ORDINANCE 03-005
SUBDIVISION AND DEVELOPMENT REGULATIONS

EFFECTIVE
JANUARY, 2008

CITY OF CRESSON
9304 Pittsburg
P.O. Box 619
Cresson, Texas 76035

ORDINANCE 03-005

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Effective Date: January, 2008

ORDINANCE NO. **03-005**

AN ORDINANCE OF THE CITY OF CRESSON, TEXAS, GOVERNING AND REGULATING THE PLATTING AND SUBDIVISION OF LAND WITHIN THE CORPORATE LIMITS OF THE CITY OF CRESSON AS PROVIDED IN EXHIBIT "A"; PROVIDING A SAVINGS CLAUSE; PROVIDING A PENALTY CLAUSE; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Cresson, Texas is authorized by Chapter 212 of the Local Government Code to adopt rules governing plats and subdivisions of land in order to promote the health, safety, morals, and general welfare of the municipality and the safe, orderly, and healthful development of the municipality; and

WHEREAS, the Board of Aldermen of the City of Cresson, Texas, being so empowered by law, does hereby establish such a subdivision plan for the City of Cresson, Texas; this ordinance shall hereinafter be known as the Subdivision Regulations of the City of Cresson, Texas; and

WHEREAS, the Board of Aldermen deems it necessary to adopt the regulations contained in Exhibit A";

WHEREAS, the Board of Aldermen has given published notice and held public hearings with respect to the adoption of this Subdivision Regulations Ordinance, as required by law.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF CRESSON, TEXAS:

SECTION 1

The above and foregoing preamble is incorporated and adopted herein as if copied herein in its entirety.

SECTION 2

The rules, regulations, and procedures as attached in Exhibit A are hereby adopted by the Board of Aldermen as the Subdivision Regulations for the City of Cresson and are made a part of this ordinance as if copied herein in their entirety. All development within the City from and after the date of approval of this ordinance shall comply with these regulations.

SECTION 3

This Ordinance shall be and is hereby declared to be cumulative of all other ordinances of the City of Cresson, and this ordinance shall not operate to repeal or affect the Code of Ordinances of the City of Cresson or any other ordinances except insofar as the provisions thereof might be inconsistent or in conflict with the provisions of this ordinance, in which event such conflicting provisions, if any, in such Code of Ordinances or any other ordinances are hereby repealed.

SECTION 4

Any person, firm, association of persons, corporation, or other organization violating the provisions of this ordinance shall be deemed to be guilty of a misdemeanor and, upon conviction, shall be fined an amount not to exceed $2,000.00. Each day that a violation continues shall be deemed a separate offense.

SECTION 5

The sections, paragraphs, sentences, clauses, and phrases of this ordinance are severable, and if any phrase, clause, sentence, paragraph, or section of this ordinance shall be declared unconstitutional, such unconstitutionality or invalidity shall not affect any of the remaining phrases, clauses, sentences, paragraphs, or sections of this ordinance, since the same would have been enacted by the Board of Aldermen without the incorporation in this ordinance of any such unconstitutional or invalid phrase, clause, sentence, paragraph, or section.

SECTION 6

This Ordinance shall take effect immediately from and after its passage and publication in accordance with the provisions of the Charter of the City of Cresson and the laws of the State of Texas.

PASSED AND APPROVED on this 3rd day of March, 2003 at a regular meeting of the Board of Aldermen of the City of Cresson, Texas.

_____
Mayor, City of Cresson, Texas

ATTEST:

_____
City Secretary, City of Cresson, Texas

EXHIBIT A

SUBDIVISION AND DEVELOPMENT REGULATIONS

CITY OF CRESSON
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EXHIBIT A

SUBDIVISION AND DEVELOPMENT REGULATION
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Section 1-1 Purpose and Intent

It is the purpose of the Subdivision Regulations Ordinance of the City of Cresson to:

1. Provide for the orderly, safe, and healthful development of the area within the City in accordance with the City of Cresson Comprehensive Land Use Plan;

2. Promote and protect the health, safety, morals, and general welfare of the community by requiring that adequate streets, utilities, drainage facilities, and other public improvements are provided in all subdivisions;

3. Provide for adequate light, air, and privacy, to secure from fire, flood, and other danger, and to prevent overcrowding of the land and undue congestion of population;

4. Protect the character and the social and economic stability of all parts of the City and to encourage the orderly and beneficial development of all parts of the city;

5. Protect and conserve the value of land throughout the city and the value of buildings and improvements upon the land, and to minimize the conflicts among the uses of land and buildings;

6. Guide public and private policy and action in order to provide adequate and efficient transportation, water, sewer, drainage, schools, parks, and other public requirements and facilities;

7. Insure that public facilities are available and will have a sufficient capacity to serve the proposed subdivision;

8. Prevent the pollution of air, streams, and ponds, safeguard the water table, and encourage the wise use and management of natural resources throughout the city in order to preserve the integrity, stability, and beauty of the community and the value of the land;

9. Preserve the natural beauty and topography of the city and to insure appropriate development with regard to these natural features;

10. Provide for open spaces through the most efficient design and layout of the land, including the use of average density in providing for minimum width and area of lots, while preserving the density of land as established in the Zoning Ordinance of the City of Cresson;

11. Provide facilities which can be maintained without imposing an excessive burden to the taxpayers; and

12. Provide accurate and complete plat records for the property within the City, all in accordance with the comprehensive plan.

Hereafter every owner or subdivider of any tract of land situated within the corporate limits of the city or within the extraterritorial jurisdiction of the city who may seek to subdivide the same into two or more parts for the purpose of creating a building lot or lots or for the purpose of laying out any subdivision of the city or any additions thereto shall comply with the provisions of these regulations.

Section 1-2 Short Title

This ordinance shall be known and may be cited as "The City of Cresson Subdivision Regulations Ordinance."

Section 1-3 Authority

This ordinance is adopted under the authority of the constitution and laws of the State of Texas, including, particularly, Chapters 43 and 212 of the Texas Local Government Code.

Section 1-4 Jurisdiction

A plat for land within the city is required for approval before a person may:

1. Divide the land into two or more parts for the purpose of sale of one or more lots or for the development of lots and streets, alleys, squares, parks, or other parts intended to be dedicated to public use or for the use of the purchasers of lots; or

2. Obtain a permit for construction of a building upon a tract that has not been platted.

Section 1-5 Definitions

The following words and phrases, as used in this ordinance, shall have the meanings respectively ascribed to them herein. Definitions not expressly prescribed herein are to be construed in accordance with customary usage in municipal planning and engineering practices:

Acceptance of Community Facilities. The written notification from the City Engineer to the developer which constitutes the city's acceptance for the ownership and maintenance of the community facilities or public improvements after the facilities are constructed and approved. The acceptance shall not constitute a waiver of any warranties for materials or workmanship either expressed or implied.

Adjacent Property Owner. The owner of the property that shares a property line with the subject property or abuts the opposite side of a right-of-way.

Alley or Unopened Street. Any dedicated street or alley which is not being used by vehicular traffic.

Approach Mains.

1. *Water*. The off-site main required to connect a development to a source of ample supply. It shall be not less than eight inches in diameter and of a size large

enough to serve both the development for which service is requested and adjoining areas, as determined by the City Engineer.

2. *Sewer*. The sanitary sewer required by the City Engineer to serve the entire drainage area in which it is constructed, both inside and outside of a developer's property, under ultimate development conditions, to connect sanitary sewer facilities in the development to the city's sanitary sewerage system.

As-Built Plans. Plans of record that include any significant changes that occurred during construction from the plans as they were originally approved by the City Engineer.

Boundary Facility Service Connections. Service connections located outside the development for which the "approach main" or "boundary facility is constructed, and connected directly to the "approach main" or "boundary facility."

Building Official. The Building Official holds senior level responsibility for coordinating and controlling building inspection activities to meet all the provisions of this code and any other ordinance of the city regarding structural, electrical, plumbing and zoning regulations. The Building Official is charged with the responsibility of issuing building permits and certificates of occupancy in conformance with the code of ordinances and any other ordinance and policy of the city.

City. The City of Cresson, Texas, including its governing body, duly authorized boards, agents, officials and employees.

City Council or Board of Aldermen. The governing and legislative body of the City of Cresson.

City engineer. That person or group of persons or consultants or any employee thereof that has been appointed as City Engineer, or his duly authorized representative. The City Engineer shall be responsible for approving all phases of engineering plans, specifications, profiles, and design criteria for the installation and development of all community facilities in the city. The City Engineer shall be responsible for issuing a letter of satisfaction and acceptance of the community facilities upon final inspection.

City manager. That person appointed as city manager by the City Council, under the authority of the Local Government Code, or his/her designee or in the absence of such appointment, the Mayor.

City planner. That person or group of persons appointed as city planner.

City Requirements. The design and construction standards, code provisions, ordinances, policies, approved plans and specifications, profiles, grades, lines and agreements as required for the construction of community facilities.

City secretary. That person appointed by the City Council under the authority of the city charter and includes any deputies appointed by the City Council to fulfill a given duty or function in the absence of the City Secretary.

Commercial Development. This designation shall apply to all properties, other than residentially zoned properties, which require extensions of community facilities due to new construction or expansion of existing improvements on the property.

Commercial Establishment. Any establishment other than a one or two-unit residence.

Commercial Property. Any property of zonings not included in the definition of "residential property."

Commission. The term shall mean the Planning and Zoning Commission and is used interchangeably.

Community Facilities. Community facilities shall mean any facility which is to be used by or benefits the public and dedicated to the city for the public's use to include, but not limited to, water mains, sewer mains, streets, alleys, curbs, gutters, and storm drains.

Comprehensive plan. The comprehensive plan of the city and adjoining areas adopted by the Planning and Zoning Commission and approved by the Board of Aldermen, including all its revisions. The plan indicates the general locations recommended for various land uses, transportation routes, streets, parks and other public and private developments and improvements.

Concept plan. A sketch or rough layout of the proposed development plans for use in the pre-application conference to be submitted by the developer or subdivider at a size and at a scale not less than 1" = ' 400'.

Contractor. The person, persons, firm or corporation, which is or will be engaged in the actual construction, building, laying, rebuilding or repairing of streets, alleys, thoroughfares, curbs, gutters, sewer mains, water mains, and/or any community facility.

Dedicated Street or Alley. Any street or alley for which the right-of-way has become public property through platting, deed, or public usage as defined by law.

Design Engineering. Consisting of all necessary studies, tests, preliminary plans, and the like necessary for the preparation of complete plans, specifications and contract documents meeting the approval of the city.

Developer. A person, firm, corporation or other legal entity, or his designee undertaking construction of private or public improvements to property. This includes any facilities which will be dedicated to the public or any private construction which requires a building permit.

Development. Any activity that requires submission of a subdivision plat, or the securing of a building permit.

Development review committee. A committee of key staff members that provides a centralized, technical review of development plans.

Director of public works. The designated city official, carrying the title of Director of Public Works and charged with enforcing the provisions of this chapter, or in the absence of the

appointment of a Public Works Director, the Mayor. The Director of Public Works or his designated representative shall be responsible for enforcing the rules, regulations, standards, specifications for the construction and installation of all community facilities, including those related provisions contained in the subdivision ordinance and the community facilities policy.

Driveway. That portion of a parking lot, private road, or private access that consists of a travel lane opening onto a public street.

Dwelling unit. That area of a structure set aside for single-family living; a single family residence is one dwelling unit, a duplex is two dwelling units and each apartment of an apartment complex is a separate dwelling unit.

Easement. The right to use property of another for a specific purpose, such as the rights of access of an individual, the public or a franchise agent of the city, or a private access easement to another property owner, but shall not include fee title to lands. The intended use of all easements shall be designated on the plat.

Engineer. A person authorized under the provisions of the Texas Engineering Registration Act to practice the profession of engineering.

Engineering Plans or Construction Plans. A graphic depiction of the proposed facilities designed by an engineer which shows in detail and to scale sufficient information so that the facility can be constructed according to the design. The plans shall be drawn according to conventional drafting practices. Each page of the plans shall be signed and sealed by a licensed professional engineer.

Extraterritorial Jurisdiction. The unincorporated area which is contiguous to the corporate limits of the city, and not a part of any other city, as established under "Extraterritorial Jurisdiction of Municipalities," being Tex. Loc. Gov't Code Chapter 42, as heretofore or hereafter amended.

FEMA. Federal Emergency Management Agency.

Floodplain, One Hundred-Year. Any land area susceptible to being inundated by water from any source at a frequency of more than once per 100 years (1% chance each year), as determined by the most recently adopted flood insurance rate map produced by the Federal Emergency Management Agency.

Floodway. The channel of a watercourse and portions of the adjoining floodplain which are reasonably required to carry and discharge the regulatory flood, as determined by the most recently adopted floodway flood boundary and floodway map produced by the Federal Emergency Management Agency.

Floodplain easement, An easement provided along all natural or man-made drainage ways of a width that will contain the 100-year flood.

Floodplain restrictions. Restrictions that apply only to developments within floodplain areas, including, but not limited to, the requirement of a floodplain development permit and a finished floor elevation of at least one foot above the 100-year flood elevation.

Lot. An undivided tract or parcel of land having frontage on a public street and which is, or in the future may be improved, offered for sale, conveyed, or transferred; 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. in Hood, Johnson or Parker County.

On-Site Mains.

1. *Water*. An on-site water main is one that provides service within a development or subdivision.

2. *Sanitary Sewer*. An on-site sanitary sewer main is one designed to serve the entire area in which it is to be constructed, both inside and upstream from all or part of the developer's property, under ultimate development conditions, but which is located entirely within the limits of the development.

Open Street or Alley. Any street or alley for which the right-of-way has become public property through platting, deed, or public usage as defined by law, and is presently being used.

Parkway. That portion of a street right-of-way that is between the edge of the street and the property line.

Planning and Zoning Coordinator. That person appointed by the public works director under the authority of the Local Government Code and/or city ordinances in charge of the planning function for the city and charged with the implementation and enforcement of the subdivision, zoning, and other growth-related ordinances, or in the absence of such appointment, the Mayor.

Plat. A drawing prepared by a surveyor which shall accurately describe all of the subdivision or addition by metes and bounds and locate the same with respect to the nearest monument of record, giving the dimensions thereof of the subdivision or addition, and dimensions of all streets, alleys, squares, parks or other portions of same intended to be dedicated to public use, or for the use of purchasers or owners of lots fronting thereon or adjacent thereto.

1. *Approved Plat*. A plat that has been approved by the Planning and Zoning Commission and/or the Board of Aldermen.

2. *Plat, preliminary*. The plat of any lot or lots of record that is not to be recorded of record but is only a proposed division of land for review and study by the city.

3. *Final Plat*. The final plat shall be any approved plat of any lot, lots, tract, or parcel of land requested to be recorded in the records of the Hood, Johnson, or Parker County Courthouse.

4. *Replat*. The rearrangement of any part or all of any lot, lots, block or blocks of a previously platted subdivision, addition, lot or tract in accordance with the provisions of this chapter and state statute.

5. *Plat, short-form*. A subdivision of not more than three lots, which does not require the dedication or improvement of any street or the provision of easements for

drainage or utilities or the extension or installation of new utilities which allows a short form process that eliminates the need for a preliminary plat.

Regulatory (100-year) flood. A flood having a one percent chance of occurrence in any given year. It is based on statistical analyses of stream flow records available for the watershed and analyses of rainfall and runoff characteristics in the general region of the watershed.

Residential Development. Any platted residential property along a street where the greater portion of the property footage between two intersecting streets is owned by the individual or firm developing all or any part of the lots, or any residential platting.

Residential Property. Property zoned for single-family or two-family residential use.

Right of Way. A strip of land occupied or intended to be occupied by a street, crosswalk, railroad, road, electric transmission line, oil or gas pipeline, water main, sanitary or storm sewer main, or for another special use. The usage of the term "right-of-way" for land platting purposes shall mean that every right-of-way hereafter established as shown on a final plat is to be separate and distinct from the lots or parcels adjoining such right-of-way and not included within the dimensions or areas of such lots or parcels. Rights-of-way intended for streets, crosswalks, water mains, sanitary sewers, storm drains, or any other uses involving maintenance by a public agency shall be dedicated to public use by the maker of the plat on which such right-of-way is established.

Schematic Drawing. A single line sketch showing the approximate locations of existing and proposed facilities (water, sanitary sewer, open and closed storm sewer, streets and the like) without the benefit of detail drafting.

Service Connections.

1. *Water.* The connection between a water main and the water meter through which a given property is supplied with water.

2. *Sewer.* That portion of the private sewer located in the roadway of a public street between the main or lateral sanitary sewer in such street and a point approximately three feet behind the curb line of such public street nearest to the site to be served, or to that portion of the private sewer located in a public alley, or to the tap installed for connection to a sanitary sewer located in the parkway of a public street or in an easement.

Shall, May. The word "shall," wherever used in this ordinance, will be interpreted in its mandatory sense; the word "may" shall be interpreted as permissive.

Side Lot. Residential property abutting two streets at their intersection, with the longer street frontage being the side of the lot.

Sketch Plan. A concept or rough layout of the proposed development plans for use in the pre-application conference to be submitted by the developer or subdivider at a size and scale of his own discretion.

Street. A public way for vehicular traffic, whether designated as a street, highway, thoroughfare, parkway, throughway, road, avenue, boulevard, lane, private place, or however otherwise designated. Types of streets are defined as follows:

1. *Access or frontage road*. A street or road that provides access to adjacent properties along a freeway or expressway.

2. *Approach street*. A new or existing street not adjacent to a subdivision being developed but which provides access or improved access to such subdivision.

3. *Collector street*. A street that may be continuous through several neighborhoods, distributing traffic from the arterial street system. A collector street provides both land access and local traffic movements within neighborhoods.

4. *Cul-de-sac*. A short street terminating in a turnaround.

5. *Freeway or expressway*. A highway intended to move large volumes of traffic around and across the city without direct access to adjacent land.

6. *Local or residential street*. A street that provides direct access to abutting properties and connects to the collector street system. Residential streets should be short and discontinuous to discourage through traffic.

7. *Minor arterial*. A street that interconnects and augments the principal arterial system with more land access at a lower level of traffic mobility.

8. *Off Site Street*. A street providing access from a subdivision to a collector or major thoroughfare.

9. *Perimeter Street*. Existing street adjacent to the property line.

10. *Principal arterial*. A street that serves the major center of metropolitan activity, among the highest traffic volume corridors of trips into and out of the city. Due to the high traffic volume, direct access is controlled.

11. *Thoroughfare (major street)*. Designates principal traffic thoroughfares more or less continuous across the city, which are intended to connect remote parts of the city or areas adjacent thereto and act as principal connecting streets with state and federal highways. Major streets are designated on the Comprehensive Land Use Plan of the City of Cresson.

12. *Industrial or commercial street*. A street intended to serve traffic within an area of industrial or commercial development.

13. *Private street*. A street providing direct access to abutting properties which connect to the city's street system and which is not owned, improved, or maintained by a governmental entity.

14. *Private place.* A cul-de-sac providing direct access to abutting properties which connect to the city's street system and which is not owned, improved, or maintained by a governmental entity.

Street Construction, New. Paving a street that has not previously been paved, or which has been surfaced, but which is not to city specification.

Street Reconstruction. Widening and/or reconstruction of an existing street which has an existing surface.

Subdivider. A person, firm, association, corporation, syndicate, trust, or any other legal entity who subdivides or seeks to subdivide land into two or more lots.

Subdivision. The division of any tract of land situated within the corporate limits, or within the city's extraterritorial jurisdiction, into two or more parts for the purpose of laying out any subdivision of any tract of land or any addition to the city or for laying out suburban lots or building lots, or any lots and streets, alleys or parts or other portions intended for public use or the use of purchasers or owners of lots fronting thereon or adjacent thereto, for the purpose of transfer of ownership or development, whether immediate or future. "Subdivision" includes resubdivision, but it does not include the division of land for agricultural purposes into parcels or tracts of ten acres or more which does not involve the creation of any new street, alley, or easement or access or building sites.

Tract. An unplatted parcel of land described by metes and bounds and typically recorded in the county deed records.

Surveyor. A registered public surveyor licensed by the State of Texas to practice the profession of surveying.

USGS. United States Geodetic Survey.

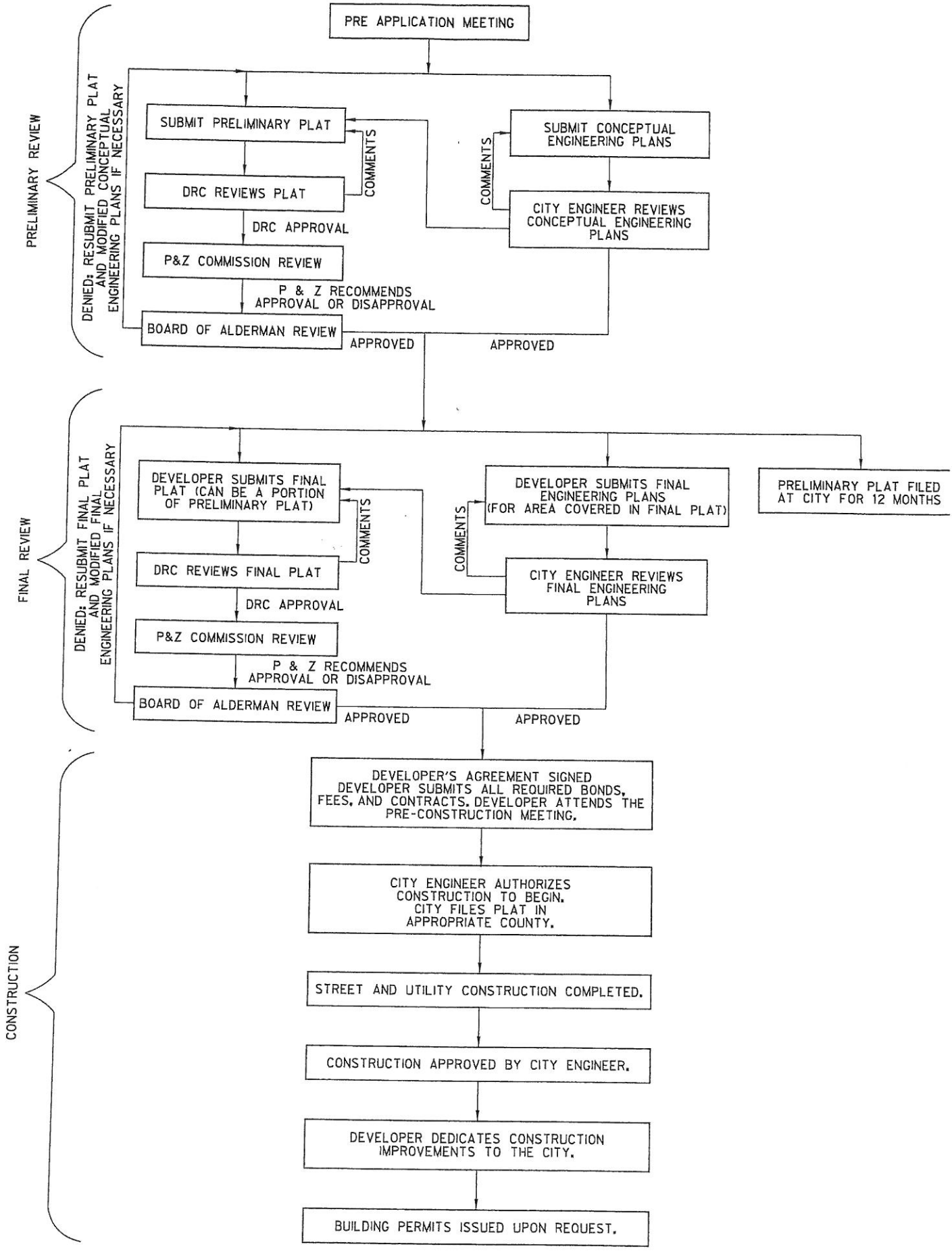
Utility easement. An interest in land granted to the city, to the public in general, and/or to a private utility corporation for installing or maintaining utilities across, over, or under private land, together with the right to enter thereon with machinery and vehicles necessary for the maintenance of the utilities.

ARTICLE II PLATTING PROCEDURES

Section 2-1 Sequence of Events

The following sequence of events is required for all subdividing and land development.

Step	***Requirement***
1.	The developer and staff hold a pre-application conference
2.	The developer submits preliminary plat (5 copies) along with the application and filing fee. Developer also submits conceptual engineering plans to the city engineer.
3.	The development review committee (DRC) reviews the preliminary plat. The city engineer reviews the conceptual Engineering plans
4.	The developer may incorporate DRC comments into preliminary plat and resubmit prior to the Planning and Zoning Commission (P&Z) meeting. If any comments from engineering require modification to the plat the developer may incorporate these comments as well.
5.	The preliminary plat is reviewed by P&Z. P&Z recommends approval or disapproval to the City Council.
6.	The preliminary plat is reviewed by the City Council. If disapproved, return to step number 2.
7.	If approved, the preliminary plat is filed of record at City Hall for a period of 12 months.
8.	The developer submits a final plat (5 copies) on a portion of the preliminary plat along with the application and filing fee. The developer also submits final engineering plans to the city engineer (not required prior to approval of plat).
9.	The DRC reviews the final plat. The city engineer reviews the final engineering plans.
10.	The developer may incorporate DRC comments into the final plat and resubmit prior to the P&Z meeting. If any comments from engineering require modification to the plat the developer may incorporate these comments as well.
11.	The final plat is reviewed by P&Z. P&Z recommends approval or disapproval to the City Council
12.	City Council approves the final plat and accepts dedication of rights-of-way and easements subject to the approval of engineering plans. If disapproved, return to step number 8.
13.	The City Engineer approves the engineering plans and specifications for all of the improvements required to develop the entire final plat area. If disapproved, the plans and specifications shall be corrected and resubmitted. If the final plat is not filed of record, and the final plat does not include sufficient right-of-way and easements for the engineering plans to conform to this chapter, then return to step number 8.
14.	The developer submits the required bonds, inspection fee and a copy of the construction contract(s) for all phases of the construction on the engineering plans to include excavation, the placement of underground utilities and storm drainage, and street improvements, and the developer attends the preconstruction conference.
15.	The city files the plat in the plat records at the County Clerk's office.
16.	City Engineer authorizes the start of construction.
17.	The construction of all required community facilities are completed and accepted by the City Engineer.
18.	Developer dedicates construction improvements to the City.
19.	Building permits may be issued upon request.


PRE APPLICATION MEETING
PRELIMINARY REVIEW
DENIED: RESUBMIT PRELIMINARY PLAT AND MODIFIED CONCEPTUAL ENGINEERING PLANS IF NECESSARY
SUBMIT PRELIMINARY PLAT
COMMENTS
DRC REVIEWS PLAT
DRC APPROVAL
P&Z COMMISSION REVIEW
P & Z RECOMMENDS APPROVAL OR DISAPPROVAL
BOARD OF ALDERMAN REVIEW
APPROVED
SUBMIT CONCEPTUAL ENGINEERING PLANS
COMMENTS
CITY ENGINEER REVIEWS CONCEPTUAL ENGINEERING PLANS
APPROVED
FINAL REVIEW
DENIED: RESUBMIT FINAL PLAT AND MODIFIED FINAL ENGINEERING PLANS IF NECESSARY
DEVELOPER SUBMITS FINAL PLAT (CAN BE A PORTION OF PRELIMINARY PLAT)
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DRC APPROVAL
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APPROVED
DEVELOPER SUBMITS FINAL ENGINEERING PLANS (FOR AREA COVERED IN FINAL PLAT)
COMMENTS
CITY ENGINEER REVIEWS FINAL ENGINEERING PLANS
APPROVED
PRELIMINARY PLAT FILED AT CITY FOR 12 MONTHS
CONSTRUCTION
DEVELOPER'S AGREEMENT SIGNED DEVELOPER SUBMITS ALL REQUIRED BONDS, FEES, AND CONTRACTS. DEVELOPER ATTENDS THE PRE-CONSTRUCTION MEETING.
CITY ENGINEER AUTHORIZES CONSTRUCTION TO BEGIN. CITY FILES PLAT IN APPROPRIATE COUNTY.
STREET AND UTILITY CONSTRUCTION COMPLETED.
CONSTRUCTION APPROVED BY CITY ENGINEER.
DEVELOPER DEDICATES CONSTRUCTION IMPROVEMENTS TO THE CITY.
BUILDING PERMITS ISSUED UPON REQUEST.

Section 2-2 Exception to Sequence

If the plat meets all the requirements to qualify for the short form platting procedure (Section 2-8), the formal plating procedure can be skipped and the short form platting process can be followed.

Section 2-3 Modification or Variance of Platting Standards

Where existing conditions require a modification of the standards and regulations herein contained because of a distinct and unusual condition that does not prevail on other undeveloped land generally in the city, the Planning and Zoning Commission may approve a variance from specific standards to permit the equitable treatment of the land or tract in light of the unusual condition.

In granting variances and modifications, the Commission may require such conditions as will, in its judgment, secure substantially the objectives of the standards or requirements so varied or modified and maintain the spirit and intent of the standards herein set forth.

Section 2-4 Withholding of Improvements

The city shall withhold all city improvements of whatsoever nature, including the furnishing of sewerage facilities and water service, and all franchise services under control of the city from all additions which have not been approved in accordance with the regulations contained in this chapter.

A building permit will be issued after completion and acceptance by the city of water and sewer, stormwater drainage or detention facilities, and installation of streets, curbs and gutters.

Section 2-5 Appeal to City Council

Any subdivider aggrieved by any finding or action of the commission, which involves the jurisdiction of the City Council, which is herein defined as dedication of, or improvements to, streets, or installation of other public improvements, shall appeal in writing to the City Council within 30 days from the date of such finding or action and not thereafter. Appeals of other actions by the Commission shall be to courts of appropriate jurisdiction.

Section 2-6 Platting General Procedures

The intent of a preliminary plat is to seek the permission and advice of the Planning and Zoning Commission to subdivide a tract or tracts of land. A preliminary plat is intended to show how the owner/developer plans to lay out lots, streets, easements, and the like and gain concurrence from the Planning and Zoning Commission prior to the preparation of a final plat.

A preliminary plat generally will be required when any unplatted properties are intended to be subdivided. Preliminary plats will also be required when previously platted properties are to be materially altered or changed. Contours will be required on all preliminary plats in order to show the lay of the land and to show any existing water courses that might be present on the property.

Final plats, approved by the Planning and Zoning Commission and City Council and duly recorded in the Hood, Johnson or Parker County Plat Records, will be required prior to any work being started within the limits of the final plat.

Platting — a prerequisite for the issuance of a building permit.

1. A final plat is required prior to the issuance of a building permit.

2. Building permits will not be issued until all public facilities (streets, roads, water, sanitary sewer, storm sewer, drainage improvements and the like) are completed and accepted by the City Engineer.

Building permits may be issued, without requiring platting, when: the property is in a residential district and the proposed construction is for any of the following purposes:

1. Adding to an existing building or structure;

2. Or, altering an existing building or structure;

3. Or, adding an accessory building or structure;

4. Or, restoring any building or structure previously destroyed where the extent of the destruction is not more than 50% of its reasonable market value by fire, explosion, or any other casualty or act of God.

However, the above exception shall not allow the issuance of a building permit in conflict with the restrictions of the general zoning ordinance or the "non-conforming use ordinance."

Section 2-7 Pre-application Conference

Prior to the submission of a preliminary plat, the subdivider may submit a concept plan for purposes of general review and comment by the development review committee, Director of Public Works or his representative. The general character of the development will be addressed, and items may be examined concerning zoning, utility service, street requirements, and other pertinent factors related to the proposed subdivision. The subdivider may be represented by his land planner, engineer or surveyor.

Section 2-8 Procedure for Short Form Plat Approval

In instances where the highly formalized final plat approval procedure is obviously not necessary, the short form platting procedure may be used. The short-form platting procedure waives the requirement for preliminary plat approval. The short form platting process may be used when an understanding of a development process and its effect on surrounding development may be gauged without the formal platting procedure, and when the protection and guidance of community development as a whole may be maintained without the use of the formal platting procedure.

All short-form plat submittals shall show the existing property being subdivided or resubdivided in relation to the original tract or subdivision. Any parcel of land which may be determined to

meet the following criteria may be submitted as a short-form plat and may be approved following the abbreviated procedures described below:

1. The subdivision does not exceed five acres in size nor include more than three lots.

2. The subdivision conforms to the master plan.

3. The Subdivision conforms to the zoning ordinance.

4. Requires no right-of-way or easement dedication

5. The subdivision or use of the land subdivided does not require any alteration of utility installations, streets, or alleys.

6. The area to be subdivided conforms in size and shape to lots in the vicinity.

7. The proposed development neither contains nor creates a significant drainage problem, nor is topography a salient development consideration.

8. All utilities required to serve each lot are in place, or arrangements to provide them have been made with the appropriate agency.

If the Director of Public Works determines the proposed plat or replat is eligible for the Short Form Plats approval process, the owner shall submit the following:

1. Application and fee; and

2. A final plat conforming to the requirements of Section 2-12.

Upon completion of the submission procedure by the owner, a committee composed of the Director of Public Works, the City Attorney and the City Manager is authorized to review the plat or replat submitted and to administratively approve submissions which satisfy the requirements of Section 2-12. The Director may, for any reason, elect to present the plat to the Planning and Zoning Commission or City council, or both, to approve the plat. The Director of Public Works shall not disapprove the plat and is required to refer any plat which he refuses to approve to the Planning and Zoning Commission or City Council, or both, so that final approval can be considered within 30 days after the final plat is filed.

Section 2-9 Procedure for Preliminary Plat Approval

On reaching conclusions as recommended in **Section 2-7, pre-application conference**, the subdivider shall prepare a preliminary plat of the proposed subdivision for submission to the Planning and Zoning Commission.

Copies of the preliminary plat (in the amount stipulated by the development review checklist provided with the application for a preliminary plat) shall be submitted to the Planning and Zoning Commission through the Planning and Zoning Coordinator not less than 21 days prior to the Planning and Zoning Commission meeting at which consideration is desired. Preliminary drainage plans shall also be submitted to the city at this time for review.

A filing fee is required to be paid to the city at the time of the submittal, as stipulated in the City of Cresson Fee Schedule listed in Section 2-16.

The preliminary plat shall be, for the purposes of this section, considered actually filed with the City after it is found to be in compliance with the general provisions of these regulations by the development review committee; and the date of such findings shall be considered the actual filing date with the City.

At the time of filing with the City, the following notice shall be stamped on the face of each preliminary plat: "Preliminary Plat-For review purposes only.'

The preliminary plats shall be distributed for staff review immediately upon receipt in accordance with the development review checklist provided with the application for a preliminary plat. Comments will be written and made available to the applicant.

Whenever a preliminary plat involves land in the city's extraterritorial jurisdiction, the Planning and Zoning Commission shall act upon the plat in the same manner as a plat in the city limits.

A report shall be presented at the Planning and Zoning Commission at the next regular meeting by the Planning and Zoning Coordinator stating the results of the subdivision review. Such report should include comments relative to the proposed subdivision's compliance to these regulations, the comprehensive plan or other plans, such as utility plans. The report may include comments from municipal departments or other agencies concerned with urban development.

Following review of the preliminary plat and other materials submitted in accordance with these regulations, and review with the subdivider on changes deemed advisable and the kind and extent of improvements to be made by him, the Planning and Zoning Commission shall, within 30 days of the actual filing date with the City, approve, approve with modifications, or deny approval of the proposed preliminary plat; and if approved with modifications, the Council shall express its approval as approval with modifications and state the conditions of such approval, if any, or if denied, shall express its denial and its reasons therefor.

The Planning and Zoning Commission shall, at the next regularly scheduled City Council meeting, submit the approved preliminary plat with any conditions established by the Planning and Zoning Commission to the City Council as an information item only, except as noted below.

1. Preliminary plats with deviations proposed as to street dedication and utility services or any other deviation from compliance with the comprehensive plan following a favorable recommendation by the Planning and Zoning Commission shall be submitted to the City Council for approval as recommended by the Planning and Zoning Commission.

Approval of a preliminary plat shall not constitute approval of the final plat. Rather, it shall be deemed an expression of approval to the layout submitted on the preliminary plat as a guide to the preparation of the final plat.

The Commission shall, in its action on the preliminary plat, consider the physical arrangement of the subdivision and determine the adequacy of street and thoroughfare rights-of-way and alignment and the compliance of the streets and thoroughfares with the Comprehensive Land Use Plan, the existing street pattern in the area, and with any other applicable provisions of the

Comprehensive Land Use Plan. The Commission shall also ascertain that adequate easements for proposed or future utility service and surface drainage are provided, and that the plat complies with the provisions of the zoning ordinance.

A notation of the action taken and requisite reasons therefore shall be entered into the records of the Planning and Zoning Commission.

Approval of the preliminary plat shall be valid for a period of 12 months from the date of approval, and the general terms and conditions under which the approval was granted will not be changed. The Commission shall withdraw its approval of a preliminary plat, unless a partial final plat is submitted within the 12 month period. The validity of the preliminary plat is extended indefinitely from the approval date of a partial final plat of any portion of the preliminary plat.

Section 2-10 Data Requirement for Preliminary Plat Submission

The subdivider or developer shall submit copies of the preliminary plat as set forth in the development review checklist (provided with the application for a preliminary plat), and such plat shall be accompanied by or show the following information:

1. An accurate boundary survey, including a metes and bounds description prepared by a registered public surveyor, of the property with bearings and distances referenced to survey lines and established subdivisions, at a scale of one inch to not more than 200 feet.

2. The name, location and current zoning of a portion of adjoining final plats shall be drawn to the same scale and shown in dotted lines adjacent to the tract proposed for subdivision in sufficient detail to show the actual existing streets and alleys and other features that may influence the layout and development of the proposed subdivision. These items shall be shown on the adjacent property for a minimum of 200 feet. A reference shall be cited on the plat to the record instrument which defines the location of adjoining boundaries. Where adjacent land is not subdivided, the owner's name of the adjacent tract shall be shown.

3. Street rights-of-way shall be shown so that a street can be designed to conform with Article III.

4. The location and widths of all streets, alleys, and easements proposed for the subdivision, and all known rights-of-way and/or easements within or affecting the area to be subdivided.

5. All proposed streets, alleys, easements, blocks, lots, building lines, parks, etc., with principal dimensions.

6. Proposed names of subdivisions and streets shall not have the same spelling or be similarly pronounced to that of any other subdivision or street located within the city.

7. Topographic contours at one-foot intervals and except on terrain with greater than a five percent grade, in which event, contours at two-foot intervals are permitted unless prior approval for a variation in contour interval is granted. The

source of contour information will be placed on the plat. Contours are to be based on the National Geodetic Vertical Datum of 1929 (NGVD 1929).

8. All easements or rights-of-way necessary for drainage within or without the boundaries of the subdivision shall be reflected upon the preliminary drainage plan.

9. The title under which the proposed subdivision is to be recorded, and the name of the individual who prepared the plat.

10. A vicinity map, showing the location of the tract by reference to existing streets or highways.

11. Sites proposed to be reserved or dedicated for parks, schools, playgrounds, or other public uses.

12. The scale, north arrow, and date of preparation.

13. Each lot or block should be identified by number or letter.

14. The property owner's name, address, and telephone number.

15. A designation of the existing zoning of land within the subdivision and any zoning conflicts with proposed uses noted.

16. The location of the city limits line and zoning district boundaries if they traverse the subdivision, form part of the boundary of the subdivision, or are contiguous to such boundary.

17. Preliminary drainage study for city engineer to review.

18. Preliminary utility plans for city engineer to review.

Section 2-11 Procedure for Final Plat Approval

Within 12 months of the date of approval of the preliminary plat by the Planning and Zoning Commission and the City Council, unless extended by action of the city, the subdivider may submit a final plat for approval. Copies of the final plat, as noted in the development review checklist provided with the application for a final plat, together with four (4) reproducible transparent drawings, shall be submitted to the Planning and Zoning Commission at least 21 days prior to the meeting at which consideration is desired. Any requests for waiver of public improvements must be submitted in writing with the final plat.

No final plat shall be accepted for processing until three copies of the corrected revised preliminary plat have been submitted to the city that reflect the City Council's approval modifications, or stipulations.

The final plat shall conform substantially to the preliminary plat as approved, and it may constitute only that portion of the approved preliminary plat which is to be developed at the time; provided, however, that such portion conforms to all requirements of these regulations.

The subdivision name and numbering on all final plats shall be consistent with the approved preliminary plat. Block numbers shall run consecutively throughout the entire subdivision, even though such subdivision may be finally approved in sections.

The official filing date with the City of the final plat shall be the date upon which the plat is found to be in compliance with the provisions of this ordinance by the Planning and Zoning Coordinator or his authorized representative.

The Commission shall act on the final plat within 30 days after the official filing date. If no action is taken within 30 days after filing with the Commission, the final plat shall be deemed approved. A certificate showing the filing date and failure to take action thereon within 30 days of that filing date shall be issued on demand, and this certificate shall be sufficient in lieu of a written endorsement or other evidence of approval.

After the Commission has determined; a) that the plat is in proper form, b) that the arrangement of the development proposed for the property being subdivided is in general conformance with the Comprehensive Land Use Plan, c) that the development is consistent with zoning regulations in effect at the time of platting, d) that the subdivision complies with all the provisions of this ordinance, the Chairperson shall certify approval of the plat.

The City Council shall consider all proposals with respect to the dedication of right-of-way for public use, the construction of utilities, streets, stormwater, and other public improvements, and when satisfied with the proposals, shall ratify the approval action of the Planning and Zoning Commission relative to the final plat.

City Council may authorize the Mayor to execute the certificate of approval on the original copy of the final plat after the Commission's approval of the final plat and City Council's acceptance of the dedication of rights-of-way and easements. Approval of the final plat does not impose on the city an obligation regarding maintenance or improvements to any dedicated parts until the city makes an actual appropriation of the dedicated parts.

The final plat shall then be filed of record by the city in the plat records of Hood County, Johnson County or Parker County, depending on the location of the development. The filing fees shall be paid by the subdivider or developer. Each final plat shall contain the following wording: "VOID UNLESS RECORDED IN THE DEED RECORDS OF _____ COUNTY WITHIN FIVE (5) YEARS OF THE DATE OF APPROVAL BYCITY COUNCIL."

If the final plat has not been recorded in the county plat records within five years of the date that City Council accepted the easements and rights-of-way, then the final plat will no longer be valid and will require resubmittal for consideration.

All plats and subdivisions of land within the city's extraterritorial jurisdiction shall be governed and regulated by all of those ordinances duly enacted by the City Council establishing rules and regulations governing plats and subdivisions of land.

Section 2-12 Data and Agreements Required for Final Plat Action

The subdivider of land on which approval has been obtained on a preliminary plat shall prepare and submit a final plat to the city. The final plat submission shall consist of four (4) reproducible transparent drawings at a scale of one inch to 100 feet, unless prior approval for a variation in

scale is obtained from the planning administrator. The drawing size shall be 18 inches by 24 inches, or 18 inches by 12 inches. The reproducible copies shall be prepared on mylar or equal stable base clear transparency material and be suitable for reproduction and for recording purposes. When necessary, the final plat may be on several sheets accompanied by an index sheet, showing the entire subdivision. For large subdivisions, the final plat may be submitted for approval progressively in sections satisfactory to the city. The final plat shall be accompanied by or show the following information.

1. A written legal description of the entire property by metes and bounds on the face of the plat, with bearings and distances referenced to survey lines and established subdivisions. The primary control points or monuments with descriptions and "ties" to such controls to which all dimensions, angles, bearings, and similar data on the plat shall be referred.

2. Tract boundary lines sufficient to locate the exact area proposed for subdivision, right-of-way lines of streets, easements, and other rights-of-way and property lines of all lots and other sites, with accurate dimensions, bearings or deflection angles and radii, arcs and central angles of all curves. The location of the city limits line shall also be indicated, if applicable.

3. The name and right-of-way width of each street or other right-of-way.

4. The location and dimensions of all easements.

5. Where building sites are located in the floodplain, the minimum finished floor elevation of one foot above the 100-year flood elevation shall be written on the face of the plat for every lot or building site. Also, this note shall be affixed to the face of the plat:

   > "The City of Cresson reserves the right to require additional minimum finished floor elevations on any lot contained within this subdivision. The minimum elevations shown are based on the most current information available at the time the plat is filed and may be subject to change."

6. A number to identify each lot or site and each block.

7. Purposes for which sites, other than residential lots, are dedicated or reserved.

8. Minimum building setback lines required by the zoning ordinance.

9. Reference to recorded subdivision plats or adjoining land by record name, i.e., tract number, volume, and page.

10. The original survey title and abstract number.

11. The subdivision title, graphic scale, and north arrow.

12. The location of the point of intersection and points of tangency of street intersections, other than right-angle intersections.

13. A title, positive reference and identification of the plat, and general location sketch map and date of plat.

14. Owner's certificate or deed of dedication. The owner's certificate or deed of dedication shall be executed by all persons, firms, or corporations owning an interest in the property subdivided or platted and shall be acknowledged in the manner prescribed by the laws for the State of Texas for conveyances or real property. The owner's certificate or deed of dedication shall, in addition to the above requirements, contain the following:

    A. An accurate metes and bounds description of the tract of land subdivided;

    B. A statement and express representation that the parties joining in such dedication are the sole owners of such tract of land; and

    C. An express dedication without reservation to the public for public use; the streets, alleys, rights-of-way, parks, school sites, and any other public areas shown on the plat.

15. Tax certificates, indicating that all taxes on the land being subdivided have been paid to the current year.

16. Final plats circulated for review purposes shall bear the surveyor's name, registration number, and the registered surveyor designation.

17. The surveyor's certificate and seal with signature shall be placed on the mylar copies of the final plat, similar to the one shown below:

KNOWN ALL MEN BY THESE PRESENTS:

That I, _____Registered Public Surveyor, Texas Registration No. _____, hereby certify that this plat correctly represents an actual and accurate survey made under my supervision on _____, 20___., and that the corner monuments shown thereon were properly placed under my supervision.

Signature

Date

Figure 2-1: Sample Surveyors Certification

18. A certificate of approval by the City Council including the date of approval, similar to the one shown below:

APPROVED BY THE CITY COUNCIL OF CRESSON, TEXAS

on this _____ day of _____, _____.

_____
Mayor

ATTEST:

_____
City Secretary

Figure 2-2: Sample City Council Certification

19. County Clerk Certification, to be placed on the plat as follows:

Plat Recorded in Volume _____, Page _____, Slide, _____.

/s/ _____
County Clerk, (Hood or Johnson) County, Texas

/s/ _____
Deputy

Figure 2-2: Sample County Clerk Approval

Section 2-13 Replats

A replat of a subdivision or part of a subdivision may be recorded and is controlling over the preceding plat without vacation of that plat if the replat:

1. Is signed and acknowledged by only the owners of the property being replatted;

2. Is approved by the city after a public hearing on the matter at which parties in interest and citizens have an opportunity to be heard;

3. Does not attempt to amend or remove any covenants or restrictions; and

4. Is in compliance, when applicable, with paragraphs a and b below.

A. The following additional requirements for approval shall apply in the replat of a plat, without vacating the immediate previous plat, if any of the proposed area to be resubdivided or replatted was, within the immediate preceding five years, limited by any interim or permanent zoning classification to residential use for not more than two residential units per lot, or if any lot in the immediate previous subdivision was limited by deed restriction to residential use for not more than two residential units per lot:

(1) Notice of the public hearing shall be given in advance in the following manner:

Written notice, with a copy of paragraph (2) attached thereto, of the public hearing forwarded to the owners (as the ownerships appear on the last approved ad valorem tax roll) of all lots in the immediate preceding plat no less than 15 days prior to the day of the hearing. The notice may be served by depositing it properly addressed and postage paid in a post office or postal depository within the city, provided, however, that if the immediate preceding plat contains more than 100 lots, the notice shall be mailed only to those owners of lots within the plat which are located within 200 feet of the lot or lots which are sought to be replatted.

(2) If the proposed replat requires an exception and is protested in accordance with this subsection, the proposed replat must receive the affirmative vote of at least three- fourths of the members present of the City Council in order to be approved. For a legal protest, written instruments signed by the owners of at least 20 percent of the area of the lots or land immediately adjoining the area covered by the proposed replat and extending 200 feet from that area, but within the original subdivision, must be filed with the City fourteen (14) days prior to the closing of the public hearing. In computing the percentage of land area, the area of streets and alleys shall be included.

(3) Compliance with paragraph (1) or (2) is not required for approval of a replatting of a portion of a prior plat if the area to be replatted was designated or reserved for other than single or duplex-family residential use by notation on the last legally recorded plat or in the legally recorded restrictions applicable to the plat.

B. Plats submitted under this section shall be subject to a filing fee as approved on the City of Cresson Fee Schedule and shall be accompanied by certified copies of the entire subdivision plat and the deed restrictions.

Section 2-14 Amended / Corrected Plats

Notwithstanding any other provision of section 2-13, the city is authorized to approve and issue an amending plat which is signed by the applicants only, and which is for one or more of the purposes set forth in the following subparagraphs (1) through (9), and such approval and issuance shall not require notice, hearing or approval of other lot owners. Amended/corrected

plats in accordance with the provisions of this section may be approved by the planning administrator if the sole purpose of the amending plat is to:

1. Correct an error in any course or distance shown on the prior plat;

2. Add any course or distance that was omitted on the prior plat;

3. Correct an error in the description of the real property shown on the prior plat;

4. Indicate monuments set after death, disability, or retirement from practice of the surveyor charged with the responsibilities for setting monuments;

5. Show proper location or character of any monument which has been changed in location or character or which originally was shown at the wrong location or incorrectly as to its character on the prior plat;

6. Correct any other type of scrivener or clerical error or omission as previously approved by the city; such errors and omissions may include, but are not limited to, lot numbers, acreage, street names, and identification of adjacent recorded plats;

7. Correct an error in courses and distances of lot lines between two adjacent lots where both lot owners join in the application for plat amendment, and neither lot is abolished; provided that such amendment does not attempt to remove recorded covenants or restrictions and does not have a material adverse effect on the property rights of the other owners in the plat;

8. Relocate a lot line in order to cure an inadvertent encroachment of a building or improvement on a lot line or on an easement;

9. Relocate one or more lot lines between one or more adjacent lots where the owner or owners of all such lots join in the application for the plat amendment, provided that such amendment does not:

   A. Attempt to remove recorded covenants or restrictions; or

   B. Increase the number of lots; or

   C. Remove or otherwise abandon any easement or right-of-way.

10. To make necessary changes to the preceding plat to create six or fewer lots in the subdivision or part of the subdivision covered by the preceding plat if:

    A. The changes do not affect applicable zoning and other regulations of the municipality;

    B. The changes do not attempt to amend or remove any covenants or restrictions; and

    C. The area covered any the changes is located in an area that the Planning and Zoning Commission or other appropriate governing body of the

municipality has approved, after a public hearing, as a residential improvement area; or

11. To replat one or more lots fronting on an existing street if:

    A. The owners of those lots join in the application for amending the plat;

    B. The amendment does not remove recorded covenants or restrictions;

    C. The amendment does not increase the number of lots; and

    D. The amendment does not create or require creation of a new street or make necessary the extension of municipal facilities.

Plats submitted under this section shall be subject to a filing fee as approved on the City of Cresson Fee Schedule and shall be accompanied by certified copies of the entire subdivision plat and the deed restrictions.

Section 2-15 Vacation of Plats

A plat may be vacated by the owners of the land covered by the plat at any time before a lot in the plat is sold. If lots have been sold, the plat, or any part of the plat, may be vacated upon the application of all the owners of lots in the plat and obtained in the manner prescribed for the original plat.

Plats submitted under this section shall be subject to a filing fee as approved on the City of Cresson Fee Schedule and shall be accompanied by certified copies of the entire subdivision plat and the deed restrictions.

Section 2-16 Plat Filing Fees

A filing fee, as approved by the City Council, shall be paid at the time of submission of a preliminary plat, a final plat, a short form plat, or an amended/corrected plat for review and approval by the Planning and Zoning Commission, City Council, or the development review committee, as applicable.

The following filing fees will be collected by the city when the application is submitted for property inside the corporate limits and in the extraterritorial jurisdiction (ETJ) area:

1.	Preliminary plat (Residential)	$500 + $5.00 per lot
2.	Preliminary Plat (Non-Residential)	$500 + $50.00 per acre
3.	Final Plat (Residential)	$500 + $5.00 per lot
4.	Final Plat (Non-Residential)	$500 + $50.00 per acre
5.	Short Form Plat	$100

6.	Replat (Residential)	$100 + $5.00 per affected lot
7.	Replat (Non-Residential)	$100 + $50.00 per acre
8.	Corrected or Amended Plat	$50
9.	Plat Vacation	$50
10.	Waiver Request	T.B.D.

ARTICLE III SUBDIVISION DESIGN STANDARDS

Section 3-1 Minimum Subdivision Design Standards

The physical design of the proposed subdivision shall conform to the planning policies of the city and the minimum standards of this article.

Section 3-2 Block Standards

The lengths, widths and shapes of blocks shall be determined with due regard to the following:

1. Provisions of adequate building sites suitable to the special needs of the type of use contemplated;

2. Zoning requirements as to lot size and dimensions;

3. Need for convenient access, circulation control, and safety of traffic; and

4. Limitation and opportunities of topography.

Block lengths shall not exceed 1,000 feet, except under unusual conditions approved by the city.

Section 3-3 Lot Standards

The dimensions of a lot shall be appropriate for the location of the subdivision and for the type of development and use contemplated and shall not be less than those specified as minimum standards by the zoning ordinance.

Depth and width of properties reserved or laid out for commercial and industrial purposes shall be adequate to provide for the off-street service and parking facilities required by the City of Cresson Zoning Regulations for the type of use and development contemplated.

Each lot shall front upon a public or private street or public or private easement.

Residential lots shall not have direct access onto arterial streets, and direct access from residential lots shall be permitted on collector streets only where design conditions do not permit any other possibility.

Double frontage and reverse frontage lots shall be avoided, except where essential to provide separation of residential development from traffic arteries or to overcome specific disadvantages of topography and orientation.

Side lot lines shall be substantially at right angles or radial to street lines, unless other arrangements are approved by the city.

Where the area is divided into larger lots than for normal urban building sites, and, in the opinion of the city, any or all of the tracts are susceptible of being re-subdivided, the original subdivision shall be such that the alignment of future street dedications may conform to the general street

layout in the surrounding area, and so that the larger tracts may be later subdivided in conformance with the requirements of this ordinance and the minimum standards specified by the zoning ordinance.

The shorter dimension across a residential lot, adjacent to a street, shall designate the front yard orientation of the lot, unless otherwise specified on the face of the plat.

Section 3-4 Easement Standards

Utility easements shall be provided as may be necessary to assure the proper design, installation, and maintenance of either underground or aerial utilities.

Easement widths shall be determined by the type of utility; however, an easement shall not normally be required along the rear of lots served by a dedicated alley; however in no case shall an easement be less than 8 feet.

Any public utility, including the city, shall have the right to move and keep moved all or part of any building, fences, trees, shrubs, other growths, or improvements which in any way endanger or interfere with the construction, maintenance, or efficiency of its respective system or any of the easements shown on the plat; and any public utility, including the city, shall have the right at all times, of ingress and egress upon easements for the purpose of construction, reconstruction, inspection, patrolling, maintaining, and adding to or removing all or part of its respective systems, without the necessity of procuring the permission of anyone.

Emergency access and fire lane easements shall be provided where deemed appropriate by the city. These easements shall be paved in conformance with city standard specifications.

Drainage easements and rights-of-way shall be provided to the city at developer's cost. If a developer is unable to obtain an off-site drainage easement/right-of-way, the city may exercise its right of eminent domain (with City Council approval); but all costs incurred shall be borne by the developer.

Where a subdivision is traversed by a watercourse, stream, drainageway, or channel, there shall be provided a drainage easement or right-of-way, conforming substantially with the lines of such watercourse or improved channel that is to be provided at the time of development.

Whenever land which is covered by a floodway designation, a drainage easement or right-of-way shall be placed on the plat covering the floodway area; and the easement or right-of-way shall allow for access, maintenance or alteration of the floodplain area by the city.

When the city engineer finds that easements or rights-of-way in areas adjoining proposed subdivisions are necessary to provide adequate drainage or to serve the subdivisions with utilities, the subdivider shall have the responsibility for obtaining the easements or rights-of-way.

The developer shall furnish all easements and right-of-way necessary for construction of electrical, gas, cable TV, and telephone service to the proposed subdivision.

Section 3-5 Industrial Subdivision Standards

The minimum right-of-way width of a minor street in an industrial or commercial subdivision shall be 60 feet or as required by the city, and all other streets shall conform to the standards for major and secondary streets prescribed by the thoroughfare plan as indicated in the Comprehensive Land Use Plan.

Section 3-6 Building Setback Lines

Building setback lines which vary from the requirements of the zoning ordinance shall be shown on all lots intended for residential, institutional, commercial, or industrial use. Plats where the building setback line conforms to the zoning ordinance of the City of Cresson shall state such conformance on the face of the plat.

Section 3-7 Street Standards

Unless otherwise approved by the city, provisions shall be made for the extension of arterial streets in accordance with the thoroughfare plan of the city. Collector streets shall be provided for the circulation of traffic through the subdivision and the connection thereof to the major streets; adequate local streets shall be provided to accommodate the subdivision.

Where they are not shown in the thoroughfare plan, the streets in the subdivision shall:

1. Provide for the continuation or appropriate projection of existing principal streets in surrounding areas; or

2. Conform to a plan approved or adopted by the city to meet a particular situation where topographical or other conditions make continuance or conformance to existing streets impractical; or

3. Conform to a plan for street location or extension approved by the City Council after review by the Planning and Zoning Commission.

Local streets shall be designed so that their use by through traffic will be discouraged.

Where a subdivision abuts or contains an existing or proposed major street, the city may require such design as may be necessary for adequate protection of residential properties and to afford the separation of through and local traffic.

Where a subdivision borders on or contains a railroad right-of-way or freeway, the city may require a parallel street along each side of such right-of-way at a distance suitable for the appropriate use of the intervening land. The distance of a street from a railroad or freeway shall recognize the problem of approach grades and future grade separations.

The intersection of more than two streets at a point shall be avoided. No street intersecting an arterial street should vary from a 90 degree angle of intersection by more than five degrees. Streets intersecting collector streets should not vary from a 90 degree angle of intersection by more than ten degrees. All other street intersections should not vary from a 90 degree angle of intersection by more than 15 degrees.

Cul-de-sacs, dead ends, or courts: Streets designated to be permanently dead-ended shall be platted and constructed with a paved turnaround and shall not exceed 600 feet in length nor service more than 20 dwelling units, A turn around shall be provided with a minimum right-of-way radius of 80 feet and a paved roadway diameter of at least 50 feet, unless otherwise approved by the city. Any dead-end street of a temporary nature that exceeds 150 feet in length and services a depth of more than two lots shall be provided with a temporary turn around with a 50 foot radius, unless otherwise approved by the city.

All streets should be designed to be in line with existing streets. When conditions require the centerlines to be offset, a minimum of 135 feet offset distance is required. Greater centerline offsets may be required where necessary for traffic safety.

The developer, at no cost to the city, will be responsible for the right-of-way and installation of any off-site streets required to serve the development. The city may exercise its right of eminent domain, but all costs incurred shall be borne by the developer. Street right-of-way width shall not be less than as follows:

Street Type	**Right-of-Way Width**
Freeway or expressway	300 feet or more
Major thoroughfare	110 feet
Collector, Industrial or commercial street	60 - 80 feet
Secondary Collector	60 feet
Local/Residential	50 feet

Half-streets shall be prohibited, except where essential to the reasonable development of the subdivision in conformity with the other requirements of these regulations, and where the city finds it will be practicable to require the dedication of the other half when the adjoining land is subdivided. The other half of the Street shall be dedicated at the time it is platted.

Section 3-8 Alley Standards

Alleys serving residential areas shall have a minimum right-of-way width of 20 feet and a paving width of 15 feet. All other alleys shall have a minimum right-of-way and paving width of 20 feet.

Alleys shall intersect a street at right angles, or radially to curve streets.

Where two alleys intersect or turn at a sharp angle, an additional triangular area of 20 feet by 20 feet or greater shall be dedicated so as to provide a minimum turning radius of 30 feet.

Alley paving should have a minimum grade of 0.4 percent and a maximum grade of 10 percent.

Dead-end alleys shall be prohibited.

Alleys shall be limited to 2,000 feet in length.

Section 3-9 Drainage Standards

A developer of a new subdivision shall provide preliminary drainage layout/study of the area to be developed. This plan shall be submitted as part of the preliminary plans and must be approved by the city engineer prior to final approval of the preliminary plat. The layout/study shall include the requirements in Article IV, section 4-12, and the engineering requirements for the preliminary drainage layout/study, Article V, section 5-7.

All storm drainage improvements shall be constructed in accordance with city specifications and be in dedicated right-of-way or drainage easements. The developer shall provide easements and rights-of-way required for drainage structures, including storm drains and open channels with access ramps. Easement width for storm drainpipe shall not be less than 15 feet for pipes over 36 inches diameter, or 10 feet for pipes 36 inches diameter or less. Easement width for open channels shall be at least 24 feet wider than the top of the channel with a 12 foot flat shelf on each side to serve as an access way for maintenance purposes.

Section 3-10 Water Standards

All subdivisions developed must be served by community water distribution systems approved by the city. Each lot must be provided with an individual service connection. Any new construction requiring the construction or extension of public water lines requires a Developer's Agreement, which shall be prepared in accordance with the Public Facilities Procedures (Article IV).

All water systems installed for any development shall be designed and constructed in accordance with Rules and Regulations for Public Water Systems, published by the Texas Commission on Environmental Quality (TCEQ). Additionally, all city-owned and operated water systems accepted by the city for maintenance shall be designed and constructed in accordance with city design standards and specifications. Water systems not owned or operated by the city shall be designed by an engineer and constructed in accordance with design standards and specifications of the city.

Water and sewer lines are to conform to the comprehensive plan as adopted, including updates, by the city.

Water mains and laterals shall be located in the rights-of-way, except where, at the recommendation of the City Engineer, conditions make it necessary to locate a sanitary sewer and/or water main in an easement.

If modification of existing water or sewer facilities is required to accommodate new development:

1. No building of any kind shall be constructed over an existing water main or lateral.

2. Whenever it is necessary to relocate or replace an existing water facility to accommodate the use of a tract of land or lot of record contemplated by the owner and/or developer thereof, the cost of such work shall be borne 100% by the owner or developer of the property, unless the city elects to increase the size

of the existing water facility which is to be replaced or relocated, the city may pay the difference in cost of pipe only, if funds are available.

3. The owner or developer shall, without charge to the city, furnish such easements or rights-of-way on the property as may be required to accomplish construction of the relocation or replacement.

Without cost to the city, the developer shall install all water lines, including customer services (water taps and meter boxes) for each lot. Meters will be installed by the city at its cost.

The city shall determine the size of the "approach water main" required to reach the development to be served by application of its standard design criteria, including the comprehensive plan requirements. If this "approach main" so determined to be required is 12 inches or smaller, the full cost of the "approach main" shall be paid by the developer, regardless of the size required by the development alone. If the size of the "approach main" so determined is greater than 12 inches, the city may pay the extra size cost above a 12-inch main if funds are available for participation. If funds are not available, the developer shall pay the entire cost. In case a single development will require larger than a 12-inch water main, and no further connection shall be made to the line, the developer will pay the full cost of the line.

See Articles IV and V for specific design requirements for water systems

Section 3-11 Sanitary Sewer Standards

All urban subdivisions developed must be served by community sanitary sewer collection treatment and disposal systems approved by the city. Each lot must be provided with an individual service connection. Sub-urban and rural subdivisions may provide sewer service by means of private onsite sewer treatment facilities provided that meet all requirements listed in Article IV section 4-8 for onsite septic systems. Any new construction requiring the construction or extension of public sewer lines requires a Developer's Agreement, which shall be prepared in accordance with the Public Facilities Procedures (Article IV).

All sanitary sewer systems for any development shall be designed and constructed in accordance with Design Criteria for Sewerage Systems, published by the Texas Commission on Environmental Quality (TCEQ). Additionally, all sewer systems installed for any development shall be constructed in conformance to the city standard utility specifications set forth in this subchapter. Sewer Systems not owned or operated by the city shall be designed by an engineer and constructed in accordance with design standards and specifications of the city. All city-owned and operated utilities, including but not limited to, water and sanitary sewer, accepted by the city for maintenance shall be designed and constructed in accordance with city design standards and specifications.

Sanitary sewer and water mains and laterals shall be located in the rights-of-way, except where, at the recommendation of the City Engineer, conditions make it necessary to locate a sanitary sewer and/or water main in an easement.

If modification of existing sewer facilities is required to accommodate new development:

1. No building of any kind shall be constructed over an existing sanitary sewer main or lateral.

2. Whenever it is necessary to relocate or replace an existing sewer facility to accommodate the use of a tract of land or lot of record contemplated by the owner and/or developer thereof, the cost of such work shall be borne 100% by the owner or developer of the property, unless the city elects to increase the size of the existing sewer facility which is to be replaced or relocated, the city may pay the difference in cost of pipe only, if funds are available.

3. The owner or developer shall, without charge to the city, furnish such easements or rights-of-way on the property as may be required to accomplish construction of the relocation or replacement.

Without cost to the city, the developer shall install sewer lines, including customer services (sewer taps) for each lot.

The city shall determine the size of "approach sewer mains" required to reach the development to be served by application of its standard design criteria, including the comprehensive plan requirements. If the "approach main" so determined to be required is 15 inches or smaller, the full cost of the "approach main" shall be paid by the developer, regardless of the size required by the development alone. If the size of the "approach main" so determined is greater than 15 inches, the city may pay the extra cost above a 15-inch main if funds are available. If funds are not available, the developer shall pay the entire cost. If no further connection shall be made to the line, the developer will pay the full cost of the line.

See Articles IV and V for specific design requirements for sanitary sewer systems

ARTICLE IV PUBLIC FACILITIES PROCEDURES

Section 4-1 Developer's Agreement

Before construction starts on any private or public improvements in a subdivision, the developer shall execute a contract with the City providing for the installation of public improvements required by the subdivision regulations of the City. This agreement, entitled "Developer's Agreement," shall constitute a covenant which will run with the land and will be binding upon any assignee or owner in the chain of title.

After execution of the Developer's Agreement by the developer and the City, any changes in the contract or the plans or specifications that alter the scope of the project must be recommended by the City engineer and approved by the City attorney and the City Council. Upon approval, an addendum to the Developer's Agreement shall be executed by the developer and the City.

(Example of Developer's Agreement attached as Appendix A).

The developer shall retain a registered civil engineer, licensed to practice in the State of Texas, for all design in new subdivisions or developments, including (but not limited to) streets, drainage, water and sanitary sewers, traffic signals, etc.

Developer's Agreements not completed within a two-year time period will require renewal of the Developer's Agreement with all updated documents being in compliance with the policies in effect at that time. Any facilities or requirements included in the contract that are not completed by the developer within two years may be completed by the City at the developer's expense, as provided through an acceptable means of financial security reflected in the required financial security, bonds, etc. as listed below.

1. Developer Performance Security. The developer shall, at the time the Developer's Agreement is entered into, provide the City with a performance bond, an irrevocable letter of credit, a cash deposit or a certificate of deposit for 100 percent of the cost of the improvements to guarantee the completion of the community facilities within two years in the event the developer is unable to do so. The performance bond, letter of credit, cash deposit or certificate of deposit shall comply with the provisions of this section.

2. Contractor Performance Security. The developer's contractor shall, at the time the Developer's Agreement is entered into, provide the developer with a performance bond, an irrevocable letter of credit, a cash deposit or a certificate of deposit for 100 per cent of the cost of the improvements to guarantee the completion of the community facilities within two years in the event the contractor is unable to do so. The performance bond, letter of credit, cash deposit or certificate of deposit shall comply with the provisions of this section.

3. Contractor Payment Security. A payment bond, irrevocable letter of credit, a cash deposit or a certificate of deposit is required from the contractor to be made in favor of the developer in the amount of 100 percent of the construction cost to guarantee the payment of all claims of project materials, equipment, and labor. The construction contractor shall furnish an executed "Affidavit of Final Payment" before the contracted construction improvements will be accepted as complete.

4. Contractor Security for Maintenance. The contractor shall furnish the City a maintenance bond, certificate of deposit or cash deposit prior to the commencement of construction on all improvements for a period of two years after the city issues a letter of acceptance. The maintenance security shall equal 50 percent of the construction cost. The bond or other security shall guarantee the maintenance in good condition of the facilities.

5. Each bond shall be in a form acceptable to the City. Any surety company through which a bond is written shall be duly authorized to do business in the State of Texas, provided that the City, through its city manager, shall retain the right to reject any surety company for any work under this contract regardless of such company's authorization to do business in the State of Texas.

The City Attorney will prepare the final Developer's Agreement after the city engineer has approved the engineering plans. The developer and the city will sign the Agreement when all prerequisites have been met.

The procedure for approval of a Developer's Agreement shall be as follows:

1. After the Agreement has been signed by the developer and the required developer's fee, as specified by the City of Cresson Fee Schedule, and any other required cash, certificates of deposit, letters of credit, performance bonds and maintenance bonds have been posted with the City, the contract shall be submitted to the City Attorney for review and approval.

2. The mayor will sign the Agreement on behalf of the City.

3. If any special provisions or deviations from established policies are included in the Agreement, specific approval of only the special provisions or deviations by the City Council shall be required.

4. No construction work shall begin on the subdivision before the Developer's Agreement is approved and signed by the city.

The City will use reasonable diligence to expedite all necessary instruments and documents within the city administration.

The City shall receive bids and award a contract to the lowest responsible bidder on street improvements, water and sanitary sewer facilities and drainage facilities where the City participates in the cost. Street construction, drainage, water and sanitary sewer contracts in new developments may be awarded by the developer on a negotiated basis if there is no City participation in the cost.

Section 4-2 City-Developer Joint Participation.

When the City participates in the costs of the community facilities, the City shall receive bids and award a contract to the lowest responsible bidder on street improvements, water, sanitary sewer, drainage or traffic signal facilities. The contractor shall be selected according to the City charter and state law.

If the City is to participate in any portion of a community facilities project with a developer, the developer shall deposit in cash, with the City, the developer's share of the total construction cost, prior to the awarding of the bid by the City Council.

Should the City Council fail to award the bid, the developer's money shall be refunded at the earliest possible time.

The City may participate in a community facilities project only if funds are available for the participation.

Section 4-3 Escrow policy.

When land within the City is developed or subdivided adjacent to existing unimproved or substandard community facilities, or adjacent to community facilities proposed in the master plan for water, sewer, or streets (including associated drainage), the developer shall construct or improve the part of the community facilities necessary to serve the development or subdivision in conformance with the master plan unless the City determines that one of the following methods is more appropriate for the provision of the design and construction or improvement of the community facilities.

1. The City elects to construct or improve the community facilities under the assessment policy; or

2. The City determines that the improvements fall under the requirements of the community facilities improvement policy; or

3. The City determines that the construction or improvement of the community facility is not feasible or prudent at the time of the development or subdivision of the land and the developer should be required to place funds in escrow for the design and construction, or improvement of the part of the community facilities that is necessary to serve the development or subdivision. The developer's share of the cost of such part of the community facilities shall be roughly proportional to the burden the development or subdivision places on the public infrastructure system.

Escrow shall be paid prior to filing the plat with the County.

Should the owner construct or improve the community facility for which the owner paid escrow, the owner shall be refunded the escrow paid, plus interest accrued.

Once the owner has paid escrow in full for any community facility, the owner is relieved of any further obligation for that community facility, unless its construction or improvement is necessary to provide adequate public facilities for a phase of the development or subdivision.

Escrow requirements shall be based upon unit costs for comparable contracts awarded by the City over the previous year. If none exist, the escrow rate shall equal the current market value of construction and design at the time the escrow deposit is due.

All escrow funds shall be paid in cash and shall be held in the name of the City and deposited into an escrow fund in the City's depository.

All interest earned will accrue to the initial escrow deposit and will be used for the design and construction or improvement of the community facilities. Should the cost of the community facilities be less than the amount of escrow placed with the City, the difference shall be refunded to the developer. Similarly, should the cost of the community facilities exceed the amount placed in escrow, the developer shall be required to pay the difference.

When developments are phased, the escrow requirement shall be established at the time the preliminary plat is approved through the establishment of an escrow contract. The escrow contract shall establish the developer's share of the design and construction for those community facilities the City determines are not feasible or prudent to construct or improve when the land is developed or subdivided. The developer's share required for each final plat shall be placed in escrow with the City and shall be based upon the land area contained within the final plat divided by the land area contained within the preliminary plat times the calculated developer's share. The escrow rate used to calculate the escrow requirement for any final plat shall be the escrow rate in effect at the time of the preliminary plat. Design, construction, or improvement of the community facility by persons other than the developer shall not relieve the developer of escrow requirements for phases final platted subsequent to the design, construction, or improvement of the community facility. The escrow contract shall be a covenant and restriction running with the land. The escrow contract shall be signed by the developer, the owner of the land, and the City. The escrow contract shall be filed in the property records of the County where the land is located.

All escrow funds deposited with the City prior to the effective date of this policy shall remain on deposit under the original escrow contract and addenda. The methodology used to calculate the amount of these funds shall not be superseded by the methodology contained herein.

When an individual property owner desires to obtain a building permit to construct a residence or building on a previously platted tract or lot that abuts an existing unimproved or substandard community facility, or where a community facility is planned, and where escrow has not been deposited for this section of community facility, the property owner shall place on deposit with the City the estimated cost of the public facilities adjacent to the tract or lot, to be determined at then current construction costs.

Section 4-4 Public Facilities Plans

The following sections establish standards for developing land in the City and in the City's extraterritorial jurisdiction. This outline is an abbreviated list of items and not meant to be a complete list of requirements:

Construction plans for community facilities are required as follows.

A developer, after the preliminary plat is submitted, will submit conceptual engineering plans for the construction of utilities, drainage and streets to the city engineer.

A developer, after the final plat is submitted, will submit final engineering plans for the construction of utilities, drainage and streets to the city engineer.

Approval of construction plans is not required prior to planning and zoning commission action on either a preliminary or a final plat. However, no plat shall be recorded with the County until such

time as necessary construction plans have been approved and a Developer's Agreement executed in accordance with the applicable provisions of this ordinance.

The City Engineer will review the plans and return them to the developer for any needed changes within 20 working days from the time of submittal.

After any required changes have been made, the developer shall resubmit the amended engineering plans for approval by the City Engineer.

Variances or waivers to the provisions of the Design Standards Manual shall be filed in accordance with the provisions of Article VI of this ordinance.

Appeals of the City Engineer's review findings (pertaining to construction plans for community facilities) shall be filed in accordance with Article VI of this ordinance.

Upon approval of the plat by the City Council, and submittal of executed construction contracts for community facilities, the City Attorney will prepare the Developer's Agreement as described in Section 4-1. Construction of community facilities may commence, following the execution of the Developer's Agreement and the posting of proper bonds and security, if required, along with payment of related fees and the satisfaction of any other requirements in the Developer's Agreement.

Three sets of final plans and profiles for water, sewer, drainage, grading, paving, curb and gutter, structures and sidewalks must be submitted for review to the City Engineer. The construction plans will be reviewed to see that they conform to all the city's design criteria and specifications, and that they are consistent with good engineering practices. The final plans shall be evaluated within a reasonable length of time, not exceeding 20 working days. If it is determined that changes or corrections are necessary, the following requirements shall apply:

1. A letter stating the necessary changes to the plans shall be returned to the developer's engineer for his use in the correction of the plans. The corrected plans must be resubmitted to the City. Also, a letter from the developer's engineer, addressing each comment in the letter from the City, shall be provided. The City shall complete the review of the corrected plans within a maximum of 20 working days of the second submittal.

2. If the developer substantially changes plans in a manner not authorized by the reviewing engineer, the reviewing engineer shall then be entitled to the same review cycle as stated above for review.

3. Upon final plan approval, City's reviewing engineer shall sign the cover sheet to indicate official City approval and the developer's engineer shall be notified by letter.

4. The developer shall furnish three sets of final approved plans to the City for the Developer's Agreement.

Section 4-5 Construction Authority.

Construction authorizations will not be issued until a Developer's Agreement is executed by the developer and the City, and all fees, security and maintenance bonds, or their equivalent, are provided to the City.

A developer will promptly be issued a written construction authorization from the City prior to commencing work on any community facilities; provided the above items have been fulfilled, and a joint preconstruction meeting has been held, consisting of City staff, the developer and all construction contractors.

Section 4-6 Inspections.

The developer's contractor shall give at least 48 hours' notice, in writing, to the City of intent to commence actual construction of the facilities, so that inspection personnel can be made available. Any work initiated prior to written notice to the City shall be removed if directed by the City.

If the developer's contractor leaves the job site for five consecutive workdays (for reasons other than weather related causes), at least 24 hours' written notice of intent to commence construction shall again be required. Any work initiated prior to written notice to the City shall be removed if directed by the City.

The developer will delay connection of buildings to service lines of sewer and water mains, until the sewer and water mains and service lines have been completed and accepted by the City.

The developer may obtain from the City engineer a statement that the contractor's work has been completed in accordance with City requirements. However, the maintenance bond will not go into effect until after the entire development has been accepted for maintenance by the City. The developer shall notify all contractors and subcontractors working on the development that all of their work is subject to inspection by the City at any time.

The City may require certification of materials being used.

Lab tests required by the City shall be performed by approved, independent testing laboratories and will be at the cost of the City. "Approved laboratories" are laboratories that are members of the American Council of Independent Laboratories and which comply with standard recommended practice for inspection and testing agencies for concrete, steel, and bituminous materials as used in construction, ASTM Designation E 329. Follow-up testing required, due to faulty material or workmanship, shall be ordered by the City at the cost of the developer.

Should any point not be covered in the plans, the Developer's Agreement, or the public facilities policy, the developer shall contact the City Engineer for a determination of the City's requirements.

If the City determines that any work does not meet the City requirements or has not had proper City inspection, the City Engineer will notify the contractor and developer, in writing, of the inadequacies which may require the contractor to cease all operations until defects have been corrected, and proper inspection has been made.

A regular workday will be any Monday through Friday, between the hours of 8:00 a.m. and 5:00 p.m., except designated holidays. A developer's contractor may find it necessary to request inspection personnel to work overtime or on a non-regular workday. The contractor will reimburse the City for costs incurred for overtime worked by City personnel. All overtime work requests shall be made by the contractor a minimum of 24 hours in advance and approved by the City. All City inspection overtime costs incurred by a developer's contractor shall be paid prior to the acceptance of the project by the City.

Section 4-7 Water Facilities

All water systems installed for any development shall be designed and constructed in accordance with Rules and Regulations for Public Water Systems, published by the Texas Commission on Environmental Quality (TCEQ). Additionally, all City-owned and operated water systems accepted by the City for maintenance shall be designed and constructed in accordance with City design standards and specifications. Water systems not owned or operated by the City shall be designed by an engineer and constructed in accordance with design standards and specifications of the City.

All plans and profiles for water systems shall be approved by the City Engineer.

The City shall determine the size of the "approach water main" required to reach the development to be served by the application of its standard design criteria, including the comprehensive master plan requirements. The City Engineer may require the developer to submit engineering studies and recommendation in this regard.

In developments where street grading is required as part of the development, no water facilities shall be installed until streets to contain the facilities are put to subgrade, without written permission from the City Engineer.

Water systems shall be designed and constructed with mains of sufficient size and sufficient number of outlets to furnish an adequate domestic water supply to all properties and conform to the standards of the City water plan. The design and construction shall also meet the fire protection requirements pertaining to fire hydrant locations, water main sizes and fire flows set forth in the Key Rate Schedule for Standard Cities, General Basic Schedule, and the National Fire Protection Association.

If there is a question as to the size of the facilities required, it shall be resolved in favor of additional capacity.

The minimum easement width for a water line shall be five feet on each side of the pipe. No roof overhang or other appurtenant construction such as (but not limited to) that which may be associated with an adjacent building shall encroach into or over the easement. A water line easement between two lots must fall entirely on a single lot.

The developer shall at his cost, install all water lines, including customer services.

All water mains constructed within a proposed subdivision shall be extended to the perimeter of the proposed subdivision to allow for future extension of the water system into adjacent properties. Water services shall be plainly marked on the curb by a method prescribed by the City.

Section 4-8 Sanitary Sewer Facilities

The developer shall at his cost, install all sewer lines, including customer services. Sewer services shall extend to the property line. Sewer services shall be plainly marked on the curb by a method prescribed by the City.

All plans and profiles for sanitary sewer shall be approved by the City Engineer.

The sanitary sewer system shall be designed and constructed in accordance with *Design Criteria for Sewerage Systems,* published by the Texas Commission on Environmental Quality.

Service mains whether located within the City limits or in its ETJ shall be designed and constructed in accordance with design standards and specifications contained herein. This requirement shall apply to sewer mains whether owned by the City or other service provider.

Sanitary sewer lines shall conform to the City of Cresson sewer master plan. Sewer lines are to conform to the comprehensive plan as adopted, including updates, by the City.

The City shall determine the size of the "approach sewer mains" required to reach the development to be served by the application of its standard design criteria, including the comprehensive master plan requirements. The City Engineer may require the developer to submit engineering studies and recommendations in this regard.

All developers shall extend sanitary service to the City sewer mains if the development is within the following distances to the nearest existing sanitary sewer line which has adequate capacity, as determined by the City Engineer:

Subdivision size (lots)*	***Maximum distance the sewer line must be extended from the closest boundary of the subdivision***
1-25	1/4 mile
26-100	3/4 mile
101-200	1 mile
201 or higher	no limit

*Parcels subdivided on a piecemeal basis will be considered on the basis of the aggregate number of lots.

If all of the requirements below are met, the developer will not be required to provide sewer service to the subdivision and individual septic tanks or aerobic systems may be placed on the lots. The septic tanks or aerobic systems are subject to the size restrictions below in addition to all county and state regulations. If the subdivision does not conform to all of the below requirements the developer may install a private collection system and wastewater treatment facility that meets the state and county regulations in lieu of connecting to City sanitary sewer service. The private collection system must be available to each lot in the subdivision and drain into one central wastewater treatment facility. The requirements are as follows:

1. The lots are one acre or larger (excluding floodplains).

2. A septic system is designed in accordance with county and state requirements which will utilize less than 50% of the area of the lot;

3. None of the septic system is in the floodplain;

4. The City Council approves a waiver for a wastewater treatment system at the time of approval of the final plat.

Any subdivision within the city limits or the City's extraterritorial jurisdiction, having been approved for septic tank or aerobic systems must conform to all state and county regulations and the following:

1. The design of the systems shall be based upon Johnson, Parker or Hood County requirements.

2. The minimum lot size shall be determined by the results of a soil analysis, or shall be one acre (excluding floodplain), whichever result is the greater size tract.

A development within sub-urban and rural subdivisions may be approved with alternative sewer facilities, according to the following criteria;

1. An on-site sewage facility may be installed to service an individual residence, commercial or industrial facility if:

   A. The location of a septic tank is not within a designated floodplain area;

   B. The City Engineer or his authorized representative agrees in writing that the topography of the premises makes normal connection with the existing sanitary sewer main impractical or impossible;

   C. The operation of an on-site sewage facility is feasible on the premise and will meet the standards and requirements of the Texas Commission on Environmental Quality (TCEQ) Rules for on-site sewage facilities.

   D. The on-site sewage facility has been designed in accordance with the requirements of Chapters 285.1 through 285.91 of TNRCC Rules for outside sewage facilities.

   E. The on-site sewage facility has been designed in accordance with the requirements of TCEQ Rules for outside sewage facilities.

2. All other installations of on-site sewage shall be unlawful within the City.

3. If a septic tank is approved for use, it shall be installed on a lot or building site that contains a minimum of one acre or be of such greater area, as determined necessary by the City.

4. Under normal circumstances, septic tanks will not be accepted as appropriate sewer facilities for the subdivision of land within the City limits.

5. Within suburban and rural subdivisions other individual septic systems can be considered if satisfactory evidence is submitted, certifying that the system meets all requirements and standards of the TCEQ, all applicable City ordinances and the provisions above as appropriate.

In developments where street grading is required as part of the development, no sewer facilities shall be installed, until streets to contain the facilities are completed to subgrade, without written permission from the City Engineer.

If there is a question as to the size of the facilities required, it shall be resolved in favor of additional capacity.

Sanitary sewer and laterals shall be located in the street right-of-way unless otherwise agreed in writing by the City Engineer.

The minimum easement width for a sanitary sewer main shall be five feet on each side of the pipe. No roof overhang or other appurtenant construction such as (but limited to) that which may be associated with an adjacent building shall encroach into or over the easement. A sewer line easement between two lots must fall entirely on a single lot.

Lift stations or separate treatment facilities will not be permitted unless, in the opinion of the City Engineer, there is no feasible alternative which can provide the necessary service to the proposed subdivision.

All sewer mains constructed within a proposed subdivision shall be extended to the perimeter of the proposed subdivision to allow for future extension of the water system into adjacent properties.

Section 4-9 Street Installation

The rights-of-way necessary for the widening of a street, with the required minimum right-of-way, shall be provided for in the plat of the tract or the replat of an existing lot, in accordance with the requirements of the comprehensive plan, or as otherwise required by the City.

Streets shall be platted with appropriate regard for all topographical features, so as to lend themselves to attractive treatment and layout of facilities.

Assigned lot or building addresses shall be obtained from the City.

The developer shall employ an engineer proficient in civil engineering and registered in the State of Texas for preparation of street plans.

Street design and construction for urban, sub-urban, and rural subdivisions shall be as specified by the Articles V and VI.

The streets, including parkways, shall be excavated to line and grade established in the approved plans. Any changes in parkway grading must be by written permission of the City engineer.

All utilities and services to be located in the street shall be constructed to at least five feet inside the face of curb, or in the case of rural roads, five feet inside the edge of pavement, prior to the construction of curb and gutter and paving of the streets. All trenches shall be backfilled in accordance with standard City specifications.

Curb and gutter, when required shall be constructed on both sides of the street, including intersections unless the community facilities contract specifies otherwise (on the line and grade established in the approved plans).

Pavement, including concrete valleys and subdrains as required, shall be constructed on all streets in accordance with approved plans and specifications.

Where a subdivision abuts an existing road or street, on both sides, which is not constructed to line and grade approved by the City engineer, the developer shall be required to improve the existing street to bring it to a line and grade and type of construction meeting City standards or to replace it with a standard City street, at no cost to the City. Where the proposed subdivision is located along only one side of the street, the street may be improved by means of the escrow policy with the developer paying a proportionate share as required in the escrow policy of the City in effect at the time of approval of the final plat. Or, if escrows have already been required for the opposite side of said street, then the developer may be required to engineer, design, and construct the street to its full required width (including construction of all required walks, water lines, sewers, storm drainage, traffic signals, or other items related) receiving the existing escrow upon completion.

Where a subdivision is platted so that lots back up to an existing street or a street to be dedicated, the street shall be improved by the developer in accordance with City standards and specifications. In the case of an existing street which is not constructed to line and grade approved by the City engineer, the requirements of the above paragraph shall apply.

Where residential, commercial or industrial development backs up to an arterial street, screening shall be provided along the rear lot lines. Natural tree or other acceptable plant cover shall be used for screening whenever possible. The method of screening shall be determined by the City Council at the time of final platting and shall become a condition of the community facilities contract.

Street improvement construction costs shall be distributed as follows.

1. The developer shall bear all the cost of street improvements. If the developer constructs a wider street than requested by the City, the developer shall pay the entire cost of the extra width. However, in the event that a street wider than 40 feet is constructed at the City's request, the City may pay for the cost of additional construction for the width in excess of 40 feet, if funds are available.

2. On streets adjacent to City park property, the City shall pay for one-half of the curb, gutter and paving, of the total street, if funds are available.

All street improvements installed within the dedicated right-of-way shall be the property of the City.

Section 4-10 Sidewalk Installation

Installation of sidewalks shall be required in all subdivisions. All public sidewalk construction shall conform to the design and construction standards established by Articles V and VI.

Sidewalks shall be coordinated with the City of Cresson Comprehensive Land Use Plan.

In order to provide for pedestrian safety, except as specifically exempted below, public sidewalks shall, in conjunction with the development of land, be installed on both sides of all streets located on the perimeter and within a subdivision or development.

Sidewalks shall not be required adjacent to rights-of-way under the jurisdiction of the Texas Department of Transportation (TxDOT).

Sidewalks shall not be required adjacent to local or collector streets with bar ditch cross sections located entirely within rural subdivisions, as defined by the City of Cresson Zoning Plan.

Sidewalks that are to be located along property frontage shall be installed at the time a structure is erected on the lot. No certificate of occupancy shall be issued for the structure until the sidewalk is constructed and approved by the City. Any sidewalks required along the side or the rear of the property shall be constructed at such time as the developer constructs the street.

Sidewalks across bridges and culverts, sidewalks adjacent to common areas and sidewalks not adjacent to lots shall be constructed with other improvements to the subdivision or development.

Section 4-11 Street Light Installation

All developments with the exception of rural developments, as defined by the City of Cresson Zoning Plan, are required to have street lighting.

The developer will agree to furnish street lights in the Developer's Agreement. The developer will then coordinate and pay for street light installation with the appropriate utility company.

The City agrees to pay for electricity used by streetlights in the City in agreement with the current street-lighting rate schedule approved by the City council and the applicable electric utility company.

The developer shall furnish and dedicate all easements required for the installation of transformers, guys, and wiring for street lights. The City may exercise its right of eminent domain, but all costs incurred shall be borne by the developer.

Section 4-12 Traffic Signal Installation

The City Engineer may require the developer to pay for and submit a traffic study prepared by a licensed traffic engineer if he deems it necessary.

In instances where the traffic study indicates or the City determines the need for traffic signals due to the development of a subdivision, the developer shall provide engineered plans, specifications, and bid documents for construction of the traffic signal(s), and shall construct and pay for the required signals.

Section 4-13 Storm Drainage Installation

The developer shall submit the final plans prepared by a registered professional engineer for the installation and construction of all necessary drainage facilities. These plans shall be approved by the City engineer and shall include complete details for the construction of the proposed storm drain system as specified by the City's Design Standards Manual.

An adequate storm drain system, consisting of inlets, pipes and other underground drainage structures with approved outlets, shall be constructed where the adequate containment of stormwater runoff and the prevention of erosion cannot be accomplished satisfactorily by surface drainage facilities in accordance with City requirements.

In the ETJ area or other areas, such as sub-urban or rural, as deemed appropriate by the City, the existing (or proposed) development nature of the area may be taken into account in determining drainage facility requirements.

All developments shall provide stormwater detention in order to limit peak discharge to pre-development conditions. However, stormwater detention will not be required for:

1. One single family residence where no major changes to existing conditions are proposed and it is not part of a larger development project.

2. Redevelopment projects that do not increase the amount of impervious cover or the peak run off from the site.

Where there is a question as to the justification of size of facilities required; doubt will be resolved in favor of additional drainage capacity.

Unless otherwise approved by the City engineer, all storm drainage shall be carried in storm sewer pipe when a pipe of 60 inches or smaller diameter can be used to adequately convey the runoff. In the event that a 60 inch diameter pipe is inadequate to convey the runoff, an open channel drainage system may be considered as an alternate to an enclosed system. All open-channel drainage systems shall comply with the City's storm drainage design requirements and specifications.

Storm drainage design requirements and specifications of the City shall govern on all projects.

All storm drains installed which are in a public storm drain easement or right-of-way shall be the property of the City.

The developer shall be required to install at his own expense all storm sewers and storm drainage structures. This policy is applicable to all required drainage facilities including the channel improvements on the main channels and tributaries. The developer shall be responsible for excavation and channel liner improvements based on the full urbanized 100 year frequency discharge for the channel, or as allowed by the City Floodplain Ordinance for channels in the designated flood plain.

The developer shall pay the entire construction cost of the storm drainage facilities consisting of pipe 60 inches or less in diameter, including the cost of manholes, inlets, excavations, etc.

The developer shall pay for the cost of all drainage improvements required for the development of the subdivision, including any necessary off-site improvements, as determined by the City engineer. Necessary off-site improvements may include, but are not limited to, drainage channels, storm sewers, and acquisition of any required drainage easements.

Where a channel is constructed, the developer shall pay for the cost of:

1. The concrete lining or concrete drain emplacement;

2. Excavating the channel to the line and grade approved by the City engineer;

3. Acquisition of sufficient drainage easement or right-of-way for the channel;

4. Installing any pipe, trench excavation, inlets, manholes, guard rails, and other appurtenances, to complete the drainage facilities; and

5. Any culvert, bridge, or street crossing, plus pedestrian ways.

When it is anticipated that additional runoff incident to the development of the subdivision will overload an existing downstream drainage facility, whether natural or manmade, and result in hazardous conditions, the City may withhold approval of the subdivision, until appropriate provision has been made to accommodate the problem, and plans have been submitted which include all necessary off-site improvements, including storm sewer systems, channel grading, driveway adjustments, culvert improvements, etc. Detention systems on said subdivision may be required in this case. The developer's engineer may be required to submit studies proving adequacy of downstream systems to allow development.

Section 4-14 Survey Requirements.

Monumentation markers shall be a one half inch iron rod, 18 inches long (or approved equal) and shall be tied to the North Texas Coordinate System, North Central Zone, and will be placed on all boundary corners, block corners, curve points and angle points. The monuments shall be set at such an elevation that they will not be disturbed during construction, and adequately marked by survey flags and stakes as a protective warning to construction equipment and for location to provide for construction control.

Lot markers shall be a one half inch reinforcing bar, 18 inches long, or an approved equal, and shall be placed at all lot corners flush with the ground, or below ground if necessary in order to avoid being disturbed.

Where no permanent benchmark is established or can be found within 300 feet of the boundary of the subdivision, the permanent benchmark shall be established to a sea level datum. The benchmark shall be established upon a permanent structure, or may be set as a monument, and shall be readily accessible and identifiable on the ground.

To prevent permanent steel markers from being destroyed during construction of community facilities within the development, the developer may have placed markers at the boundaries of the subdivision and as necessary for survey control for construction. Internal individual lot corner markers shall be required to be placed prior to the final acceptance of the community facilities, and the developer shall provide a certified statement from the surveyor that all the lots are monumented as indicated.

A registered professional surveyor licensed by the State of Texas will do all surveys.

The surveyor will stake the service lines for water and sewer.

Section 4-15 Trench Safety Requirements.

A trench safety system must be provided for all trench excavations according to current OSHA requirements. This section will consist of the minimum requirements which must be complied with for providing a trench safety system within the City or within the extraterritorial jurisdiction of the City as provided by the Municipal Annexation Act (Chapter 43, Local Government Code).

On all public projects bid by the City or private projects to be constructed within right-of-way or easements to be conveyed to the City compliance with the current minimum Occupational Safety and Health Administration (OSHA) or other governmental agencies standards will be required as part of included with the plans and specifications for trench safety. Prior to start of construction a detailed trench safety system must be provided to the City by the contractor. This detailed trench safety system must meet all requirements by OSHA or other governmental agencies, and be designed and certified by a professional engineer licensed in the State of Texas.

The design of the detailed trench safety system must meet or exceed the current OSHA standards.

A pay item shall be included in the plans and specifications for the trench safety system. Payment will be on a linear-foot basis and will be full compensation for labor, tools, materials, equipment and incidentals necessary to complete the work, including the removal of the trench safety system and back-filling the trench.

These requirements, as set forth herein, shall be applicable to all trenches within right-of-way easements within the City or within the extraterritorial jurisdiction of the City, whether or not the project is funded or constructed by the City or by private developers.

ARTICLE V PUBLIC FACILITIES DESIGN STANDARDS

Section 5-1 Preliminary Engineering Plans

At any time after submission of the Preliminary Plat, the developer may submit preliminary construction plans to the city engineer for review. The Horizontal Coordinates for the plans shall be Texas State Plane, North Central Zone. The Vertical Datum shall be NAVD 88. These plans shall contain the following.

1. A preliminary drainage layout/study at a scale of one inch equals 200 feet (or otherwise approved). The layout/study shall cover the total property that is to be developed, including off-site drainage and out falls. Off-site drainage areas may be shown on a USGS topography map (unless more accurate data is available). Easement requirements shall be shown. Preliminary calculations to show adequate drainage capacity in streets on a five year frequency and in right-of-way on a 100 year frequency.

2. An overall plan, showing the existing topography at a contour interval of one foot, except for terrain with an average slope of greater than five percent, where two-foot contours are allowed.

3. A utility map will be prepared using the proposed subdivision plat as a base map. This map will show all the water and sanitary sewer lines in the subdivision and all the lines that are to be connected to outside the subdivision. This map will include:

   A. A preliminary utility layout, at a scale of not less than 1" = 100', (or otherwise approved). The layout will show all of the existing and proposed water and sanitary sewer lines, along with appurtenances such as manholes, valves, and fire hydrants. Easement requirements shall also be shown.

   B. The anticipated size of water lines will be shown on plans or indicated in a legend. All valves and fire hydrants will be shown. At least one valve will be shown in each section of water line between junctions of other lines. Additional valves may be required where sections of line are over 1,200 feet in length or where an area needs to be fed from two directions.

   C. The anticipated size of sanitary sewer lines will be shown on plans or indicated in a legend. Lines will be sized to serve the area being subdivided and for areas that will have to flow through the subdivided area.

   D. Plans will show all existing sewers that are to be connected and all sewer lines needed to complete a working system.

4. Preliminary Street Layout.

Section 5-2 Final Engineering Plans

Two sets of final engineering plans will be submitted for review, in conjunction with a final plat. After approval of the final engineering plans, three sets of final plans will be furnished the city.

Engineering plans shall be prepared by a civil engineer, licensed to practice in the State of Texas and experienced in street, drainage, and utility design.

Plans shall be drawn on standard 22" x 34" sheets.

After submission of the final plat, final construction plans for street, drainage and utility or other plans, including specification and bid documents shall be submitted to the City Engineer for review. These plans shall be submitted in the following format.

1. Cover Sheet containing:

   A. Project Title
   B. Legal Property Description
   C. City Name
   D. Vicinity Map
   E. Owner , Engineer, and Surveyor's Name, address and telephone number
   F. Project title in small print placed vertical along the right border.
   G. Sheet index
   H. Signature block

2. General Notes Sheet containing:

   A. Vicinity Map
   B. Sheet Index
   C. General Notes

3. Copy of current plat bound with plans. The signed plat shall be bound with the as-built drawings.

4. Drainage Area Map showing drainage calculations, existing contours, existing and proposed storm drains, and/or any other drainage features. Final construction plans (horizontal scale 1" = 40', vertical scale 1" = 4') shall be consistent with the approved drainage study and shall provide a drainage system which is fully functional and readily maintainable. Existing and proposed water, sewer or other underground facilities of private utilities or other entities shall be shown on the plan. It shall be the responsibility of the developer and his engineer to see that this information is correctly shown. Minimum cover for water and sanitary sewer lines is 42".

5. Site plan indicating the location and width of all proposed and existing street and driveway approaches noting the back-of-curb radii.

   A. Streets will be shown on plan and profile sheets, at a horizontal scale of 1" = 40' and a vertical scale of 1" = 4'; orientated with the north at the top or to

the right of the sheet and the stationing increasing from the left to the right. Generally, each street shall be shown on a separate plan and profile sheet.

B. The plan will show property lines; lot and block numbers; intersecting streets with their widths; curb lines and returns; valley gutters; drainage flow arrows; centerline stationing; curve stationing and data; inlets and culverts; existing utilities; benchmarks and any other features to show the extent of the work.

6. Utility plan indicating the location and size of all existing and proposed water and sanitary sewer lines. Also show the location of all existing and proposed fire hydrants adjacent to the site including the maximum coverage radius of each as outlined in later sections of this manual. Final plans shall be consistent with the approved preliminary utility layout.

A. Final water systems plans will follow and incorporate all elements shown on approved preliminary water plan. Plan will use the approved subdivision plan as a base and will show all water lines, valves, fire hydrants, services and special conditions. In addition, water lines 16 inches and larger will be shown on a separate 22-inch by 34-inch plan and profile sheet similar to street plan and profile. Water lines will be shown five feet off the back of curb. The sanitary sewer system will be shown on the water plan. This map is to be used as an outline and location map for the overall construction.

B. Final water construction plans (minimum scale of 1" = 100') will show all lines, valves, fire hydrants, services and special connections. The sanitary sewer system, drainage lines or lines of other entities will be shown on the water plans. It shall be the responsibility of the developer and his engineer to see that this information is correctly shown. Minimum depth to top of water lines shall be three and one-half feet from proposed ground surface or as necessary to clear conflicts. Where lines are to be installed in street right-of-way, profiles will be required only for lines of 16" diameter or larger. Stations for centerline for services and appurtenances are required for all lines of any size.

C. Final sanitary sewer plans will follow and incorporate all elements shown on approved preliminary sanitary sewer plans. The sanitary sewer system will be shown on the water system plan and will show all lines, manholes, crevices and special conditions.

D. The plan and profile for sanitary sewers will be on a 22-inch by 34-inch plan profile paper with horizontal scale of 40 feet per inch and a vertical scale of four feet per inch. Stationing will be from the lowest point and increase from left to right. Lines that are a continuation of existing lines should use continuing stationing. The run of all lines will be on separate profiles. Plan of sanitary sewer lines in streets will show similar conformation required on street plan and profile. Plan for sanitary sewers in easements will show relation to lot or other lines and services will be shown on plans. The title block will be on the right end of plan.

E. The profile of sanitary sewer lines in street will show top of curb grade lines. Sanitary sewer lines in easements will show existing ground line. Connections to other lines will be shown. The sanitary sewer grade line will be shown with station and elevation at each grade break and with line size and percent of grade shown to two decimal places. Service connection will be shown with station and lot served. Manholes will be shown with top elevations.

F. Final sewer plans (minimum plan view at 1" = 100') and profiles, at a horizontal scale of 1" = 40' and a vertical scale of 1" = 4', will show similar information as shown on the street plan and profiles; grade line with stations and elevations at each grade break; line size with percent grade to two decimal places; service connections with station and lot to be served; elevation of the service at the curb-line; manholes with flow lines and top elevations; water lines, storm drain lines or underground lines of other entities. It shall be the responsibility of the developer and his engineer to see that this information is correctly shown. Minimum depth to sewer flow lines shall be six feet from proposed ground surface unless otherwise approved.

6. Plan and Profile sheets for roads, sewer, storm drains, water lines 16 inches in diameter and larger, and channels. Stationing shall generally be left to right with stationing beginning at the downstream end for all sewers, storm drains, and channels.

A. Stationing shall be included on the plan view as well as the profile for all roads, water, sewer, storm drain, and channel sheets. Elevations shall be calculated and provided in all profiles as indicated below:

(1) Straight Grade – Provide elevations at maximum interval of 100 feet.

(2) Vertical Curve – Provide elevations at the point of curvature, high or low point, point of tangent, and at a maximum interval of 25 feet along the curve.

B. The Hydraulic Grade Line (HGL) will be shown on all storm drain profiles. Hydraulic calculations to each lateral, manhole, inlet and outlet structure will be shown. Head losses shall be calculated as described in Section 5-7.

C. Sanitary Sewer Profiles will start at the downstream end and proceed up station from left to right.

7. Grading Plan

8. Traffic Signal Plans if required.

9. Details for improvements which are to become public.

Construction plans will be reviewed by the City Engineer and signed after all comments have been resolved. Construction shall not begin prior to approval and must start within 12 months following the approval. Plans for projects which have not started within this time must be resubmitted for a new review.

Section 5-3 Street Standards

All streets within or abutting the proposed subdivision shall be paved in accordance with the city's standards and specifications. All paving shall be to the width specified on the thoroughfare plan or per its function and shall be constructed under the inspection of the Engineering Department. The construction costs of all street improvements shall be borne by the developer unless participation by the city has been approved.

Underground city-owned utilities required in the subdivision shall be placed under or across all streets after the rough grades are made, put prior to the paving being placed. Paving operations shall not be allowed to start until the utility work is complete.

Side slopes should not be steeper than four horizontal to one vertical within the limits of the dedicated right-of-way.

The alignment and design of streets should be such that major thoroughfares have a design speed of 40 miles per hour, collector, industrial and commercial streets have a design speed of 35 miles per hour, and residential streets have a design speed of 30 miles per hour.

The following minimum centerline radii shall be used in the horizontal design of all street construction:

Type Street	Minimum Radius
Collector, industrial or commercial	600 feet
Local, residential	200 feet

Table V-1: Minimum Horizontal Centerline Radii for Street Design

The minimum centerline radii for major thoroughfares shall comply with the current edition of AASHTO's *A Policy on Geometric Design of Highways and Streets.*

Circular curves having a common tangent shall be separated by a tangent section in accordance with the following table:

Type Street	Minimum Tangent Between Curves
Major thoroughfare	200 feet
Collector, industrial or commercial	100 feet
Local, residential	50 feet

Table V-2: Minimum Tangent Between Curves

The minimum radius for the back of curb on a cul-de-sac shall be 40 feet.

The minimum radius for curb returns at intersections shall be as follows:

Type Street	Minimum Radius
Major thoroughfare	30 feet
Collector, industrial or commercial	30 feet
Local, residential	15 feet

Table V-3: Minimum Radius for Curb Returns

No streets shall be designed or constructed to a grade of less than 0.5 of 1%.

No streets shall be designed or constructed with grades in excess of the following:

Type Street	Maximum Grade
Major thoroughfare	6.0%
Collector, industrial or commercial	8.0%
Local, residential	10.0%

Table V-4: Maximum Grade of Streets

All streets within 50 feet of an intersection shall have a maximum 2% grade, with the following exceptions:

1. On a major thoroughfare intersecting a collector or a local street;

2. On a collector street intersecting a local street.

In order to maintain adequate sight distances, the following minimum lengths of vertical curves shall be required:

Type Street	Minimum Vertical Curve Length
Major thoroughfare	80 feet for each algebraic percent difference in grade
Collector, industrial or commercial	60 feet for each algebraic percent difference in grade
Local, residential	50 feet for each algebraic percent difference in grade

Table V-5: Minimum Vertical Curve Lengths

Pavement widths shall be from back-of-curb to back-of-curb as follows:

1. *Thoroughfare:* Six-lane, with a 24 foot wide median; two 33 foot pavement sections in a 110 foot right-of-way, 10 foot available right-of-way on each side.

2. *Collector/Commercial:* 80 foot right-of-way; 36 foot pavement and right-of-way widened within two hundred feet of major intersections and protected turn lane added. Twenty two (22') feet available right-of-way on each side.

3. *Secondary collector:* 36 foot pavement width in 60 foot right- of-way. Twelve foot of additional right-of-way is available on each side.

4. *Local/residential:* 32 foot pavement width in 50 foot right-of-way. 9 foot of additional right-of-way is available on each side.

Reinforced concrete valley gutters shall be required at all asphalt street intersections where gutter flowlines cross another street or at low points where water flow crosses the street.

Median openings shall be spaced a minimum of 600 feet center-to-center or 500 feet curb-to-curb, whichever is greater.

To minimize traffic hazards created by numerous intersections along major thoroughfares, direct vehicular access from any residential lot to a collector street or a thoroughfare is prohibited. Direct vehicular access to a secondary collector is authorized. In cases where platting prior to the effective date of this ordinance has allowed a residential lot to front on a principal arterial, a minor arterial, or a thoroughfare without a requirement for alternative access, driveway design must provide a "head-out" access, such as a circular drive or side entry garage.

Due to high traffic volume, direct access to a thoroughfare is closely controlled and the city engineer may require the developer to submit a traffic study performed by a licensed professional engineer, or traffic engineer.

Driveways shall be kept at a minimum of five feet away from obstructions such as street light posts, fire hydrants, traffic signals, etc. Driveway approaches shall not be located in street intersections or at established pedestrian crossings. Driveway approaches shall not be constructed or designed for parking of vehicles or for use as angle parking (or head in parking).

Driveway approaches shall be constructed of six inch thick 3000 psi compressive strength concrete reinforced with #3 steel bars on 24 inch centers each way. The driveway shall begin at the street curb and extend to a point ten feet from back of curb. The drive approach shall be constructed such that it attains a minimum height of 6" above the flowline and is sufficient to keep drainage flows within the right-of-way.

Residential driveway approaches shall not be less than 10 feet in width nor more than 24 feet wide measured at the property line. Specific exception to this criteria may be requested by the property owner. Any exception granted based on a specific design submittal must have the approval of the City engineer.

Residential driveways shall be constructed with the return curbs having rolled face disappearing at the sidewalk and joining the street curb with a minimum five foot radius and a maximum 10 foot radius, unless otherwise approved by the City engineer.

Driveway approaches shall be located entirely within the frontage of the premises served except that joint, or cooperative, drives (located within dedicated easements) with adjoining properties may be permitted. Joint driveway approaches may be required by the city engineer. Requests for joint drive approaches must be made by all the interested parties and all property owners involved. The design of the joint driveway facilities must be submitted with the request to be approved by the city engineer.

Residential Driveway Approaches at Street Intersections: The drive approach on corner lots shall be located so as not to create an access problem with the intersection.

The width of any commercial or industrial driveway approach shall not be less than 12 feet nor more than 35 feet measured along the property line. Specific variance to this criterion may be requested by the developer. Any variance granted based upon a specific design submittal must have the approval of the City engineer.

Commercial and industrial driveways shall be constructed with the return curbs having a rolled face disappearing at the sidewalk and joining the street curb with a minimum of five foot radius and a maximum 30 foot radius, unless otherwise approved by the City engineer.

The allowable spacing for commercial driveway approaches shall be based upon an approved site plan.

Commercial driveway approaches inclusive of approach radii, shall be located entirely within the frontage of the premises. Joint approaches and/or cross-lot access easements may be required by the city engineer. Any request for joint drive access must be by agreement of all parties involved and a specific plan submittal must be included for approval of the city engineer. Both parties will be required to dedicate public ingress and egress easements to cover the approach and joint access area.

Commercial driveways must be located a minimum of 100 feet from the point of intersection of the curb lines of both streets, unless otherwise approved by the city engineer.

The angle of the driveway approach with the curb line shall be 90 degrees.

Sidewalk to be removed: Where a driveway approach is to be built, the sidewalk shall be removed and the entire area replaced as a driveway. The drive approach shall extend to the back of walk line.

Driveways crossing borrow ditches shall be subject to the following:

1. The minimum culvert pipe size shall be 18 inches in diameter, unless otherwise approved by the City Engineer. All culverts shall be class III or better reinforced concrete pipe (RCP) or CMP. The ends of all culvert pipe shall be cut at a 6:1 slope.

2. Driveways shall be constructed with the return curbs joining the edge of pavement at the street with a minimum of 10 foot radius.

3. The maximum slope from the edge of driveway to the top of the culvert pipe shall be 6:1. The sloped area around the end of the culvert pipe shall be sodded or hydromulched to resist erosion.

4. The minimum cross slope on the drive shall be ⅛ inch per foot. The minimum longitudinal slope between the edge of pavement at the street and the valley over the culvert pipe shall be ¼ inch per foot.

5. Future maintenance of the drive approach and culvert pipe is the responsibility of the property owner.

6. During the drive approach installation, all ditch grading upstream and downstream of the proposed driveway culvert is the responsibility of the property owner.

7. Reinforced concrete headwalls or sloped ends shall be required at culvert ends.

Section 5-4 Sidewalk Standards

Sidewalks shall be constructed of four inch thick, 3000 psi comprehensive strength concrete reinforced with #3 steel bars laid on maximum of 18 inch centers.

Sidewalks shall be minimum of four feet in width. The sidewalk shall be located on the City parkway one foot from the private property line. Sidewalks shall have a side slope no greater than two percent. An alternate five foot width walk may be constructed adjacent to the back of curb if approved by the City Engineer.

ADA accessible ramps shall be constructed at the intersection of all streets or other locations as deemed necessary by the city.

Section 5-5 Street Light Standards

A light shall be placed at each street intersection when the block is less than 600 feet in length unless deemed not necessary by the city

A light shall be installed at each intersection and any other location required by the city when a block is more than 600 feet long.

A light shall be installed on a cul-de-sac when required by the city

As a minimum standard, lamps of not less than 7000 lumen shall be installed.

All lamps shall be mercury or sodium vapor.

Service wires shall be underground.

Section 5-6 Water System Standards

All water systems installed for any development shall be constructed in conformance to the city standard utility specifications set forth in this subchapter.

All water systems shall be in conformance to all applicable TCEQ regulations. In the case that there is a conflict between TCEQ regulations and this manual, the most restrictive criteria shall govern.

All water lines shall be a minimum of eight inches in diameter, unless the water system master plan calls for a larger size. Exception: A six-inch line may be used on a cul-de-sac, if no fire hydrant is required.

In urban subdivisions location of water meters shall be as per standard detail. Where sidewalks are adjacent to the street, meter boxes shall be required between the sidewalks and the property lines. Water services shall be plainly marked on the curb by a method prescribed by the city.

In suburban and rural subdivisions, water meters shall be located two feet from the property line.

The water service includes a standard corporation, an angle meter stop and Type K copper tubing with a minimum size of one inch. A 1½-inch tap is the minimum size of tap for two-dwelling units sharing a tap. Location of water services shall be within four feet of the back of the curb and not over 14 inches below the top of the curb. The location of water services shall be shown by three-inch letters imprinted in the curb identifying water services with a "W" directly over the service.

All tee intersections of public water mains shall include at least two gate valves. All cross intersections of public water mains shall include at least three gate valves. Valves on the additional branches may be required.

Minimum depth of cover over all water mains shall be three and one-half feet.

The minimum horizontal separation between any water main and a storm drain facility shall be equal to two and one-half feet.

The minimum horizontal separation between any water main and a sanitary sewer main shall be nine feet measured from outside edge of pipe to outside edge of pipe.

There shall be installed standard three-way hydrants which shall have six-inch or larger connections to mains with a minimum of five-inch valve openings. At each hydrant installation, there shall also be a six-inch gate valve between the hydrant and water mains. Hydrants are to be properly located so there will be a fire hydrant every 500 feet (residential), 300 feet (commercial-industrial) along streets. Each hydrant must be equipped with National Standard Hose Threads.

Fire hydrants located on the opposite side of a roadway with a width greater than 40 feet from a development shall not be considered when determining adequate fire hydrant coverage for a development.

All materials and workmanship incorporated in water system improvements shall be in accordance with the city Construction Specifications contained herein. Water lines shall be class 150, AWWA C900, DR18 unless otherwise approved by the City Engineer

Section 5-7 Sanitary Sewer Systems

All sanitary sewer systems installed for any development shall be constructed in conformance to the city standard utility specifications set forth in this subchapter.

All sanitary sewer systems shall be in conformance to all applicable TCEQ regulations. In the case that there is a conflict between TCEQ regulations and this manual, the most restrictive criteria shall govern.

The contributing flow from a development shall be determined on the basis of an average flow of 100 gallons per person per day. The population density shall be based on three (3) persons per single family unit, but shall not be less than nine and one-half (9.5) persons per acre. Once the average daily flow rate has been determined, it shall be multiplied by a peaking factor of four (4) to determine the peak daily flow rate. Sanitary sewer lines will be sized to carry the peak daily flow rate or eight (8) inches in diameter, which ever is greater.

Sanitary sewer line sizing is summarized as follows:

P = 3U
P = total population of development
U = number of single family units in development

T = AP
T = total average load of a given population (gpm)
A = average load per person (100 gal/person/day = .0694 gal/min/person)
P = total population

D = 4T
D = design load (gpm)
T = total average load of a given population (gpm)

For non-residential areas within developments and for non-residential developments, the following peak flow rates in gallons per minute per acre (GMA) apply.

Density	GMA
Commercial	1.2*
Industrial	1.2*

*This number is for the wastewater produced by people only. To obtain the total flow, the estimated amount of wastewater produced by the commercial or industrial activity must be added in.

*Commercial or industrial developments of less than one acre shall be calculated at a minimum of one acre (1728 gpd).

In certain areas, the design load (D) may need to be increased by an infiltration factor to be provided by the City. All services shall be placed at the center of each lot unless instructed otherwise by the City engineer. The maximum depth for all sewer services shall be 10 feet unless otherwise approved by the City Engineer.

No sanitary sewer main shall be less than eight inches in diameter. All sewers shall be designed with consideration for serving the full drainage area subject to collection by the sewer in question. Exceptions to this requirement may be made only at the direction of the City engineer.

Location of sewer services shall be shown by three-inch letters imprinted in the curb identifying sewer services with an "S," directly over the service.

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

Vertical curves in the sanitary sewer mains will not be allowed.

If a new sanitary sewer line is to be constructed adjacent to an existing street, the profile will need to include the existing top of curb grades.

All sanitary sewers constructed adjacent to federal, state or country roadways shall be constructed outside the right-of-way in a separate easement dedicated by separate instrument, unless otherwise agreed by those agencies and the city.

The minimum horizontal separation between any sanitary sewer main and a storm drain facility shall be equal to two and one-half feet.

No connection shall be made to any sanitary sewer within the city that will permit the entrance of surface water or waste which has other than domestic sewage characteristics without the special authorization of the City Council.

Manhole spacing shall not exceed 500 feet.

Sewer mains which require more than a 30 inch difference in flow lines must be accommodated with a four foot inside diameter drop manhole.

In general, all sanitary sewer mains shall end at a manhole. Cleanouts will not be allowed unless distance from manhole to cleanout is 250 feet or less.

Four foot inside diameter manholes will be required as sampling ports on all automotive repair, chemical and food handling facilities. The manhole must be located between the public sewer main and the grease trap.

Section 5-8 Drainage Standards

The following criteria shall govern the design of storm drainage improvements within the city. Improvements shall include streets, alleys, storm drains, channels, culverts, bridges, swales and any other facilities through which stormwater flows.

The method of calculation for storm runoff for drainage areas less than 1000 acres will be the

Rational Method. The method is expressed by the following equation:

$$Q = CIA$$

Q = storm discharge at the design point in cubic feet per second
C = runoff coefficient, based on land use
I = average rainfall intensity for the time of concentration at the design point in inches per hour (IDF curves, Figure V-1 and Table V-9)
A = area contributing runoff to the point of design in acres.

Peak discharges for drainage areas exceeding 1000 acres shall be determined by using the unit hydrograph method.

In lieu of this procedure, there are several computer programs available which will provide satisfactory results. A developer may use a computer program, with prior approval from the city engineer.

Storm drainage improvements shall be based on the drainage areas being fully developed. The zoning as shown on the current city zoning maps or the City's Comprehensive Land Use Plan, whichever is more restrictive, shall determine the particular coefficient value selected. Table V-6 below indicates the runoff coefficients for the different land uses.

RUNOFF COEFFICIENT "C"	
Land Use Coefficient	
Single family or duplex districts (>one acre lots)	0.35
Single family or duplex zoning districts (<one acre lots)	0.50
Townhome districts	0.65
Multi-family districts	0.75
Commercial districts	0.90
Industrial districts	0.70
School, church and industrial districts	0.65
Parks and agricultural districts	0.30

Table V-6: Runoff Coefficients of Various Land Uses

The time of concentration shall be defined as the time required for a drop of water to flow from the upper limits of a drainage area to the point of concentration. Times of concentration shall be calculated for all inlets, pipe junctions, and other critical design points in the proposed storm sewer systems. The minimum inlet time of concentration as shown in Table V-7 may be used in place of calculated times. When calculating inlet times, consider overland flow channelized at such time as the distance traveled exceeds 200 feet.

Minimum Inlet Time of Concentration	
Type of Area	time of concentration (t_c)
Business and Commercial	10 Minutes
Industrial	10 Minutes
Multi-Family	10 Minutes
Residential	15 Minutes
Parks and Open Spaces	20 Minutes

Table V-7: Minimum Initial Time of Concentration

The rainfall intensity-duration-frequency curves in Figure V-1 and Table V-9 shall be utilized in computing rainfall intensity.

Design storm frequency (see Table V-8): Storm frequency to be used in design shall be as shown in the following table;

Design Storm Frequency	
Type of Facility	Minimum Design Frequency
Storm drain on-grade Inlets	5 year
Sump Inlets	50 year provide 100 year overflow
Streets	5 year
Channels, underpasses, creeks, and street right-of-way	100 year
Culverts, bridges	50 year

Table V-8: Minimum Design Frequency for Hydraulic Structures

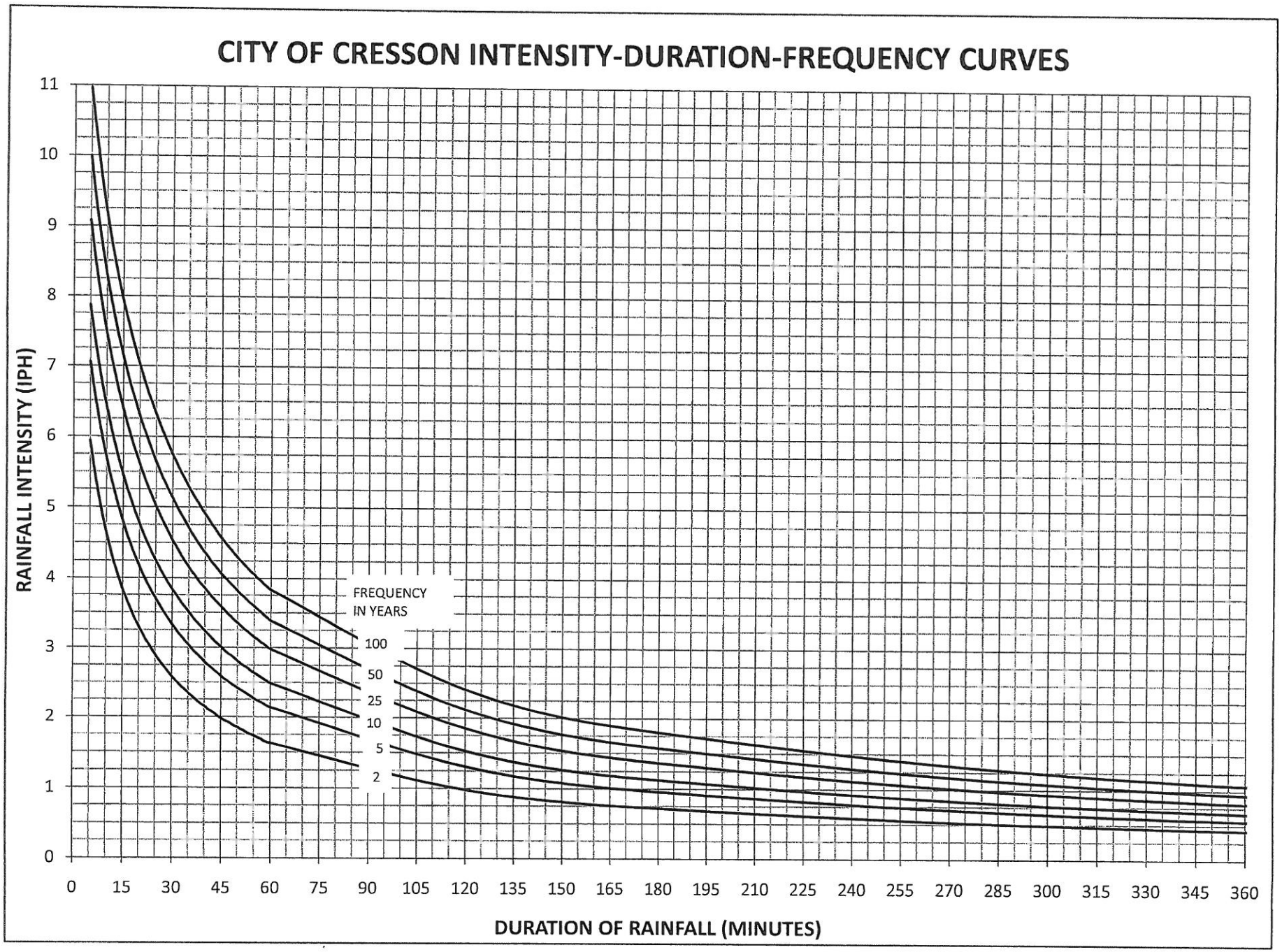


Figure V-1: City of Cresson IDF Curves

City of Cresson IDF Table								
Intensity								
Hours	Minutes	1 yr	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr
	5	5.17	5.94	7.06	7.87	9.08	9.99	10.97
	10	3.96	4.64	5.69	6.42	7.47	8.3	9.18
0.25	15	3.24	3.83	4.8	5.46	6.39	7.14	7.93
	20	2.76	3.29	4.17	4.77	5.61	6.29	7.02
	25	2.41	2.89	3.7	4.25	5.01	5.64	6.31
0.5	30	2.15	2.58	3.33	3.84	4.54	5.13	5.74
0.75	45	1.64	1.98	2.59	3.01	3.58	4.06	4.57
1	60	1.34	1.63	2.14	2.49	2.98	3.39	3.83
2	120	0.8	0.98	1.31	1.53	1.85	2.12	2.41
3	180	0.58	0.72	0.96	1.13	1.37	1.58	1.8
6	360	0.34	0.42	0.56	0.67	0.81	0.94	1.07

Table V-9: City of Cresson IDF Table

A storm drain shall be designed to pick up flow from the street when the runoff from a five year frequency storm exceeds the capacity of the street to its top of curb, or the spread of water on a arterial street does not leave two traffic lanes dry, whichever is more restrictive. The combined capacity of the street and right-of-way and/or drainage easements and the storm sewer pipe shall be adequate to safely convey the runoff from a 100 year frequency storm. Bridges must provide a two foot freeboard to lowest part of structure from 50 year water surface.

Street capacity shall be determined by utilizing Manning's equation:

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

Q = discharge in cubic feet per second
n = Manning's roughness coefficient, use 0.015 for pavement and gutter
A = cross-sectional area of flow in square feet
R = hydraulic radius in feet (area/wetted perimeter)
S = street or gutter slope in feet per foot

All discharges of runoff from street to an open channel shall be in a flume or through an inlet adjoining pipe and headwall.

The capacity of a depressed curb inlet on grade will be based on the following equation:

$$Q_1 = .07 \left[\frac{1}{[H_1 - H_2]} \right] [H_1^{(5/2)} - H_2^{(5/2)}]$$

Q_1 = discharge into inlet per foot of inlet opening in c.f.s./ft.
$H_1 = a + yo$
$H_2 = a$ = gutter depression in feet
Yo = depth of flow in approach gutter in feet
Note: See Figure V-X

The capacity of low point or drop inlets will be determined based on the broadcrested weir formula:

$$Q_1 = 3.0\ (H_1)^{3/2}$$

Storm drains shall be designed using the continuity equation and Manning equation.

$$Q = AV \text{ and}$$

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

Q = discharge, (cfs)
A = cross-sectional flow area normal to pipe, (ft^2)
V = mean velocity of flow, (fps)
n = Manning's roughness coefficient
R = hydraulic radius, (ft)
S_f = friction slope, (ft/ft)

The coefficient of roughness to be used in design shall be shown below:

Pipe Material	Mannings roughness coefficient
Reinforced Concrete Pipe	0.013
Corrugated Metal Pipe	0.022
Smooth Wall HDPE Pipe	0.012

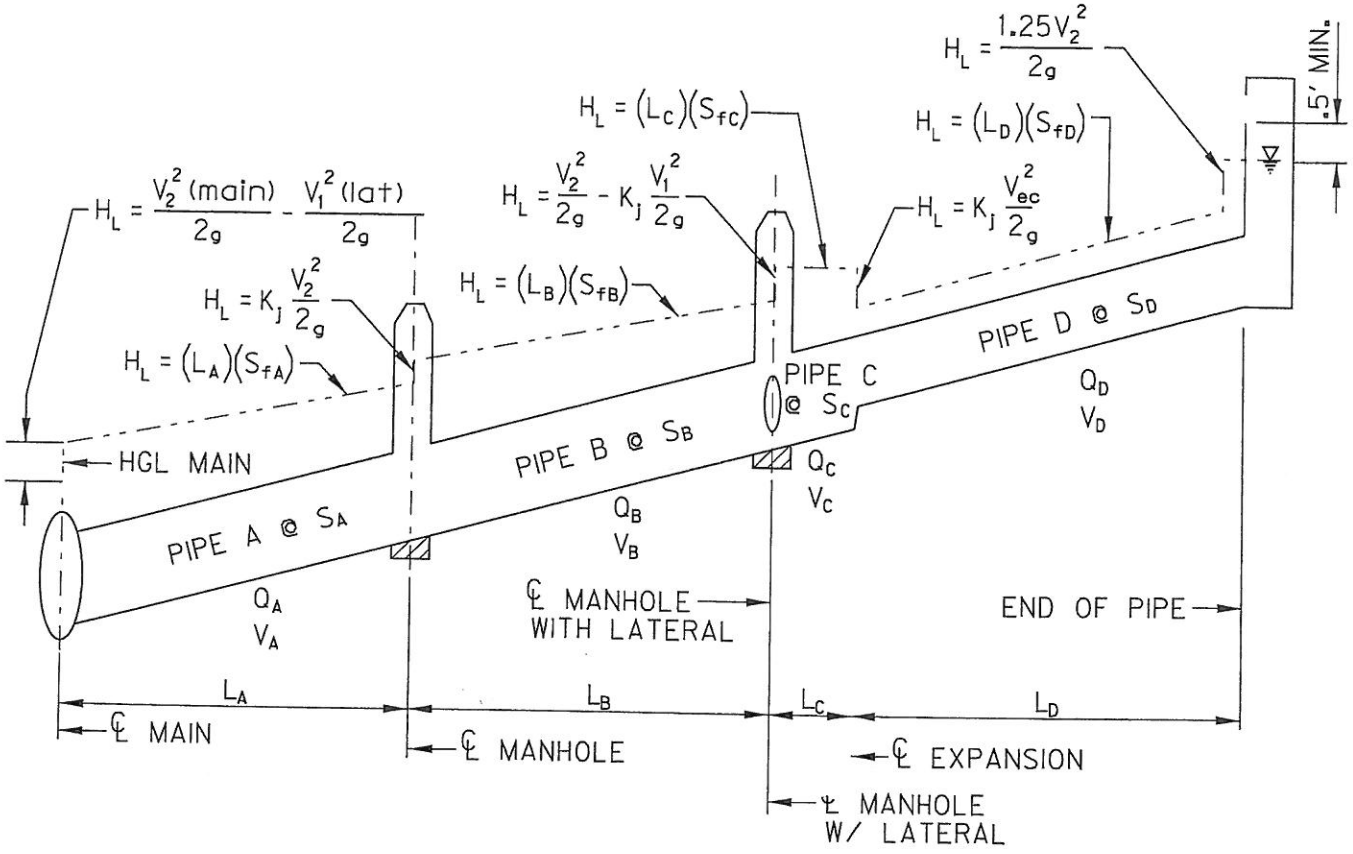
Table V-10: Mannings roughness coefficient for different pipe materials

Storm drain pipes shall normally be designed so that the mean velocity of flow is between two and on-half feet per second and 15 feet per second. Pipes may be designed on a horizontal radius provided that the minimum centerline radius does not exceed manufacturer's recommendations. Pipes shall not be designed with vertical curves. The minimum pipe size for a main is 24 inches in diameter. If a lateral does not exceed fifty feet, an 18 inch diameter pipe may be used. Unless otherwise specified on plans, minimum strength Class III reinforced concrete pipe will be required in all new construction. The elevation of the hydraulic grade line for the main storm drain pipe system shall be sufficiently deep to allow for losses in the leads and inlets to produce and HGL elevation below the gutter line considering a five year storm. The HGL loss for inlets is given below. The head loss for each structure shall generally be computed as:

$$V_2^{\,2}/2g - Kj\ V_1^{\,2}/2g = h_L \text{ where;}$$

V_2 = outflow velocity (fps)
V_1 = inflow velocity (fps)
g = 32.2 (cfs)
Kj = head loss coefficient
h_L = head loss (ft)

Head loss coefficients (Kj) are determined based on the following Tables (V-11, 12) and Figures (V-2 to V-9)



g = GRAVITATIONAL ACCELERATION, 32.2 ft/s²
H_L = FRICTION LOSS, ft
K_j = JUNCTION OR STRUCTURE COEFFICIENT, REFER TO FOLLOWING FIGURES
L = PIPE LENGTH, ft
Q = PIPE FLOW, cfs
S = PIPE SLOPE, ft/ft
S_f = PIPE FRICTION SLOPE, ft/ft
V = PIPE VELOCITY, fps
V_1 = VELOCITY IN UPSTREAM PIPE, fps
V_2 = VELOCITY IN DOWNSTREAM PIPE, fps
V_{ec} = VELOCITY OF THE SMALLER PIPE IN AN EXPANSION/CONTRACTION, fps

Figure V-2 : Head losses and Gains in Storm Sewer System

FIGURE	DESCRIPTION	COEFFICIENT (K_J)
	MANHOLE ON MAINLINE	
	Ø = 90° - 112.4°	0.75
	Ø = 112.5° - 134°	0.65
	Ø = 135° - 157.4°	0.50
	Ø = 157.5° - 180°	0.25
	MANHOLE ON MAINLINE W/ BRANCH LATERAL	
	Ø = 90° - 67.6°	0.25
	Ø = 67.5° - 46°	0.35
	Ø = 45° - 22.6°	0.50
	Ø = 22.5° OR LESS	0.75
	INLET ON MAINLINE	0.5
	INLET ON MAINLINE W/ BRANCH LATERAL	
	Ø = 90° - 46°	0.25
	Ø = 45° OR LESS	0.5
	WYE CONNECTION	0.75
	INLET OR MANHOLE AT BEGINNING OF LINE	1.25
	EXPANSION OR CONTRACTION	SEE TABLE V-12

Table V-11 : Junction and Structure Coefficients

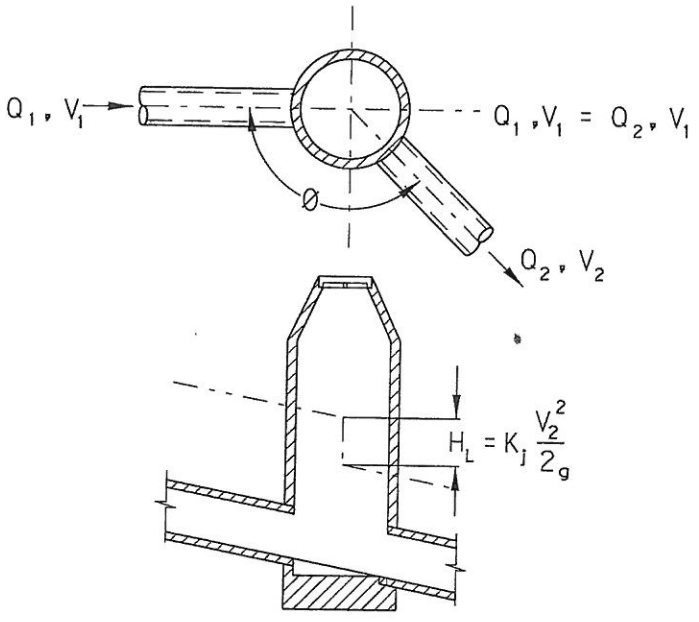


Figure V-3 : Manhole on Main Line

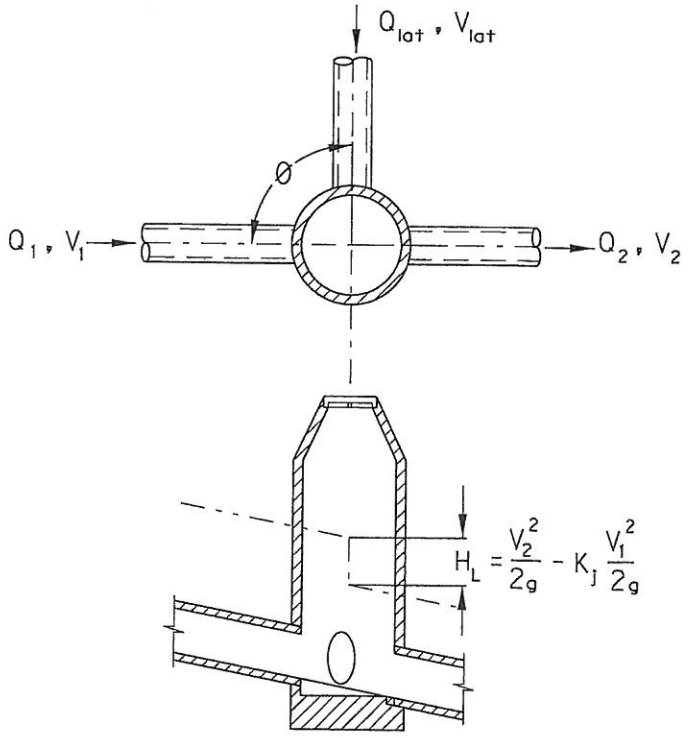


Figure V-4 : Manhole on Main Line with Branch Lateral

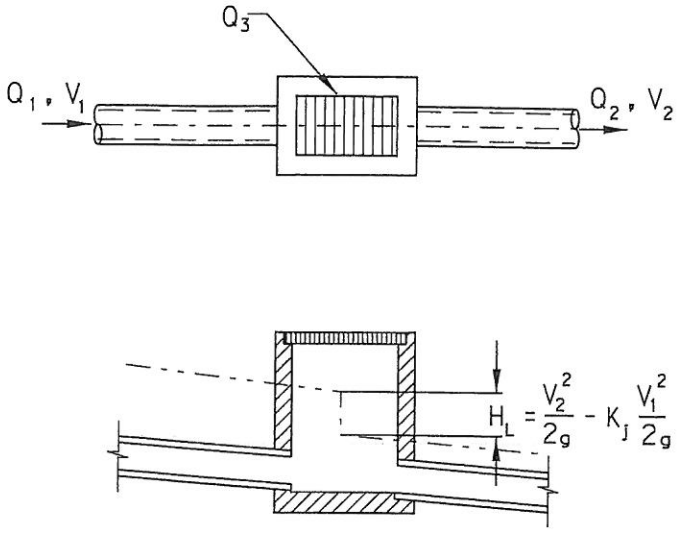


Figure V-5 : Inlet (Grate or Curb) on Main Line

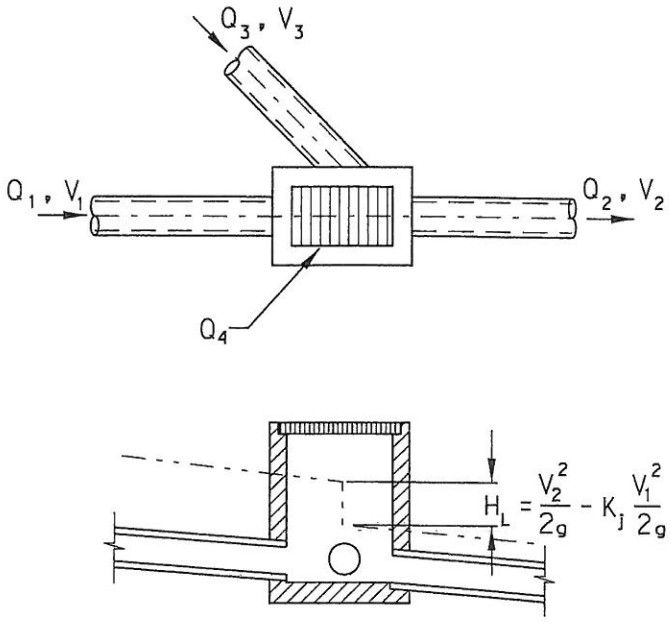


Figure V-6 : Inlet (Grate or Curb) on Main Line with Branch Lateral

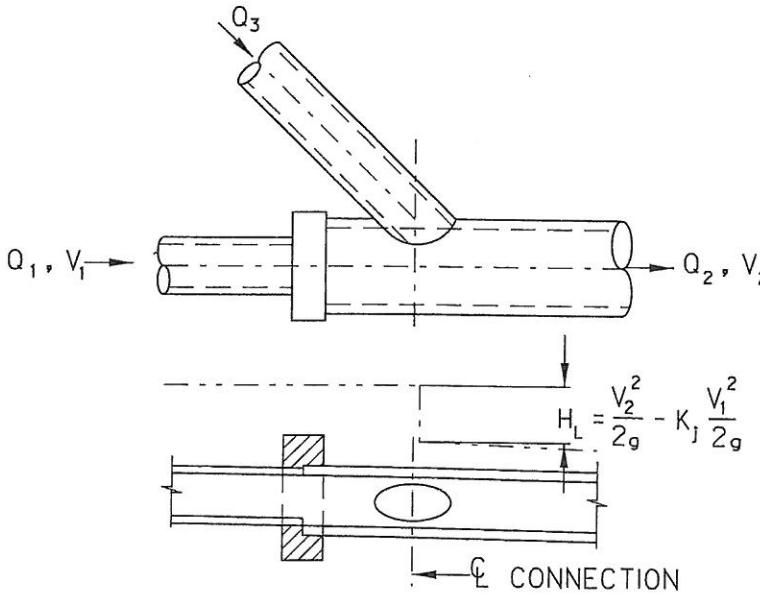


Figure V-7 : Wye Connection

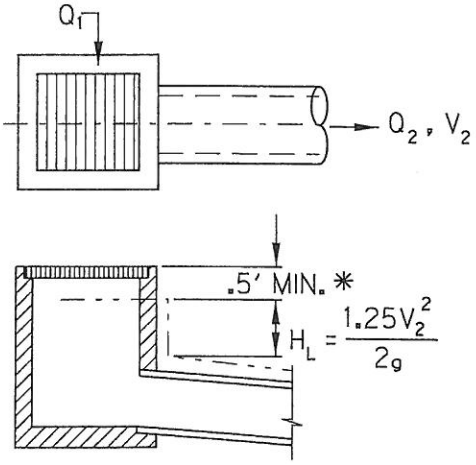


Figure V-8 : Inlet (Grate or Curb) or Manhole at beginning of Line

* 0.5' MIN. BELOW TOP OF GRATE FOR GRATE INLET, AND BELOW GUTTER LINE, FOR CURB INLET.

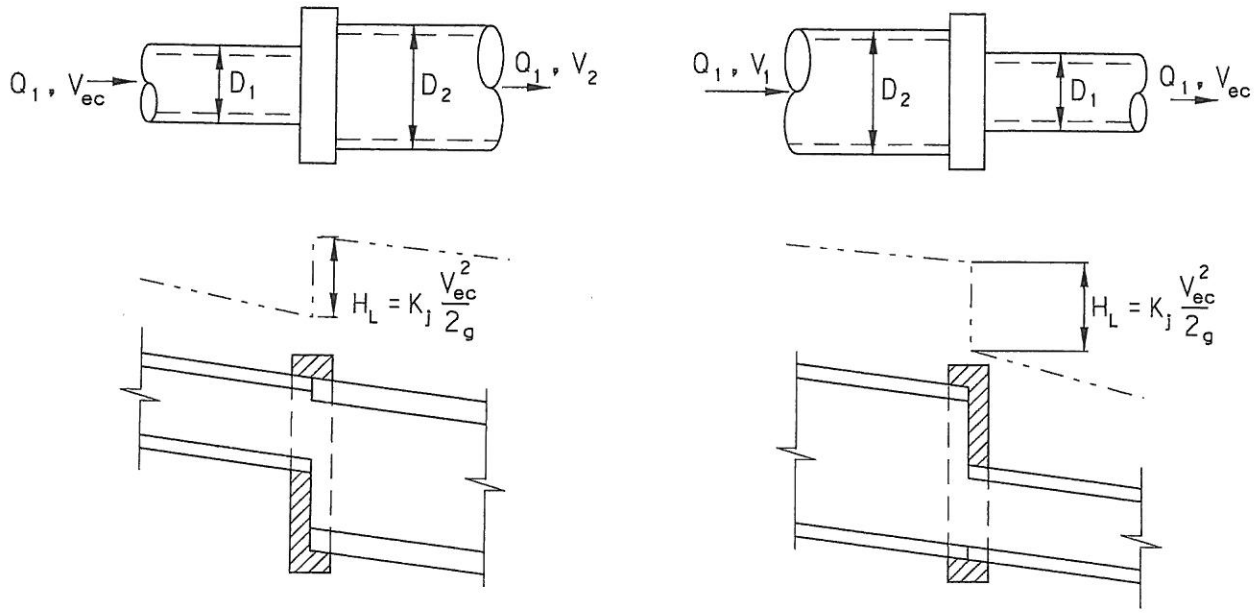


Figure V-9 : Head Gain / Loss due to Sudden Enlargements and Contractions

$\frac{D_2}{D_1}$	SUDDEN ENLARGEMENT (K_j)	SUDDEN CONTRACTIONS (K_j)
1.2	0.10	0.08
1.4	0.23	0.18
1.6	0.35	0.25
1.8	0.44	0.33
2.0	0.52	0.36
2.5	0.55	0.40
3.0	0.72	0.42
4.0	0.80	0.44
5.0	0.84	0.45
10.0	0.89	0.46
>10.0	0.91	0.47

Table V-12 : Head Gain / Loss due to Sudden Enlargements and Contractions

Points of entry into the main storm drain shall be provided at least every 500 feet.

Generally, when the runoff exceeds the capacity of a sixty inch diameter concrete pipe or equivalent cross sectional pipe area, the discharge may be carried in an open channel. Open channels shall be designed to carry the 100 year frequency storm runoff from a fully urbanized watershed with one foot of freeboard, or as allowed by the city Flood Plain Ordinance for channels in the designated flood plain. All open channels shall have a minimum bottom width of eight feet. Surface flumes shall have a minimum of six foot bottom width.

All channels in subdivisions shall be grass lined channels with a maximum velocity of 6 fps. Where right-of-way requirements or grade differences require higher velocities, the channel can be lined with concrete with the approval of the City Engineer, however no channel will have velocities in excess of 12 fps.

In certain instances, a reinforced concrete access ramp may be required for open channel access from a public street. Access ramps shall be a minimum of 12 foot wide with a maximum slope of 15%.

All bridges and culverts shall be designed in accordance with the current edition of the "Hydraulic Manual" prepared by the Texas Department of Transportation, Bridge Division. All culverts shall have headwalls and wingwalls upstream and down stream. All culverts and bridges shall pass the fully urbanized 50 year frequency storm runoff without allowing runoff to pass over the road.

Minimum finished floor elevations shall be one foot above the 100 year water surface in or adjacent to floodplains of open channels based upon full filling of fringe areas and ultimate development conditions. Otherwise minimum finished floor elevations in and adjacent to FEMA mapped floodplain areas shall be either two feet above the BFE on map or one foot above the BFE after filling of fringe areas based upon a FEMA approved LOMR.

Drainage Analysis Guidelines

The purpose of a preliminary drainage analysis is to determine the need for drainage facilities and drainage easements either within the proposed development or offsite. These guidelines shall be used as the minimum requirements for a preliminary plat. When requested by the City Engineer, a drainage analysis shall be submitted with a replat or short form plat. The drainage analysis shall consist of the following items:

1. A topographical map depicting the watershed which drains to and across the subdivision. The map must include the subdivision and an area extending for 200 foot in all directions from the proposed subdivision as a minimum. The map must also include contour lines as specified in Section 5-1. Data from USGS Quad sheets will be acceptable only where more accurate maps are not available. The map shall:

    A. indicate any offsite or adjoining areas outside the limits of the area being platted which are relevant to onsite drainage. In the event that the subdivision is accepting offsite drainage, the entire drainage area for the system will be shown;

B. show any proposed or existing drainage and utility easements, water bodies, streams and railroads, parks, cemeteries, and drainage ditches;

C. show location of existing utilities including gas and petroleum lines, electric, telephone and TV cable, and location of any existing structures located within the area being proposed for subdivision. The datum for all topography shall be as indicated in Section 5-1.

2. Calculation of the drainage areas, time of concentration, a storm water runoff rate for the five and 100 year frequency storms.

3. Identification of special flood hazard areas as defined by the current Flood Insurance Rate Map.

4. The study shall analyze the effect of the subdivision on existing downstream drainage facilities. The study shall be sufficient to verify compliance with previously mentioned criteria.

5. Delineation and calculation of drainage areas together with proposed flow arrows shall represent flow patterns from runoff after all proposed improvements have been installed. Surface water drainage patterns shall be shown for the private property portion of the proposed subdivision and for public and private property adjacent to the proposed subdivision.

6. The study shall provide a proposed stormwater detention plan with supporting calculations that ensures the 10 year and 100 year, 24 hour storm events have been detained. To avoid increasing flood risks downstream of the proposed development, the maximum allowable outflow rate for the development will be limited to the pre-development, 10 year and 100 year, 24 hour events.

7. If any portion of the proposed subdivision or its offsite improvements (including pipes and ditches) fall within the limits of a FEMA floodplain, additional backwater calculations may be required. Additional calculations in the form of a Conditional Letter of Map Revision may be required if the subdivision includes work within a FEMA floodplain area depending upon how extensive the proposed work may be. For detailed information, refer to the City Floodplain Ordinance. Where a CLOMR is required prior to performing work in the floodplain, a LOMR will be required prior to issuing building permits.

8. The drainage study shall be sealed by a professional engineer licensed by the State of Texas.

All drainage facilities shall be constructed on public rights-of-way or easements dedicated for that purpose. Drainage easements or rights-of-way shall be of sufficient size to permit for maintenance of the drainage facility.

The city may require a developer to construct any storm drainage facility, or to require studies or elevation certification when in the judgment of the City engineer, the facility, study or elevation certification is needed for the proper and orderly development of the area or to verify adequacy of drainage provisions for the area. In general, all drainage systems shall provide 100 year storm

frequency capacity. A drainage system includes a street right-of-way, drainage channel or enclosed system considered in combination. A local street shall normally provide a minimum 5 year storm frequency capacity within curbs. A thoroughfare shall normally provide a clear lane in each direction when considered on a five year frequency capacity basis.

The developer shall be responsible for accepting all storm drainage flowing onto his property. This responsibility shall include the drainage directed onto the property by prior development, as well as drainage flowing through the property by reason of natural and manmade topography.

Adequate consideration shall be given by the developer to determine how the discharge, leaving the proposed development, will affect downstream property. All development will be required to provide on-site detention for increased runoff on a 10 year and 100 year frequency. Exceptions may be allowed by the City engineer for small sites (one acre or less) or in other cases where no obvious detrimental effects are perceived.

When a proposed development requires off-site grading or includes areas of two or more acres where storm water has been collected, diverted or concentrated, whether by permanent drainage systems, site or street improvements, it shall only be permitted to drain onto adjacent property through existing creeks, channels, storm sewers or other street improvements, if the following is provided:

1. For proposed developments within the city:

    A. Proper drainage easements; or

    B. If unable to acquire the necessary off-site easements, the developer shall provide the city with documentation of efforts made to obtain easements. The documentation shall include evidence of a reasonable offer made to the affected property owner(s). Upon a written request for assistance, the city may attempt to acquire easements through negotiations. If negotiations are unsuccessful, the request may, at the developer's option, be submitted to the city council for consideration of acquisition through the eminent domain powers of the city. In either case, the total cost of the acquisition and the cost of the easements shall be borne by the developer.

2. For proposed developments outside the City but within the City's extraterritorial jurisdiction:

    A. Proper drainage easements

The developer is responsible for constructing all off-site channelization or underground storm drain with overland relief required to discharge concentrated storm water from the low end of his development to the recognized watercourse, and also to obtain all the necessary easements from intervening land owners. Calculations will be required to show that connecting off-site drainage ways are capable of handling any increase in runoff due to development, concentration or diversion.

Any drainage easements necessary due to the developer's alteration of existing concentrated discharge location s(i.e., existing creeks, channels, or storm sewers) shall be acquired by the developer at no cost to the city.

Where the drainage analysis by the developer indicates that additional runoff from the developing property will overload downstream drainage facilities and result in hazardous conditions, the city may withhold approval of the development until appropriate provisions have been made. These provisions shall include any drainage studies or plans necessary to indicate the off-site drainage problem will be corrected by off-site drainage construction. When required, the developer will furnish the City, a "hold harmless agreement" and a "release of liability" indemnifying the city from any liabilities due to damages caused to the downstream property owner by the discharge of storm drainage water from the development.

ARTICLE VI ADMINISTRATION AND AMENDMENTS

Section 6-1 Building Permits

The city shall withhold all city improvements and services, including the furnishing of sewerage facilities and water service, and all franchise service under control of the city, from subdivisions which have not been approved in accordance with this ordinance and other City ordinances as applicable.

A building permit may be issued after final completion and acceptance of all community facilities by the city.

No occupancy permits shall be issued for any structure or building or any lot, tract or parcel, and no structure or building shall be occupied, unless and until the required public improvements are installed, connected, and are functioning properly and have been accepted by the city.

Section 6-2 Conveyance of Property by Metes and Bounds Description

If a lot has been legally platted according to the rules and regulations in force in the city at the time of platting and all required community facility agreements have been executed, then subsequently if a portion of the lot is sold or conveyed to another individual or entity by a metes and bounds description and the sale has been duly registered at the county courthouse, the city shall issue a building permit or certificate of occupancy under the following conditions:

1. The property described in the metes and bounds description has been platted or replatted in accordance with all rules and regulations in effect in the city at the time of platting or replatting;

2. The plat or replat describing the property which was conveyed by metes and bounds description, also includes the larger tract of land from which the conveyance occurred. The property conveyed shall be identified by a newly assigned lot identification number as determined by the city. The remaining outparcel from which the conveyance occurred shall be assigned a new lot number with the suffix "-remainder" applied. This number shall also be assigned by the city; and

3. A standard note to be added to the replat which states: "No construction permits of any kind shall be issued on lots with a "remainder" designation."

Before a building permit or certificate of occupancy shall be issued on a site identified with the suffix "remainder", the property shall be replatted in accordance with the codes and ordinances in effect in the city at the time such action is to occur.

Section 6-3 Waivers and Exceptions to Subdivision Regulations

Any applicant who believes that proposed conditions of development will work a hardship, or are in excess of the impacts caused or benefits derived by the development shall, prior to the approval of any plat, apply for a modification, exception, variance or waiver from such proposed conditions in accordance with the provisions of this section. The applicant's failure to submit a timely request under the provisions of this section shall be deemed to be the applicant's consent

to the conditions imposed. Variances and waivers from any article within the Subdivision and Development Regulations may be approved as follows.

1. An applicant who desires a variance or a waiver from any specific term or regulation contained within the Subdivision and Development Regulations shall file a written request and pay the fee as established on the approved City fee schedule (see Section 2-16) for the variance or waiver, with the City of Cresson. The written request shall:

    A. State the specific provision of the community facilities policy for which a variance or waiver is sought;

    B. If applicable, state any excessive conditions that the applicant believes are being improperly or unfairly imposed on the development that do not bear a rough proportionality to the requirements necessary to serve the development;

    C. State the nature of the variance or waiver requested and include a written justification for the variance or waiver;

    D. Present documentation necessary to show that the granting of the waiver or variance will not result in any danger to the public health, safety, and welfare of the City and the development immediately surrounding the site for which the variance or waiver is sought; and

    E. Show that the City will not incur any unnecessary and inappropriate expense from the granting of the variance or waiver.

2. Following receipt of the written request for a variance or waiver, the City Manager shall have the request for the variance or waiver placed on the agenda of the next Planning and Zoning Commission public hearing. Written notice of the joint hearing on the requested variance or waiver shall be sent to all owners of real property lying within 200 feet of the property on which the variance or waiver is requested. The notice shall be given not less than 10 days before the date set for the hearing by posting the notice, properly addressed and postage paid, to each property owner as the ownership appears on the last approved City tax roll. The City Manager shall then direct that a copy of the variance or waiver request together with any and all supporting documents be presented to the members of the Planning and Zoning Commission with their regular agenda materials delivered to them for use in the hearing. The City Manager's office shall advise the applicant in writing of the time and place of the hearing on the requested variance or waiver in such manner as to ensure that the applicant shall have, at least, 10 days notice of the proposed hearing to allow adequate preparation for the presentation of the applicant's case.

3. The Planning and Zoning Commission shall hold a public hearing on the proposed request for a variance or waiver of a specific community facilities policy requirement. The council and commission shall receive testimony and comment from citizens who desire to be heard upon the subject.

At the conclusion of the hearing, the Planning and Zoning Commission shall meet and shall submit a written recommendation to the City Council recommending approval of the variance or waiver, denial of the waiver or modification of the variance and waiver.

4. The recommendation of the Planning and Zoning Commission shall be forwarded to the City Secretary for placement upon the agenda of the next City Council meeting scheduled to occur, at least, one week subsequent to the hearing before the Planning and Zoning Commission. The City Manager shall place a copy of the application for a variance or waiver together with all supporting documentation and the recommendation of the Planning and Zoning Commission on the request in the package of materials to be delivered to City Council members for review of the items to be presented on the council agenda in which the request for variance or waiver is to be considered. The City Manager shall ensure that the applicant is given written notice of the scheduled meeting before the City Council on the request for a variance of waiver by depositing it in the United States mail at least seven days prior to the scheduled meeting date.

5. The City Council shall give consideration to the recommendations of the Planning and Zoning Commission on the application for a variance or waiver. The City Council shall grant the application for a variance or waiver, deny the application for a variance, or waiver, or grant a modified variance or waiver under terms and conditions that the council / board deem necessary and appropriate to protect the public health, safety and welfare and to ensure that the variance or waiver granted does not create a financial burden upon the City. The City Council shall advise the applicant in writing of the City Council decision.

   No variance or waiver shall be granted unless the City Council finds that:

   A. The requirement places an unreasonable burden on the development and does not bear a rough proportionality to the requirements necessary to serve the development; or

   B. There are special circumstances or conditions affecting the land such that the strict application of the provisions of the Subdivision and Development Regulations would deprive the applicant of the reasonable use of the applicant's land; and

   C. The variance or waiver is necessary for the preservation and enjoyment of a substantial property right of the applicant; and

   D. 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 Subdivision and Development Regulations and the Design Standards Manual.

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 City Council meeting(s) at which such variance or waiver is granted. Variances or waivers shall be granted only when in harmony with the general purposes and intent of the Subdivision and Development Regulations so that

the public health, safety, and welfare may be secured and substantial justice done. Pecuniary hardship to the developer, standing alone, shall not be deemed to constitute undo hardship.

Section 6-4 Repealer

This Ordinance shall be and is hereby declared to be cumulative of all other ordinances of the City of Cresson, and this ordinance shall not operate to repeal or affect the Code of Ordinances of the City of Cresson or any other ordinances except insofar as the provisions thereof might be inconsistent or in conflict with the provisions of this ordinance, in which event such conflicting provisions, if any, in such Code of Ordinances or any other ordinances are hereby repealed.

Section 6-5 Penalty

Any person, firm, association of persons, corporation, or other organization violating the provisions of this ordinance shall be deemed to be guilty of a misdemeanor and, upon conviction, shall be fined an amount not to exceed $2,000.00. Each day that a violation continues shall be deemed a separate offense.

Section 6-6 Severability

The sections, paragraphs, sentences, clauses, and phrases of this ordinance are severable, and if any phrase, clause, sentence, paragraph, or section of this ordinance shall be declared unconstitutional, such unconstitutionality or invalidity shall not affect any of the remaining phrases, clauses, sentences, paragraphs, or sections of this ordinance, since the same would have been enacted by the City Council without the incorporation in this ordinance of any such unconstitutional or invalid phrase, clause, sentence, paragraph, or section.

Appendix A

CITY OF CRESSON, TEXAS

FOR _____ ADDITION

DEVELOPERS AGREEMENT NO._____

This Contract is entered into on the _____ day of ,_____, _____, by and between the CITY OF CRESSON, TEXAS, (hereafter known as the "City"), and _____ _____ a _____ corporation, (hereafter known as the "Developer").

WHEREAS, the Developer is the owner of/and which has been platted as _____ Addition to the City of Cresson, Hood County, Texas, (hereafter referred to as the "Subdivision"); and

WHEREAS, the Developer is required to install certain public and private improvements and amenities as required in this Contract (hereinafter referred to as the "Improvements") in order to serve the lots within the Subdivision; and

WHEREAS, this Contract shall operate as a covenant running with the land and shall be binding upon the Developer and its successors, heirs, representatives, grantees, trustees, officers, agents, servants, employees, and assigns.

NOW, THEREFORE, the City and the Developer, in consideration of the mutual covenants and agreements contained herein, do mutually agree as follows:

I GENERAL REQUIREMENTS

A. PUBLIC IMPROVEMENTS

1. **Constructed by Developer; Plans.** The improvements, whether on-site or off-site, including streets, water lines, sanitary sewer lines, drainage, sidewalks, traffic signals (if warranted by a developer funded traffic engineering study), street lighting (by arrangement by the developer with the electric company), street signs (by payment to the city for installation cost), and all other required improvements for the subdivision, shall be installed by the developer at no cost to the city, unless otherwise provided herein, and shall be in accordance with the subdivision regulations and all specifications and regulations of the city, and the engineering plans as approved by the city engineer or his agent. The developer shall submit three sets of final- approved engineering plans to the City at the time of execution of this contract. The final- approved engineering plans shall become a part of this contract. The plans shall have a cover sheet with this Developers Agreement number and a signature block for the mayor and the city engineer.

2. **Construction Contractor.** The developer shall employ a construction contractor that meets city and statutory requirements for being bonded and insured; has acceptable prior work experience approved by the city engineer; has financial resources which

would enable the contractor to be capable of performing the work; and is qualified in all respects to bid on public projects and do work on public streets. The developer shall notify the city engineer of the contractor selected and provide a copy of the signed contract bid, along with all supporting documents. The improvements shall be installed within all applicable time frames in accordance with the subdivision regulations unless otherwise approved herein.

3. **Civil Engineer**. The developer shall employ a civil engineer licensed to practice in the State of Texas for the design and preparation of the plans and specifications (hereinafter referred to as the "engineering plans") for the construction of the improvements. The engineering plans shall include any engineering studies, plan/profile sheets, and other construction documents for the improvements.

4. **Preconstruction Conference.** Construction of the improvements shall not be initiated until a pre-construction conference has been conducted regarding the proposed construction. Further, the developer will give a minimum of 48 hours written notice to the city engineer, indicating the time and date that construction will commence.

5. **Inspection by the City.** The developer shall not backfill or cover any sanitary sewer, storm drain, or water pipes unless a city inspector is present and gives his consent to proceed. Further, no service lines of water or sewer mains shall be connected to any building until the water and sewer mains have been completed, inspected, and accepted by the city. The developer will reimburse the city for overtime worked by city personnel in performing project inspection.

6. **Review by City Engineer.** Construction of all public improvements shall be subject to routine review by the city engineer or his agent to evaluate conformance with the engineering plans, project specifications, and city standards. However, such review and evaluation shall not relieve the developer, its engineer, and/or agent of responsibility for the design, construction, and maintenance of the improvements.

7. **As-Built Plans or Record Drawings.** Upon completion of construction of the improvements that are required by this contract and the subdivision regulations, the developer shall deliver to the city the following items of as-built construction plans for the improvements constructed or engineered by the developer.

   a. One set of as-built plans; and

   b. One set of as-built reproducible plans.

   c. One set of electronic copies of the plans in .dwg or .dgn format.

B. **CONSTRUCTION BONDS**. Prior to initiating any construction of the improvements, the developer's contractors shall provide the city with one original and one quality copy of the following construction bonds, which shall name the city (or developer as noted) as beneficiary:

1. **Performance Bond (Developer Beneficiary)**, A good and sufficient performance bond in an amount equal to one hundred percent of the total contract price (between the developer and the prime contractor), guaranteeing the full and faithful execution of the

work and performance of this Contract and for the protection of the city against any improper execution of the work or the use of inferior materials. The performance bond shall guarantee completion of the improvements within two years of execution of this contract.

2. **Payment Bond (Developer Beneficiary).** A good and sufficient payment bond in an amount equal to one hundred percent of the total contract price (between the developer and prime contractor), guaranteeing payment for all labor, materials, and equipment used in the construction of the improvements.

3. **Maintenance Bond (City Beneficiary).** A good and sufficient maintenance bond in an amount equal to ten percent of the total cost of the improvements, including all change orders, guaranteeing the maintenance in good condition of the improvements for a period of two years from and after the date that a letter of acceptance is issued by the city indicating that the improvements have been completed by the developer and accepted by the city.

Each of the above bonds shall be in a form acceptable to the city. Any surety company through which a bond is written shall be duly authorized to do business in the State of Texas, provided that the city shall retain the right to reject any surety company for any work under this contract regardless of such company's authorization to do business in the State of Texas. Approval by the city shall not be unreasonably withheld or delayed.

C. DEVELOPER COSTS. The developer agrees to pay the following:

1. Construction inspection and administration fees in the sum of $_____ (four percent of the cost of construction of the improvements) to be paid prior to construction of each phase and based on actual bid construction cost. The developer hereby agrees to provide the city with a copy of each contract bid that the developer has awarded for the installation of the improvements;

2. Cost of portland cement concrete or hot mix asphaltic concrete mix design and batch plant control;

3. The additional charge for inspections on Saturdays, Sundays, holidays, and after normal working hours;

4. Any charges for re-testing as a result of failed tests;

5. Cost of testing related to water and sewer line pressure adequacy and waterline sterilization;

6. The required costs of main installation or adjustments for street lighting or other utilities or entities for the subdivision which are charged by public utility companies (Lone Star Gas Company, Southwestern Bell Telephone Company, TU Electric Company, or other utilities or other entities which are affected by the subdivision or related work).

D. CITY COSTS. The city agrees to bear the expense of:

1. Initial soil density tests on trenches, roadway sub grade, fill areas, or other areas as required;

2. Initial concrete cylinder or beam testing and concrete coring samples; and

3. Technician's time for initial testing as noted above.

II FACILITIES TO BE INSTALLED

A. ON-SITE WATER. The developer agrees to install water facilities to service lots in the subdivision as shown on the final plat of the subdivision. The city agrees to provide temporary water service to individual lots at the developer's request and expense, for construction, testing, and irrigation purposes only, during the construction of homes, even though sanitary sewer services may not be available to the homes. The developer will be charged at the normal rate for all water used as measured by a temporary or permanent meter.

B. DRAINAGE. The developer hereby agrees to construct the necessary drainage facilities within the subdivision. The developer hereby agrees to fully comply with all EPA requirements relating to the planning, permitting, and management of storm water which may be in force at the time that development proposals are being presented for approval by the city. The developer hereby agrees to comply with all provisions of the Texas Water Code.

C. STREETS

1. Street construction in the subdivision shall conform to the requirements in the subdivision regulations of the city.

2. The developer will be responsible for arranging with the electric company and paying any related costs for installation at locations approved by the city engineer.

3. The city will be responsible for installation of all regulatory signs recommended by the Manual on Uniform Traffic Control Devices and as directed by the city engineer. It/s understood that the developer with city approval may put in signs having unique architectural features, however, should the signs be moved or destroyed by any means, the city shall only be responsible for replacement of standard signs.

4. All water, sanitary' sewer, and storm drainage utilities which are anticipated to be installed within the streets or within the street right-of-way will be completed prior to the commencement of street construction on the specific section of the street in which the utility improvements have been placed or for which they are programmed. It is understood that in every construction project a decision later may be made to realign a line or service which may occur after construction has commenced. The developer hereby agrees to advise the city engineer as quickly as possible when such a need has been identified and to work cooperatively with the city to make sure such utility changes in a manner that will be least disruptive to street construction or stability.

D. **ON-SITE SANITARY SEWER FACILITIES.** The developer hereby agrees to install sanitary sewer collection facilities to service lots in the subdivision as shown on the final p/at of the subdivision.

E. **AMENITIES**. It is understood that the subdivision may incorporate a number of unique amenities and aesthetic improvements such as aesthetic ponds and lakes, unique landscaping, walls, street furniture, etc. and may incorporate specialty signs and accessory facilities. The developer agrees to accept responsibility for the construction and maintenance of all such amenities or specialty items until such responsibility is turned over to a homeowners association. It is further understood and agreed that only those amenities or specialty items listed in this section may be constructed within the public right-of-way. The developer a/so agrees to maintain these amenities until such responsibility is turned over to a homeowners association. The city shall not be responsible for the replacement of these amenities under any circumstances. The developer, its successors, and assigns, agree to indemnify and hold harmless the city from any and all damage, loss, or liability of any kind whatsoever by reason of injury to property or third persons occasioned by its use of the public right-of-way with regard to these amenities and the developer, its successors, and assigns shall, at its own cost and expense, defend and protect the city against all such claims and demands.

For this subdivision, these items include:

(INSERT LIST HERE)

F. **STREET NAME SIGNS**. The city will purchase and install all street name signs in the subdivision. Street names shall have a maximum of twelve characters. The developer shall pay a fee to offset this cost based upon the approved fee schedule prior to Developers Agreement approval. The amount for this project is $_____.

G. **SIDEWALKS.** Sidewalks shall be installed in accordance with the provisions of the City of Cresson subdivision regulations.

III. DEVELOPMENT FEES

PARK FEES / LAND DEDICATION. The developer agrees to dedicate land for parks or pay park dedication fees in conformance with the subdivision regulations of the city. The subdivision consists of _____ lots for a total required park fee of $_____ , or the developer has dedicated acres of land.

IV. MISCELLANEOUS PROVISIONS

A. **PUBLIC FACILITIES TO BE PROVIDED BY THE CITY.** The city makes no guarantee that water supply or wastewater treatment capacity will be available at any particular time or place, it being fully understood by both parties hereto that the ability of the city to supply water and wastewater services is subject to the city's water and wastewater system capacity. The city shall be the sole judge of the availability of the capacity to supply water and/or wastewater services; provided, however, that the city will use its best efforts to insure that water supply and wastewater treatment capacity is available.

B. INDEMNIFICATION

1. **LIABILITY FOR DESIGN.** Approval by the city engineer or other employee of any plans, designs, or specifications submitted by the developer pursuant to this contract shall not constitute or be deemed to be an assumption of responsibility and liability of the developer, its competency of their design and specifications for the improvements, it being the intent of the parties that approval by the city engineer signifies the city's approval of only the general design concept of the improvements to be constructed. In this connection, the developer shall for a period of two years after the acceptance by the city of the completed improvements, indemnify and hold harmless the city, its officers, agents, servants, and employees, from any loss, damage, liability, claim, obligation, penalty, charge, cost, or expense including property damage, personal injury, or death, to any and all persons, which may arise out of any defect, deficiency, or negligence of the engineer's design and specifications incorporated into any of the improvements constructed in accordance therewith, whether or not such loss, damage, liability, claim, obligation, penalty, charge, cost, or expense is caused in part by the city, its officers, agents, servants, or employees, and the developer shall defend at its own expense any suits or other proceedings brought against the city, its officers, agents, servants, or employees, or any of them on account thereof, and shall pay all expenses (including without limitation reasonable fees and expenses of attorney's expert witnesses and consultants), and satisfy all judgments which may be incurred by or rendered against them in connection herewith.

2. **LIABILITY FOR CONSTRUCTION.** The developer, its successors, assigns, vendors, grantees, and/or trustees do hereby fully release and agree to indemnify, hold harmless, and defend the city, its officers, agents, servants, and employees from all losses, damage, liabilities, claims, obligations, penalties, charges, costs, or expenses of any nature whatsoever, for property damage, personal injury, or death, resulting from or in any way connected with this contract or the construction of the improvements or the failure to safeguard construction work, or any other act or omission of the developer or its contractors or subcontractors, their officers, agents, servants, or employees related thereto, which accrue prior to acceptance of the improvements by the city, whether or not such losses, damages, liabilities, claims, obligations, penalties, charges, costs, or expenses are caused in part by the city, its officers, agents, servants, or employees.

C. **FINAL ACCEPTANCE OF INFRASTRUCTURE.** The city will not issue a letter of acceptance until the improvements are completely constructed (final completion) to the satisfaction of the city engineer or his agent. However, upon substantial completion, a "punch list" of outstanding items shall be presented to the developer's contractors indicating those outstanding items and their deficiencies that need to be addressed for final completion of the improvements.

Upon issuance of a letter of acceptance, title of the improvements shall be vested in the city and the developer hereby relinquishes any right, title, or interest/n and to the improvements or any part thereof. It is understood and agreed that the city shall have no liability or responsibility in connection with the improvements until the letter of acceptance is issued.

D. **EROSION CONTROL.** During construction of the subdivision and after the streets have been installed, the developer agrees to keep the streets free from soil build-up. The

developer agrees to use soil control measures such as hay bales, silt screening, hydromulch, etc., to prevent soil erosion. It will be the developer's responsibility to present to the city engineer a soil control development plan that will be implemented for the subdivision. When, in the opinion of the city engineer, there is sufficient soil build-up on the streets or other drainage areas and notification has been given to the developer, the developer will have 72 hours to clear the soil from the streets or affected areas. If the developer does not remove the soil from the streets or other areas within 72 hours, the city may cause the soil to be removed either by contract or city forces and place the soil within the subdivision at the developer's expense. All expenses must be paid to the city prior to issuance of a letter of acceptance for the improvements.

E. **MOWING**. The developer and any third party independent entity engaged in the construction of houses, (hereinafter referred to as the "builder'), will be responsible for mowing all grass and weeds and otherwise reasonably maintaining the aesthetics of all land and lots in the subdivision which have not been sold to third parties. After 15 days written notice, should the developer or the builder fall in this responsibility, the city may contract for this service and bill the developer or the builder for reasonable costs. Should such cost remain unpaid for 60 days after notice, the city can file a lien on the property so maintained.

F. **COMPLIANCE WITH LAWS**. The developer hereby agrees to comply with all federal, state, and local laws that are applicable to development of the subdivision.

G. **VENUE**. Venue for any action brought hereunder shall be in Hood County, Texas.

H. **ASSIGNMENT**. This contract or any part hereof or any interest herein shall not be assigned by the developer without the express written consent of the mayor, which consent shall not be unreasonably withheld.

I. **WAIVER**. The developer expressly acknowledges that by entering into this contract, the developer, its successors, heirs, assigns, vendors, grantees, trustees, and/or representatives, shall never construe this contract as waiving any of the requirements of the zoning ordinance, subdivision regulations, or any other ordinance of the city.

J. **AMENDMENTS**. This contract may be changed or modified only with the written consent of both the developer and the City Council of Cresson.

K. **LIENS AND ASSESSMENTS**. In the event the developer fails to comply with any of the provisions of this contract, the city shall be authorized to cease issuance of any further certificates of occupancy or building permits on property owned by the developer. Should the developer fail to complete the construction of the improvements in addition to any other remedy authorized by this contract or law, the city shall be authorized to complete such construction and file a mechanic's lien against the developer's property; or in the alternative, to levy an assessment against the developer's property for public improvements, in accordance with applicable state law.

L. **CONTINUITY**. This contract shall be a covenant running with the land and shall be binding upon the developer, its successors, heirs, assigns, grantees, trustees, and/or representatives.

M. SEVERABILITY. The provisions of this contract are severable and, in the event any word, phrase, sentence, paragraph, section or other provision of this contract, or the application thereof to any person or circumstance, shall ever be determined by a court of competent jurisdiction to be invalid, illegal, or unenforceable for any reason, the remainder of this contract shall remain in full force and effect and the application thereof to any other person or circumstance shall not be affected thereby. The in valid, illegal, or unenforceable provision shall be rewritten by the parties of this contract to accomplish the parties' original intent as nearly as possible.

IN WITNESS WHEREOF, each of the parties hereto has caused this contract to be executed by its undersigned duly authorized representative as of the date hereinabove first mentioned.

_____

A _____ CORPORATION

By:

_____

_____
Name, Title

Date: _____

THE CITY OF CRESSON

By:

_____
Mayor

Date: _____

ATTEST:

By:

_____
City Secretary

CORPORATION ACKNOWLEDGEMENT

THE STATE OF TEXAS §

COUNTY OF HOOD §

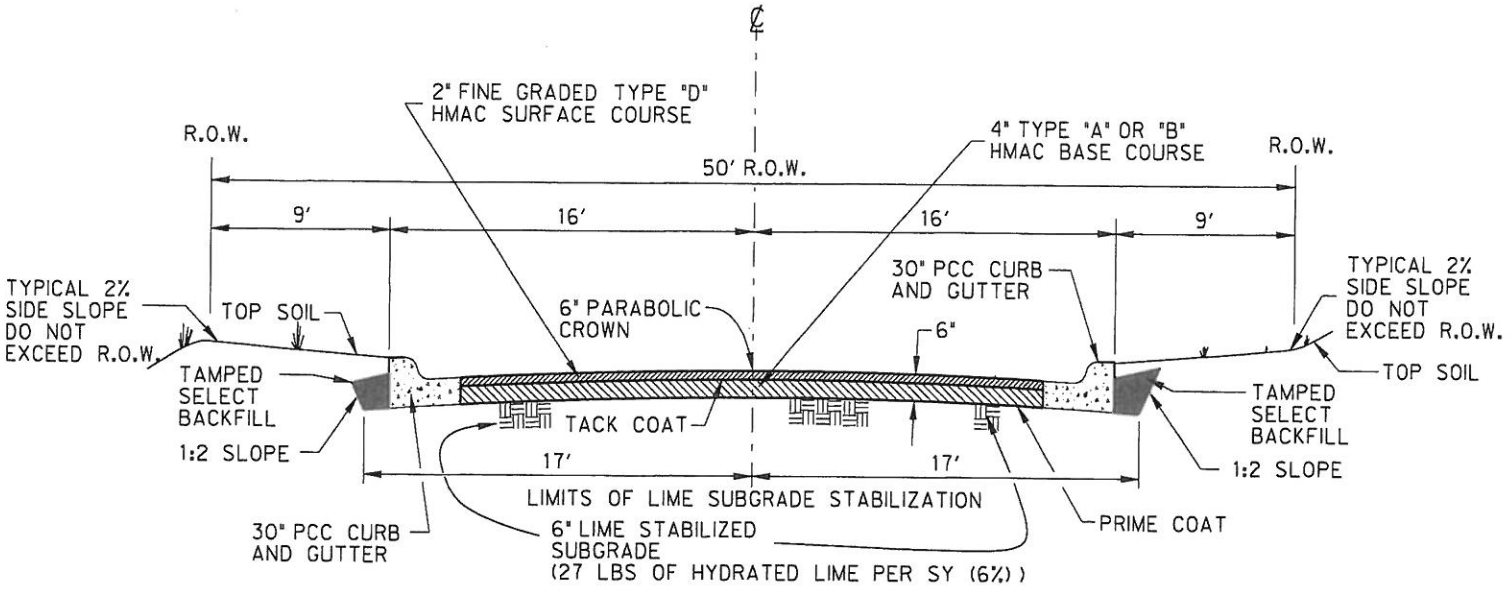
BEFORE ME, the undersigned authority in and for Hood County, Texas, on this day personally appeared _____, known to me to be the person and officer whose name is subscribed to the foregoing instrument and acknowledged to me that he/she is the _____ of said _____, a _____ corporation, and that he/she is authorized by said corporation to execute the foregoing instrument as the act of such corporation for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this _____ day of _____

(Notary Stamp)

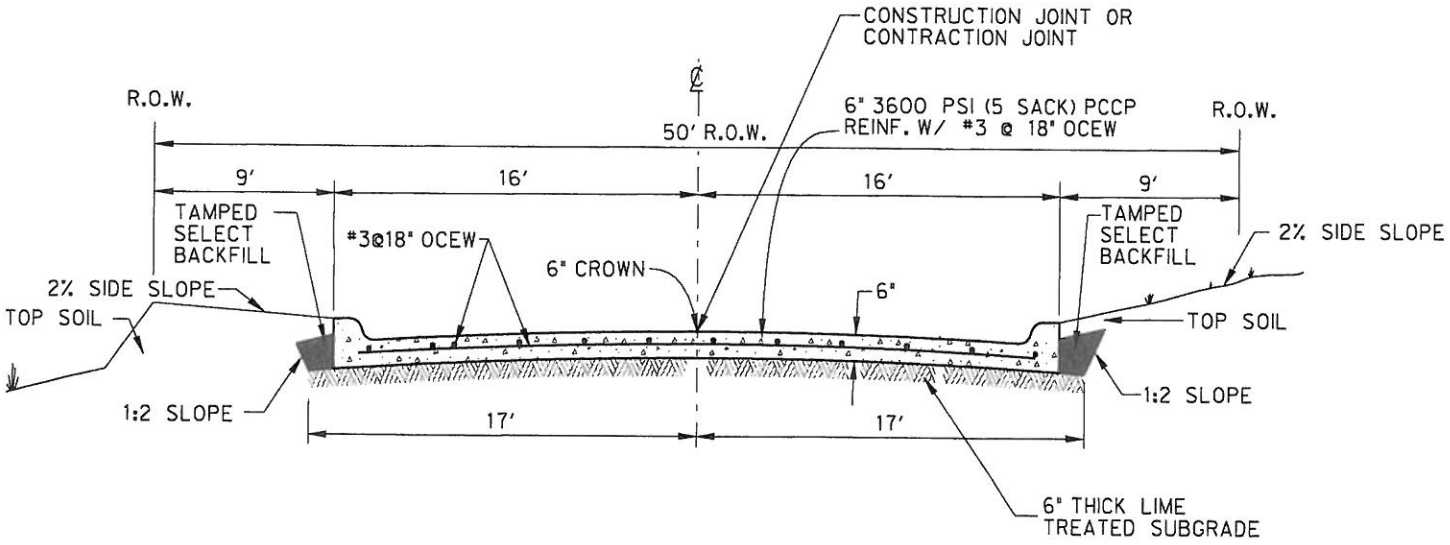
_____

Notary Public in and for the State of Texas



TYPICAL 32' B – B H.M.A.C. STREET SECTION

N.T.S.



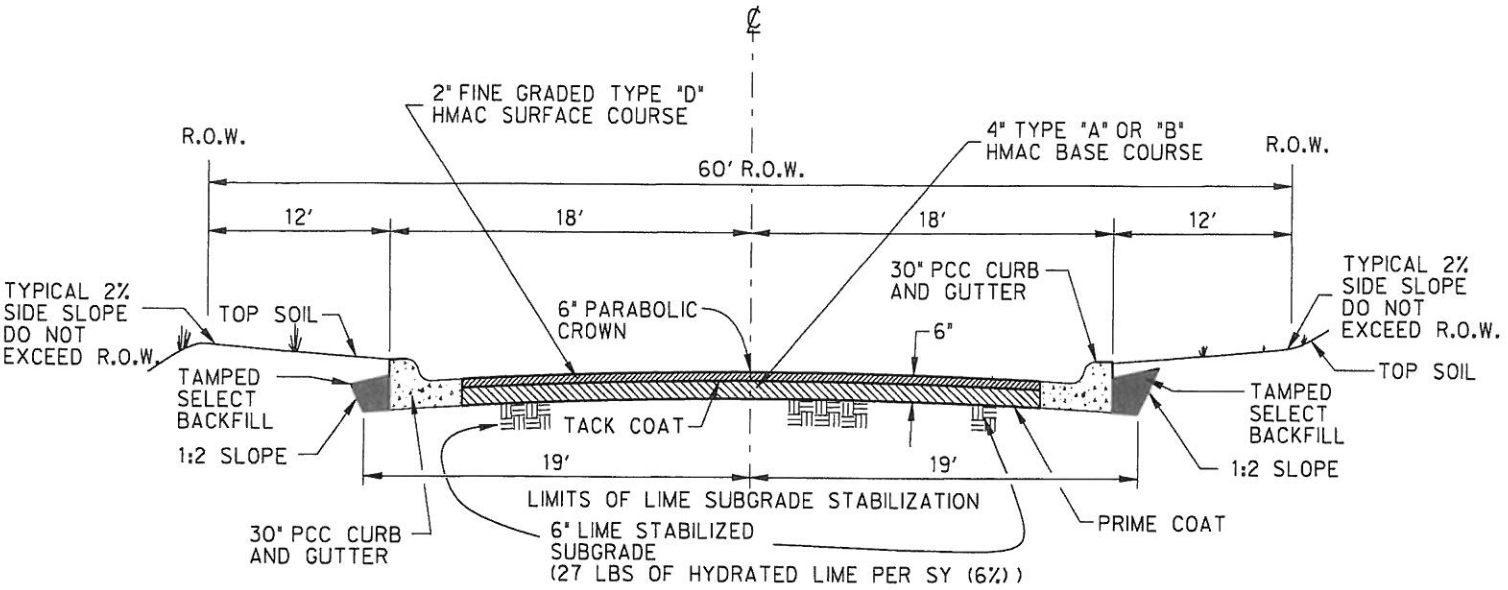
TYPICAL 32' B – B CONC. STREET SECTION

N.T.S.

CITY OF CRESSON

RESIDENTIAL STREET PAVING SECTION

PAVING SECT RESIDENTIAL.DGN



TYPICAL 36' B – B HMAC COMMERCIAL STREET SECTION

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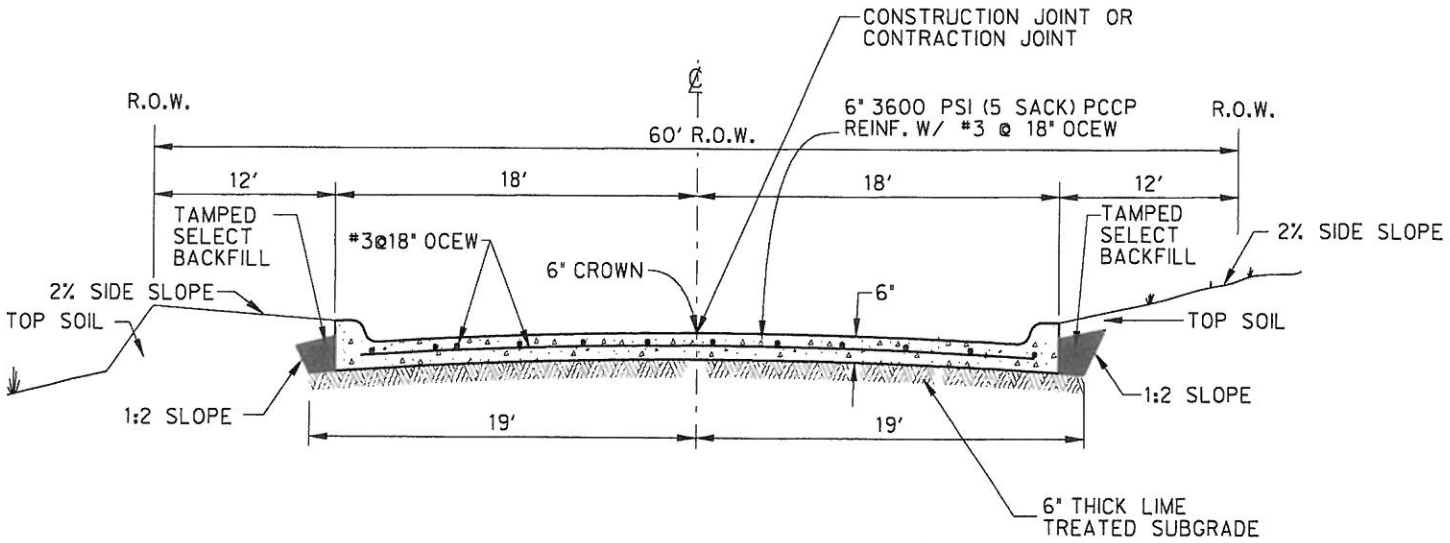


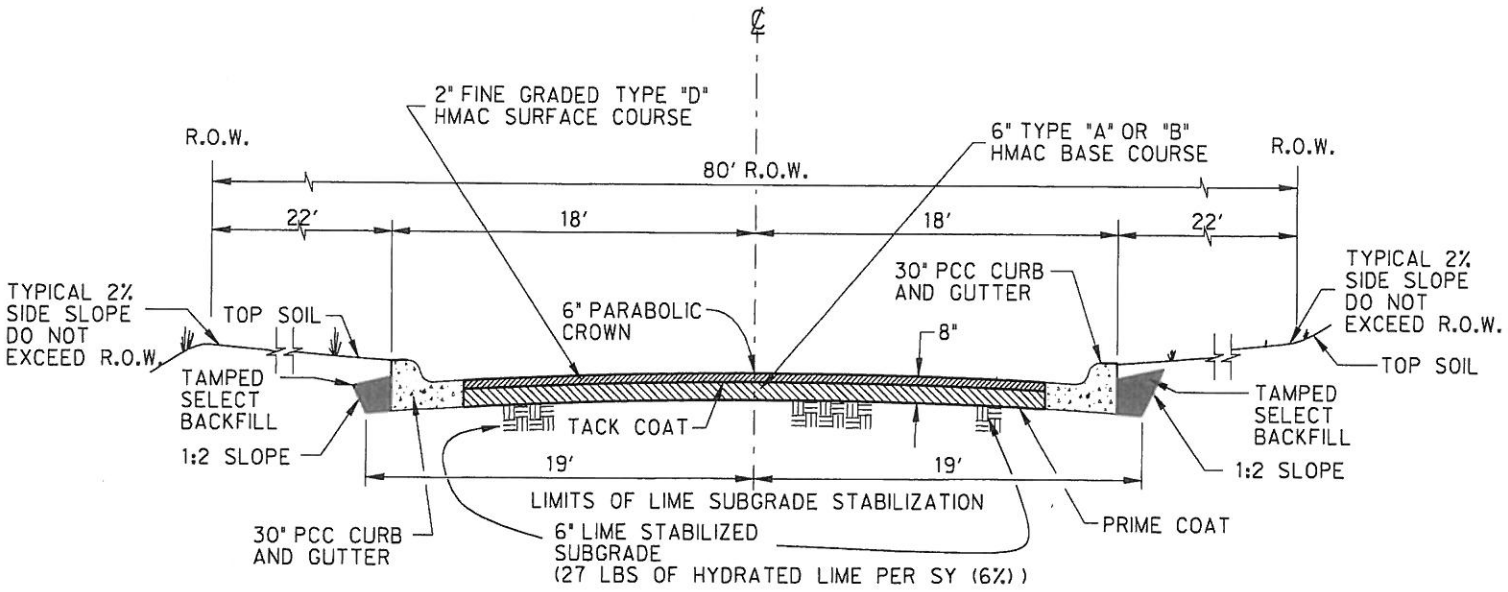
TYPICAL 36' B – B CONCRETE COMMERCIAL STREET SECTION

N.T.S.

CITY OF CRESSON

COMMERCIAL STREET PAVING SECTION

PAVING SECT COMMERCIAL.DGN



TYPICAL 36' B – B HMAC INDUSTRIAL STREET SECTION

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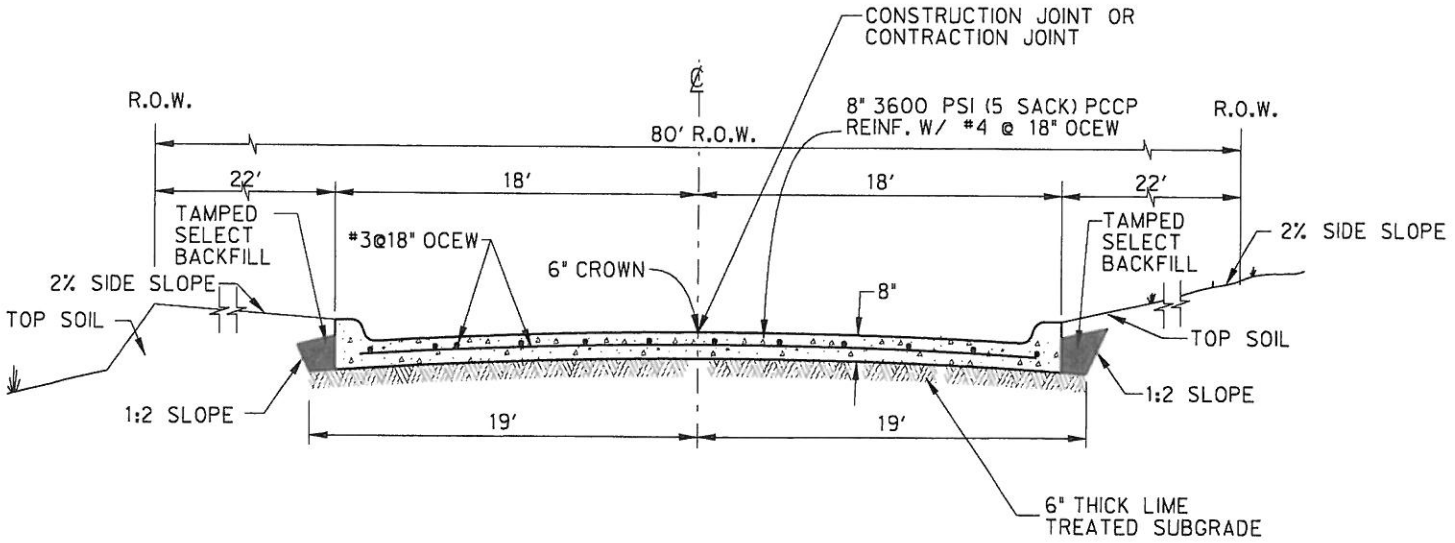


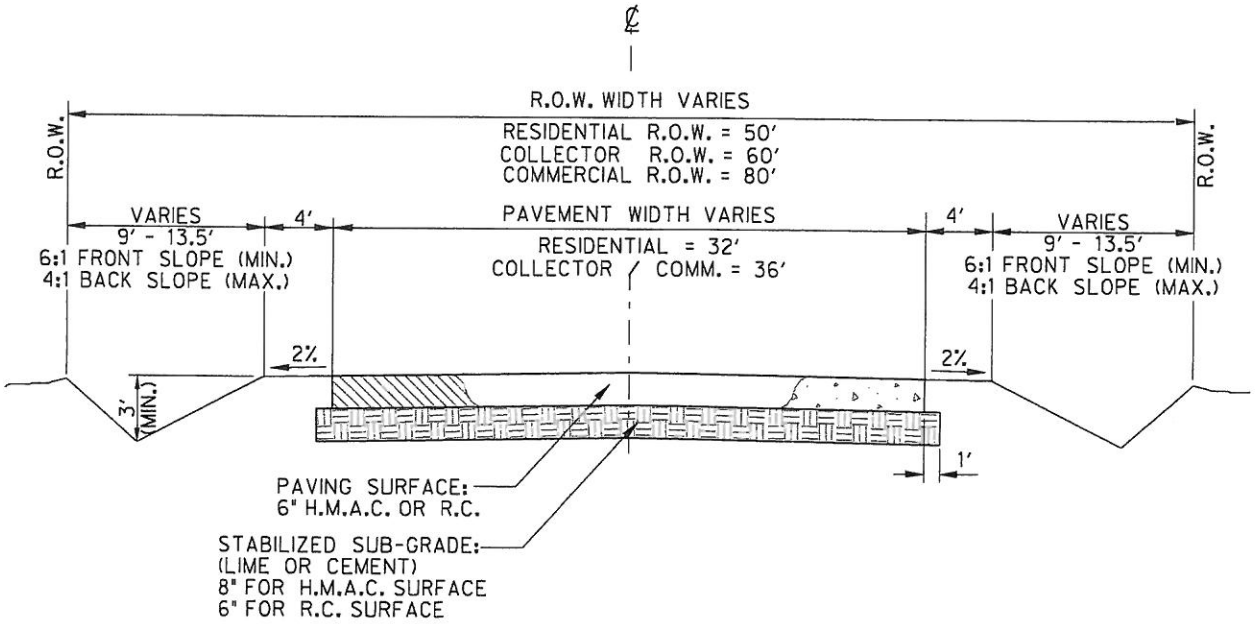
TYPICAL 36' B – B CONCRETE INDUSTRIAL STREET SECTION

N.T.S.

CITY OF CRESSON

INDUSTRIAL STREET PAVING SECTION

PAVING SECT INDUSTRIAL.DGN



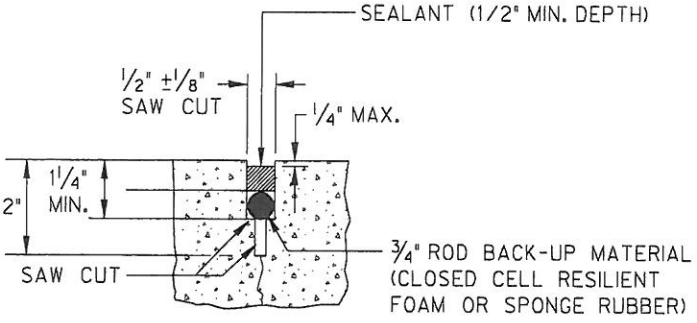
TYPICAL BAR DITCH PAVING SECTION

CITY OF CRESSON

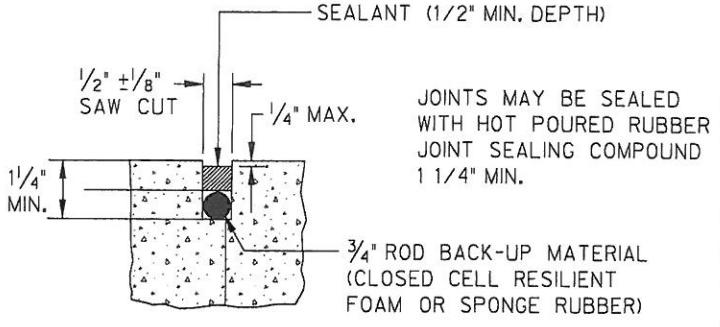
CITY OF CRESSON

STREET PAVING SECTION

PAVING SECT BAR DITCH.DGN

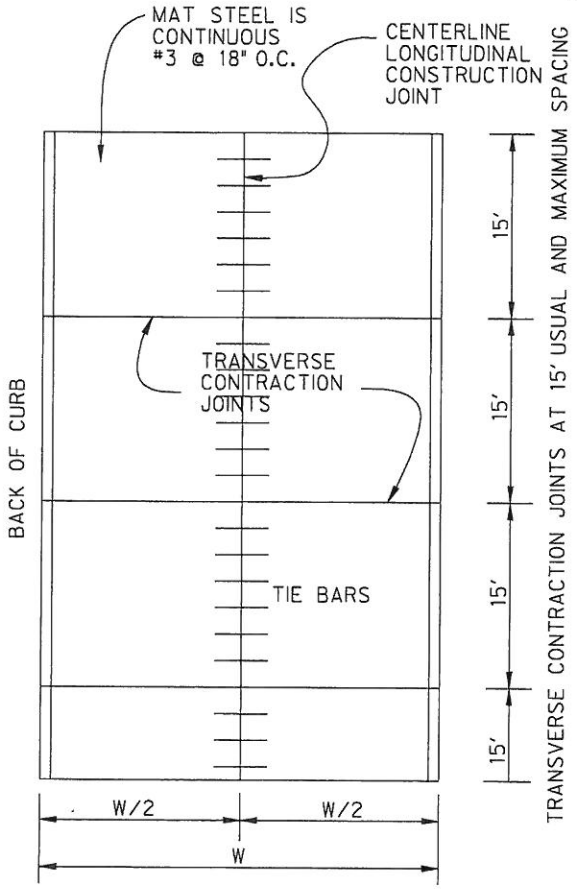


CONTRACTION JOINT



CONSTRUCTION JOINT

JOINT DETAILS

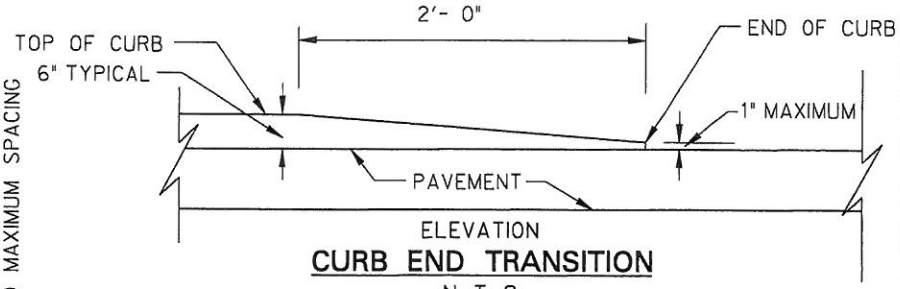


MAXIMUM LONGITUDINAL SPACING (W/2) IS 12'

NTS

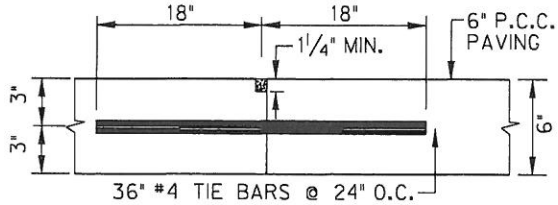
TYPICAL CONCRETE PAVEMENT JOINT LAYOUT

TRANSITION FROM NORMAL CURB HEIGHT TO PAVEMENT SURFACE IN TYPICAL CURB

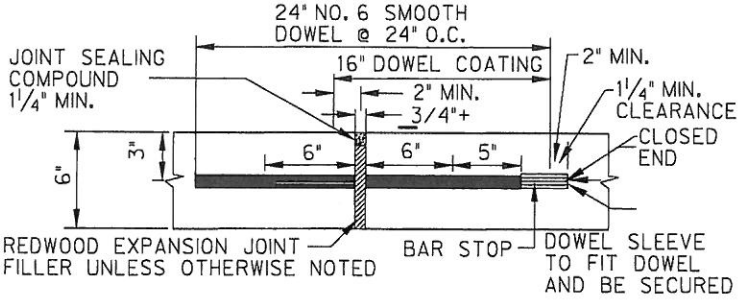


CURB END TRANSITION

N. T. S.



LONGITUDINAL CONSTRUCTION JOINTS

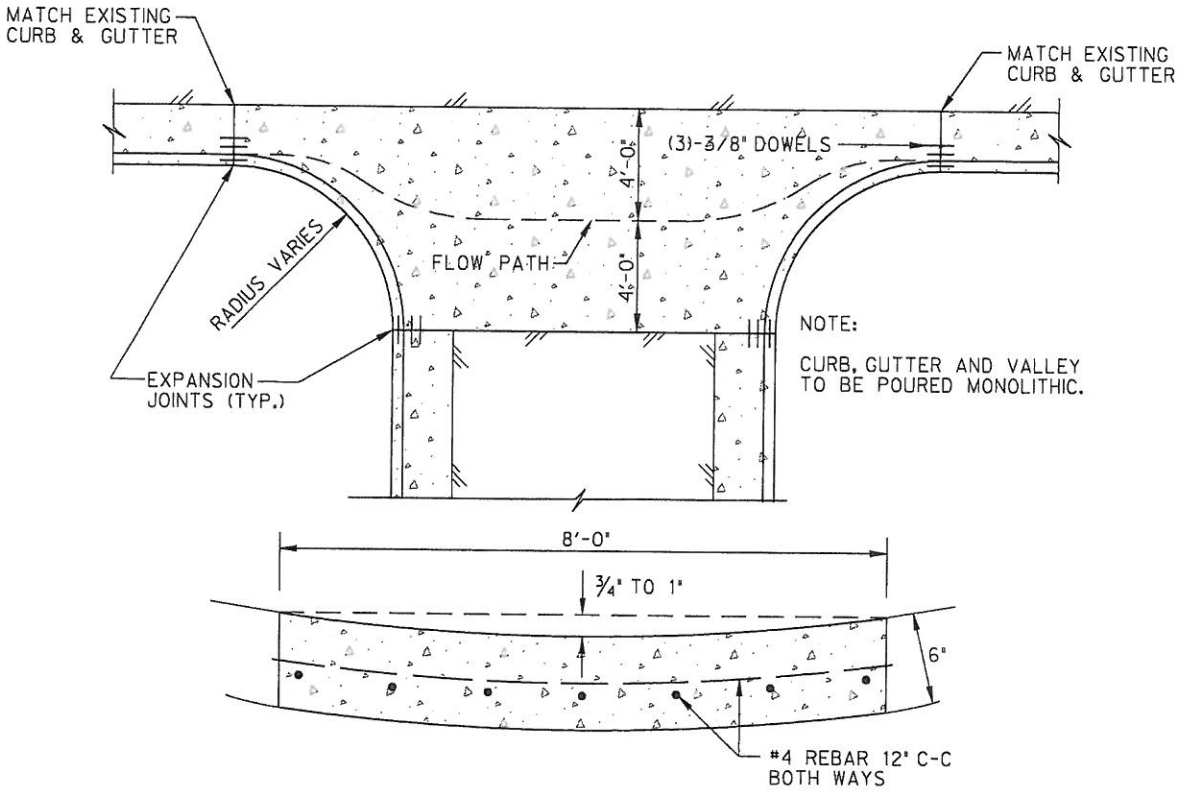


TRANSVERSE EXPANSION JOINT

CITY OF CRESSON

JOINT DETAILS

JOINT DETAILS.DGN



NTS

TRANSITION SECTION FOR VALLEY CROSSING MAJOR STREETS	
DISTANCE FROM THE CL OF DIP	CROWN
0′	0.000′
5′	0.041′
10′	0.083′
20′	0.208′
30′	0.333′
40′	0.458′
50′	0.500′

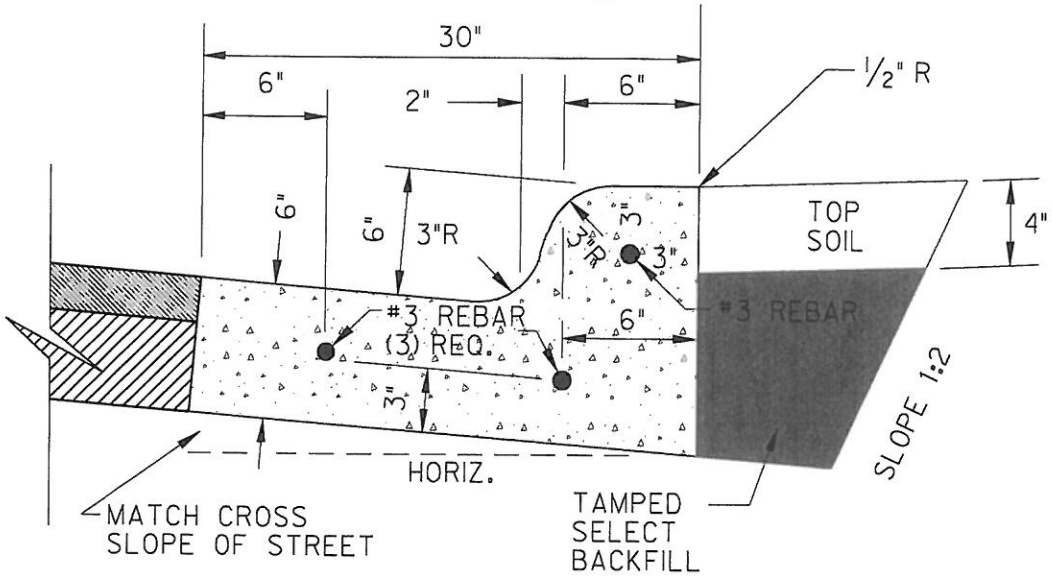
MONOLITHIC CONCRETE VALLEY AND CURB RETURN

CITY OF CRESSON

MONOLITHIC CONCRETE VALLEY AND CURB RETURN

VALLEY GUTTER.DGN

NOTE THAT SELECT BACKFILL DOES NOT INCLUDE CONCRETE OR FORMING WASTE, TRASH OR SIMILAR DEBRIS.



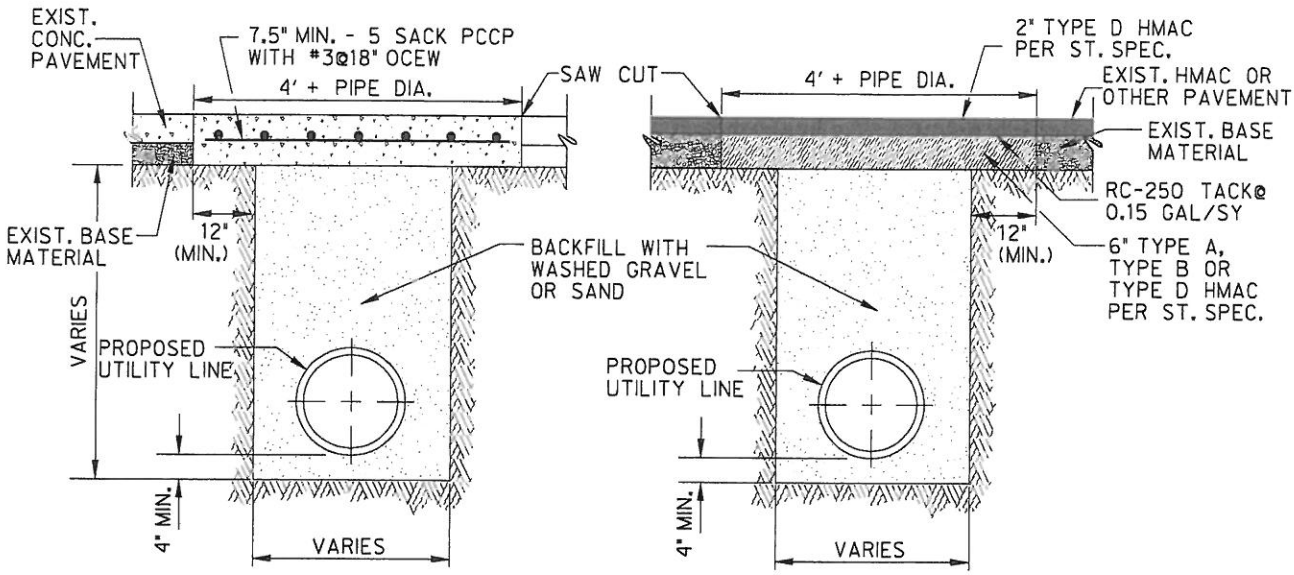
MONOLITHIC CONCRETE CURB AND GUTTER

NTS

CITY OF CRESSON

CONCRETE CURB AND GUTTER

CONC CURB GUTTER.DGN

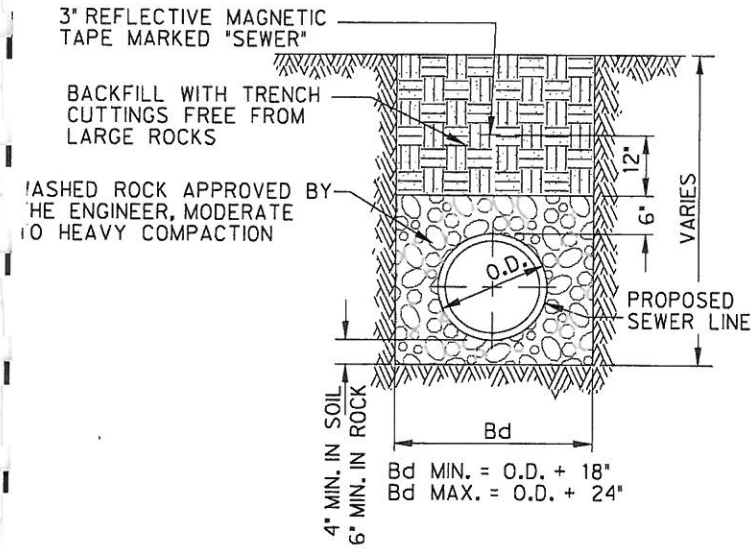


CONCRETE STREET

ASPHALT STREET

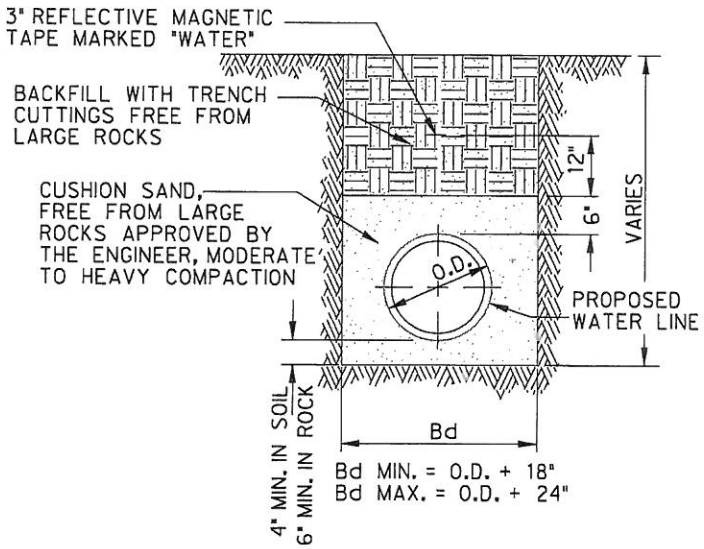
PAVEMENT REPAIR

N.T.S.



SANITARY SEWER PIPE EMBEDMENT DETAIL

N. T. S.



WATER PIPE EMBEDMENT DETAIL

N. T. S.

CITY OF CRESSON

PIPE EMBEDMENT DETAILS

ENBEDMENT DETAILS.DGN