(e) Interim storm water drainage control in the form of siltation control measures shall be required to protect adjacent property and public right-of-way.

(f) Erosion and sediment control devices shall be approved by the Department of Natural Resources if construction activity disturbs a land surface area of five acres or greater.

(Ord. No. 8411, §1, 4-6-95)

**Sec. 3. Streets.**

(a) Street improvements, including paving, curbs, sidewalks, preparation of subgrade, bridges, culverts, etc., shall be constructed in accordance with plans and specifications, prepared for the subdivider by a professional engineer registered to practice in the State of Missouri.

(b) The minimum width of street pavement, back to back of curbs, shall be as follows:

(1) For major streets-Forty-four (44) feet.

(2) For collector streets-Thirty-six (36) feet.

(3) For minor streets-Twenty-six (26) feet.

(4) For cul-de-sacs - The minimum radius of the turn-around paving at the terminus shall be fifty (50) feet. The center cul-de-sac planting island shall be a maximum radius of sixteen (16) feet. An area three feet behind the curbing of the island of a cul-de-sac shall be free of obstructions.

(c) The pavement shall be constructed of portland cement concrete or asphaltic concrete in accordance with the standard specifications of the Department of Highways and Traffic of St. Louis County, Missouri, except as amended herein. Design characteristics shall be at least equal to the following:

Class of Street

Minor, Alley, and

Major

Collector

Residential Cul-de-Sac



Concrete Pavement:

Concrete thickness	8"	8"	7"
Rolled stone base	4"	4"	6"

Asphaltic Concrete:

Surface course	2"	2"	2"
Asphaltic concrete base	10"	10"	8"
Rolled stone base	0"	0"	0"

(d) Prior to the construction of street or alley pavements, all subsurface utility pipes and sewers shall be installed as required, and trenches backfilled with backfill material thoroughly compacted in place in accordance with the requirements of Section 10 of this article.

(e) All construction shall be completed in accordance with the approved plans and specifications and in a manner acceptable to the authorities having jurisdiction. When changes from approved plans and specifications become necessary during construction, written approval from the city engineer shall be secured before the execution of such changes.

(f) The City shall not accept any street for maintenance until completion and final inspection and approval by the Director of Public Works.

(g) If a waiver is granted for private streets, maintenance of private street improvements will be provided in the subdivision restrictions through a maintenance agreement or trust indenture setting forth the method of assessment and collection of the monies necessary for such maintenance.

(h) When a proposed subdivision adjoins an existing street that does not conform to the required width, a minimum of one-half ( $\frac{1}{2}$ ) of the required width shall be constructed as measured from the centerline of the existing pavement.

(i) A minimum radius of thirty-two (32) feet at the back of curb shall be required at all street intersections.

(j) Transverse under drains shall be required under street pavement at all sags, low points, or other locations which contain a storm water inlet adjacent to the street pavement.

(k) The rolled stone base shall be constructed of two-inch clean crushed stone.

(l) Concrete pavement shall consist of portland cement concrete consisting of a six and one-quarter (6¼) sacks of cement per cubic yard with a maximum slump of four (4) inches. All concrete shall be air-entrained with an air content of 4 to 6 percent. No calcium shall be added to the mix.

(Ord. No. 9149, §2, 3-21-02)

#### **Sec. 4. Curbs and gutters.**

(a) Curbs or curbs and gutters shall be constructed in conjunction with all street pavements.

(b) Combination curb and gutter shall be of Portland cement concrete at least eighteen (18) inches wide and not less than seven (7) inches thick where the gutter abuts the street pavement.

(c) Curb construction for concrete pavements may be integral with the pavement, and roll-type curbs may be permitted on residential streets where no hazard to pedestrians is involved.

#### **Sec. 5. Sidewalks.**

(a) Sidewalks shall be built along both sides of streets within the new subdivision and on the subdivision side of adjoining streets. For cul-de-sac streets serving less than nine (9) single family residential lots, including corner lots, the Planning and Zoning Commission for the purpose of reducing site grading may reduce the sidewalk requirement to one side of a new street within the subdivision, and/or eliminate the requirement for sidewalks around the cul-de-sac. Sidewalks may also be required as deemed necessary by the Planning and Zoning Commission for public safety and convenience. The Commission should determine the location of all sidewalks with regard to the factors identified in Subsection (f) below. Sidewalks should be placed in the right of way with the edge of the sidewalk parallel to and located one foot from the right-of-way if feasible in accordance with Subsection (f) below.

(b) Sidewalk walkways or sidewalk walk-throughs shall be required as determined by the Planning and Zoning commission for the purpose of facilitation access between streets, particularly in the case of access which permits more direct routes to schools. Sidewalk walk-throughs shall be dedicated to the trustees or representatives of the subdivision for maintenance.

(c) All sidewalks shall be constructed in accordance with the standard specifications of the Department of Highways and Traffic of St. Louis County. Sidewalks shall have a minimum thickness of four (4) inches, except at driveways they shall be seven (7) inches thick. Sidewalks shall be constructed on a two-inch thick stone base consisting

of one-inch minus crushed stone. Sidewalk pavement shall consist of portland cement concrete consisting of six and one-quarter (6¼) sacks of cement per cubic yard, with a maximum slump of four (4) inches. All concrete shall be air-entrained with an air content of 4 to 6 percent. No calcium shall be added to the mix.

(d) The minimum width of a sidewalk shall be four feet in industrial and residential areas. In commercial areas, the Commission shall determine the width of the sidewalk as deemed necessary.

(e) All sidewalks shall be handicapped accessible.

(f) If a developer requests a waiver from the above sidewalk requirements, the Planning and Zoning Commission shall determine the feasibility of the sidewalk construction considering, but not limited to, the following factors:

1. Interference with existing structures
2. Existing site grades and roadway grade
3. Excessive construction cost
4. Planned structures
5. Drainage patterns and controls
6. Federal, State, and County regulations
7. Preservation of significant site vegetation
8. Preservation of natural features, such as large trees, unusual rock formations, water courses, historical significances, and similar assets
9. Conditions peculiar to a site
10. Public safety and convenience

If the Commission determines sidewalks are not feasible, the developer shall pay the subdivision sidewalk waiver fee or, in lieu of the fee, the Commission may require enhanced features to the subdivision such as landscaping of approximate equal value.

## **Sec. 6. Water system.**

(a) A system of water mains, valves, and fire hydrants connected to the water supply system of the City of Kirkwood shall be installed by the subdivider. The system shall be designed to supply water service and fire protection to all lots in the subdivision and to ensure proper circulation to and within the system. Materials and construction methods shall conform to those currently employed and specified by the City of Kirkwood Water Department. Water mains shall be sized and fire hydrants shall be located as required by the Insurance Services Offices of Missouri and the City of Kirkwood Fire Marshal and Water Department Director. Fire hydrants shall be spaced no more than six hundred (600) feet apart and, water mains shall be a minimum of six (6) inches in size. Plans shall be prepared by a professional engineer, registered to practice in the State of Missouri, and shall be approved by the Insurance Services Office of Missouri and the

Director of the City of Kirkwood Water Department before approval by the Planning and Zoning Commission.

(b) The water system installed by the subdivider as proposed in this section shall, upon approval and acceptance, become at once the property of the City of Kirkwood; and the city shall have exclusive control and use thereof, subject to the right of the owners and residents of property in the area subdivided to be served thereby, under the rules and regulations of the Water Department of the City of Kirkwood.

(c) In areas where connection to the City of Kirkwood water supply system is impractical, a separate source of water supply, approved by the state department of health and department of natural resources shall be provided by the subdivider. Assurance of the continued availability of such approved source of water supply, acceptable to the city council and prepared on forms approved by the city attorney, shall be provided.

(d) Backfill of water line trenches shall conform to the requirements of section 10 of this article.

#### **Sec. 7. Sanitary sewer system and sewage disposal.**

(a) A system of sanitary sewers and appurtenance, providing a connection to each lot in the subdivision, designed in accordance with the standard specifications and requirements of the Metropolitan St. Louis Sewer District and installed under permit from and inspection of said sewer district, shall be installed in the subdivision. original construction shall include installation of house laterals to the property line for all lots in the subdivision.

(b) Plans for the sanitary sewer system shall be prepared by a professional engineer, registered to practice in the State of Missouri, and shall carry the stamp of approval of the Metropolitan St. Louis Sewer District when submitted to the Planning and Zoning Commission for approval.

(c) Construction of the sanitary sewer system and inspection of Metropolitan St. Louis Sewer District and, upon completion of construction, acceptance for maintenance by Metropolitan St. Louis District shall be obtained by the subdivider from the district, in accordance with the regulations and requirements of said district.

(d) The sanitary sewer system, of the subdivision, when completed, shall connect to the sanitary sewer lines of the Metropolitan St. Louis Sewer District; or, except as provided in paragraph (g) below, if such connection is impracticable, the subdivider shall provide a local sewage disposal facility for the subdivision.

(e) Plans and specifications for such local sewage disposal facility shall be prepared for the subdivider by a professional engineer registered to practice in the State of Missouri, and the facility shall be designed and installed in accordance with the regulations

of the state board of health and under the inspection of the St. Louis County Health Department and Metropolitan St. Louis Sewer District.

(f) Acceptance of a local sewage disposal plant for operation and maintenance shall be by Metropolitan St. Louis Sewer District and shall be obtained by the subdivider in accordance with the requirements of said sewer district.

(g) In cases where no outlet to the sanitary sewer system of the Metropolitan St. Louis Sewer District is reasonably available for a two lot subdivision development and where each lot contains a minimum of one acre, the subdivider may be permitted to install a disposal system for each lot (septic tank with disposal field). Such individual sewage disposal systems shall be erected in accordance with the regulations and requirements of the state board of health and under the supervision and inspection of the St. Louis County Health Department.

(h) Backfill of trenches for sanitary sewer installations shall conform to the requirements of Section 10 of this Article.

#### **Sec. 8. Storm water drainage provisions.**

(a) Adequate provision shall be made for the disposal of storm water, subject to the approval of the Planning and Zoning Commission and the Metropolitan Sewer District. The detailed plans for the proper disposal of storm water affecting the proposed subdivision, including the run-off from the area tributary as well as the area being developed, shall include such improvement as may be necessary to all open drainage channels, such as widening, straightening and paving, and a system of underground pipe sewers and appurtenances, which shall be separate and independent of the sanitary sewer system. The plans shall be prepared by a professional engineer, registered to practice in the State of Missouri, in accordance with the standard specifications and requirements of the Metropolitan St. Louis Sewer District.

(b) Plans for storm water facilities, when submitted to the Planning and Zoning Commission for approval, shall bear the stamp of the approval of the Metropolitan St. Louis Sewer District.

(c) The construction of storm water facilities shall be under permit from the inspection of said Metropolitan St. Louis Sewer District, and, upon completion of construction, acceptance for maintenance by said Metropolitan St. Louis Sewer District shall be obtained by the subdivider from the district, in accordance with the regulations and requirements of said district.

(d) If storm water detention is required by the Metropolitan Sewer District or the City of Kirkwood for single family residential subdivisions, it shall be provided underground in pipes or chambers designed for such detention. The pipes or chambers shall be constructed of reinforced concrete and shall be covered with earth and shall not be

located in the principle building area of any lot. Dry or wet above ground detention shall not be permitted in single family subdivisions.

(e) Backfill of trenches for storm sewer installations shall conform to the requirements of Section 10 of this Article.

### **Sec. 9. Underground Utility lines.**

(a) All electric, telephone, and cable t.v. utility lines shall be installed underground in conformance with the standards and specifications of the particular utility company involved. They shall be located within easements or public rights-of-way in a manner which will not conflict with other utilities or services.

(b) Installation of utility lines and appurtenances, whether above or below ground, shall be located so as to reduce unsightliness and hazard to the public to a minimum.

(c) Backfill for utility installation trenches shall conform to the requirements of Section 10 of this Article.

### **Sec. 10. Backfill under pavements.**

All open excavations for sewers and for public utilities (except the gas utility) made under existing pavements or areas proposed to be paved shall be carefully backfilled with granular backfill material, approved by the city engineer, thoroughly compacted in place in such a manner as to inhibit any settlement of the finished pavement. Such excavations made in existing paved areas shall be made in accordance with the requirements and regulations of Chapter 20, Article IV, "Excavations", of the Code of Ordinances, City of Kirkwood, Missouri. The exception of the gas utility from the granular backfill provisions of this paragraph does not exempt that utility from thorough compaction of its backfill so as to avoid pavement settlements.

### **Sec. 11. Street lighting.**

(a) Provision shall be made by the subdivider for the installation of street lights along all public streets within the subdivision. A street light shall be provided at each intersection of streets, at each intersection of a street with a pedestrian walkway, at each circular turn-around, and at intervals of not greater than three hundred (300) feet between such locations.

(b) Street lights shall be mounted on ornamental concrete or steel poles serviced by underground wiring and shall conform to the recommendations of the city engineer, as approved by the Planning and Zoning Commission, for each installation.

(c) Electric current for street lighting will be provided by the City of Kirkwood, without cost to the property owners in the subdivision and does not in any way pertain to or effect the costs associated with the installation of street lighting, fixtures, etc.

## **Sec. 12. Street name signs.**

(a) Street name signs shall be erected at all street intersections on diagonally opposite corners so that they normally will be on the right hand side of the intersection for traffic on the more heavily-traveled street. Signs indicating both streets should be erected at each location mounted as close to the corner as practical, facing traffic on the cross street, with the nearest portion of each sign not less than one foot nor more than five (5) feet back of the curb line.

(b) The design, materials of construction and method of installation of street name signs shall conform to the current standard employed by the City of Kirkwood Public Works Department for such work at the time of installation.

## **Sec. 13. Planting.**

### (a) Frontage Tree Plantings.

The subdivider shall plant trees in front of the building line but not within the public right-of-way approximately five to ten feet from the public right-of-way along all streets in new residential subdivisions that are not located in wooded areas or where existing trees cannot be preserved in the development of the subdivision. The trees shall be provided in a ratio of not less than one tree for each fifty (50) feet of frontage. At street corners the nearest tree shall be located a minimum of twenty-five (25) feet from the intersection of the street right-of-way lines. Plant material shall be of species compatible with the climate and soil factors within the City of Kirkwood. A list indicating acceptable plant material is available from the City. Deciduous (shade) trees shall be a minimum 2.5" caliper, evergreen trees shall be a minimum 6 feet in height, and understory trees shall be a minimum 1.5" caliper. Preserved existing trees shall be included in the above requirement.

### (b) Planting Screens.

Within areas designated on the improvement plan for screen planting, a continuous planting of evergreens and deciduous trees shall be provided consisting of a minimum of one 2" diameter deciduous tree, two 2" diameter flowering trees, and eight 6'-8' tall evergreens for each one hundred feet of such screen.

### (c) Non-Residential Subdivisions.

Planting in subdivision other than residential shall be done in accordance with the requirements of the Planning and Zoning Commission as determined in each case.

### (d) Total Tree Density Requirement For Residential Subdivisions.

(1) The subdivider shall provide new and/or existing trees throughout the subdivision to the average minimum of one tree per 2,000 square feet of site area less street rights-of-way. (This excludes frontage trees and screening trees.)

(2) Each lot shall have a minimum of one tree (new or existing) per 4,000 square feet of lot area. (This excludes frontage trees and screening trees.)

(3) Trees shall be spaced so that each lot has a minimum tree canopy coverage area of 350 square feet per 1,000 square feet of lot area (35% coverage). The developer shall provide a landscaping plan which locates and identifies by species new and existing trees to be counted as fulfilling the tree requirements. The tree canopy area shall be shown on the final landscaping plans. The canopy for each tree shall be drawn in accordance with the canopy sizes for mature trees shown on the acceptable plant material list available from the City of Kirkwood.

(4) Preserved existing and new deciduous trees shall be at least 2.5 inches in caliper. Evergreen trees shall be a minimum of six (6) feet in height. Trees shall be of a species approved by the City.

(5) Significant existing trees shall be live, healthy trees of a species suitable for the urban environment having a diameter of eight (8) inches or greater, as approved by the Planning and Zoning Commission.

(6) The final improvement plans shall show significant trees designated by the Planning and Zoning Commission to be saved by the subdivider. If a significant tree or trees designated in the final improvement plans to be saved is lost for any reason by the time of the final inspection of the subdivision, the lost tree(s) shall be replaced by three (3) times the number of trees lost.

The City may require the value of trees to be preserved to be included in the subdivision's performance guarantee. Should these designated saved trees be lost due to willful actions or neglect of the developer, the developer shall provide landscaping and trees in the subdivision equal to the performance guarantee amount or forfeit the amount to the General Revenue of the City of Kirkwood.

If the trees designated to be saved are lost due to the willful actions or neglect of the developer, he shall be in violation of and be subject to the penalties under Section 1-8 of the Kirkwood Code of Ordinances. If any significant tree as identified in the tree



study to be saved dies, is destroyed, or removed and the developer failed to conform to any special provisions of the subdivision approval ordinance regarding the protection of the trees, his actions shall be considered prima facie evidence of neglect and willful

(7) Where it is determined that removal of significant trees has occurred within two years prior to the filing of the preliminary plat, the Planning and Zoning Commission and/or City Council may require plantings in excess of the above requirements up to one and one half times the number of trees that would otherwise be required.

(8) In the center island of a cul-de-sac, plantings shall be restricted to ground cover with a maximum height of 30 inches above grade. Trees shall be only of a deciduous type trimmed to provide a minimum clearance to all limbs of six feet above grade.

(Ord. No. 9149, §3, 3-21-02; Ord. No. 9201, §4, 11-21-02)

**Sec. 14. Monuments, markers and bench marks.**

(a) Permanent survey monuments shall be set as follows:

- (1) At the intersection of all lines forming angles in the boundary of the subdivision.
- (2) At the intersection of street property lines and at the beginning and end of all curves along street property lines.

(b) Unless the point is located by monument, markers shall be set as follows:

- (1) At all points where lot lines intersect street right-of-way lines.
- (2) At all angles in the lot property lines.
- (3) At all other lot corners.

(c) Monuments shall be approved by the Public Works Director or shall be constructed of concrete with minimum dimensions of four (4) inches by (4) inches at the top and six (6) inches by six (6) inches at the bottom with a length of three (3) feet. They shall be marked with either a copper or steel dowel embedded so that the top of the dowel shall be flush with the top surface at the center of the monument. Monuments shall be set so that the bottom extends at least four (4) inches below frost line.

(d) Markers shall consist of galvanized steel or wrought iron pipe, or steel bars at least eighteen (18) inches in length and three-quarters ( $\frac{3}{4}$ ) of an inch in outside diameter.

(e) Monuments and markers shall be so placed that the center point shall coincide with the point to be marked and the top is level with the surface of the surrounding ground after final grading.

(f) Monuments and markers shall be set after the completion of all grading operations and in such manner as to preclude their destruction during subdivision construction activities.

(g) Where a permanent bench mark is not located within one thousand (1,000) feet of the center of the subdivision and so noted on the final plat, a permanent bench mark, elevation of which is referred to mean sea level, shall be set and accurately noted on the subdivision plat.

### **Sec. 15. Privately developed facilities.**

Where the subdivision is to contain pavements, walks, sewers, sewage treatment facilities, water supply systems, park areas, or other physical facilities which will not be owned, operated or maintained by existing public agencies, provision shall be made by trust agreement, which is part of the deed restrictions and which is acceptable to the proper public agencies having jurisdiction, for the continuing maintenance, supervision, operation, reconstruction of such facilities by the lot owners in the subdivision.

(Ord. No. 8414, §1, 4-20-95; Ord. No. 8510, §§4-5, 5-16-96)

## **ARTICLE IX. INSPECTIONS AND FEES**

### **Sec. 1.**

(a) All improvements proposed to be made under the provisions of this ordinance, both public and private, shall be inspected during the course of construction by the city engineer or his duly designated representative. They shall also be inspected and must be approved, as installed, by all regulatory bodies, such as Metropolitan St. Louis Sewer District, St. Louis County Health Department, St. Louis County Department of Highways and Traffic, and Missouri State Highway Department holding jurisdiction by virtue of statute of the State of Missouri.

(b) All fees and costs connected with such inspections and all costs accruing in the review of the plans and specifications for such improvements shall be paid by the subdivider.

(c) Before the final plat of the subdivision is approved by the Planning and Zoning Commission, the subdivider shall pay to the City of Kirkwood, as a land subdivision permit fee, an amount equal to twenty dollars (\$20.00) per lot plus one and one-quarter (1¼) percent of the city engineer's estimate of cost of all such subdivision improvements (including paving, storm drainage, sanitary sewers, sewage disposal facilities, water mains, fire hydrants, street lights, street name signs, survey monuments and markers and site

grading) in order to defray the cost to the City of Kirkwood for processing the subdivision application and making the inspections required during construction.

(d) The applicant shall pay a filing fee for a subdivision sidewalk waiver in an amount of twenty-seven dollars and fifty cents (\$27.50) per linear foot where the sidewalk waiver is approved.

(Ord. No. 8864, §1, 10-21-99)

## **ARTICLE X. WAIVERS AND EXCEPTIONS**

### **Sec. 1.**

When a subdivider can show that a provision of this ordinance would cause unnecessary hardship, if strictly adhered to, and when, in the opinion of the Planning and Zoning Commission because of conditions peculiar to the site, a departure may be made without destroying the general intent and spirit of the provision, the Planning and Zoning commission may recommend a waiver or modification to the city council. The subdivider shall apply in writing for such waiver or modification. Any such waiver or modification thus recommended shall be entered in writing in the minutes of the Planning and Zoning Commission, and the reasoning on which the departure was justified shall be set forth. Approval of the waiver or modification by the city council shall be by ordinance, usually as part of the ordinance approving the final plat of the subdivision.

## **ARTICLE XI. BUILDING PERMIT**

### **Sec. 1.**

No building permit shall be issued by the building commissioner for the construction of any building, structure or improvement to the land or any lot within a subdivision until all the requirements of this ordinance have been fully complied with.

## **ARTICLE XII. ENFORCEMENT**

### **Sec. 1.**

No plat of a subdivision in the City of Kirkwood shall be recorded in the St. Louis County's Recorder's Office or have any validity until it has been approved in the manner prescribed in this ordinance.

## **ARTICLE XIII. RECORD OF PLATS**

### **Sec. 1.**

After the final plat of a subdivision, submitted and approved in accordance with the provisions of this ordinance, has been recorded in the office of the recorder of deeds of

St. Louis County, Missouri, a mylar print and two (2) paper prints, of said plat, bearing imprint of the recorder's stamp thereon shall be filed in the office of the city engineer as part of the records of the city.

#### **ARTICLE XIV. VIOLATIONS AND PENALTY**

##### **Sec. 1.**

Any person, firm or corporation violating any of the provisions of this ordinance, or any other person participating or taking any part in a violation of any of the provisions of this ordinance, shall, upon conviction, be punished by a fine of not more than five hundred dollars (\$500.00) for each offense, or by imprisonment for not more than six (6) months, or by both such fine and imprisonment. Each day a violation continues after service of written notice from the City Administration to abate such violation shall constitute a separate offense.

#### **ARTICLE XV. VALIDITY**

##### **Sec. 1.**

If any title, article, section, clause, paragraph, provision or portion of this ordinance shall be held to be invalid or unconstitutional by any court of competent jurisdiction, such decision shall not affect any other title, article, section, clause, paragraph, provision or portion of this ordinance.

PASSED AND APPROVED this 17th day of February, 1994.