

# CITY OF OLMOS PARK SUBDIVISION AND PROPERTY DEVELOPMENT ORDINANCE (Adopted 1999-02; 03/10/1999)

## Table of Contents

ARTICLE I.	
GENERAL PROVISIONS .....	2
SECTION 1. PURPOSE .....	2
<u>A. Regulations to Control Subdivision of Land</u> .....	2
<u>B. Property Development</u> .....	2
<u>C. Territorial Limits of Regulation</u> .....	2
<u>D. Application of Regulations</u> .....	2
SECTION 2. DEFINITIONS .....	3
SECTION 3. GENERAL PROHIBITIONS .....	6
<u>A. Unauthorized Subdivisions</u> .....	6
<u>B. Permits in Unauthorized Subdivisions</u> .....	6
<u>C. Public Services in Unauthorized Subdivisions</u> .....	7
<u>D. Utility Services in Unauthorized Subdivisions</u> .....	7
SECTION 4. PENALTY .....	7
SECTION 5. SEVERABILITY CLAUSE .....	7
SECTION 6. REPEAL OF CONFLICTING ORDINANCES .....	7
ARTICLE II.	
PROCEDURES .....	8
SECTION 1. PRE-APPLICATION CONFERENCE .....	8
SECTION 2. SUBMISSION OF PRELIMINARY PLAT .....	8
<u>A. Procedures for Submission</u> .....	8
<u>B. Formal Application and Filing Fee</u> .....	8
<u>C. Form and Content of Plat</u> .....	8
SECTION 3. PROCESSING OF PRELIMINARY PLAT .....	10
<u>A. Staff Review</u> .....	10
<u>B. Consideration by Planning and Zoning Commission</u> .....	10
<u>C. Consideration by City Council</u> .....	10
<u>D. Expiration of Plat Approval</u> .....	11
SECTION 4. SUBMISSION OF FINAL PLAT .....	11
<u>A. Procedures for Submission</u> .....	11
<u>B. Form and Content of Plat</u> .....	11
SECTION 5. FINANCIAL GUARANTEES .....	14
<u>A. Required Performance Bond</u> .....	14
<u>B. Adjustment of Bond/Deposit</u> .....	14
<u>C. Reduction and Expiration of Bond</u> .....	14
<u>D. Payment of Bond</u> .....	14
SECTION 6. APPROVAL OF FINAL PLAT .....	14

<u>A. Planning and Zoning Commission Review and Approval</u> .....	14
<u>B. City Council Review and Approval</u> .....	15
<u>C. Endorsement</u> .....	15
<u>D. Filing Requirements</u> .....	15
<u>E. Disapproved Plats</u> .....	15
SECTION 7. VARIANCES .....	15
<u>A. City Council Power to Grant Variances</u> .....	15
<u>B. Findings Required for Variances</u> .....	16
<u>C. Procedures for Variances</u> .....	16
SECTION 8. FINAL SUBDIVISION ACCEPTANCE REQUIREMENTS .....	16
SECTION 9. DELEGATION OF APPROVAL RESPONSIBILITY .....	17

ARTICLE III.

GENERAL SUBDIVISION DESIGN AND LAYOUT .....	18
SECTION 1. MINIMUM REQUIREMENTS .....	18
SECTION 2. GENERAL SUBDIVISION DESIGN .....	18
SECTION 3. LOTS .....	18
<u>A. Minimum Lot Size</u> .....	18
<u>B. Building Setback Lines</u> .....	19
<u>C. Lot Frontage Requirements</u> .....	19
SECTION 4. BLOCKS .....	19
<u>A. Block Length</u> .....	19
<u>B. Block Width</u> .....	19
<u>C. Block Numbering</u> .....	19
SECTION 5. EASEMENTS .....	19
<u>A. Dedication Required</u> .....	19
<u>B. Location of Easements</u> .....	20
<u>C. Gates Required in Fences</u> .....	20
<u>D. Easements Part of Lot Area</u> .....	20
<u>E. Overhang Easements</u> .....	20
<u>F. Additional Easements for Guv Wires</u> .....	20

ARTICLE IV.

STREETS .....	21
SECTION 1 . GENERAL LAYOUT AND ALIGNMENT OF STREETS .....	21
<u>A. General Requirements</u> .....	21
<u>B. Continuation of Existing Streets</u> .....	21
<u>C. Interior Circulation Streets</u> .....	21
<u>D. Projection into Unsubdivided Areas</u> .....	21
<u>E. Street Jogs</u> .....	22
<u>F. Half Streets</u> .....	22
<u>G. Dead-End Streets</u> .....	22
<u>H. Private Streets</u> .....	22
SECTION 2. REQUIRED STREET IMPROVEMENTS .....	22
<u>A. General Specifications</u> .....	22
<u>B. Right-of-Way and Pavement Exceptions for Single Family Residential Streets</u> .....	23
SECTION 3. STREET GEOMETRY STANDARDS .....	25

<u>A. General Requirements</u> .....	25
<u>B. Other Exceptions to Minimum Radius Requirement</u> .....	25
<u>C. Reverse Curves</u> .....	26
<u>D. Vertical Curvature</u> .....	26
<u>E. Sight Distance Requirements</u> .....	26
<u>F. Intersection Design</u> .....	27
SECTION 4. MINIMUM PAVEMENT DESIGN STANDARDS .....	27
SECTION 5. STANDARDS FOR ALTERNATE PAVEMENT DESIGNS .....	28
<u>A. Soils Investigation</u> .....	28
<u>B. Pavement Design Loads</u> .....	29
SECTION 6. PROTECTION OF LIMITED ACCESS STREETS .....	30
SECTION 7. CUL-DE-SACS .....	30
<u>A. Permanent</u> .....	30
<u>B. Temporary</u> .....	30
SECTION 8. ALLEYS .....	31
SECTION 9. CURBS .....	31
SECTION 10. SIDEWALKS .....	31
<u>A. General Requirements</u> .....	31
<u>B. Location of Sidewalks</u> .....	32
<u>C. Sidewalk Obstructions</u> .....	32
<u>D. Timing of Sidewalk Construction</u> .....	32
SECTION 11. DRIVEWAYS .....	32
<u>A. General Requirements</u> .....	32
<u>B. Locational Requirements</u> .....	32
SECTION 12. TRAFFIC CONTROL SIGNS AND STREET SIGNS .....	33
SECTION 13. STREET LIGHTING .....	33

ARTICLE V.

DRAINAGE AND FLOOD HAZARDS .....	34
SECTION 1. GENERAL REQUIREMENTS .....	34
<u>A. Facilities Required</u> .....	34
<u>B. Stormwater Management</u> .....	34
<u>C. Construction Sequencing and Erosion Controls</u> .....	34
<u>D. Land Clearing Restrictions</u> .....	35
<u>E. Enforcement of Erosion Controls and Clearing Restrictions</u> .....	35
SECTION 2. REQUIRED DRAINAGE STUDY .....	35
SECTION 3. DRAINAGE EASEMENTS .....	36
<u>A. General Requirement</u> .....	36
<u>B. Enclosed Systems</u> .....	36
<u>C. Open Channels</u> .....	37
<u>D. Overflow Drainage</u> .....	37
SECTION 4. DRAINAGE SYSTEM DESIGN STANDARDS .....	37
<u>A. General Requirements</u> .....	37
<u>B. Method of Computing Runoff</u> .....	37

<u>C. Assumptions for Runoff Calculations</u> .....	40
<u>D. Use of Streets and Alleys as Drainage Facilities</u> .....	41
<u>E. Storm Sewers</u> .....	42
<u>F. Street Inlets to Storm Sewers</u> .....	42
<u>G. Capacity of Open Drainage Channels</u> .....	42
<u>H. Lining of Open Drainage Channels</u> .....	42
<u>I. Design of Concrete Lined Channels</u> .....	43
<u>J. Design of Sod-Lined and Earth Channels</u> .....	44
SECTION 5. FLOOD HAZARDS .....	44
<u>A. General Policy</u> .....	44
<u>B. Flood Plain Designations and General Restrictions</u> .....	44
<u>C. General Requirements in Flood Plains</u> .....	45
<u>D. Flood Hazards to Water and Wastewater Systems</u> .....	45
<u>E. Review of Proposed Subdivision Flood Hazards</u> .....	45
<u>F. Access to Subdivisions</u> .....	45
 ARTICLE VI.	
WATER AND SEWERS .....	47
SECTION 1. GENERAL REQUIREMENTS FOR WATER SYSTEMS .....	47
<u>A. Service Required</u> .....	47
<u>B. Obligations of Subdivider</u> .....	47
SECTION 2. WATER SYSTEM DESIGN STANDARDS .....	47
SECTION 3. SANITARY SEWERS .....	48
<u>A. General Requirements</u> .....	48
<u>B. Obligations of Subdivider</u> .....	48
SECTION 4. WASTEWATER SYSTEM DESIGN STANDARDS .....	48
<u>A. General Design Standards</u> .....	48
<u>B. Sewer Location</u> .....	49
<u>C. Materials</u> .....	49
<u>D. Trenching</u> .....	50
<u>E. Minimum Diameter of Mains</u> .....	50
<u>F. Manholes</u> .....	50
<u>G. Lift Stations and Force Mains</u> .....	50
<u>H. Minimum Diameter of Service Lines</u> .....	50
 ARTICLE VII.	
UTILITY EXTENSIONS AND GENERAL SUBDIVISION IMPROVEMENTS .....	51
SECTION 1. GENERAL REQUIREMENTS .....	51
<u>A. Obligations of Subdivider</u> .....	51
<u>B. Engineer Responsible</u> .....	51
<u>C. Construction Plans</u> .....	51
<u>D. Installation of Utilities Before Paving</u> .....	51
<u>E. Inspection of Improvements</u> .....	51
<u>F. Final Plans</u> .....	52

SECTION 2. SURVEY REQUIREMENTS .....	52
<u>A. Placement of Lot Markers and Street Monuments</u> .....	52
<u>B. Elevation Benchmarks</u> .....	52
<u>C. Lot markers for Utility Easements</u> .....	52
SECTION 3. COSTS OF UTILITY EXTENSIONS .....	52
<u>A. Water and Sewer Main Extensions</u> .....	52
<u>B. Lift Stations, Booster Pumps and Related Equipment</u> .....	53
SECTION 4. COST DISTRIBUTION FOR OVERSIZE FACILITIES .....	53
SECTION 5. MINIMUM SIZES FOR OVER-SIZING CALCULATIONS .....	53
ARTICLE VIII.	
PARKS.....	54
ARTICLE IX.	
REGULATION PROPERTY DEVELOPMENT.....	54
SECTION 1. DEFINITIONS.....	54
SECTION 2. DEVELOPMENT PLAT REQUIRED.....	54
<u>A. Requirements</u> .....	54
<u>B. Development Plat</u> .....	54
SECTION 3. GENERAL STANDARDS.....	55
Exhibit "A"	
Plat Certificates and Notes .....	57
Surveyor's Certificate .....	57
Engineer's Certificate .....	57
Owner's Acknowledgment .....	58
Approval of the Planning and Zoning Commission .....	58
Easement Notes .....	59
DRAINAGE EASEMENT .....	59
UTILITY EASEMENT .....	59
Plat Notes .....	60
FENCE NOTES .....	60
SIDEWALK NOTES .....	60
CAPITAL RECOVERY FEE ASSESSMENT .....	60

List of Tables

Table A. Required Street Improvements .....	22
Table B. Street Geometry Standards .....	25
Table C. Design Values for Constant "K," Vertical Curvature .....	26
Table D. Minimum Sight Distances .....	27
Table E. Minimum Pavement Design Standards .....	28
Table F. Minimum Pavement Load Standards .....	29

Table G.	Minimum Curb Radius Requirements.....	31
Table H.	Rational Method Runoff Coefficients by Zoning District .....	38
Table I.	Rational Method Runoff Coefficients for Composite Analysis .....	39-40
Table J.	Assumed Rainfall Intensities .....	41
Table K.	Minimum Drainage Channel Freeboard .....	42
Table L.	Velocity Control Requirements.....	43
Table Q.	Wastewater System Minimum Design Standards .....	49
Table R.	Minimum Sizes for Oversizing Calculations .....	53

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE AMENDING THE CODE OF ORDINANCES, PRESCRIBING RULES AND REGULATIONS GOVERNING PLATS, PLANS, SUBDIVISIONS, AND DEVELOPMENT OF LAND WITHIN THE INCORPORATED AREA AND EXTRATERRITORIAL JURISDICTION OF THE CITY OF OLMOS PARK, TEXAS; CONTAINING CERTAIN DEFINITIONS; PROVIDING FOR A PRELIMINARY PLAT AND A FINAL PLAT; PRESCRIBING REQUIREMENTS AND STANDARDS FOR STREETS, SIDEWALKS, DRAINAGE, FLOOD CONTROL, UTILITIES, AND PARK DEDICATION; PROVIDING FOR A PENALTY; AND PROVIDING A SEVERABILITY CLAUSE.

WHEREAS, under the provisions of the Constitution and laws of the State of Texas, including particularly Chapter 212 of the Local Government Code, as heretofore or hereafter amended, the owner of a tract of land within the limits or in the extraterritorial jurisdiction of a municipality who divides the tract in two or more parts to lay out a subdivision of the tract, including an addition to a municipality, to lay out suburban, building, or other lots, or to lay out streets, alleys, squares, parks, or other parts of the tract intended to be dedicated to public use or for the use of purchasers or owners of lots fronting on or adjacent to the streets, alleys, squares, parks, or other parts, must have a plat of the subdivision prepared and have the plat approved by the City; and

WHEREAS, Chapter 24 of the Code of Ordinances, prescribing the rules and regulations governing streets, drains, walks and curbs, is no longer adequate to promote and protect the general health, safety, and welfare of persons residing in and adjacent to the City of Olmos Park:

WHEREAS, in addition to subdivision regulation, the City desires to undertake regulation of property development as authorized by Chapter 212, Subchapter B of the Local Government Code;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF OLMOS PARK, TEXAS, AS FOLLOWS:

4. City of Olmos Park Ordinance No. 98-12 is hereby repealed.
5. Chapter 24 of the Code of Ordinances of the City of Olmos Park as it existed prior to the adoption of Ordinance No. 98-12 is adopted by reference and revalidated as Chapter 24 of the Code of Ordinances but reentitled "Excavation and Repair of Streets, Drains, Walks, and Curbs."
6. Section 5.700 through 5.800 of the Code of Ordinances of the City of Olmos Park relating to subdivision and development are hereby repealed.
7. A new Chapter 24 ½ of the Code of Ordinances of the City of Olmos Park is hereby adopted as follows:

**SUBDIVISION AND PROPERTY DEVELOPMENT ORDINANCE**

**OF  
THE CITY OF OLMOS PARK, TEXAS**

**ARTICLE I.**

**GENERAL PROVISIONS**

**SECTION 1. PURPOSE**

**A. Regulations to Control Subdivision of Land.**

The following regulations shall control the subdivision of land within the corporate limits of the City of Olmos Park, Texas, and within the extraterritorial jurisdiction thereof, in order to provide for the safe, orderly and healthful development of the community and to secure adequate provisions for traffic, light, air, recreation, transportation, water, drainage, sewage and other public facilities.

**B. Property Development.**

Chapter 212, Subchapter B of the Texas Local Government Code and any successor or replacement statute is hereby adopted and shall cover property development in the City of Olmos Park not otherwise governed by this ordinance.

**C. Territorial Limits of Regulations.**

The territorial application of this ordinance shall include all land located within the corporate limits of the City.

**D. Application of Regulations.**

On or after the passage of this ordinance, any person, firm or corporation (subdivider) seeking approval of any plat, plan or replat of any subdivision of land within the City and its legally established extraterritorial jurisdiction shall be required to comply with the requirements of this ordinance before such approval may be granted. Any subdivision construction plans that have not been approved by the City before the passage of this ordinance shall be required to comply with the requirements of this ordinance. No transfer of land in the nature of a subdivision as defined herein shall be exempt from the provisions of this ordinance even though the instrument or document of transfer may describe land so subdivided by metes and bounds.

**SECTION 2. DEFINITIONS**

## ARTICLE I. GENERAL PROVISIONS

For the purpose of this ordinance, certain terms and words are hereby defined as follows. For the convenience of the reader, these terms are usually indicated by **bold print and underlining**, but the absence of such indications does not imply a different meaning. Terms not defined herein shall be construed in accordance with the Zoning Ordinance, other City codes and ordinances, or their customary usage and meaning. The word "shall" is mandatory and not permissive. The word "may" is permissive and not mandatory. The words "may not" and "shall not" are both prohibitive. Headings and captions are for reference purposes only, and shall not be used in the interpretation of this ordinance.

**Alley:** A minor public right-of-way not intended to provide the primary means of access to abutting **lots**, which is used primarily for vehicular service access to the back or sides of properties otherwise abutting on a **street**.

**Alley, Commercial:** An **alley** designed to access the rear or side of non-residential **lots** or the rear of residential **lots** with rear entry garages.

**Alley, Residential:** An **alley** designed to access the rear or side of residential **lots** without rear entry garages.

**Building Setback Line:** The line within a property defining the minimum horizontal distance between a building lot line.

**City Manager:** The City Manager and/or his/her duly authorized representative.

**Development:** The new construction or the enlargement of any exterior dimension of any building, structure or improvement.

**Easement, Non-Access:** An easement dedicated to the public prohibiting vehicular traffic on, over or across said easement.

**Easement, Overhang:** An interest in land granted to the City, to the public generally, and/or to a utility corporation, for installing or maintaining utilities over private land. This easement does not grant the right of entry thereon with machinery and vehicles for maintenance.

**Easement, Sidewalk:** An interest in land granted to the public for the installation of and public use of, a sidewalk across or over private land, together with the right to enter thereon with machinery and vehicles necessary for the installation and maintenance of said sidewalk.

**Easement, Utility:** An interest in land granted to the City, to the public generally, and/or to a private utility corporation, for installing or maintaining utilities across, over or under private land, together with the right to enter thereon with machinery and vehicles necessary for the maintenance of said utility.

**Flood Plain:** Any land area susceptible to being inundated by water from the unusual and rapid accumulation or runoff of surface waters from any source.

**Floodway:** The channel of a river or watercourse and portions of the adjacent floodplain as depicted in the current floodway map provided to the City of Olmos Park by Federal Emergency Management Agency (FEMA). or as determined by an engineering study in areas not depicted in the current floodway map.

**Half-Street:** Any portion of a **street** which does not meet the minimum right-of-way widths required by this ordinance or which is to be widened to full width at some later date.

**Impervious Surface:** The paved surface of any **street**, **alley**, sidewalk, driveway or parking area, the roof of any building or structure, and the top surface of any deck or other construction of any character which is so designed or built that rain falling on the surface is carried off that surface without directly penetrating the ground beneath it.

**Interior Street:** A **minor street** which enters or traverses a **subdivision**, or whose entire course is located within the boundaries of a **subdivision**, as distinguished from a **perimeter street**.

**Limited Access Street:** A **street** along, which direct vehicular ingress and egress to and from adjacent residential property is prohibited.

**Lot:** An undivided tract or parcel of land having frontage on a public **street** or an approved open space having direct **street** access, and which is, or in the future may be, offered for sale, conveyance, transfer, or improvement, which is designated as a distinct and separate tract, and which is identified by a tract number, lot number, or other symbol in a duly approved **subdivision plat** which has been properly filed of record.

**Lot, Corner:** A **lot** at the point of intersection of and abutting on two or more intersecting streets, the angle of intersection being not more than 135 degrees.

**Lot, Double Front:** Any **lot**, not a **corner lot**, with frontage on two **streets** which are parallel to each other or within 45 degrees of being parallel to each other.

**Major Thoroughfare:** A **limited access** arterial **street** designed to carry a large volume of traffic from one part of the city to another, along a route generally indicated in the city's comprehensive plan.

**Marginal Access Street:** A **street** which is parallel and adjacent to a **limited access street** or **collector street** and which primarily provides vehicular access to abutting properties and protection from high speed through traffic.

**Minor Street:** Any street other than a **major thoroughfare**, a **collector street** or a **marginal access street**, which serves and is accessed by individual properties and **lots** fronting thereon.

**Perimeter Street:** A street or dedicated street right-of-way adjacent to and abutting the boundary of any **subdivision** or tract of land.

**Plat, Final:** The map or plan of a **subdivision** that is submitted to the City staff and the Planning and Zoning Commission for final approval. After approval, the plat is recorded under provisions of Chapter 192 of the Local Government Code.

**Plat, Preliminary:** The first or introductory map or plan of a proposed **subdivision** that is submitted to the City staff and the Planning and Zoning Commission for initial approval as the basis for development of a **final plat**.

**Primary Collector Street:** A **limited access street** which collects and distributes traffic from and to two or more **secondary collector streets** and which feeds into the **major thoroughfares**.

**Private Street:** A street which is not a public thoroughfare.

**Reserve Strip:** An area of land adjacent to a public right-of-way, title to which is retained by the landowner (**subdivider**), the purpose of such strip being to control access across said land.

**Resubdivision:** The division of an existing **subdivision**, together with any change of **lot** size therein, or with the relocation of any street lines.

**Secondary Collector Street:** A **limited access street** which collects traffic from two or more **minor streets** and feeds into another secondary collector, a **primary collector**, or a **major thoroughfare**.

**Single Family Residential Street:** A **minor street** which is located entirely within a single-family residential area.

**Street:** A public right-of-way, however designated, other than an **alley**, which carries vehicular traffic or provides vehicular access to adjacent land. All streets are classified by other definitions in this section.

**Subdivider:** Any person or any agent thereof, dividing or proposing to divide land so as to constitute a **subdivision** as that term is defined herein. In any event, the term "subdivider" shall be restricted to include only the owner, equitable owner or authorized agent of such owner or equitable owner, of land sought to be subdivided.

## ARTICLE I. GENERAL PROVISIONS

**Subdivision:** A division of any tract of land situated within the corporate limits, or within the extraterritorial jurisdiction of the City of Olmos Park, in two or more parts to lay out a subdivision of the tract, including an addition to the municipality, to lay out suburban, building, or other **lots**, or to lay out **streets, alleys**, squares, parks, or other parts of the tract intended to be dedicated to public use or for the use of purchasers or owners of **lots** fronting on or adjacent to the **streets, alleys**, squares, parks, or other parts. "Subdivision" includes a division of a tract regardless of whether it is made by using a metes and bounds description in a deed of conveyance or in a contract for a deed, by using a contract of sale or other executory contract to convey, or by using any other method. "Subdivision" includes **resubdivision**, but it does not include a division of land for agricultural purposes into parts greater than five acres where each part has **street** access and no public improvement is being dedicated.

**Trunk Main:** A water main whose primary purpose is to transport water to the distribution system within a **subdivision** or a sewer main whose primary purpose is to transport wastewater from the collection system within a **subdivision**. Trunk mains are not directly connected to individual **lots**.

**Zoning Ordinance:** Chapter 31 of the Code of Ordinances and all amendments thereafter adopted.

### SECTION 3. GENERAL PROHIBITIONS

#### A. Unauthorized Subdivisions.

It shall be unlawful for any land owner, or the agent of any land owner, to lay out, subdivide, plat or replat any land into **lots**, blocks and **streets** within the jurisdictional limits of the City without the approval of the Planning and Zoning Commission in accordance with this ordinance.

#### B. Permits In Unauthorized Subdivisions.

No building, repair, plumbing or electrical permit shall be issued by the City for any structure on a **lot** in a **subdivision** until the **final plat** of the **subdivision** has been approved and filed for record and the **subdivision** has been accepted by the City.

#### C. Public Services in Unauthorized Subdivisions.

The City shall not repair, maintain, install or provide any **streets** or public utility services in any **subdivision** for which a **final plat** has not been approved and filed for record, or in which the standards contained herein or referred to herein have not been complied with in full.

#### D. Utility Services in Unauthorized Subdivisions.

No utility shall sell any water, gas, electricity or sewage service within a **subdivision** for which a **final plat** has not been approved or filed for record, or in which the standards contained herein or referred to herein have not been complied with in full.

**SECTION 4. PENALTY**

Any person violating this ordinance or any portion thereof shall, upon conviction, be guilty of a misdemeanor and shall be fined \$1,000.00, and each day that such violation continues or each occurrence shall be considered a separate offense and punished accordingly.

**SECTION 5. SEVERABILITY CLAUSE**

If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held to be unconstitutional, void or invalid, the validity of the remaining portions of this ordinance shall not be affected thereby, it being the intent of the Council in adopting this ordinance that no portion hereof, or provision or regulation contained herein shall become inoperative or fail by reason of the unconstitutionality or invalidity of any section, subsection, sentence, clause, phrase or provision of this ordinance.

**SECTION 6. REPEAL OF CONFLICTING ORDINANCES**

All ordinances and parts of ordinances in conflict herewith are expressly repealed to the extent of their inconsistency; provided, however, that whenever higher or more restrictive standards are established by the provisions of any other ordinance or regulation than those established by this ordinance, the provisions of such other ordinance or regulation shall govern.

## ARTICLE II.

### PROCEDURES

#### SECTION 1. PRE-APPLICATION CONFERENCE

Before submitting a **preliminary plat**, the **subdivider** should request a conference with the **City Manager** and designated City staff. At this conference, the **subdivider** should present a preliminary plan for advice on the procedures, specifications and standards required by the City for the **subdivision** of land.

#### SECTION 2. SUBMISSION OF PRELIMINARY PLAT

##### A. Procedures for Submission.

In submitting a **preliminary plat** for consideration by the Planning and Zoning Commission, the **subdivider** shall deliver the following to the **City Manager** at least 21 calendar days prior to the date the plat is to be considered by the Commission:

1. Fifteen blue or black line copies of the **preliminary plat**.
2. A preliminary water distribution and sanitary sewer plan, including proposed pipe sizes and grading.

##### B. Formal Application and Filing Fee.

The **preliminary plat** shall be accompanied by the appropriate filing fee established by City Council. The Commission shall take no action on the plat until the filing fee has been paid. This fee shall not be refunded should the **subdivider** fail to make formal application for **preliminary plat** approval or should the plat be disapproved. The **subdivider** shall make formal application for **preliminary plat** approval in writing to the **City Manager** no later than five days prior to the Planning and Zoning Commission meeting at which the plat is to be considered.

##### C. Form and Content of Plat.

The **preliminary plat** of a proposed **subdivision** shall be prepared by a registered public surveyor and bear his/her seal. The plat shall show or be accompanied by the following information:

1. The plat shall be drawn to a scale of one inch to 100 feet or one inch to 50 feet. The **preliminary plat** shall generally include all of the tract intended to be developed at one time. When more than one sheet is necessary, an index sheet showing the entire **subdivision** at a scale of one inch to 400 feet shall be attached to the plat.

ARTICLE II. PROCEDURES

2. The name of the **subdivision**, which shall not duplicate the name of an existing or pending **subdivision**.
3. A complete legal description by metes and bounds of the land being subdivided. The existing boundary lines shall be drawn wide enough to provide easy identification.
4. The names and addresses of owners of record.
5. A location map showing the relation of the **subdivision** to well known **streets** in all directions.
6. North point, with north to the top of the sheet 'If possible, and the bearing of record.
7. Name and location of adjacent **subdivisions**, watercourses on or adjacent to the proposed **subdivision**, and the property lines and names of the property owners in all adjoining unsubdivided tracts.
8. The total acreage and total number of **lots** in the proposed **subdivision**.
9. The location, right-of-way width. name and description of all existing or recorded **streets**, **alleys**, or other transportation features or similar reservations which are within or adjacent to the **subdivision**, as determined from existing records.
10. Two-foot contour interval surveys tied to City Control Monuments or USGS Bench Marks. Where conditions exist that make the use of two-foot contours impractical, alternate intervals may be used upon approval of the **City Manager**.
11. The location of the City limit lines and the outer border of the City's extraterritorial jurisdiction if either traverses the **subdivision** or is contiguous to a **subdivision** boundary.
12. The location of **building setback lines**, including front, rear and side setback lines. shown by dashed lines on the plat.
13. A number to identify each **lot** and each block, the approximate width and depth of each **lot**, and a note of the approximate area of the smallest **lot**.
14. The centerline of watercourses, creeks and existing drainage structures within and adjacent to the **subdivision**. Pertinent drainage data and the limits of areas subject to flooding shall be shown, delineating the 25-year and the 100-year flood if applicable.

15. A preliminary erosion control and construction sequencing plan.
16. A note as to whether any part of the **subdivision** is located within a drainage basin which is upstream from a City water supply lake, and if so, a map at a convenient scale showing the location of the entire **subdivision** in relation to the drainage basin.
17. If the **subdivision** is located within a drainage basin which is upstream from a City water supply lake, calculations showing the maximum allowable area covered by **impervious surfaces** in the area of the **subdivision**.
18. The location and results of percolation tests shall be shown on each **lot** which is to utilize an on-site wastewater disposal system. The name and address of the person performing such percolation tests shall be noted on the plat.
19. The locations, dimensions and purposes of all recorded and proposed easements.

### **SECTION 3. PROCESSING OF PRELIMINARY PLAT**

#### A. Staff Review.

City staff will inspect the **preliminary plat** to see that it conforms with all of the requirements of this ordinance. The **subdivider** or his/her representative will be informed in writing by the **City Manager** of any deficiencies in the **preliminary plat**.

#### B. Consideration by Planning and Zoning Commission.

The city manager shall submit the preliminary plat with his recommendations to the Planning and Zoning Commission which shall, within thirty days after the date of receipt of such preliminary plat by the city manager, recommend approval or disapproval of the plat. In the event the Planning and Zoning Commission does not act within the prescribed thirty days, the plat shall be deemed approved by the Commission and be submitted to the City Council at its next regular or special meeting for approval or disapproval of the plat.

#### 3. Consideration by City Council.

If the Planning and Zoning Commission recommends disapproval of a preliminary plat, such act shall be final unless the property owner requesting approval of such plat gives the city manager written notice of appeal within ten days after disapproval by the Planning and Zoning Commission. If the Planning and Zoning Commission recommends approval of a preliminary plat, or if a property owner appeals a recommendation of disapproval by the Commission, such recommendation or appeal shall be submitted to the City Council for final approval or disapproval at its next regular or

special meeting. The City Council shall act on the recommendation or appeal within thirty days after the date the plat is considered by the Planning and Zoning Commission. A plat is considered approved by the City Council unless it is disapproved within that period.

D. Expiration of Plat Approval.

Approval of the **preliminary plat** shall lapse one year from the date of initial approval.

**SECTION 4. SUBMISSION OF FINAL PLAT**

A. Procedures for Submission.

No **final plat** shall be considered unless a **preliminary plat** has first been submitted to and approved by the Planning and Zoning Commission. The **final plat** and accompanying data shall conform to the **preliminary plat** as conditionally approved by the City Council, incorporating any and all changes, modifications, alterations and corrections required by the Commission. The **subdivider** shall provide the following at least 31 calendar days prior to the Commission's consideration of the **final plat**:

1. Fifteen copies of the **final plat**.
2. Three detailed sets of plans and specifications bearing the seal and signature of a registered professional engineer, together with detailed cost estimates of all **subdivision** improvements.
3. A digital file of the **final plat** in a format specified by the **City Manager**.

The **subdivider** shall submit to the **City Manager** a formal application for **final plat** approval, accompanied by the appropriate filing fee established by City Council, at least five days prior to the Commission meeting at which the plat is to be considered.

B. Form and Content of Plat.

The **final plat** shall be drawn in India ink- on tracing cloth, nylon or comparable substitute sheets, 18 inches by 24 inches, and to a scale of either one inch to 100 feet or one inch to 50 feet. Where more than one sheet is required, an index sheet of maximum size 18 by 24 inches shall be filed showing the entire **subdivision**, and all scales shall be uniform. The following information must be shown on or must accompany the plat:

1. Name of the **subdivision**, north arrow, the name of the land owner or owners, the name of the registered surveyor and/or engineer responsible for the preparation of the

plat, scale, location map, total acres in the **subdivision**, and the location of the **subdivision** in reference to an original corner of the original survey of which said land is a part.

2. Certificate, signature and seal of the licensed surveyor who surveyed the land (see Exhibit A).
3. Certificate, signature and seal of the engineer, except when the plat does not require engineering considerations (see Exhibit A).
4. A certificate of ownership and dedication to the City of all **streets**, easements, **alleys**, parks, playgrounds or other dedicated public uses, signed and acknowledged before a notary public by the owners and by any holders of liens against the land (see Exhibit A).
5. Certificate of approval to be signed by the Chair and the Secretary of the Commission (see Exhibit A).
6. Certificate for recording the plat in the Bexar County Clerk's office.
7. The names and property lines of adjoining **subdivisions** and the property lines and names of property owners in contiguous unsubdivided tracts.
8. The name and location of adjacent **streets**, **alleys**, easements, watercourses, and other required information, all lines outside of the **subdivision** boundaries to be dashed.
9. The names of all proposed **streets** and the locations and right-of-way widths of all proposed **streets** and **alleys**.
10. Complete curve data (delta, arc length, radius, tangent, point of curve, point of reverse curve, point of tangent, long chord with bearing) between all **lot** corner pins.
11. Locations, dimensions and purposes of any easements or other rights-of-way to be dedicated to public use.
12. **Lot** and block lines, numbers of all proposed **lots** and blocks, dimensions for front, rear and side **lot** lines, and the street address of each **lot**.
13. The use classification of each **street** based on the **street** definitions in this ordinance.

14. The building setback lines for each **lot**.
15. Plat notes indicating the location of sidewalks on both sides of all **streets** (except where sidewalks are not required by this ordinance). and the installation of double swing gates across all **utility easements**.
16. If applicable, the boundaries of the 100 year **flood plain** and **floodway**.
17. **Subdivisions** in an area having special flood hazards shall show on the plat:
  - (1) A flood zone for that area which is subject to inundation by the 100-year flood.
  - (2) The surface elevation of the 100-year flood at intervals of every 500 lineal feet. This must be based on a certified engineering survey taking into consideration the full development of the watershed.
18. Minimum slab elevations of all **lots** that fall within the 100 year **flood plain**.
19. If applicable, the limits of any water supply protection zone and plat notes to implement the zone requirements.
20. If applicable, plat notes restricting the percentage of the area of each **lot** which may be covered by **impervious surfaces**.
21. Other appropriate plat notes (see Exhibit A).
22. Appropriate easement notes (see Exhibit A).
23. A final erosion control and construction sequencing plan.

## **SECTION 5. FINANCIAL GUARANTEES**

### **A. Required Performance Bond.**

At least three working days prior to consideration of the **final plat** by the Planning and Zoning Commission, the **subdivider** shall file with the **City Manager** either an irrevocable letter of credit, a cash deposit, a savings assignment, or a performance bond, in an amount equal to the estimated cost of the utility and **street** improvements to be made in the **subdivision** by the **subdivider**, including

the cost of erosion control during construction. Such bond or other financial guarantee shall be for the faithful performance, installation and completion of such improvements.

B. Adjustment of Bond/Deposit.

As soon as possible after approval of the **final plat**, but prior to the start of construction, the **subdivider** shall provide the **City Manager** an executed copy of the utility and **street** construction contracts or a notarized statement certifying the final contracts so that the City may substantiate the estimated cost of improvements. The performance bond/deposit shall be adjusted to reflect the actual construction costs.

C. Reduction and Expiration of Bond.

The performance bond/deposit may be reduced from time to time as portions of the improvements are completed and accepted. The bond/deposit shall bear an expiration date of at least one year and shall be retained by the **City Manager** until all improvements have been completed and accepted by the City.

D. Payment of Bond.

If all improvements have not been completed and accepted by the City 30 days prior to the expiration of the performance bond/deposit, the **City Manager** shall present the bond/deposit for immediate payment.

**SECTION 6. APPROVAL OF FINAL PLAT**

A. Planning and Zoning Commission Review and Approval.

The City Manager shall submit the **final plat** with his recommendations to the Planning and Zoning Commission which shall, within thirty days after the date of receipt of such final plat by the City Manager, recommend approval or disapproval of the plat. In the event the Planning and Zoning Commission does not act within the prescribed thirty days after the receipt of the plat by the City Manager, the plat shall be deemed approved by the Commission and be submitted to the City Council at its next regular or special meeting for approval or disapproval.

2. City Council Review and Approval.

If the Planning and Zoning Commission recommends disapproval of a **final plat**, such act shall be final unless the property owner requesting approval of the plat gives the City Manager written notice of appeal within ten days after disapproval by the Planning and Zoning Commission. If the Planning and Zoning Commission recommends approval of a **final plat**, or if a property owner appeals a recommendation of disapproval by the Commission, such recommendation or appeal shall be

submitted to the City Council for final approval or disapproval at its next regular or special meeting.

The City Council shall act on the **final plat** within thirty days after the date the plat is considered by the Planning Commission or is considered approved by the inaction of the Commission. A **final plat** is considered approved by the City Council unless it is disapproved within that period.

3. Endorsement.

If a **final plat** is approved, the City Council shall endorse the plat with a certificate indicating the approval. The Certificate must be signed by the Mayor and attested by the City Secretary, or signed by a majority of the members of the City Council.

4. Filing Requirements.

The **subdivider** shall file the approved **final plat** for record and provide the City with two reproducible recorded tracings of the **final plat** within 10 days of the City Council meeting at which the **final plat** is approved.

E. Disapproved Plats.

Should the **final plat** as submitted fail to meet the conditions of this ordinance, the City Council shall disapprove the plat and note its disapproval in the minutes of the City Council meeting.

## SECTION 7. VARIANCES

A. City Council Power to Grant Variances.

The City Council may grant a variance from the requirements of this ordinance when, in the City Council's judgment, undue hardship will result from requiring strict compliance. A variance may be granted only when in harmony with the general purpose and intent of this ordinance so that the public health, safety and welfare may be secured and substantial justice done. Pecuniary hardship to the **subdivider**, standing alone, shall not be deemed to constitute undue hardship. In granting a variance, the City Council shall prescribe only conditions that it deems necessary to or desirable in the public interest.

B. Findings Required for Variances.

In making the findings herein required, the City Council shall take into account the nature of the proposed use of the land involved, existing uses of land in the vicinity. the number of persons who will reside or work in the proposed **subdivision**, and the probable effect of such variance upon traffic conditions and upon the public health, safety, convenience and welfare in the vicinity. No variance shall be granted unless the City Council makes affirmative findings as to all of the following:

1. That there are special circumstances or conditions affecting the land involved such that the strict application of the provisions of this ordinance would deprive the applicant of the reasonable use of his/her land;
2. That the variance is necessary for the preservation and enjoyment of a substantial property right of the applicant;
3. That the granting of the variance will not be detrimental to the public health, safety or welfare, or injurious to other property in the area; and
4. That the granting of the variance will not have the effect of preventing the orderly **subdivision** of other land in the area in accordance with the provisions of this ordinance.

C. Procedures for Variances.

The **subdivider** shall submit to the **City Manager** a written application for each variance which is requested, along with the appropriate filing fee established by City Council. The City Council shall not consider any action on the variance request until this fee has been paid. The findings of the City Council, together with the specific facts upon which such findings are based, shall be incorporated into the minutes of the City Council meeting at which the variance is granted.

**SECTION 8. FINAL SUBDIVISION ACCEPTANCE REQUIREMENTS**

Prior to final acceptance by the City of completed improvements for maintenance, the **subdivider** shall file with the **City Manager** or the Bexar County Commissioners Court, whichever is appropriate, the following:

1. Either a one year warranty bond conditioned that the improvements are free from defects in materials and workmanship, or an irrevocable letter of credit, cash deposit or savings assignment committing funds for the correction and repair of any defects in materials or workmanship. The bond, letter of credit, cash deposit or savings assignment shall be in the amount of 10 percent of the contract price for the improvements.
2. Two sets of certified "As Built" record drawing plans for each **subdivision** improvement.
3. A digital file of the "As Built" record drawing plans for each **subdivision** improvement in a format specified by the **City Manager**.

4. Two certified copies of all improvement costs, itemized as follows:
  - a. **Streets, alleys**, curbs, sidewalks and drainage features.
  - b. Water mains, valves, hydrants and services.
  - c. Sewer mains, lift stations, force mains, manholes and services.

Prior to acceptance of the **subdivision** improvements, the **subdivider** shall provide the City with a release of lien from all subcontractors and contractors verifying that all contractors have been paid and that no liens will be filed on the **subdivision**. No acceptance shall be given until all verification is made. No applications shall be accepted for building permits or utility connections, and no building permits shall be issued or utility connections made until such time as the entire **subdivision** is accepted by the City.

SECTION 9. DELEGATION OF APPROVAL RESPONSIBILITY (Adopted 2003-04; 05/21/2003)

1. Without further action by the Planning and Zoning Commission or City Council, the City Manager has the authority to approve the following:
  - a. Amending plats described by Section 212.016 of the Texas Local Government Code;
  - b. Minor plats involving four or fewer lots fronting on an existing street and not requiring the creation of any new street or the extension of municipal facilities;
  - c. A replat under Section 212.0145 of the Texas Local Government Code that does not require the creation of any new street or the extension of municipal facilities.
2. The City Manager may at any time elect not to exercise the foregoing authority and present the plat for approval by the Planning and Zoning Commission and City Council in accordance with the provisions of this ordinance.
3. The City Manager shall not disapprove the plat and is required to refer any plat which the City Manager refuses to approve to the Planning and Zoning Commission and City Council for consideration in accordance with the provisions of this ordinance.

## ARTICLE III.

### GENERAL SUBDIVISION DESIGN AND LAYOUT

#### SECTION 1. MINIMUM REQUIREMENTS

The design standards contained in this ordinance represent minimum values considered necessary to insure good public health and safe development within the community. The design engineer and **subdivider** are required to meet or exceed these standards. Approval of plans and specifications by the City shall not be construed as relieving the design engineer and the **subdivider** of responsibility for compliance with this ordinance or with the requirements of other local, county or state authorities having jurisdiction. No **preliminary plat** or **final plat** shall be approved and no completed improvements shall be accepted unless they conform to the standards and specifications of this ordinance.

#### SECTION 2. GENERAL SUBDIVISION DESIGN

Every **subdivision** shall conform to the comprehensive plan of the City and the parts thereof. If a tract is subdivided into parcels larger than ordinary building **lots**, such parcels shall be arranged to allow the opening of future **streets**. Except for **non-access easements** required by this ordinance, there shall be no **reserve strips** controlling access to land dedicated or intended to be dedicated to public use. The locations, right-of-way widths and names of all proposed **streets** shall conform with those of the existing **streets** with which they may be or become extensions. The names of proposed **streets** shall not duplicate or be deceptively similar to the names of other **streets** within the City limits or within the extraterritorial jurisdiction of the City.

#### SECTION 3. LOTS

##### A. Minimum Lot Size.

All **lots** in a **subdivision** within the corporate limits of the City shall meet the minimum dimensions and minimum **lot** area requirements of the Zoning Ordinance for the zoning district applicable to the land being subdivided. All **lots** in a **subdivision** outside the corporate limits of the City, but within the limits of its extraterritorial jurisdiction, shall have a minimum area of 15,000 square feet and a minimum **street** frontage of 100 feet, except that single family residential lots fronting on the closed end of a cul-de-sac may have a minimum street frontage of 30 feet.

##### B. Building Setback Lines.

## ARTICLE III. GENERAL SUBDIVISION DESIGN AND LAYOUT

Building setback lines from the property lines shall meet the minimum requirements of the Zoning Ordinance for the zoning district applicable to the land being subdivided.

### C. Lot Frontage Requirements.

Each **lot** shall be provided with adequate access to an existing or proposed public **street** by frontage on such **street**. **Double front lots** are prohibited except when a **lot** backs on a **major thoroughfare** or a **limited access street**. Whenever feasible, each **lot** should face the front of a similar **lot** across the **street**. Rear and side driveway access to **major thoroughfares** or proposed **limited access streets** is prohibited.

## SECTION 4. BLOCKS

### A. Block Length.

Blocks along **minor streets** may not be longer than 1,400 feet. Blocks along **minor streets** may not be shorter than 600 feet. Blocks along **major thoroughfares** and **collector streets** may not be longer than 1,500 feet except under special conditions and with the approval of the Commission.

### B. Block Width.

Blocks shall be wide enough to allow two tiers of **lots** of at least minimum depth, except when prevented by the size of the property or the need to back up to a **limited access street**.

### C. Block Numbering.

Blocks shall be numbered consecutively within the **subdivision** and/or sections of an overall plat as recorded.

## SECTION 5. EASEMENTS

### A. Dedication Required.

Where necessary to adequately serve a **subdivision** with public utilities, the **subdivider** shall dedicate or grant easements for poles, wires, conduits, drainage channels, storm sewers, sanitary sewers, water lines, gas lines, and other utilities. These easements shall be at least 15 feet wide, except that where an easement contains multiple utilities and the **City Manager** determines that a greater width is necessary, the Commission may require a minimum width of up to 20 feet. All offsite easements required to connect subdivision utilities with existing city utilities shall be provided at the sole expense of the subdivider.

### ARTICLE III. GENERAL SUBDIVISION DESIGN AND LAYOUT

#### B. Location of Easements.

The easements required under this Section shall be continuous for the entire length of the block. These easements shall parallel as closely as possible the **street** line frontage of the block. Easements may not straddle but may cross property lines, and they may cross **lots** other than along **lot** boundary lines, if in the opinion of the Planning and Zoning Commission such locations are needed.

#### C. Gates Required in Fences.

All fences crossing an easement shall have double swing gates to allow ready access to the easement.

#### D. Easements Part of Lot Area.

The easements required under this Section shall be considered a part of the **lot** area for purposes of the minimum **lot** size requirements of this ordinance and the Zoning Ordinance.

#### E. Overhang Easements.

Where utilities are not located in **alleys**, an **overhang easement** at least six feet wide must be provided on the opposing side of the 15 foot easement strip, at a height at and above 10 feet. In all **alleys**, **overhang easements** at least six feet wide must be provided on each side of the **alley** for electric and telephone lines, at a height at and above 10 feet.

#### F. Additional Easements for Guy Wires.

Where above-ground utility easements or **alleys** are not themselves straight within each block. or if they do not connect on a straight course with the utility easements or **alleys** of adjoining blocks, then additional easements shall be provided for the placing of guy wires on **lot** division lines in order to support poles set on the curving or deviating easement lines or **alley** rights-of way.

### ARTICLE IV.

#### STREETS

## SECTION 1. GENERAL LAYOUT AND ALIGNMENT OF STREETS

### A. General Requirements.

Adequate **streets** shall be provided by the **subdivider**, and the arrangement, character, extent, width, grade and location of each shall conform to the comprehensive plan of the City and shall be considered in their relation to existing and planned **streets**, to topographical conditions, to public safety and convenience, and in their appropriate relationship to the proposed uses of land to be served by such **streets**. The **street** layout shall be devised for the most advantageous development of the entire neighborhood.

### B. Continuation of Existing, Streets.

Where necessary to the neighborhood, existing **streets** in adjoining areas shall be continued, and the new **streets** shall be at least as wide as the existing **streets** and in alignment therewith. **Major thoroughfares, primary collectors** and **secondary collectors** shall be extended through any new **subdivision** along the general route indicated in the City's comprehensive plan, with due regard to the specific terrain and topography of the **subdivision** site. Off-center **street** intersections with **streets** in adjacent **subdivisions** shall be avoided where possible. At least one direct connection shall be provided by the developer at the developer's expense from subdivision streets to an existing street within the City. To the extent that any such connection requires acquisition of right-of-way within the City, that right-of-way shall be acquired at the sole cost of the subdivider. The subdivider shall indemnify the City from and against all property damage, inverse condemnation, and other claims arising from said acquisition.

### C. Interior Circulation Streets.

Adequate **collector streets** shall be provided for the circulation of traffic through the **subdivision**, and adequate **minor streets** shall be provided to accommodate the **subdivision**.

### D. Projection into Unsubdivided Areas.

Where adjoining areas are not subdivided, the arrangement of **streets** in the **subdivision** shall make provision for the proper projection of **streets** into such unsubdivided areas.

### E. Street Jogs.

Whenever possible, **street** jogs with center line offsets of less than 150 feet shall be avoided.

### F. Half Streets.

In the case of **collector**, **minor**, and **marginal access streets**, no new **half-streets** shall be platted.

G. Dead-End Streets.

**Dead-end streets** are prohibited except as short stubs to permit future expansion. The length of such a stub shall not exceed the frontage of the **corner lot** which has the greater frontage on either side of the **dead-end street**.

H. Private Streets.

**Private streets** are prohibited.

**SECTION 2. REQUIRED STREET IMPROVEMENTS**

A. General Specifications.

The **subdivider** shall, at his/her sole cost and expense, provide all necessary **street** grading, pavement, curbing, gutters, sidewalks and storm sewer drains required to service the **subdivision**, including the **perimeter streets** contiguous to the **subdivision**. All **street** improvements shall meet the minimum specifications in the following table. Typical street cross-sections shall be as illustrated in Figure 1.

Street Classification	Right-of-Way Width	Pavement Width	Curbing	Sidewalks
Major Thoroughfare	86'	2 @ 24' with 14' median	Curb & Gutter	6' both sides
Primary Collector	70'	48'	Curb	6' both sides
Secondary Collector	60'	42'	Curb	4' both sides
Minor Street	60'	36'	Curb	4' both sides
Marginal Access	45'	30'	Curb	4' on lot side
Residential Alley	20'	16'	None Required	None Required
Commercial Alley	24'	20'	None Required	None Required

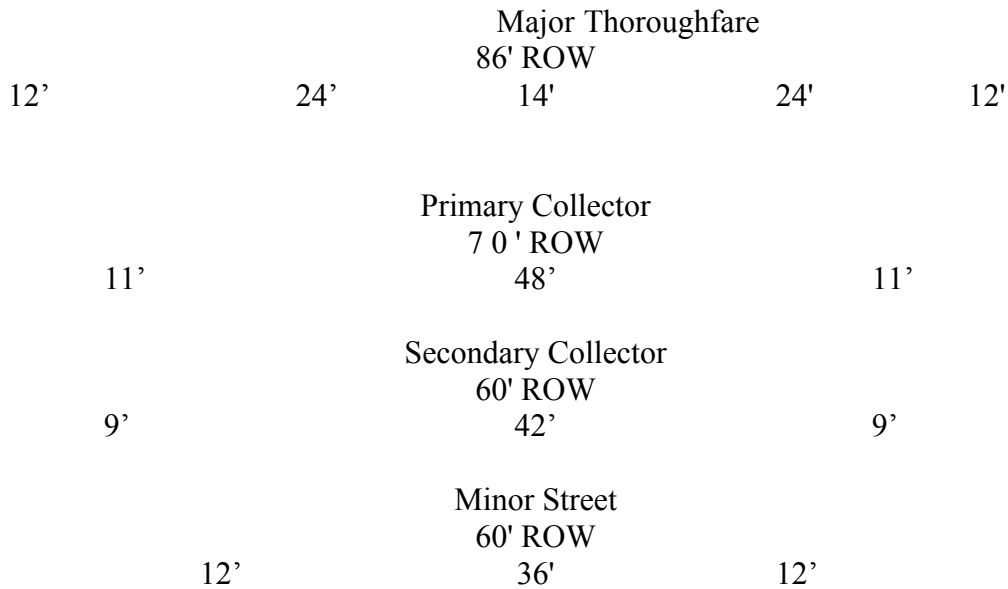
B. Right-of-Way and Pavement Exceptions for Single Family Residential Streets.

The **street** right-of-way may be reduced to 40 feet and the pavement width may be reduced to 30 feet where a **single family residential street** meets all of the following conditions:

1. The **street** is not more than one block long and it intersects with other **minor streets** at a "T" in mid-block.
2. The **street** does not intersect a **collector street** or **major thoroughfare**.
3. A five-foot **sidewalk easement** is provided on both sides of the **street**.

**Figure 1.**

[Revise classifications and cross sections as necessary.]





D. Vertical Curvature.

A gradual transition from one roadway grade to another shall be accomplished by means of a vertical parallel curve connecting two intersecting tangents. The minimum length of vertical curve shall be computed from the following formula and table:

$$L = KA$$

Where: L = the length of vertical curve in feet

K a constant related to sight distance and geometry of a parabolic curve (see Table C)

A = the algebraic difference in grades in percent.

<b>Table C. Design Values for Constant “K,” Vertical Curvature</b>		
Street Classification	“K” Crest Curves	“K” Sag Curves
Major Thoroughfare	70	60
Primary Collector	70	60
Secondary Collector	55	55

E. Sight Distance Requirements.

The minimum sight distances in the following table shall be provided for safe stopping and intersection operations. Where **streets** are not level, or where other potentially hazardous conditions exist, these distances shall be increased as necessary in the judgment of the **City Manager**.

<b>Table D. Minimum Sight Distances</b>		
Street Classification	Minimum Intersection Sight Distance	Minimum Stopping Sight Distance
Major Thoroughfare	450 feet	300 feet

ARTICLE IV. STREETS

Primary Collector	400 feet	300 feet
Secondary Collector	300 feet	250 feet

F. Intersection Design.

All **streets** shall intersect at a 90 degree angle, or as close as possible to a 90 degree angle considering the topography of the site. Variations must be approved by the **City Manager**. Each new **street** intersecting with or extending to meet an existing **street** shall be tied to the existing **street** on centerline unless the new **street** ends at a "T" in mid-block.

**SECTION 4. MINIMUM PAVEMENT DESIGN STANDARDS**

Except as provided in Section 5 following, the pavement of all **streets** and **alleys** shall meet the minimum specifications in the following table.

<b>Table E. Minimum Pavement Design Standards</b>			
Street Classification	Type D Asphalt Surface Course (lbs./sq. yard)	Flex Base 95% Compacted Density (inches)	Subgrade % Compacted Density
Major Thoroughfare	220	12	90
Primary Collector	190	10	90
Secondary Collector	165	8	90
Minor Street	165	8	90
Marginal Access	165	8	90
Residential Alley	100	6	90
Commercial Alley	165	8	90

**SECTION 5. STANDARDS FOR ALTERNATE PAVEMENT DESIGNS**

The **City Manager** may approve alternative pavement designs provided such alternative is so designed, in the judgment of the **City Manager**, as to assure reasonable durability and economy of maintenance and provided the alternative is in accordance with Tables A and B and the following provisions of this Section.

A. Soils Investigation.

The **subdivider** shall, at his/her own expense, cause to be made a soils investigation by a qualified and independent geotechnical engineer licensed to practice in the State of Texas. The field investigation shall include test borings within the rights-of-way of all proposed **streets**. The number and locations of such borings shall be subject to the approval of the **City Manager**. Atterberg limits and moisture contents shall be determined for all significant boring samples. The method used for these determinations shall be the same as that used by the Texas Department of Transportation using their latest Manual of Testing Procedures, 100-E Series test methods. The results of the soils investigation shall be presented to the **subdivider** and to the **City Manager** in written report form. Included as a part of the report shall be a graphical or tabular presentation of the boring data giving Atterberg limits and moisture contents. a soil description of the layers of different soils encountered in the profile of the hole, their limits in relation to a fixed surface datum, and such other information as needed to complete the soils investigation for pavement design purposes. Minimum depth of soil profile boring holes shall be 10 feet unless solid rock formations are encountered sooner.

B. Pavement Design Loads.

Pavement design shall be based on the Texas Department of Transportation tri-axial design standards in the following table.

Street Classification	Total Equity 18 Kip Single Axle Load Applications	Average Ten Heavy Wheel Loads Daily	Load Frequency Design Factor
Major Thoroughfare	500,000	10,500	1.05
Primary Collector	300,000	10,000	1.00
Secondary Collector	300,000	10,000	1.00
Minor Street	60,000	6,000	0.80
Marginal Access	60,000	6,000	0.80

A written report containing pavement design data and recommendations based on the soils investigation shall be prepared at the **subdivider's** expense by a qualified geotechnical engineer licensed to practice in the State of Texas, and shall be presented to the **subdivider** and to the **City Manager**. The report shall state the load criteria and the soil classifications used. When approved by the **City Manager**, the geotechnical engineer preparing the report may use the triaxial classification soils data given in Texas Department of Transportation report number 3-05-71-035, entitled "Tri-axial Classification of the Surface Soils of Texas, as Grouped by Soil Conservation Service Series."

When using the tri-axial data, the report shall so state. The pavement design shall be subject to the approval of the **City Manager** and shall be shown on the **street** construction plans as approved. Where the plasticity index of the subgrade soil on which the **street** is to be built is in excess of 20, the pavement design shall include subgrade stabilization unless approved otherwise by the **City Manager**.

When subgrade soils are stabilized the minimum depth of stabilization shall be six inches unless otherwise approved by the **City Manager**. In the stabilization of swelling clay soils, the stabilizer used shall be hydrated lime. The lime shall be applied to the subgrade soil in slurry form unless otherwise approved by the **City Manager**. Flexible base material and the stabilized layer, if used, shall extend at least 18 inches behind of the back of the curb. Minimum thicknesses of hot-mix, hot-lay asphaltic concrete included in the pavement design shall be one and one-half inches for **minor streets** and **marginal access streets**, two inches for **collector streets**, and three and one-half inches for **major thoroughfares**. **Street** and **alley** pavements in commercial and industrial areas shall utilize the design standards set forth herein for **primary collector streets**.

## SECTION 6. PROTECTION OF LIMITED ACCESS STREETS

Where a **collector street** or **major thoroughfare** borders upon or passes through a **subdivision**, the Planning and Zoning Commission may require any of the following alternatives to ensure the separation of local traffic from through traffic:

1. **Marginal access streets** to be provided on both sides or on the **subdivision** side of the **collector street** or **major thoroughfare**;
2. Five foot **non-access easements** to be provided along the frontage of the **collector street** or **major thoroughfare**; or
3. All **lots** in the block to back up to, side up to, or front the **collector street** or **major thoroughfare** with a minimum of 20 feet of extra building setback, and the primary vehicular access to the **lots** to be off an **alley** with garages in the rear.

## SECTION 7. CUL-DE-SACS

### A. Permanent.

In the interior of a **subdivision**, **minor streets** ending in cul-de-sacs may be platted where the Planning and Zoning Commission deems it advisable. Where the land being subdivided adjoins property not being subdivided, **minor streets** ending in cul-de-sacs may be platted provided the **streets** are carried to the boundaries of the **subdivision**. **Streets** permanently ending in cul-de-sacs may not be longer than 600 feet and shall be provided at the closed end with a paved turnaround at least 80 feet in diameter on a **street** right-of-way of at least 100 feet in diameter.

### B. Temporary.

A temporary turn-around must be built at the end of a **street** more than 400 feet long that will be extended in the future. The following note shall be placed on the plat: "Cross-hatched area is a temporary easement for turn-around purposes until the **street** is extended to the (direction) on a recorded plat."

## SECTION 8. ALLEYS

**Alleys** are optional in all **subdivisions**, provided that they conform to the standards and requirements of this ordinance. All **alleys** must intersect **streets** at a 90 degree angle, or as close to a 90 degree angle as practicable in the judgment of the **City Manager**, and they must be approximately parallel

to the **streets** on both sides. **Alleys** in residential areas designed for rear entry garages must be designed to the same standards as **commercial alleys**. Where two **alleys** or **utility easements** intersect or turn at a right angle, a cutoff of not less than 10 feet from the normal intersection of the property or easement line shall be provided along each property or easement line. Dead-end **alleys** shall not be permitted.

**SECTION 9. CURBS**

All **streets** shall have reinforced concrete curbs extending seven and one-half inches above the pavement surface. Minimum curb radii shall be as follows:

<b>Table G. Minimum Curb Radius Requirements</b>	
Street Intersections	25 feet
Non-Residential Driveways	10 feet
Residential Driveways	5 feet

Compacted backfill shall be placed on all of the rights-of-way behind curbs to a minimum elevation equal to the top of the curb. Normal curb exposure shall be required where **utility easements** intersect **streets**.

**SECTION 10. SIDEWALKS**

A. General Requirements.

Concrete sidewalks shall be provided on both sides of all **streets** in a **subdivision**, unless either (a) the **subdivider** does not control one side of the **street** or (b) the **street** is a **marginal access street** parallel to a **collector street** or **major thoroughfare**. **Major thoroughfares** and **primary collector streets** shall have minimum six foot wide sidewalks, and each **street** other than a **major thoroughfare** or a **primary collector** shall have minimum four foot wide sidewalks. Pedestrian ramps shall be required where all sidewalks meet curbs.

B. Location of Sidewalks.

Required sidewalks along **major thoroughfares** and **collector streets** shall be located in the **street** right-of-way, adjacent to and parallel to either the property line or the curb, as determined by the Planning and Zoning Commission to be most advantageous in connecting to adjacent developments. Required sidewalks along other **streets** may be located either in the **street** right-of-way or in a five foot wide **sidewalk easement**. Along **minor streets**, the required sidewalks shall be adjacent to and

abutting the property line, unless the Commission approves an alternate location adjacent to the curb, in which case the minimum width shall be increased to five feet. Required sidewalks shall extend along all **street** frontage including the side of **corner lots** and block ends; provided, however, that where it is impractical for the **subdivider** to provide such sidewalks on the side **lot** lines abutting **major thoroughfares** or drainage ditches, the Planning and Zoning Commission may waive this requirement at **preliminary plat** approval. If physical circumstances prevent locating the sidewalks as provided by this Section, then the exact location shall be at the discretion of the **City Manager**.

C. Sidewalk Obstructions.

Mailbox clusters, kiosks of any character, and other similar sidewalk obstructions shall be located only in an extension of the sidewalk behind the minimum required sidewalk width.

D. Timing of Sidewalk Construction.

Construction of the sidewalks on each **street** is not necessary until construction begins on the first building on that **street**. However, to avoid undue costs and damage to sidewalks, the **subdivider**, developer or builder may construct the sidewalk on each **lot** as it is developed. In no case will a Certificate of Occupancy be issued for a building until the required sidewalks have been constructed.

## **SECTION 11. DRIVEWAYS**

A. General Requirements.

Driveway ramps must be constructed of concrete and according to city design standards.

B. Locational Requirements.

Where conditions of topography, traffic flow, traffic and pedestrian safety, community appearance or other factors warrant in the judgment of the Commission, the Commission may establish particular requirements for the number, spacing or location of driveways on the affected **lots**. Such requirements shall be determined at **preliminary plat** approval and they shall be recorded as vehicular **non-access easements** and/or in appropriate plat notes on the **final plat**.

## **SECTION 12. TRAFFIC CONTROL SIGNS AND STREET SIGNS**

All traffic control signs shall be provided and installed by the **subdivider** and shall conform with the Texas Manual on Uniform Traffic Control Devices for Streets and Highways, Volumes 1 and 2. All street signs shall be provided and installed by the **subdivider** and meet the City's standard specifications and sign patterns.

## **SECTION 13. STREET LIGHTING**

#### ARTICLE IV. STREETS

**Street** lighting shall be provided by the **subdivider** at all intersections and **street** alignment changes greater than 45 degrees, according to city design standards.

## ARTICLE V.

### DRAINAGE AND FLOOD HAZARDS

#### SECTION 1. GENERAL REQUIREMENTS

##### A. Facilities Required.

The **subdivider**, shall provide an adequate storm drainage system to protect each **lot** throughout the subdivision from flooding. These drainage facilities may consist of a combination of natural features, swales, watercourse improvements, bridges and culverts, enclosed storm sewers and other man-made improvements to carry off stormwater within the **subdivision**. The drainage system shall use detention ponds, retention ponds and siltation ponds, individually or in concert, to control runoff and to protect downstream properties from any increase in flooding originating from the **subdivision**. The system shall be integrated with the overall drainage system of the city, and the design of the system must be approved by the **City Manager** in accordance with the requirements of this ordinance.

##### B. Stormwater Management.

Stormwater management shall provide for the temporary storage of peak rates of stormwater runoff. Runoff is then released at a controlled rate which may not exceed either the capacity of the existing downstream drainage systems or the predevelopment peak runoff rates of the **subdivision** site. Temporary storage facilities shall consist of any one or a combination of the following: detention, retention, extended detention, infiltration, or other methods acceptable to the **City Manager**. Stormwater management facilities shall be designed to reduce postdevelopment peak-rates of discharge to pre-development peak rates of discharge for the 2, 10, 25, 50, and 100 year storm events at each point of discharge from the **subdivision**.

##### C. Construction Sequencing and Erosion Controls.

The **preliminary plat** shall be accompanied by a comprehensive and detailed report and plan for the control of erosion and sedimentation. The report shall include a construction sequencing plan which details the proposed placement, maintenance and removal of temporary erosion controls, the slope stabilization techniques which are to be employed and the restoration measures, including vegetative types, which are to be employed as part of the process of **subdivision** development. The plan shall list and show the location of temporary erosion controls, show the physical details of the controls, and include a construction sequencing list which will govern the timing of the use of various controls in relation to distinct steps in **subdivision** construction. All elements of the erosion control and construction sequencing plan shall also be included in the final construction plans submitted with the **final plat**.

##### D. Land Clearing Restrictions.

## ARTICLE V. DRAINAGE AND FLOOD HAZARDS

No clear-cutting or rough-cutting of land shall be permitted until a **preliminary plat** has been approved by the Planning and Zoning Commission, except for the limited clearing and roughcutting which is necessary for soil testing and surveying as required by this ordinance. No other clearing or rough-cutting shall be permitted except as necessary for construction of temporary erosion and sedimentation controls until these controls are in place and approved by the **City Manager**. Areas to be cleared for temporary storage of spoil or construction equipment, or for the permanent disposal of fill material or spoils, shall be shown on **preliminary plat**. The natural vegetation within any water supply protection zone which is required by Section 6 B of this Article shall not be disturbed except for purposes consistent with the ultimate use of the land in that zone.

### E. Enforcement of Erosion Controls and Clearing Restrictions.

If a **subdivider** does not comply fully with an approved erosion control and construction sequencing plan, or violates the restrictions on land clearance in the preceding subsection, the **City Manager** shall notify the **subdivider** in writing that the City may correct the violation and revegetate the disturbed area at the **subdivider's** expense unless, within 30 days after the date of the notice, the **subdivider** complies, corrects the violation. provides the required erosion and sedimentation controls and provides continuing maintenance thereof acceptable to the **City Manager**.

## **SECTION 2. REQUIRED DRAINAGE STUDY**

The **subdivider** shall submit a drainage study with the **preliminary plat**. The drainage study shall provide the following information, for both existing and fully developed conditions, for the entire watershed drainage area upstream of the lowest point(s) in the **subdivision**.

1. The entire watershed drainage area(s), depicted on a 7.5 minute series U.S.G.S. map.
2. The drainage area(s) within the **subdivision**, depicted on a topographic map with two-foot contour intervals.
3. Composite runoff factors.
4. Times of concentration.
5. Related rainfall intensity factors.
6. 25- and 100-year flood flow quantities with the 25- and 100-year **flood plain** limits for the existing and fully developed watershed shown on the **preliminary plat**.
7. Preliminary **street** grades sufficient to determine high points, low points, and direction of runoff flows.

## ARTICLE V. DRAINAGE AND FLOOD HAZARDS

8. Proposed locations of inlets, storm sewers and culverts.
9. Proposed routing of drainage ways.
10. All proposed drainage easements, including width of easement and configuration of channel.
11. The calculations to determine the volume of proposed detention/retention/sedimentation ponds.

The above information shall be supplemented with narrative text describing the watershed and the **subdivision**, including their general soil conditions, downstream channel conditions, all weather access, and the presence of special flood hazard areas within the **subdivision**. The study shall be prepared by a professional engineer registered in the State of Texas. The drainage study shall be submitted along with the **preliminary plat**. The **City Manager** shall review the submission, verify that all ordinance requirements have been met, and forward his/her recommendations to the Planning and Zoning Commission.

### SECTION 3. DRAINAGE EASEMENTS

#### A. General Requirements.

Natural waterways and channels should be used wherever practical to carry runoff. Any modifications to existing waterways and channels must be approved by the **City Manager**. Where a **subdivision** is traversed by a watercourse, drainage way, natural channel or stream, an easement or right-of-way shall be provided conforming substantially to the 100-year **floodway** or channel limits of such watercourse, plus additional width to accommodate future needs.

#### B. Enclosed Systems.

Storm drainage easements of 15 feet minimum width shall be provided for existing and proposed enclosed drainage systems. Easements shall be centered on the systems. Larger easements, where necessary, shall be provided as directed by the **City Manager**.

#### C. Open Channels.

Storm drainage easements along proposed or existing open channels shall provide sufficient width for the required channel and such additional width as may be required to provide ingress and egress

## ARTICLE V. DRAINAGE AND FLOOD HAZARDS

of maintenance equipment; to provide clearance from fences and space for utility poles; to allow maintenance of the channel bank; and to provide adequate slopes necessary along the bank.

### D. Overflow Drainage.

Storm drainage easements shall be provided for emergency overflow drainage ways of sufficient width to contain within the easement storm water resulting from a 100-year frequency storm less the amount of storm water carried in an enclosed system.

## **SECTION 4. DRAINAGE SYSTEM DESIGN STANDARDS**

### A. General Requirements.

Drainage facilities shall be provided and constructed as specified by the **City Manager** in accordance with the City Drainage Design Standards and Construction Specifications.

### B. Method of Computing Runoff.

The method of computing runoff shall be the "Rational Formula" or some other method acceptable to the **City Manager**. Runoff rates calculated by the Rational Formula shall be computed using one of the following methods of runoff coefficient determination:

1. runoff coefficients based on the specific land use established by Zoning Districts according to Table "H" below, or
2. a composite runoff coefficient based on the percentages of different types of surfaces in the drainage area according to Table "I" below.

ARTICLE V. DRAINAGE AND FLOOD HAZARDS

<b>Table H. Rational Method Runoff Coefficients by Zoning District</b>				
<b>Zoning District</b>	<b>Slope</b>			
	<b>Up to 1%</b>	<b>Over 1% &amp; Up to 3%</b>	<b>Over 3% &amp; Up to 5%</b>	<b>Over 5%</b>
Local Retail Districts	0.85	0.88	0.91	0.95
Apartment Districts	0.75	0.77	0.80	0.84
Single Family Residential Districts	0.65	0.67	0.69	0.72
Undeveloped Areas (storage calculations only)	0.68	0.70	0.72	0.75

ARTICLE V. DRAINAGE AND FLOOD HAZARDS

<b>Table I. Rational Method Runoff Coefficients for Composite Analysis</b>				
<b>Character of Surface</b>	<b>Return Period (years)</b>			
	<b>5</b>	<b>10</b>	<b>25</b>	<b>100</b>
<b>DEVELOPED AREAS</b>				
Asphaltic	0.77	0.81	0.86	0.95
Concrete or roof	0.80	0.83	0.88	0.97
Planted - Poor condition (grass cover on less than 50% of the area) Less than 2% slope	0.34	0.37	0.40	0.47
2 - 7% slope	0.40	0.43	0.46	0.53
More than 7% slope	0.43	0.45	0.49	0.55
Planted - Fair condition (grass cover on 50% to 75% of the area) Less than 2% slope	0.28	0.30	0.34	0.41
2 - 7% slope	0.36	0.38	0.42	0.49
More than 7% slope	0.40	0.42	0.46	0.53
Planted - Good condition (grass cover on more than 75% of the area) Less than 2% slope	0.23	0.25	0.29	0.36
2 - 7% slope	0.32	0.35	0.39	0.46
More than 7% slope	0.37	0.40	0.44	0.51
<b>UNDEVELOPED AREAS (storage calculations only)</b>				
Cultivated land Less than 2% slope	0.34	0.36	0.40	0.47
2 - 7% slope	0.38	0.41	0.44	0.51
More than 7% slope	0.42	0.44	0.48	0.54
Pasture or range land Less than 2% slope	0.28	0.30	0.34	0.41
2 - 7% slope	0.36	0.38	0.42	0.49

ARTICLE V. DRAINAGE AND FLOOD HAZARDS

More than 7% slope	0.40	0.42	0.46	0.53
Forest or wooded land Less than 2% slope	0.25	0.28	0.31	0.39
2 - 7% slope	0.34	0.36	0.40	0.47
More than 7% slope	0.39	0.41	0.45	0.52

C. Assumptions for Runoff Calculations.

In all cases, wet antecedent conditions shall be assumed. Runoff rates shall be computed on the basis of ultimate development of the entire watershed upstream from and including the proposed **subdivision**. For determination of time for concentration, times shall be figured on the basis that there shall be an improved drainage system upstream from the point under consideration. Rainfall intensities shall be obtained from the following table.

ARTICLE V. DRAINAGE AND FLOOD HAZARDS

**Table J. Assumed Rainfall Intensities**

Duration (Minutes)	Frequency (Inches per Hour)			
	5-year	10-year	25-year	100-year
5	8.28	10.01	10.88	14.19
10	6.43	7.74	9.12	11.18
15	5.32	6.49	7.58	9.32
20	4.56	5.54	6.54	8.05
30	3.59	4.42	5.19	6.40
45	2.76	3.42	4.03	4.99
60	2.27	2.83	3.33	4.13
120	1.38	1.73	2.06	2.56
180	1.02	1.20	1.53	1.91
240	.82	1.04	1.24	1.55
360	.60	.77	.92	1.14
720	.35	.45	.55	.68
1440	.20	.27	.32	.40

D. Use of Streets and Alleys as Drainage Facilities.

**Alleys** shall be designed to carry storm water on at least a five-year frequency. **Streets** may be used for storm water drainage only if the calculated storm water flow does not exceed the height of the curb and the velocity does not exceed 10 feet per second. **Minor streets** shall be designed on a basis of at least a five year storm frequency and all other **streets** on at least a ten year frequency. Where **streets** are not capable of carrying storm waters as required above, drainage channels or storm sewers shall be provided. **Street** width shall not be increased beyond the width determined by the **street** classification solely to accommodate drainage.

E. Storm Sewers.

Where storm sewers are provided or required, their design shall be based on a 100 year storm frequency and the design must be approved by the **City Manager**. For all ordinary conditions,

ARTICLE V. DRAINAGE AND FLOOD HAZARDS

storm sewers shall be designed on the assumption that they will flow full under the design discharge; however, whenever the system is placed under a pressure head or there are construction, turns, submerged or inadequate outfalls, or other obstacles, the hydraulic grade line shall be computed and plotted in profile. In all cases adequate outlets shall be provided, and no storm sewers shall be less than 24 inches in diameter.

F. Street Inlets to Storm Sewers.

The entire 25 year discharge shall be picked up at the point where the **street** can no longer handle the runoff flowing curb full. No allowance shall be made for overruns or partial **street** flows combined with storm sewer flows at initial pickup points. **Street** discharges, after initial pickup, may be based upon the **street** classification for frequency required.

G. Capacity of Open Drainage Channels.

The design of all open drainage channels shall be based on a 100-year storm frequency and must be approved by the **City Manager**. All open drainage channels shall be designed with at least the minimum freeboard specified in the following table.

<b>Table K. Minimum Drainage Channel Freeboard</b>	
Design Depth of Flow	Required Freeboard
Less than 5 feet	0.5 foot
5 - 10 feet	10% of design depth
More than 10 feet	1.0 foot

Allowance for extra freeboard shall be made wherever design conditions such as channel bends or turns require it.

H. Lining of Open Drainage Channels.

The following table shall be used to determine the type of channel lining which shall be used for scour protection. Velocities are limited flows produced by a storm event no greater than a 10-year event.

<b>Table L. Velocity Control Requirements</b>	
Velocity	Type of Channel Lining Required
Less than 3 feet per second	Earth or sod lined

ARTICLE V. DRAINAGE AND FLOOD HAZARDS

3 - 5 feet per second	Sod lined
More than 5 feet per second	Concrete lined

Concrete lined channels may also be used at velocities of five feet per second (fps) or less if so desired by the engineer. Where velocities are in the super critical range, allowance shall be made in the design for the proper handling of the water.

I. Design of Concrete Lined Channels.

All concrete lined channels shall be designed according to the following standards, and their design must be approved by the **City Manager**.

1. From the top of the concrete lining to the top of the ditch, the side slope shall not be steeper than two horizontal to one vertical, nor shall the slope be less than 12 horizontal to one vertical.
2. For normal conditions, the concrete lining shall be a minimum of four inches thick and reinforced with No. 3 round bars placed not more than 18 inches on centers in both directions. Where the surface, the nature of the ground, height and steepness of slope, or other factors become critical, the design shall be in accordance with the latest structural standards. All concrete lining shall develop a minimum compressive strength of not less than 2,500 pounds per square inch in 28 days.
3. Maximum side slopes of concrete rip-rap shall be one to one, unless actual soils test data submitted by a soils engineer shows that a steeper special design is allowable. A minimum of 200 pounds per square foot surcharge shall be used.
4. Vertical walls shall not exceed a depth of two feet unless the channel is properly fenced or enclosed.
5. Easements or rights-of-way for concrete lined channels shall extend a minimum of two feet on both sides of the extreme limits of the channel. "Extreme limits" of the channel shall mean the side slope intercept with the natural ground or proposed finished ground elevation.
6. The minimum N value of 0.015 shall be used for the roughness coefficient in Manning's formula for a wood float type surface finish.
7. Where conditions warrant, the design of alternative composite sections is encouraged.

J. Design of Sod-Lined and Earth Channels.

## ARTICLE V. DRAINAGE AND FLOOD HAZARDS

All sod-lined and earth channels shall be designed according to the following standards, and their design must be approved by the **City Manager**.

1. The side slope shall not be steeper than three horizontal to one vertical.
2. Easements or rights-of-way for earth channels shall extend a minimum of two feet on one side and 15 feet for an access road on the opposite side of the extreme limits of the channels, when such channels do not parallel and adjoin a **street** or **alley**. When such channels do parallel and adjoin a **street** or **alley**, the easement or right-of-way shall extend a minimum of two feet on both sides of the extreme limits of the channel. Where utilities are installed in the access road of the drainage right-of-way, said right-of-way shall extend two feet on one side and 17 feet on the opposite side of the design limits of the channel. These 17 feet are to provide an access way along the channel with a maximum cross slope of a half-inch per foot toward the channel.
3. The minimum N value of 0.035 shall be used for the roughness coefficient in Manning's formula for earth channels.

### SECTION 5. FLOOD HAZARDS

#### A. General Policy.

All **subdivisions** shall conform to the "Flood Disaster Protection Act of 1973," Public Law 93-234, and the latest revisions thereof. The Flood Damage Prevention Ordinance as amended and policies as dictated by the Federal Emergency Management Agency shall be adhered to.

#### B. Flood Plain Designations and General Restrictions.

Federal **flood plains** are based on a 100 year frequency discharge, and apply only in those areas where official Federal Emergency Management Agency maps have been prepared, or where 100 year water and surface profile studies are available for the City and its extraterritorial jurisdiction. Until a regulatory **floodway** is designated, no new construction, substantial improvements, or other development (including fill) shall be permitted in an area having special flood hazards as defined by **Chapter 9, Flood Prevention and Control, Code of Ordinances of the City of Olmos Park, Texas**, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not substantially increase the water surface elevation of the 100-year flood at any point within the City's **subdivision** jurisdiction.

#### C. General Requirements in Flood Plains.

ARTICLE V. DRAINAGE AND FLOOD HAZARDS

The minimum building slab elevation in the 100 year **flood plain** shall be one foot above the 100 year **flood plain**. The limits of the 100-year **flood plain** and the limits of the **floodway** shall be shown on the **preliminary** and **final plats** as applicable.

D. Flood Hazards to Water and Wastewater System.

New or replacement water supply systems and/or wastewater systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters. On-site waste disposal systems shall be located so as to avoid impairment of them or contamination from them during flooding.

E. Review of Proposed Subdivision Flood Hazards.

Proposed **subdivisions** shall be reviewed to assure that:

1. All such proposals are consistent with the need to minimize flood damage;
2. All public utilities and facilities, such as sewer, gas, electrical, and water systems are located, elevated, and constructed to minimize or eliminate flood damage; and
3. Adequate drainage is provided so as to reduce exposure to flood hazards.

F. Access to Subdivisions.

The Planning and Zoning Commission shall not permit new "island" **subdivisions**, **lots** or **streets** that would be surrounded by the flood waters of the 100-year flood, unless:

1. The area is accessible to high ground by a street elevated above the 100-year flood level; or
2. The evidence presented shows that the surface area and elevation of the "island" is sufficient to sustain the residents safely during a 100-year flood.

## ARTICLE VI.

### WATER AND SEWERS

#### SECTION 1. GENERAL REQUIREMENTS FOR WATER SYSTEMS

##### A. Service Required.

Each **lot** within a new **subdivision** within the corporate limits of the City shall be provided with domestic water service from the San Antonio Water System. The water distribution system required under this section shall include all pumping station production facilities, elevated storage tanks, fire hydrants and other appurtenances required to adequately serve the area being subdivided.

##### B. Obligations of Subdivider.

Within the perimeter of the **subdivision**, the **subdivider** shall install, at his/her own cost and expense, all necessary lift stations, booster pumps, mains and appurtenances, including, but not limited to, valves, manholes and fire hydrants. The **subdivider** shall provide all water lines necessary to properly serve each **lot** of the **subdivision** and to insure that existing and/or new water facilities can supply the required demand for domestic use and for fire protection at the desired pressure. The **subdivider** shall install all mains and shall extend the service to all **lots** terminating thereon with a curb stop and meter box. The **subdivider** shall submit a certificate to the **City Manager** certifying that the system has been designed in accordance with the requirements of the State Health Department, rules of the Texas Insurance Commission and this ordinance.

#### SECTION 2. WATER SYSTEM DESIGN STANDARDS

All water production and distribution facilities shall be designed and sized in accordance with San Antonio Water System Design Standards.

**SECTION 3. SANITARY SEWERS**

A. General Requirements.

Every **subdivision** shall be provided with a sewage disposal system meeting the design requirements of the Texas Natural Resource Conservation Commission and approved by the **City Manager**. Sanitary sewers shall be connected to serve each **lot** in the **subdivision** unless the Planning and Zoning Commission determines that such connection would require an unreasonable expenditure of funds when compared with other methods of sewage disposal or unless the **subdivision** meets the requirements of Section 6 of this Article. Where connection to the sewer system is not to be made immediately, plans shall be prepared for installation of a sewage collection system to serve each **lot**, and those parts of such system which will lie in the portion of **streets** intended for vehicular traffic shall be installed before the **street** is paved. The sewage collection and disposal systems required under this section shall include all lift stations, force mains, treatment facilities and appurtenances required to adequately serve the area being subdivided.

B. Obligations of Subdivider.

The **subdivider** shall install all sanitary sewer mains and lines to serve each **lot**. If the public sewer system is not within 1.200 feet of the **subdivision**, those portions of the system which lie under paved areas shall be installed and capped off and temporary waste treatment shall be provided in accordance with the requirements of state health officials. The **subdivider** shall submit a certificate to the **City Manager** certifying that the sewer system has been approved by the Texas Natural Resource Conservation Commission and the San Antonio Water System.

**SECTION 4. WASTEWATER SYSTEM DESIGN STANDARDS**

A. General Design Standards.

All wastewater collection system improvements shall be designed and sized in accordance with San Antonio Water System design standards for wastewater system construction to meet the minimum design standards in the following table.

<p><b>Table Q. Wastewater System Minimum Design Standards</b></p>
---

<b>Demand Assumptions</b>	
Population Equivalent	3 persons per residential unit
Average Daily Flow	100 gallons per capita per day
Peak Daily Flow	3.25 times average daily flow
Infiltration Factor	500 gallons per gross acre per day
<b>Average Capacity Requirements</b>	
Single Family Residential	300 gallons per lot per day
Multi-Family Residential	7,500 gallons per acre per day
Commercial	1,500 gallons per acre per day

All sewers shall be sized to accommodate the maximum peak flow plus infiltration flows which will render the pipe flowing no greater than three-fourths full. Minimum slope shall be according to current Texas Natural Resource Conservation Commission and San Antonio Water System rules and regulations and sewerage design standards.

**B. Sewer Location.**

Where the location of the sewer is not clearly defined by dimensions on drawings, the sewer shall not be closer horizontally than 10 feet, or closer vertically than six feet, to a water supply main or service line. Gravity sewer lines passing over water lines shall be constructed for a distance of at least 10 feet on each side of the crossing with cast iron pipe with no joints within three feet of the crossing, or they shall be encased in concrete in accordance with regulations of the Texas Natural Resource Conservation Commission and the San Antonio Water System.

**C. Materials.**

Sewer lines shall be of PVC plastic, SDR 35/ASTM 3034, or another type pipe as approved in writing by the **City Manager**.

**D. Trenching.**

Sewers shall be constructed according to San Antonio Water System standard specifications as to trenching, bedding, backfill and compaction.

E. Minimum Diameter of Mains.

Eight inch diameter pipe shall be the minimum acceptable for sewer mains and lines, except that a sewer main less than 600 feet long may be six inches in diameter if located on a cul-de-sac or an existing dead end **street** within a residential **subdivision**.

F. Manholes.

Manholes shall be spaced not more than 400 feet apart and shall be constructed in accordance with San Antonio Water System standard specifications.

G. Lift Stations and Force Mains.

Lift station capacity shall be no less than 100 gallons per minute per pump. Lift station force Mains shall be designed and sized to produce a complete exchange of wastewater every other cycle of the pumps. Force mains and fittings shall be of cast iron or PVC pipe, pressure class. The pipe shall have either mechanical joints or rubber gasket joints as approved by the **City Manager**. The minimum force main size shall be four inches.

H. Minimum Diameter of Service Lines.

Service lines serving individual **lots** shall be no smaller than 6 inches in diameter.

## ARTICLE VII.

### UTILITY EXTENSIONS AND GENERAL SUBDIVISION IMPROVEMENTS

#### SECTION 1. GENERAL REQUIREMENTS

##### A. Obligations of Subdivider.

The **subdivider** shall install at his/her own cost and expense all of the improvements required by this ordinance. The **subdivider** shall comply with all other provisions of this ordinance prior to acceptance of the **subdivision** by the City.

##### B. Engineer Responsible.

The **subdivider** shall retain the services of a registered professional engineer, licensed in the State of Texas, whose seal shall be placed on each sheet of the construction plans, and who shall be responsible for the design and supervision of all improvements required in the **subdivision**.

##### C. Construction Plans.

Three complete sets of construction plans, specifications and contract documents shall be filed with the **City Manager** upon filing of a **final plat**. These plans and specifications shall include **street** plans, drainage system plans, sanitary sewer system plans, water system plans and the overall utility layout. The **street** plans shall show roadway cross sections and longitudinal slope for drainage, a full description of the proposed pavement or other **street** improvement, and its grade and slope. The drainage, sanitary sewer, water and utility system plans shall show the dimensions and specifications of the improvements to be installed, including proposed position on the ground, specifications of materials and construction, profile maps showing both ground surface and flow line, and other pertinent information of similar nature. All such plans shall comply with the specifications and design standards set forth in this ordinance.

##### D. Installation of Utilities Before Paving.

Unless the **subdivider** shall have received prior written permission to the contrary from the **City Manager**, all utilities must be installed prior to the paving of a **street** or **alley** or portion thereof.

##### E. Inspection of Improvements.

The **City Manager** shall from time to time inspect the construction of all utility facilities and **streets** in the **subdivision** during the course of construction to see that they comply with the standards governing them. In this regard, free access to the **subdivision** shall be accorded the **City Manager** by the **subdivider** and the **subdivider's** agents and employees.

##### F. Final Plans.

## ARTICLE VII. UTILITY EXTENSIONS AND GENERAL SUBDIVISION IMPROVEMENTS

Upon the completion of construction of any utility or improvement, two sets of reproducible tracings of complete record drawings, dated, signed and certified by the engineer in charge, shall be filed with the City, showing all features as actually installed, including materials, size, location, depth of elevation, numbers, end of lines, connections, wyes, valves, storm sewer drains, inlets, and any other pertinent items. The City shall not accept such utilities until the foregoing has been submitted to and approved by the **City Manager**.

### SECTION 2. SURVEY REQUIREMENTS

#### A. Placement of Lot Markers and Street Monuments.

Monuments consisting of at least one-half inch iron pipe or at least one-half inch reinforced steel, 24 inches in length, shall be placed at all corners of the block lines, and at the point of intersection of curves and tangents of the **subdivision**. **Lot** markers shall be metal, at least 24 inches in length, placed at each corner of **each lot**, flush with the average ground elevation, or they may be countersunk, if necessary, to avoid being disturbed.

#### B. Elevation Benchmarks.

At least one benchmark for each **subdivision** shall be permanently installed in an approved manner, at the location and the elevation as shown on the plat. Permanent benchmarks shall be five feet long, steel reinforced concrete posts, four inches in diameter, with the top no more than six inches above and no less than two inches below finished grade.

#### C. Lot Markers for Utility Easements.

There shall be markers placed where a **lot** line crosses a utility easement with the exception of those blanket utility easements placed around all **lots**.

### SECTION 3. COSTS OF UTILITY EXTENSIONS

#### A. Water and Sewer Main Extensions.

The **subdivider** shall install water and sewer mains from their present locations to the perimeter of the **subdivision** at his/her own cost and expense, subject to the provisions of this ordinance.

#### B. Lift Stations, Booster Pumps and Related Equipment.

In the event that it is determined that installation of equipment or appurtenances such as lift stations, booster pumps, or similar facilities is necessary in the area between the existing utility mains and the perimeter of a **subdivision**, the City Council shall, taking all circumstances into consideration,

determine who shall bear the cost of such necessary equipment and appurtenances, and in what proportion each party shall be liable.

#### **SECTION 4. COST DISTRIBUTION FOR OVERSIZE FACILITIES**

In the event that the Planning and Zoning Commission deems it necessary and prudent to require lift stations, booster pumps, mains, equipment, **streets** and/or appurtenances which are larger or whose capacities are in excess of those which are usual, customary and necessary to meet the needs and requirements of a particular **subdivision**, then the Commission may recommend to the City Council and the Council may determine that the City shall pay to the **subdivider** the difference in cost (including construction and installation) between those lift stations, booster pumps, mains, equipment, **streets** and/or appurtenances which the City requires the **subdivider** to install, and the cost of like equipment of the size and/or capacity which would have adequately met and served the needs of the **subdivision**. Providing that funds are available, the City may also participate in the extra cost of bridges and/or large drainage structures on **major thoroughfares** and **prima collector streets** shown on the Major Thoroughfare Plan.

#### **SECTION 5. MINIMUM SIZES FOR OVER-SIZING CALCULATIONS**

When calculations are made for oversizing requirements, the minimum sizes assumed to be necessary to serve the **subdivision** itself shall not be less than those in the following table.

Water and Sewer Main	8 inches
Sewer Force Main	6 inches
Lift Station Capacity	100 gallons per minutes per pump
Residential Street Width	36 feet
Non-Residential Street Width	48 feet

### **ARTICLE VIII.**

#### **PARKS**

The subdivider shall grant to the City a fee simple dedication of park land reasonably necessary to provide public recreational space for the residents of the subdivision. Dedicated drainage or other flood control easements may, at the sole discretion of the city council, be credited against the requirement for park land when such easements are suitable for recreational use. In no event shall such dedicated land be less than .25 acres for each fifteen proposed dwelling units. If fewer than fifteen dwelling units are proposed, the developer must pay cash in lieu of land in an amount equal to

\$1,500.00 per proposed dwelling unit. Cash contributions by the developer shall be placed in a special city fund for the acquisition or development of a neighborhood park. All sums deposited in the City fund must be expended by the City for park purposes within two years of the date of deposit. Any developer contribution not expended by the City within two years shall be refunded to the developer.

## **ARTICLE IX.**

### **REGULATION OF PROPERTY DEVELOPMENT**

#### **SECTION 1. DEFINITIONS**

“Development” means the new construction or the enlargement of any exterior dimension of any building, structure, or improvement.

#### **SECTION 2. DEVELOPMENT PLAT REQUIRED**

1. Requirement.

Any person who proposes the development of a tract of land located within the limits or in the extraterritorial jurisdiction of the City must have a development plat of the tract prepared in accordance with the requirements of Chapter 212, Subchapter B, of the Texas Local Development Code as now existing or hereafter amended and in accordance with the applicable plans, rules, and ordinances of the City.

2. Development Plat.

A development plat must be prepared by a registered professional land surveyor as a boundary survey showing all data required by Chapter 212, Subchapter B. New development may not begin on the property until the development plat is filed with the City and approved by the city council in accordance with Texas Local Government Code Section 212.047. If a person is required to file a subdivision plat, a development plat is not required in addition to the subdivision plat.

#### **SECTION 3. GENERAL STANDARDS**

The development plat shall recognize and conform to the character and use of adjoining and surrounding property and the general plans, rules, and ordinances of the City concerning its current and future streets, sidewalks, alleys, parks, playgrounds, and public utility facilities; including any rules or guidelines that may be adopted from time to time as an appendix to this Ordinance. Development shall be designed to minimize the impact of lighting, noise, and traffic on surrounding property.

READ, APPROVED and ADOPTED this the \_\_\_ day of \_\_\_\_\_, 1999.

APPROVED:

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Secretary

Exhibit "A"

Plat Certificates and Notes

Surveyor's Certificate:

STATE OF TEXAS  
COUNTY OF BEXAR

I hereby certify that this plat is true and correct and was prepared from an actual survey of the property made on the ground under my supervision.

\_\_\_\_\_  
Registered Public Surveyor

Sworn to and subscribed before me this the \_\_\_ day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
Notary Public in and for the  
State of Texas

Engineer's Certificate: An engineer's certificate is required in all cases except when the plat does not require engineering considerations.

STATE OF TEXAS  
COUNTY OF BEXAR

I hereby certify that proper engineering consideration has been given in this plat to the matters of **streets, lots** and drainage layout. To the best of my knowledge this plat conforms to all requirements of the Subdivision Ordinance, except for those variances granted by the Planning and Zoning Commission of the City of Olmos Park.

\_\_\_\_\_  
Registered Professional Engineer

Sworn to and subscribed before me this the \_\_\_ day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
Notary Public in and for the State of Texas

Owner's Acknowledgment: If the owner authorizes an agent, the owner shall file a notarized letter to that effect.

STATE OF TEXAS  
COUNTY OF BEXAR

The owner of land shown on this plat, in person or through a duly authorized agent, dedicates to the use of the public forever all streets, alleys, parks, watercourses, drains, easements and public places thereon shown for the purpose and consideration therein expressed.

\_\_\_\_\_  
Owner

\_\_\_\_\_  
Duly Authorized Agent

STATE OF TEXAS  
COUNTY OF BEXAR

Before me, the undersigned authority on this day personally appeared \_\_\_\_\_ known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same for the purposes and considerations therein expressed and in the capacity therein stated. Given under my hand and seal of office this \_\_\_ day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
Notary Public  
Bexar County Texas

Approval of the Planning and Zoning Commission:

This plat of (name) has been submitted to and considered by the Planning and Zoning Commission of the City of Olmos Park, Texas, and is hereby approved by such Commission.

Dated this \_\_\_ day of \_\_\_\_\_, 19\_\_.

By: \_\_\_\_\_  
Chair

By: \_\_\_\_\_  
Secretary

County Clerk's certificate of authentication as required by the applicable county.

## Easement Notes

All properties designated as easements shall or may be utilized for the following purposes:

### DRAINAGE EASEMENT:

Drainage, water diversion, and sanitary control, including without limitation, walls, beds, embankments, spillways, appurtenances, and other engineered devices (the "Drainage System")

Together with the right of ingress and egress over the adjacent land to or from the Easement for the purpose of constructing, reconstructing, inspecting, patrolling, operating, maintaining, repairing, and removing the Drainage System; the right to change the size thereof; the right to relocate along the same general direction of the Drainage System; the right to create and/or dredge a stream course, refill, or dig out such stream course, establish or change stream embankments within the Easement, install storm sewer systems, culverts, water gaps, and protecting rails; the right to remove from the Easement all trees and parts thereof, or other obstructions, which reasonably endanger or may reasonably interfere with the efficiency of the Drainage System; and the right to place temporary structures for use in constructing or repairing the Drainage System.

With respect to the Drainage System, it is expressly agreed and understood by all parties hereto, that the intention is to improve conditions of sanitation and water drainage control on the Property for the benefit of the Property, adjacent property, and the community, but the City does not guarantee or warrant that such control work will be effective, nor does the City assume any additional liability whatsoever for the effects of flood, standing water, or drainage on or to the Property, or any other property or persons that might be affected by said stream, wash, or gully in its natural state or as changed by the City.

### UTILITY EASEMENT:

Utilities, including, without limitation, sewer, water, gas, electricity, telephone, and cable television, with all necessary and/or desirable lines, laterals and/or appurtenances thereto (the "Utilities")

Together with the right of ingress and egress over the adjacent land to or from the Easement for the purpose of constructing, reconstructing, inspecting, patrolling, operating, maintaining, repairing, and removing the Utilities; the right to place new or additional Utilities in the Easement and to change the size thereof; the right to relocate along the same general direction of the Utilities; the right to remove from the Easement all trees and parts thereof, or other obstructions, which reasonably endanger or may reasonably interfere with the efficiency or operation of the Utilities; and the right to place temporary structures for use in constructing or repairing the Utilities.

1. The property owner retains the right to use all or any part of the Easement for any purpose which does not damage, destroy, injure, and/or unreasonably interfere with the use of the Easement. However, the easement shall be kept clear of all structures or other improvements.
2. The City shall make commercially reasonable efforts to ensure that damage to the Property is minimized and the City will at all times, after doing any work in connection with the System, restore the Property to the condition in which the Property was found before such work was undertaken to the extent that such restoration is reasonable in accordance with the City's usual and customary practices.

Plat Notes:

FENCE NOTES:

Gates Across Easement: Double swing gates shall be installed wherever fences cross Utility Easements.

Obstructions of Drainage: Adequate structures shall be provided to allow the unhindered passage of all storm and drainage flows wherever fences cross Drainage Easements.

SIDEWALK NOTES:

Four-foot wide [Substitute "Six-foot wide" where required] reinforced concrete sidewalks shall be installed adjacent to all street frontage property lines of each lot fronting a street at such time as that lot is developed.

CAPITAL RECOVERY FEE ASSESSMENT:

Assessment and collection of the San Antonio Water System Water and Wastewater Utilities' capital recovery fees shall be the amount resulting from the following formula.

$$\begin{aligned} \text{Fee Assessment and Collection per} \\ \text{Living Unit Equivalent (LUE)} &= \text{Unit Fee X (1.03)}^n \\ \text{where Unit Fee} &= \text{the base amount of effective capital recovery fee per} \\ &\quad \text{service unit} \\ n &= \text{the elapsed time in years or portion of years from the} \\ &\quad \text{effective date of the capital recovery fee ordinance to} \\ &\quad \text{the date of the issuance of Final Plat (for the} \\ &\quad \text{assessment and collection of utility line-related fees)} \end{aligned}$$

or Certificate of Occupancy (for the assessment and collection of other utility facility-related fees)