

**CHAPTER 9**  
**SUBDIVISIONS**

# CHAPTER 9

## SUBDIVISIONS

### § 1-00. INTERPRETATION AND PURPOSE

#### § 1-01. Interpretation

In the interpretation and application of the provisions of these regulations, it is the intention of the City council that the principles, standards, and requirements provided for herein shall be minimum requirements for the platting and developing of subdivisions in the City of Payne Springs, and where other ordinances of the city are more restrictive in their requirements, such other ordinances shall control.

#### § 1-02. Purpose

The purpose of these regulations are to provide for the orderly, safe, and healthful development of the area within the city and within the area surrounding the city and to promote the health, safety, and general welfare of the community.

### § 2-00. DEFINITIONS

(a) For the purpose of this chapter, the following terms, phrases, and words shall have the meaning ascribed to them in this section. Words used in the present tense shall also include the future tense. Words used in the singular tense shall also include the plural tense and words used in the plural tense shall also include the singular tense. Words in one gender shall also include the other genders.

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.

City - the City of Payne Springs, Texas.

City council - the governing body of the City of Payne Springs, Texas.

Cul-de-sac - a short residential street having only one vehicular access to another street and with a vehicular turn-around at the opposite end.

Dead-end street - a street, other than a cul-de-sac, with only one (1) outlet.

Developer - this term is synonymous with subdivider.

Engineer - a person duly authorized under the provisions of the Texas Engineering Registration Act to practice the profession of engineering. The term "city engineer" shall apply only to the registered professional engineer or firm of registered professional consulting engineers that has been specifically designated as such by the city council and which represents the city.

Final plat (also record plat or filing plat) - the official and authentic map of any given subdivision of land prepared from actual field measurement and staking of all identifiable points by a surveyor or engineer with the subdivision location referenced to a survey corner and all boundaries, corners and curves of the land division sufficiently described so that they can be reproduced without additional references. Angular measurements and bearings shall be accurate to the nearest minute. Distances shall be accurate to the nearest tenth (10th) of a foot.

Land planner - persons other than surveyors or engineers who possess and can demonstrate a valid proficiency in the planning of residential, commercial, industrial and other related developments. Such proficiency may have been acquired by education in the field of landscape architecture or other specialized planning curriculum and/or by actual experience and practice in the field of land planning.

Lot - an undivided tract or parcel of land having frontage on a public street 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 or lot number or symbol in a duly approved subdivision plat which has been properly filed of record.

Master plan - the general plan for growth and development of the city and its environs.

May - the word "may" is merely permissive.

Mobile home (or manufactured home or house) - a structure transportable in one or more sections, which in the traveling mode, is eight body feet (8') or more in width or forty body feet (40') or more in length or when erected on site is 320 or more square feet, and which is built on a permanent chassis and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities. This term does not include industrialized housing or buildings as defined in Art. 522f-1 V.T.C.S.

Mobile home park - a parcel of land which is to developed for rental of lots to tenants with mobile homes.

Pavement width - the portion of a street available for vehicular traffic. Where curbs are laid, it is the portion between the face of curb.

Person - any individual, association, firm, corporation, governmental agency, or political subdivision.

Preliminary plat - the phrase "preliminary plat" shall be any plat of any lot, tract or parcel of land that is not to be recorded for record, but is only a proposed division of land for review and study by the city. It shall include topography and drainage features and general development plan..

Shall - the word "shall" is always mandatory.

Street - a public right-of-way, however designated, which provides vehicular access to adjacent land. Types of streets include:

(1) Major thoroughfares (also arterial streets, primary thoroughfares, etc.) provide vehicular movement from one neighborhood to another, to distant points within the urban area or to freeways or highways leading to other communities;

(2) Collector streets (also feeder streets, secondary thoroughfares, etc.) provide vehicular circulation within neighborhoods and from minor streets to major thoroughfares. Due to similarity of traffic volume and wheel loadings, streets through commercial and industrial areas are frequently constructed to same design as collector streets; and

(3) Local residential streets (also minor streets, etc.) are primarily for providing direct vehicular access to abutting residential property;

Subdivider - any person, partnership, association, firm, corporation 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.

Subdivision - the word "subdivision" or "addition" shall be any division of any lot, tract or parcel of land into two or more lots or sites for the purpose, whether immediate or future, of sale or of building development or transfer of ownership. It also includes resubdivision or replatting of land, lots or tracts. Division of land for agricultural purposes in parcels of five acres or more shall not be included within this definition, unless any such division of five acres or more includes the planning or development of a new street or access easement.

Surveyor a licensed state land surveyor or a registered public surveyor, as authorized by state statutes to practice the profession of surveying.

Utility easement - an interest in land granted to the city, to the public generally, and/or to a private utility corporation, for installing and 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 utilities.

Any office referred to in this chapter by title means the person elected or employed or appointed by the city in that position, or his duly authorized representative.

Definitions not expressly prescribed herein are to be construed in accordance with customary usage in municipal planning and engineering practices.

### § 3-00. SPECIAL PROVISIONS

(a) The city will not permit the installation of septic tanks upon any lot in a subdivision except in accordance with § 10.00 hereof.

(b) No building permit shall be issued by the city for any structure on a lot in a subdivision for which a final plat has not been approved and filed for record, nor for any structure on a lot within a subdivision in which the standards contained herein or referred to herein have not been complied with in full.

(c) The city may allow sectional development of an approved final plat provided that the section of the final plat meets all the requirements of this chapter in full as though it were a subdivision within itself.

(d) The city shall not authorize any other person nor shall the city itself repair, maintain, install or provide any streets or public utility services in any subdivision for which the standards contained herein or referred to herein have not been complied with in full.

(e) The city shall not authorize any other person nor shall the city itself sell or supply any water or sewerage service within a subdivision for which a final plat has not been approved or filed for record, nor in which the standards contained herein or referred to herein have not been complied with in full.

(f) In behalf of the city, the city attorney shall, when directed by the city council, institute appropriate action in a court of competent jurisdiction to enforce the provisions of this chapter or the standards referred to herein with respect to any violation thereof which occurs within the city or within the extraterritorial jurisdiction of the city.

(g) The provisions of this chapter shall not be construed to prohibit the issuance of permits to any lots upon which a residence building exists and was in existence prior to passage of these regulations, or to prohibit the repair, maintenance or installation of any street or public utility services for any development or lot of which the last recorded conveyance was prior to passage of these regulations.

#### *§ 4-00. IMPROVEMENTS GENERALLY*

The subdivider shall furnish, install and/or construct the water and sewage systems and the street and drainage facilities necessary for the proper development of the subdivision. All such facilities shall be designed and constructed in accordance with city ordinances and standards. The city may require larger public facilities (water and sewer mains, streets, and drainage facilities) than are necessary to serve the subdivision and future development of the area. The city council shall establish policies whereby the city would participate in such oversized facilities or pro rata agreements.

#### *§ 5-00. VARIANCES*

(a) The city council may authorize a variance from these subdivision regulations when in its opinion undue hardship will result from requiring strict compliance. In granting a variance, the city council shall prescribe only conditions that it deems necessary or desirable in the public interest. Pecuniary hardship to the subdivider, standing alone, shall not be deemed to constitute undue hardship. In making the findings herein below 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 shall be granted unless the city council finds:

- (1) That there are special circumstances or conditions affecting the land involved such that the strict application of the provisions of these regulations would deprive the applicant of the reasonable use of his land; and
- (2) That the variance is necessary for the preservation and enjoyment of a substantial property right of the applicant; and
- (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 these regulations.
- (5) Such findings of the city council, together with the specific facts upon which such findings are based, shall be incorporated into the official minutes of the council meeting at which such variance is granted. Variances may be granted only when in harmony with the general purpose and intent of these regulations so that the public health, safety, and welfare may be secured and substantial justice done.

## *§ 6-00. PRELIMINARY PLAT*

### **§ 6-01. Pre-Application**

Prior to submitting a plat, the subdivider shall be responsible for checking on proper zoning, subdivision, and building regulations and requirements and then consult early with the mayor before formal application of the preliminary plat for its approval in order to save time and money.

### **§ 6-02 Preliminary Plat Requirements**

- (a) General - A preliminary plat shall be prepared by a surveyor, engineer, or land planner. The plat shall conform to these subdivision regulations and the zoning regulations of the city, if any.
- (b) Timing and Copies Required - The subdividers shall submit five blue or line copies of the preliminary plat to the mayor at least 14 days prior to the city council meeting at which the plat is to be considered.
- (c) Form - The preliminary plat shall be drawn on sheets no larger than 24" X 36" in size at a scale no smaller than 1" = 200'.
- (d) Contents of Preliminary Plat
  - (1) Name and address of the owner, subdivider, engineer, surveyor or land planner.
  - (2) Proposed name of the subdivision.
  - (3) Names of adjacent subdivisions or owners of adjacent parcels of unsubdivided land. Show any platting of adjoining property and all street names.

(4) An accurate boundary survey of the property and a metes and bounds description and to locate the same with respect to a corner of the survey or tract or an original corner of the survey of which it is a part.

(5) A northpoint, scale of plat, and date of preparation.

(6) The location and dimensions of all streets, alleys, easements, lots and other sites proposed within the subdivision. Where the proposed subdivision is a unit of a larger tract proposed for future development, the preliminary plat shall be accompanied by a layout of the entire tract showing the tentative layout of streets, blocks, drainage, and utility improvements approved by the city council which shall be attached to the smaller approved subdivision and made a part of the permanent records. Thereafter, plats of subsequent units of such subdivision shall conform to the approved overall layout unless it is amended by the city council.

(7) Contours at intervals of five vertical feet. If contours at that interval do not give adequate terrain description, then the interval will be reduced to two vertical feet.

(8) Preliminary drainage improvements including drainage areas affecting the property.

(9) Existing and proposed utility service to the property.

(10) Existing and proposed public utility easements.

(11) Any land uses proposed other than single family lots.

(12) Number of each lot and each block.

(13) Front building setback lines shown on all lots and sites and side building line at street intersection.

(14) The following certification shall be placed on the preliminary plat.

APPROVED BY THE CITY COUNCIL OF PAYNE SPRINGS, TEXAS on this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_ FOR THE PREPARATION OF A FINAL PLAT, SUBJECT TO ANY CONDITIONS ENUMERATED IN CITY COUNCIL MINUTES OF THIS DATE.

Attest:

Approved:

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

\_\_\_\_\_  
Mayor

### § 6-03. Processing the Preliminary Plat

(a) Upon receiving five copies of the preliminary plat and the required filing fees, the mayor will inform the subdivider of the time of the next city council meeting at which the preliminary plat will be considered. Upon receipt, the mayor will forward for review two copies of the plat to the city engineer for review. The city engineer will then return one copy back to the city with his comments and recommendations. Such preliminary plat shall also be checked against the city's zoning regulations, if any, by the mayor. The preliminary plat will then be placed on the agenda for its consideration of approval by the city council.

(b) Within 30 days after the preliminary plat is formally filed, the city council shall conditionally approve or disapprove such plat -or- conditionally approve it with modifications. The conditional approval of the preliminary plat by the city council does not in any manner constitute the acceptance of the subdivision nor the improvements placed therein, but is merely an authorization to proceed with the preparation of the final plat. The action of the city council shall be noted on two copies of the preliminary plat along with any recommendations noted and attached thereto. One copy shall be returned to the developer and the other copy retained as a permanent record of the city. Approval of the preliminary plat, if granted, shall be binding for not longer than one year after the date of approval of the preliminary plat unless the final plat has been approved and recorded within the one year period.

(c) Approval of the preliminary plat does not permit the beginning of any proposed subdivision improvements. No construction work shall begin prior to approval of the final plat of the proposed subdivision by the city council.

§ 6-04. Preliminary Plat Filing Fees

The following schedule of fees and charges shall be collected by the city when any preliminary plat is tendered to the city for consideration of approval. Such fees and charges shall accompany the application of the proposed plat and no action of the city council shall be valid until the filing fee has been paid. This fee shall not be refunded to the subdivider even if the plat should be disapproved.

(a) Single Family & Duplex developments	\$25.00 per plat plus \$1.00 per lot
(b) Multi-Family, Commercial or Industrial developments	\$25.00 per plat plus \$5.00 per acre

§ 7-00. *FINAL PLAT*

§ 7-01. Final Plat Requirements

(a) General - The final plat shall conform to the preliminary plat as approved, and incorporating all conditions imposed by the city council.

(b) Timing and Copies Required - The subdivider shall submit five blue line copies of the final plat to the mayor at least 14 days prior to the City council meeting at which the plat is to be considered. Note: two mylar prints will be required to be submitted immediately after approval.

(c) Form - The final plat shall be drawn on 17-1/2" X 23-1/2" sheets at a scale no smaller than 1" = 200'. Where more than one sheet is necessary to accommodate the entire area, an index sheet showing the entire subdivision at appropriate scale shall be attached to the plat. If desired by the subdivider and approved by the city council, the final plat may constitute only that portion of the approved preliminary plat which is proposed to be recorded and developed; however, such portion shall conform to all requirements.

(d) Contents of Final Plat

(1) All requirements of preliminary plat.



(2) The exact location, dimensions, name and description of all existing or recorded streets, alleys, reservations, easements, or other public right-of-way within the subdivision, intersecting or contiguous with its boundary or forming such boundary, with accurate dimensions, bearings or deflection angles and radii area, and central angle, degree of curvature tangent distance and length of all curves where appropriate.

(3) The exact location, dimensions, description and name of all proposed streets, alleys, drainage, rights-of-way, parks, other public areas, reservations, easements or other rights-of-way, blocks, lots and other sites within the subdivision with accurate dimensions, bearings or deflection angles and radii area, and central angles, degree of curvature, tangent distance and length of all curves where appropriate.

(4) Owner's acknowledgement of the dedication to public use of streets, alleys, parks, rights-of-ways, easements, and other public places shown on the final plat.

(5) A certification by the engineer and/or surveyor for the preparation of the final plat and supporting data, attesting to its accuracy and that all survey work around the boundary area as well as within the subdivision shall have an error closure of no more than one foot in five thousand feet (1/5000') or less.

(6) All survey monuments and markers shall be shown on the plat.

(7) All deed restrictions that are to be filed with the plat shall be shown on or filed separately with the plat.

(8) Receipt showing that all taxes are paid.

(9) All final plats shall be accompanied by a complete sets of construction plans for all street and drainage improvements and water and sanitary sewer improvements;

(10) The following certification shall be placed on the final plat:

THE CITY COUNCIL OF PAYNE SPRINGS, TEXAS on the \_\_\_\_ day of \_\_\_\_\_,  
19\_\_\_, ACCEPTED THIS PLAT AND APPROVED IT FOR FILING OF RECORD.

Attest:

Approved:

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

\_\_\_\_\_  
Mayor

**§ 7-02. Processing the Final Plat and Construction Plans**

(a) Upon receiving five copies of the final plat, construction plans, and the required filing fees, the mayor will inform the subdivider of the time of the next city council meeting at which the final plat will be considered. Upon receipt, the mayor will provide for the review of the plat by the city engineer. Two copies of the proposed final plat will be provided to the city engineer for his comments and recommendations. The city engineer will then return one copy to the city with such appropriate comments, if any. Such final plat will also be checked against the requirements of the preliminary plat for compliance by the mayor and/or city engineer. The final plat will then be placed on the agenda for its consideration of approval by the city council.

(b) If desired by the subdivider and approved by the city, the final plat may constitute only that portion of the approved preliminary plat which he proposes to record and develop.

(c) Within 30 days after the final plat is formally filed, the city council shall approve, disapprove, or conditionally approve it with special conditions. If the final plat is disapproved or approved subject to any special conditions, the mayor shall inform the subdivider of the reasons or of any required revisions, if necessary. If any such revisions are required before approval can be granted, two sets of the revised plat and/or plans will again be submitted to the city for review. Upon final approval by the city council, two mylar prints and two blue line copies of the final plat and four complete sets of the construction plans shall be submitted to the city for the city's use in making inspections of the subdivision's development in order to determine compliance with all approved requirements and for filing of record.

**§ 7-03. Acceptance and Recording Plat**

(a) After the final plat has been finally approved and the developer has constructed all the required public improvements and such improvements have been approved, and a maintenance bond filed as hereinafter provided, -or- after the plat has been finally approved and the subdivider has filed an escrow deposit sufficient to pay for the costs of all improvements as determined by the city in lieu of completing construction, the mayor cause the final plat to be recorded with the County Clerk of Henderson County. The recording fee shall be charged to and paid for by the subdivider.

(b) Building permits will only be issued after the copy of the recorded plat is received from the county clerk. Certificates of occupancy for any building will not be issued until it is determined that all of the improvements including streets, drainage, water, and sanitary sewer have been constructed according to approved plans and specifications and that the utility lines, streets and other rights-of-way and appurtenances have been accepted by the city for ownership and maintenance. The city will not accept any street, drainage improvement, water or sewer line for maintenance until an acceptable one year maintenance bond has been provided to the city.

**§ 7-04. Final Plat Filing Fees**

The following schedule of fees and charges shall be collected by the city when any final plat is tendered to the city for consideration and approval. Such fees and charges shall accompany the application of the proposed plat and no action of the city council shall be valid until the filing fee has been paid. This fee shall not be refunded to the subdivider even if the plat should be disapproved.

(a) Single Family & Duplex developments	\$25.00 per plat plus \$1.00 per lot
(b) Multi-Family, Commercial or Industrial Developments	\$25.00 per plat plus \$5.00 per acre
(c) Replats (not involving previously developed single family or duplex residential use)	\$25.00 per plat plus \$1.00 per lot
(d) Replats (involving previously developed single family or duplex residential use)	\$75.00 per plat plus \$1.50 per lot

§ 8-00. *REPLATS*

(a) Any person who wishes to revise a subdivision plat which has been previously filed for record must make an application of the proposed revised plat to the city council. The replat of the subdivision shall meet all the requirements for a subdivision that may be pertinent. However, if the subdivision as replatted does not require any appreciable alteration or improvement of utility installations, streets, alleys, building setback lines, etc... then no engineering plans will be required. No preliminary plats will be required for any replats.

(b) In the event the proposed replat involves property which has been previously developed or zoned as single family or duplex residential use then special requirements are triggered as follows:

(1) After an application is filed for a replat affecting single family and duplex property, the Mayor shall cause a notice of the application to be published in the official newspaper of the city at least 15 days before the date of the City council meeting at which it is to be considered. Such notice must include a statement of the time and place at which the City council will meet to consider the replat and to hear protests to the revision at a public hearing. Additionally, written notice must be sent to all owners of property located within the original plat. Such notice may be served by depositing the notice, properly addressed and postage paid, at the local post office. In the event the original plat contains more than 100 lots, such notice shall be mailed only to those owners of lots which are located within 500 feet of the lot or lots which are sought to be replatted or resubdivided.

(2) If 20% or more of the property owners to whom notice has been required to be given above file a written protest of the replatting before or at the public hearing, then written approval of at least two-thirds of the owners of property in the original plat, or the owners of all lots located within 500 feet of the lot(s) to be replatted (if the original plat contains more than 100 lots), must be obtained before the City council can grant approval for the replat. In computing percentages of ownership, each lot is considered equal to all other lots regardless of size or number of owners, and the owners of such lot are entitled to only one vote per lot.

§ 9-00. *MAINTENANCE BOND AND AS BUILT PLANS*

Upon completion of all improvements in accordance with city specifications and standards, and their acceptance by the city, the developer or his contractor shall furnish the city with a maintenance bond executed by a corporate surety holding a permit from the State of Texas to act as surety or other surety acceptable to the city. The amount shall equal 100% of the contract cost of all improvements and shall be in effect one year from date of completion and acceptance by the city. The developer shall furnish the city with one set of "as built" plans for all paving, drainage structures, water mains, and sewer mains within 60 days after completion of construction and acceptance by the city.

§ 10-00. *UNAVAILABILITY OF PUBLIC SEWER*

If a proposed subdivision is located beyond the drainage area of an approved sewage collection system the developer shall be required to conduct percolation tests under the supervision of a registered professional engineer or approved testing laboratory that soil conditions are such that satisfactory sewage disposal can be provided by the use of approved septic tanks or developer installed sewage treatment systems. Construction of septic tanks and/or private sewage treatment systems shall be in accordance with Texas Department of Health standards.

§ 11-00. *MINIMUM DESIGN STANDARDS  
AND SPECIFICATIONS*

The minimum design standards for subdivisions are intended to establish a quality of construction and environmental design which will reduce maintenance costs to acceptable limits and to provide service that is both adequate and convenient. There may be from time to time situations which will dictate requirements in excess of those given. The city will have final authority in determining when additional requirements are in order.

§ 11-01. Lots

- (a) Each lot shall front upon a street.
- (b) Double frontage and reverse frontage lots should be avoided except where essential to provide separation of residential development from streets or to overcome specific disadvantages of topography and orientation. Where lots have double frontage, a front building lines shall be established for each frontage street.
- (c) No single family residential lot shall be platted with less than 7,000 square feet of area. The minimum lot width shall be 50 feet and the minimum lot depth shall be 100 feet.
- (d) The minimum lot area for two-family dwellings (or duplexes) and multi-family dwellings shall be not less than 9,000 square feet for each dwelling building or dwelling group. For each dwelling unit over three in number, an additional 1,000 square feet of lot area shall be required. A maximum of 16 units may be constructed per acre.
- (e) For mobile home lots which are individually owned, the minimum size lot area shall be 12,000 square feet when a public sewer system serves the lot or 20,000 square feet where no public sewer system is available and septic tanks are used for sewage disposal.
- (f) For mobile home parks, the minimum lot area shall be at least three times larger than the mobile home to be placed thereon and in no event less than 3,000 square feet in area when a public sewer system serves the park. Where no public sewer system is available and septic tanks are used for sewage disposal, the minimum lot area shall be 20,000 square feet per mobile home lot or space.
- (g) No lot to be used for commercial or industrial purposes shall be platted with less than 3,500 square feet in area.
- (h) Side lot lines shall be substantially at right angles or radial to street lines.

(i) Corner lots shall be larger than interior lots to allow space for required setback from the side street.

### § 11-02. Blocks

In general, intersecting streets shall determine the block lengths and widths. Where no existing plats control, the blocks shall be not more than 600 feet in length nor less than 300 feet in length except in unusual cases. Blocks shall not exceed 300 feet in width nor be less than 200 feet except in unusual cases. Variances in the block lengths and widths must be approved by the City council.

### § 11-03. Streets

(a) Collector streets shall have a right-of-way width of 60 feet and a paving width of 28 feet. Minor residential streets shall have a right-of-way width of 50 feet and a paving width of 24 feet. Paving width is determined from face of curb to face of curb or from pavement edge on one side to the pavement edge on the other side.

(b) The minimum acceptable pavement surface shall be 2 inches hot mix asphaltic concrete for residential minor and collector streets placed on a 6 inches rock base, or a 5 inches thick reinforced concrete pavement laid on a 6 inches lime stabilized sub-base.

(c) Existing streets in adjoining areas shall be continued, and shall be at least as wide as such existing streets (will probably be wider) and in alignment therewith.

(d) 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) Residential streets shall not exceed 1,200 feet in length unless such street is parallel to and adjacent to a thoroughfare, in which case such street shall not exceed 1,600 feet in length. Streets serving commercial and industrial development may be up to 2,000 feet in length; provided that the adequate traffic circulation and utility service can be provided.

(f) Street intersections shall be as nearly at right angles as practicable.

(g) Where offsets in street alignment are, in the opinion of the city, unavoidable, such offsets may be employed provided the distance between center lines is not less than 125 feet.

(h) Half streets shall be prohibited except where the city feels that a street should be located along a boundary or property line..

(i) Dead end streets shall be prohibited except as short stubs to permit future expansion.

(j) Cul-de-sacs shall not exceed 600 feet in length, and shall have a minimum turn-around radius of 50 feet.

(k) Curbs may be installed by the subdivider on both sides of all interior streets and on the subdivision side of all streets forming part of the boundary of the subdivision.

(l) Names of new streets shall not duplicate or cause confusion with the names of existing streets, unless the new streets are a continuation of or in alignment with existing

streets, in which case names of existing streets shall be used. The city council must approve all street names.

(m) Street lights shall be installed by the subdivider at all street intersections at the developer's expense.

(n) Street name signs shall be installed at all intersections within or abutting the subdivision at the developer's expense.

(o) All street construction shall be in accordance with the latest edition of the manual entitled "Standard Specifications for Public Works Construction" prepared by North Central Texas Council of Governments, and shall be constructed wholly at the developer's expense.

(p) The developer shall retain the services of a reputable commercial testing laboratory and will perform the necessary tests on subgrade soils and flexible base material to verify that specifications are being met. These laboratory tests will be made at the developer's expense. The city may require the following testing:

(1) Procter density curves to establish the optimum density-moisture relationship for the subgrade soil and the proposed flexible base material.

(2) Gradation and soil constants (Atterberg Limits) tests to determine the suitability of the proposed flexible base material.

(3) Test during the construction phase to determine if subgrade and flexible base material have been placed as required by the city.

(4) The proper tests to determine if the asphaltic concrete or concrete surfacing meets the city requirements

#### § 11-04. Alleys

Alleys, when required, shall have a minimum width of 15 feet. The alley shall be paved with concrete 4 inches in thickness. Dead end alleys shall be avoided. Alleys shall be constructed in accordance with the latest edition of the manual entitled "Standard Specifications for Public Works Construction" prepared by North Central Texas Council of Governments and shall be at the developer's expense.

#### § 11-05. Utility Easements

Easements at least 20 feet wide, 10 feet on each side of the rear lot lines or side lines, shall be provided wherever necessary for utilities.

#### § 11-06. Sidewalks

Sidewalks, when required, shall be concrete and have a width of not less than 4 feet and a thickness of not less than 4 inches. Sidewalks shall be constructed one foot from the property line within the street right-of-way. Sidewalks shall be constructed in accordance with the latest edition of the manual entitled "Standard Specifications for Public Works Construction" prepared by North Central Texas Council of Governments, and shall be at the developer's expense.

§ 11-07. Off-street Parking

Adequate off-street paved parking areas shall be provided for. The minimum off-street parking spaces shall be as follows:

residential	2 spaces per dwelling unit
business	1 space for every 200 sq. ft. of floor area
industrial	1 space for every employee plus 3 visitor spaces

§ 11-08. Subdivision Monuments and Lot Markers

Concrete monuments shall be erected at all corners of boundary lines of a subdivision and in any case not more than 1,300 feet apart. Such monuments shall be 18 inches deep and 6 inches in diameter. The exact intersection point on the monument shall be marked by a copper pin one-fourth inches (1/4") in diameter embedded at least 3 inches in the monument. The copper pin should extend from one-eighth inch (1/8") to one-quarter inch (1/4") above the concrete. The top of the monument shall be placed flush with the natural ground. Property corners, curve points and angle points shall be marked by iron stakes not less than 12 inches in length, driven flush with the ground or countersunk if necessary in order to avoid being disturbed.

§ 11-09. Storm Drainage

(a) Method of Calculation of Run-Off - Storm water runoff shall be computed by the Rational Method which is an analysis of the run-off problem for each drainage area along rational lines and includes the analysis of the flow of storm water from the surface on which it falls to the inlet that leads to the storm sewer and then through the storm sewer, culvert, and/or channel to the point of disposal. The formula for calculation of run-off by the rational method is  $Q = CIA$ .

$Q$  = the maximum rate of run-off discharge expressed as cubic feet per second.

$C$  = a run-off coefficient which varies with the topography land use and moisture content of the soil. The run-off coefficient shall be based on the ultimate use of the land as recommended by the master plan for the city and shall be selected from below:

	<u>Flat Slope</u> <u>0% - 1%</u>	<u>Rolling Slope</u> <u>1% - 3.5%</u>	<u>Rough Slope</u> <u>3.5% &amp; over</u>
Business areas	0.75	0.80	0.85
Industrial areas	0.70	0.75	0.80
Residential areas	0.40	0.50	0.60
Apartment areas	0.50	0.60	0.70
Park areas	0.30	0.40	0.45

$I$  = Rainfall intensity in inches per hour determined from the applicable curve in Figure 1. Time of concentration or duration of rainfall shall be calculated by the data shown in Table I.

A = The drainage area, in acres, tributary to the point under design calculated from the drainage map of the area. This drainage map shall be submitted with any drainage plans submitted for consideration by the city.

TABLE I  
DATA FOR COMPUTING TIME OF CONCENTRATION

Description of Water Course	Velocity of Run-off in f.p.s. for Slope in Percent			
	0% - 3% V. in f.p.s.	4% - 7% V. in f.p.s.	8% - 11% V. in f.p.s.	12% and over V. in f.p.s.
<u>Unconcentrated*</u>				
Woodlands	0 - 1.5	1.5 - 2.5	2.5 - 3.25	3.25 +
Pastures	0 - 2.5	2.5 - 3.5	3.5 - 4.25	4.25 +
Cultivated	0 - 3.0	3.0 - 4.5	4.5 - 5.5	5.5 +
Pavements	0 - 8.5	8.5 - 13.5	13.5 - 17	17 +
<u>Concentrated**</u>				
Outlet Channels	Determine V by Mannings Formula			
Natural Channel not well defined	0 - 2	2 - 4	4 - 7	7 +

\* This condition usually occurs in upper extremity of watershed prior to the overload flow accumulating in a watercourse. The average velocity of each category shall be used unless the City agrees to some lower velocity.

\*\* These values vary with the channel size and other conditions. Where possible, more accurate determinations should be made for particular conditions by the Manning Channel Formula for velocity.

The average velocities in this table shall be used unless the developer shows calculation of velocities by streets and/or storm sewers according to Texas Highway Department "Hydraulic Manual" methods.

Using the average velocities from this table the developer shall calculate the time of concentration by the following formula unless more data is shown on the plans for calculating time of concentration.

$$T = \text{"Inlet Time"} + \frac{D}{V \times 60} \text{ where:}$$

T = Time of concentration in minutes for use in Figure 1.

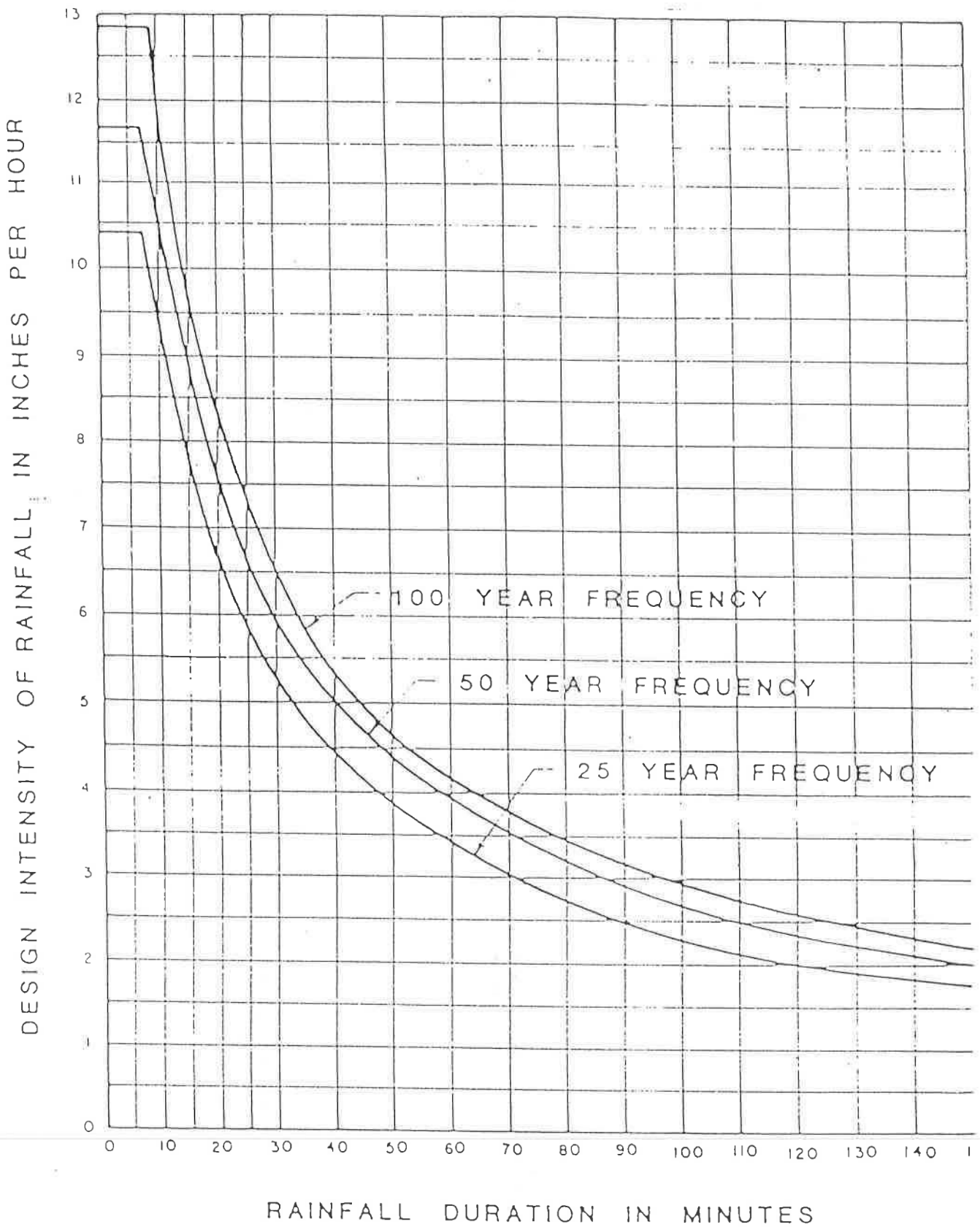
D = Distance in feet from point of concentration to upper end of drainage area under consideration.

V = Velocity in feet per second from this table or velocity calculated by designer by streets and/or storm sewers.

"Inlet Time" = 5 minutes for property zoned for multi-family, business, or industrial and 10 minutes for property zoned for parks, schools, single family residential and duplex.



Figure 1.



# RAINFALL INTENSITY CURVES

(b) All hydraulic calculations shall be based upon the theory of open channel flow, using Manning's Formula :

$$Q = 1.486 \frac{AR^{2/3} S^{1/3}}{n}$$

In this formula  $Q$  is the flow in cubic feet per second (cfs);  $A$  is the water flow area in square feet;  $R$  is the hydraulic radius of the water flow area in feet;  $S$  is the slope of the hydraulic grade line in feet per foot, and  $n$  is the coefficient of roughness for the conduit, channel, or structure lining. No pressure flow or surcharged conditions shall be permitted in designing storm sewers. Culverts shall be designed according to procedures outlined in the Texas Highway Department's "Hydraulic Manual". Roughness coefficients for use in Mannings Formula shall be as shown in Table II. The Texas Highway Department's "Hydraulic Manual" methodology should be used if the city's criteria is incomplete or if there is disagreement concerning procedures or criteria.

(c) Streets and underground storm drains shall be designed to accommodate a five year frequency storm with adequate overland relief for the 25 year storm. When there is no overland relief for a 25 year storm, then the combined street and storm sewer capacity must be adequate to accommodate the 25 year storm. Design of all bridges, culverts, underpasses and open channels are to be based on a 25 year frequency.

(d) The five year storm run-off may be carried in the streets at a depth up to the curb height before underground storm sewer is required, if curbed streets are provided. When the five-year storm run-off exceeds the street capacity then storm drains must be added.

(e) Where water is dumped from a street directly into an open water-course, it shall be dumped through an approved type of inlet and outlet.

(f) Sufficient and adequate inlets are to be installed to allow entry of required quantity of water into storm sewers. Inlet openings shall be about 7 inches high. Openings shall be as determined on the basis of one linear foot of inlet per cubic foot per second of storm water to be picked up except at the sag of a street where emergency overflow is provided, 1-1/2 cubic foot per second per foot of inlet opening will be allowed.

(g) Street grades shall be such that excessive soil deposition from too low a water velocity or pavement scouring from too high a velocity is to be avoided as far as practical. Street grades are normally to be not less than 6 feet nor more than 70 feet fall per thousand linear feet and shall never be less than 4 feet nor more than 100 feet fall per thousand linear feet.

(h) Concrete valley gutters shall be provided to carry the water flow across all intersections.

(i) An open ditch or natural drainageway through a subdivision may be left in its natural state, but if this is done, a study must be made to determine the limits of the flood plain required to carry the 50 year storm. No permanent structure may be built within the flood plain. Buildings adjacent to the flood plain must have a finish floor elevation two feet minimum above the 50 year water surface. An alternate to that is to provide a concrete lined channel. The bottom width of channel to be six feet minimum. The height of the lining shall be adequate for the calculated depth of the 25 year storm plus a two foot freeboard. Walls are to be 4 inch concrete walls sloped not steeper than one foot vertically to one and one-half feet horizontally. All concrete slabs are to be reinforced with a

minimum of 6" X 6" X 10 gauge wire mesh, and provided with proper weep holes or other pressure relief measures.

(j) In new subdivisions the developer shall provide all the necessary easement and right-of-way required for drainage structures, including storm sewers and open lined channels. Easement width for storm sewer pipe shall be not less than 10 feet, and easement width for open channels shall be at least 20 feet wider than the top of the channel, 15 feet of which shall be on one side to serve as access way for maintenance purposes.

(k) Construction of all drainage facilities shall be in accordance with the latest edition of the manual entitled "Standard Specifications for Public Works Construction" prepared by North Central Texas Council of Governments and shall be at the developer's expense.

TABLE II

## MANNING'S ROUGHNESS COEFFICIENTS

NATURAL STREAM CHANNELS		"n"
I. Minor Streams		
A. Fairly regular section		
1. Some grass and weeds; little or no brush . . . . .		0.035
2. Dense growth of weeds, depth of flow materially greater than weed height. . . . .		0.042
3. Some weeds, light brush on banks . . . . .		0.042
4. Some weeds, heavy brush on banks . . . . .		0.060
5. Some weeds, dense willows on banks . . . . .		0.070
6. For trees within channels with branches submerged at high stage, increase all values above by . . . . .		0.015
B. Irregular section with pools, slight channel meander, use 1A to 5A above, and increase all values by . . . . .		
0.015		
C. Mountain streams, no vegetation in channel, banks usually steep, trees and brush along banks submerged at high stage		
1. Bottom; gravel, cobbles and few boulders . . . . .		0.045
2. Bottom; cobbles with large boulders . . . . .		0.060
II. Flood Plain (adjacent to natural streams)		
A. Pasture, no brush		
1. Short grass. . . . .		0.035
2. Tall grass . . . . .		0.042
B. Cultivated areas		
1. No crop. . . . .		0.035
2. Mature row crops . . . . .		0.040
3. Mature field crops . . . . .		0.045
C. Heavy weeds, scattered brush . . . . .		
0.060		
D. Wooded . . . . .		
0.075-0.150		
This varies depending on undergrowth, height of foliage on trees, etc. The area of "n" = 0.10 and greater indicates an extremely heavily wooded condition. These instances of high "n" values (greater than "n" = 0.10) should be thoroughly investigated (photo- graphs, consultation with experienced engineers, complete knowledge of area, etc.).		
III. Major Streams		
Roughness coefficient is usually less than for minor streams of similar description on account of less effective resistance offered by irregular banks or vegetation on banks. Values of "n" for larger streams of mostly regular sections, with no boulders or brush may be in the range of 0.028 to 0.033.		
LINED CHANNELS		
1. Metal corrugated . . . . .		0.024
2. Neat cement lined. . . . .		0.015
3. Concrete . . . . .		0.015
4. Cement rubble. . . . .		0.025
GRASS COVERED SMALL CHANNELS, SHALLOW DEPTH		
1. No rank growth . . . . .		0.040
2. Rank growth. . . . .		0.045
UNLINED CHANNELS		
1. Earth, straight and uniform. . . . .		0.021
2. Dredged . . . . .		0.029
3. Winding and sluggish . . . . .		0.026
4. Stony beds, weeds and bank . . . . .		0.030
5. Earth bottom, rubble sides . . . . .		0.030
6. Rock cuts, smooth and uniform. . . . .		0.030
7. Rock cuts, rugged and irregular. . . . .		0.040
PIPE		
1. Cast iron, coated . . . . .		0.012
2. Cast iron, uncoated. . . . .		0.013
3. Wrought iron, galvanized . . . . .		0.014
4. Wrought iron, black. . . . .		0.013
5. Steel, riveted and spiral - smooth . . . . .		0.015
6. Steel, corrugated (1/2") . . . . .		0.024
7. Steel, corrugated (2" Structural Plate). . . . .		0.035
8. Concrete . . . . .		0.013
9. Vitrified sewer pipe . . . . .		0.013
10. Clay, common drainage tile. . . . .		0.013

§ 11-10. Public Water System

(a) All water mains must be in accordance with rules and regulations for public water systems as published by the Texas Department of Health, Water Hygiene Division.

(b) All water mains shall either be ductile iron or polyvinyl chloride pipe with cast iron outside dimensions and meet the material standards specified in the latest edition of the manual entitled "Standard Specifications for Public Works Construction" prepared by the North Central Council of Governments. Other materials may be permitted, but only upon approval of the city.

(c) All water services shall be a minimum of three-quarters inch (3/4") diameter and Type "k" copper with corporate stop at main and curb stop behind curb line. When more than one dwelling is to be served the maximum number of connections shall be as follows:

<u>Maximum No. Connections</u>	<u>Minimum Service Line</u>
2	1"
5	1-1/2"
10	2"
20	2-1/2"
30	3"
50	4"
51 +	6" or larger

(d) Water system extensions shall be designed to provide for a domestic supply of at least 250 gallons per capita per day, delivered at a minimum pressure of 40 pounds per square inch.

(e) All mains installed within a subdivision must extend to the borders of the subdivision, as required for future extensions of the system, regardless of whether or not such extensions are required for service within the subdivisions.

(f) Valves shall be located so that no more than about 1200 feet of a line would be shut down during a water line break. Usually two valves will be required at each tee and three at each cross. A lesser number of valves may be used if proper shut down control can be provided.

(g) Fire hydrants shall be provided at locations such that all residential areas of development are located within a 500 feet radius from a fire hydrant and served by a 6 inch or larger main. In commercial and industrial areas of development, the development must be located within 300 feet from a fire hydrant and served by a 8 inch or larger main.

(h) No more than 30 three-fourths inch (3/4") service connections shall be served from any 4 inch main and no 4 inch main shall exceed 1500 feet in length between connections to larger mains.

(i) Two inch mains shall only be permitted in dead end locations not subject to future extensions and shall serve no more than six three-fourths inch (3/4") service connections.

(j) All services for water shall be made available for each lot in such a manner that it will not be necessary to disturb any curb, gutter, street pavement, or drainage structures when connections are made.

(k) All water lines that pass under a street or alley shall be installed before the street or alley is paved.

(l) All water system installations shall be constructed in accordance with the latest edition of the manual entitled "Standard Specifications for Public Works Construction" prepared by North Central Texas Council of Governments and shall be at the developer's expense.

(m) In addition, the developer, at his expense, shall be required to extend water lines to the city's water main in accordance with city specifications.

**§ 11-11. Public Sewer System**

(a) All sanitary sewer extensions shall be designed in accordance with the latest rules and regulations as published by the Texas State Department of Health.

(b) All sewers shall be designed with consideration for serving the full drainage area subject to collection except as modified by the city because of the projected rate of development or the financial feasibility of the proposed extension.

(c) In determining the population equivalent for design purposes, undeveloped areas shall be estimated at not less than five persons per acre. The contributing sewage flow shall be estimated on the basis of an average flow of 100 gallons per person per day plus infiltration of 1000 gallons per acre per day. The peaking factor for pitfall sewers shall be determined as:

$$\text{Peaking Factor} = 1 + \frac{14}{4 + \sqrt{P}}$$

P = population in thousands

(d) No sewer lateral shall be smaller than 6 inches in nominal diameter.

(e) All sanitary sewer mains, services, and fittings shall be either polyvinyl chloride (PVC) sewer pipe or vitrified clay pipe and meet the material standards as specified in the latest edition of the manual entitled "Standard Specifications for Public Works Construction" prepared by North Central Texas Council of Governments.

(f) All sewers shall be designed with hydraulic slopes sufficient to give mean velocities, when flowing full or half full, of not less than two feet per second nor more than 5 feet per second based on Kutter's or Manning's formulas using an "n" value of 0.013.

(g) Sewers shall be designed in straight alignment wherever possible. Where horizontal curvature must be used, the smallest radius shall be 100 feet.

(h) Manholes shall be constructed at all changes in grade, alignment, or size of sewer and at all intersections of sewers except service sewers and at the ends of all sewer lines that will be extended. Maximum allowable distance between manholes shall be 400 feet.

(i) All lateral and sewer mains installed within a subdivision must extend to the borders of the subdivision, as required for future extensions of the collection system, regardless whether or not such extensions are required for service within the subdivision.

(j) All services for sewer shall be made available for each lot in such a manner that it will not be necessary to disturb any curb, gutter, street pavement, or drainage structures when connections are made.

(k) All sewer lines that pass under a street or alley shall be installed before the street or alley is paved.

(l) All sewer system construction shall be in accordance with the latest edition of the manual entitled "Standard Specifications for Public Works Construction" prepared by North Central Texas Council of Governments and shall be at the developers expense.

(m) In addition, the developer, at his expense, shall be required to extend sewer lines to the city's main sewer line in accordance with city specifications.

**§ 11-12. Park and Other Public Sites**

The city shall specify any areas required for the allocation of parks and other public spaces that are essential to the proper development of the area.

**§ 12-00. *STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION***

The latest edition of the manual entitled "Standard Specifications for Public Works Construction" prepared by North Central Texas Council of Governments shall govern the construction of all subdivision improvements as well as establishing standards for materials to be used, unless otherwise stipulated by the city. A copy of the manual is on file in the office of the city secretary for review.

**§ 13-00. *INSPECTION OF CONSTRUCTION; INSPECTION FEES***

(a) The city engineer shall make periodic inspections of the construction of public improvements for subdivisions as requested by the mayor. Inspection of improvements by the city engineer is not intended to and does not relieve the developer or his contractor from ensuring that the improvements are constructed in accordance with the accepted plans and specifications. The developer or his contractor shall maintain contact with either the mayor or city engineer during construction of the improvements.

(b) No sanitary sewer, water or storm sewer pipe shall be covered without approval of the city engineer or mayor. No flexible base material, subgrade material, or stabilization shall be applied to the street subgrade without said approval. No concrete shall be poured nor asphaltic surface applied to the base without said approval.

(c) The mayor or city engineer may at any time cause any construction, installation, maintenance, or location of improvements to cease when, in their judgement, the requirements of these regulations, standards and/or specifications of this chapter have been violated, and may require reconstruction or other work as may be necessary to correct any such violation.

(d) To pay for the cost of inspections, an inspection fee of 2.5% of the cost of construction of the public improvements will be paid to the city prior to the initiation of any construction.

*§ 14-00. EXTENSION TO EXTRATERRITORIAL JURISDICTION*

These subdivision regulations, as they now exist or as may hereafter be amended, is hereby extended to include all of the area lying within the extraterritorial jurisdiction of the City of Payne Springs being one-half (1/2) mile from the corporate limits. The rules and regulations governing plats and subdivision of land shall be applicable to such area within said extraterritorial jurisdiction from and after the date of final passage of this chapter. No person shall subdivide, plat, or develop any tract of land within the extraterritorial jurisdiction of the City of Payne Springs, Texas except in conformity with the provisions of these subdivision regulations.

*§ 15-00. PLANNED UNIT DEVELOPMENT*

Standards and requirements of this chapter may be modified by the city council in order to encourage a complete and unique residential, business, or industrial development with full consideration for public health, safety, and welfare. A planned unit development may, under unusual circumstances, require no subdivision of land. However, if division into lots, drainage easements, utility easements, streets, parks, or other public lands are to be provided, or are required by the city, the requirements of this chapter for submission of a preliminary plat and a final plat shall be complied with. All planned unit development must be in accordance with applicable zoning regulations.

*§ 16-00. LIABILITY OF CITY*

Neither the city nor any authorized agent acting under the terms of this chapter shall be liable or have any liability by reason of orders issued or work done in compliance with the terms of this chapter.

*§ 17-00. CONFLICTING ORDINANCES*

Whenever the standards and specifications in this chapter conflict with those contained in another ordinance, the most stringent or restrictive provision shall govern.

*§ 18-00. PENALTY FOR VIOLATIONS*

That any person who fails to comply with or violates any of the provisions of this chapter shall be deemed guilty of a misdemeanor. However, this shall not prohibit the city in obtaining a court injunction, if deemed necessary, for violations within the city's extraterritorial jurisdiction.