PROPOSED CHANGES TO THE DEVELOPMENT CODES

CITY OFFICIALS

Ricardo "Rick" Guerra	Mayor
Carol Lynn Sanchez	Mayor Pro Tem (Place 4)
Rene Garcia	Commissioner Place 1
Rene Villafranco	Commissioner Place 2
Pedro A. Galvan, Pharm D.	Commissioner Place 3
Manuel De la Rosa	City Manager
Fred Bell	Assistant City Manager

Rev. February 2022

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PREFACE

The City of San Benito is committed to providing a high quality of life throughout the City by ensuring properly designed and constructed infrastructure to serve those who live and work in the City of San Benito. The condition of public infrastructure facilities is important to the everyday life of motorists and pedestrians. The City of San Benito reduces its financial burden and liability to personal injuries and property damages due to infrastructure failure by designing, constructing and maintaining quality infrastructure.

This manual was prepared to assist engineers, designers, planners and architects during the development of infrastructure improvements in public rights of way by providing design standards.

DISCLAIMER: This document is to be reviewed and revised, as necessary, in order to adapt any infrastructure improvements, advances and innovations in standard design practices. The user of this manual is responsible for requesting the most recent version.

Copies of this standard design manual are available at:

City of San Benito
Planning & Zoning Department
400 N. Travis Street
San Benito, Texas 78586
(956) 361-3804

AN ORDINANCE ADOPTING DEVELOPMENT STANDARDS FOR THE CITY OF SAN BENITO AT SAN BENITO CODE OF ORDINANCES, CHAPTER ____, ARTICLE _____, (ATTACHED AS EXHIBIT " A") AND SETTING FORTH OTHER PROVISIONS RELATED THERETO.

WHEREAS, the City Commission of the City of San Benito desires to review the existing Development Standards of the City of San Benito, to clarify certain sections, to update provisions to comply with recent changes in the law, and to codify that policy as City Code

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF SAN BENITO, TEXAS;

The San Benito City Code of Ordinances is hereby amended to add a new Chapter ____, Article _____which states as follows:

Article 1.15

Section 1. That the City Commission of the City of San Benito hereby adopts the City of San Benito Development Standards Manual which is hereto attached as Exhibit " A" and incorporated herein by reference.

Section 2. All ordinances or parts of ordinances inconsistent or in conflict with this Ordinance, to the extent of such inconsistency or conflict, are hereby repealed.

Section 4. Severability. Should any section or part of this ordinance be held unconstitutional, illegal, or invalid or the application to any person or circumstance for any reasons thereof ineffective or inapplicable, such unconstitutionality, illegality, invalidity or ineffectiveness of such section or part shall in no way affect, impair or invalidate the remaining portion or portions thereof, but as to such remaining portion or portions, the same shall be and remain in full force and effect and to this end the provisions of this ordinance are declared to be severable.

Section 5. Effective Date. This ordinance shall take effect immediately from and after its passage

PASSED and APPROVED on the second and final reading, on the _____ day of January, 2021

City of San Benito

By: _____

Ricardo " Rick" Guerra
Mayor, City of San Benito

Attest

By: _____

Ruth McGinnis
City Secretary

Approved as to Form:

By: _____

Mark Sossi
City Attorney

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Section 1

General Provisions

1.01 Introduction

This manual is intended to aid and assist engineers, planners, designers and architects in the layout and design of public infrastructure within the City of San Benito to definite standards, and to obtain uniformity in the plans. It is recognized that each addition has its individual problems that no fixed rules will apply to all cases; therefore, final approval of all or any part of any plans rests with the City of San Benito.

It is the purpose of this manual to provide for the safe, efficient, and orderly development of the city, and the provision of adequate streets, utilities, services, and facilities, all in accordance with the comprehensive plan for the City. The City of San Benito is committed to maintaining a high standard for public improvements within the City's rights of way and minimizing the future maintenance costs to the City.

1.02 Development Policy

Development and/or construction activities shall not be allowed within the City of San Benito until the appropriate City approvals and permits have been obtained by the developer or contractor/builder. The submittal and approval of plats, Development Plans, and permit applications shall be in accordance with the requirements and procedures outlined within this development manual.

1.03 Jurisdiction

Provisions of this development manual shall apply within the incorporated limits, Extra Territorial Jurisdiction (ETJ) or Areas within the Certificate of Convenience and Necessity (CCN) for each respective utility othe City of San Benito, Texas. (should be included in the ETJ if utilities are used?)

1.04 Fees Required

Various fees shall be required for the review and processing of applications and permits for development, construction, and building related activities within the City of San Benito. Additional information regarding the development fees assigned by the City of San Benito can be found by at the City Website www.cityofsanbenito.com

1.04 Design Standards

Standards for design of public improvements and private improvements which interface with public improvements shall be as required by the City of San Benito, including those requirements identified in this development manual and the City of San Benito Standard Construction Details, except as otherwise noted.

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Section 2
Definitions

2.01 Definitions

Alleys. Minor roadways which are used primarily for vehicular service access to back or the side of properties otherwise abutting on a street.

Alleys, Interior. Internal alleys within a subdivision not parallel to a City street.

Alleys, Perimeter. Alleys adjacent to and parallel to a City street requiring a screening wall between the rights-of-ways.

Amended Plat. A plat of a subdivision correcting the scrivener errors of a previously approved plat. Amended Plats must be prepared in accordance with the requirements of this development manual, shall require City approval, and upon approval shall be filed for record with the County Clerk of Cameron County, Texas.

Arterial Streets. Major streets in the City's street system that serve as avenues for the circulation of traffic onto, out, or around the City and carry high volume of traffic.

Building. A structure (anything constructed or erected), designed to be used as a place of occupancy, storage, or shelter.

Building Plans. Plans for the construction of a building. Building Plans may include: architectural plans, architectural elevations, foundation plans, mechanical (HVAC) plans, electrical and lighting plans, plumbing plans, etc. Building Plans will often be accompanied by Construction Plans for site development projects. Building Plans may not, in some cases, include Construction Plans for remodel projects.

Building Area. A portion of a lot on which single-family buildings are allowed to be placed.

Building Lot. A single tract of land located within a single block which, (at time of filing for a building permit) is designed by its owner or developer as a tract to be used, developed, or built upon as a unit, under single ownership or control. It shall front upon a street unless otherwise approved by the City. Therefore, in some cases, a "building lot" may not be the same as a lot of record. A building lot may be subsequently subdivided into two or more building lots, and a number of building lots may be cumulated into one building lot, subject to the provisions of the City’s development requirements.

Building Pad. A portion of a lot covered by a building footprint.

City. The City of San Benito, Texas, and all its governing and operating bodies.

City Engineer. The Texas licensed professional engineer or Texas registered engineering firm, employed by the City or engaged by the City as a consultant, and designated by the City as the "City Engineer".

City Staff. City employees and City consultants, including the City Engineer, designated by the City and by properly constituted authority to recommend and enforce the regulations contained in the City's development requirements.

Clear Vision Area. A part of a lot (generally corner lot) which may not be utilized for plantings, walls, fences, parking, vending machines, or other obstructions which would cause danger, as determined by the City, to traffic by obstructing the view.

Collector Streets. Streets whose principal function is to carry traffic between residential streets and the arterial streets, but that may also provide direct access to abutting properties, including the principal entrance streets of residential developments.

Commercial Building. Any building, other than a single-family residential building, will be referred to as a Commercial Building in this development manual.

Commercial Development. Any development subdivision which is not strictly Residential in nature as defined by this development manual. Multi-family uses, retail uses, restaurants, office buildings, mixed-use developments, industrial uses, and all other non-residential uses will be considered Commercial Development as used throughout this development manual.

Construction Plans. Plans for construction activities other than building construction. Construction plans may include: paving plans, grading plans, drainage plans, water line plans, sanitary sewer plans, erosion control plans, construction details, etc. Construction Plans will often accompany Building Plans for site development projects.

Control of Access Line. Lines along sections of the street and alley rights-of-way that delineate areas where no driveway access will be permitted. These lines shall be shown within the limits that the city determines to be potentially unsafe for driveway access.

Controlled Access Streets. Streets which are parallel to and adjacent to arterial streets and highways and which provide access to abutting properties and protection from through traffic.

Conveyance Plat. A complete and exact plan, map, or drawing, indicating the boundary information of a parcel of previously unplatted land, solely for the purpose of conveying property in a real estate transaction. Conveyance Plats must be prepared in accordance with the requirements of this development manual, shall require City approval, and upon approval shall be filed for record with the County Clerk of Cameron County, Texas.

Corner Clip. A triangular area of additional right-of-way at street and alley intersections.

Council. The City Commissioners of the City of San Benito, Texas.

Cul-De-Sacs. Short minor streets having only one vehicular access to another street and terminated by a vehicular turn-around.

Dead End Streets. Streets other than a cul-de-sac with only one outlet.

Development Plan. The site plan document for one or more lots upon which is shown all information required by the City's development requirements. Also called "Development Plan" or "Site Plan" throughout this development manual.

Earth Disturbance. Any grading, filling, excavating or trenching activities within the City of San Benito.

Earth Disturbance Permit. A permit which must be obtained from the City of San Benito prior to commencing any grading, filling, excavating or trenching activities within the City of San Benito.

Easement. The right granted for the purpose of limited public use across, over, or under private land.

Engineer of Record. A Texas licensed professional engineer in responsible charge of the engineering associated with a development or project.

Extra Territorial Jurisdiction (ETJ). The unincorporated area contiguous to the municipality's corporate boundaries and extends to a certain distance based on the municipality's population. A municipality may extend to the ETJ the application of municipal ordinances and other ordinances relating to platting, access to public roads, or the pumping, extraction, and use of groundwater by persons other than retail public utilities. A municipality may not enforce its Zoning Rules and Regulations within the ETJ; however, subdivision rules and regulations apply to the ETJ areas.

Final Plat. A complete and exact plan, map, or drawing, on which a plan of a subdivision is represented in conformance with an approved Preliminary Plat. Final Plats must be prepared in accordance with the requirements of this development manual, shall require City approval, and upon approval shall be filed for record with the County Clerk of Cameron County, Texas.

Fire Lane. A fire apparatus access road (or drive) meeting the minimum width specified by City standards and the International Fire Code and constructed of a City approved all-weather surface, typically asphalt or reinforced concrete, sufficiently designed to support the imposed loads of fire apparatus, and providing a surface capable of being

striped in accordance with current City requirements. Fire Lanes will be required and maintained in accordance with this development manual and the International Fire Code.

Lot of Record. A lot that is created by an approved plat of which has been duly recorded in the office of the County Clerk of Cameron County, Texas.

Master Plan. The various plans for the City and its adjoining areas, as adopted by the Council, and as it may subsequently be amended, and which indicates the existing and recommended general locations of various land uses, streets, parks, and other public and private developments and improvements.

Mining. The use of a facility or area for the extraction, removal, or stockpiling of sub-earth materials, including sand, gravel, oil, gas or other materials found under the earth. The following are not considered mining:

1. The excavation, extraction, removal, or stockpiling of earth materials for ponds or lakes, or incidental to an approved plat, or incidental to construction with a building permit, or for governmental or utility construction projects such as streets, alleys, gas, electrical, water, telephone facilities and similar projects.

2. The extraction, removal, or stockpiling of earth materials incidental to construction of landscaping, retaining walls, screening devices and similar activities consistent with the land use allowed at the site of removal.

3. Grading, filling, or excavating when done in conjunction with an approved Earth Disturbance Permit properly issued by the City of San Benito.

Minor Plat. A complete and exact plan, map, or drawing, on which a plan of a subdivision is represented, only for a subdivision that involves four or fewer lots which front on an existing street and do not require the creation of any new street or the extension of municipal facilities. Minor Plats must be prepared in accordance with the requirements of this development manual, shall require City approval, and upon approval shall be filed for record with the County Clerk of Cameron County, Texas.

Multi-Family Residential. Development or subdivision, consisting of one or more lots, developed, or intended for development, for the purpose of providing any building or portion thereof, which is designed, built, rented, leased, or let to be occupied as three or more dwelling units or apartments or which is occupied as a home or residence of three or more households.

Multi-Lot Single-Family Residential. Development or subdivision, consisting of two or more lots, which is Single-Family Residential in nature, as defined by this development manual.

Non-Residential. All uses in all zoning districts that are not Single-Family Residential in nature as defined by this development manual. Multi-family residential and

mobile home parks shall be considered under this design manual as Non-Residential in terms of process and design requirements. As used throughout this development manual, the term "Commercial" shall mean Non-Residential as defined herein.

Off-Site Public Improvements. All improvements outside the limits of the development.

On-Site Public Improvements. All improvements constructed within the development.

Opaque. As specified in the Screening Requirements shall mean a fence or hedge that cannot be seen through. A chain link fence with slats or a fabric fence are not considered opaque under the requirements of this development manual.

Ordinances, Standards, Codes, Criteria, Requirements, Construction Details, and Specifications. These terms may be used interchangeably throughout this development manual. As used in this development manual, these terms may be used interchangeably, and any of these terms shall mean the various or combined ordinances, standards, codes, criteria, requirements, construction details, and/or specifications of the City of San Benito.

Planning & Zoning Commission. The Planning and Zoning Commission of the City of San Benito, Texas.

Plat. See "Amended Plat", "Conveyance Plat", "Final Plat", "Preliminary Plat", "Replat".

Preliminary Plat. A preliminary plan, map, or drawing that represents a proposed subdivision, showing all boundaries and location of individual properties and streets, as well as other information in accordance with the requirements of this development manual. Preliminary plats must be approved by the City in accordance with the requirements of this development manual.

Protected Tree. Trees that are defined as protected by City standards, often determined by species and caliper size.

Public Improvements. All publicly maintained infrastructure including public surface improvements (curbs, gutters, driveway approaches, sidewalks, paved streets, alleys, bridges, culverts, street lights, and etc.) and public utilities (water lines, sanitary sewer lines, storm drains, fire hydrants, and etc).

Replat. A plat of any portion or all of a subdivision which has been previously platted (other than by Conveyance Plat). Replats must be prepared in accordance with the requirements of this development manual, shall require City approval, and upon approval shall be filed for record with the County Clerk of Cameron County, Texas.

Residential. Development which is Single-Family Residential in nature as defined by this development manual. Multi-family residential and mobile home parks shall be considered under this design manual as Non-Residential in terms of process and design requirements.

Residential Streets. Streets which are intended primarily to serve traffic within a neighborhood or limited residential district, and which is used for access to abutting properties.

Screening Hedge. An allowable Screening Device of shrubs as required in development manual.

Screening Fence. A solid opaque screening fence used to screen outside storage in accordance with the screening section of this development manual.

Screening Wall. A solid, opaque wall made of wood, brick, stone, decorative concrete block, or concrete panels to be erected at designated areas in accordance with the screening section of this development manual.

Semi-Public Improvements. Privately maintained improvements installed on private property, other than easements, which are required for the public benefit, public use or public welfare. Semi-Public Improvements might include: fire lanes, fire lines, onsite fire hydrants, screening devices, onsite drainage, etc.

Setback Line. A line that a building must be set back from the property line, the street right-of- way line or easement line. Single-Lot Single-Family Residential. Development or subdivision, consisting of a single lot only, which is Single-Family Residential in nature, as defined by this development manual

Single-Family Residential. Development or subdivision with the intended purpose of providing for single-family detached housing. Duplexes will also be considered as Single-Family Residential for the purposes of this development manual. Development involving commercial, industrial, or multi-family uses is not considered as Single-Family Residential as defined by this development manual.

Site Improvements. All necessary site related improvements required by this development manual.

Site Plan. The site plan document for one or more lots upon which is shown all information required by this development manual. Also called “Development Plan” or “Site Plan” throughout this development manual.

Street. A public right-of-way for vehicular traffic, whether designated as street, highway, thoroughfare, parkway, road, boulevard, or however otherwise designated.

Subdivision. The division of a parcel of land into two or more lots, or building sites for purpose of sale or building development (whether immediate or future) including one lot subdivision and all divisions of land involving dedication of streets, alleys, and easements, or change in existing streets. The term also includes re-subdivision, and the term subdivider or developer are synonymous and interchangeable, and include any person, partnership, corporation, association, firm, trustee, or agent who participate in subdivision of land within the intent, scope, and purview of this development manual. Divisions of land for agricultural purposes in parcels of five (5) acres or more shall not be included within this definition, unless any such division of five (5) acres or more includes the planning or development of a new street or access easement.

Thoroughfare Plan. A master plan, as adopted by the City Commission, and as it may subsequently be amended, which indicates the existing and recommended streets of the City of San Benito and its extra territorial jurisdiction.

Tract. An unplatted parcel of land whose boundaries have been established by a recorded deed and which is recognized as a separate parcel for purpose of transfer of title.

Tree Survey. A drawing showing all trees on a property greater than the minimum diameter described in this development manual.

Truck-Lay. The route Fire Department apparatus travels from a fire hydrant to all points of a structure or combustible storage area. Actual distance is measured along a paved street and/or fire lane as the apparatus would travel.

Utility Company. Companies, corporations and other entities that undertake transmission and distribution of natural gas, electricity, telecommunications, radio or television communications.

Utility Lines / Utilities. Pipes, poles, structures, wire, aerial cables and related facilities used in transmission and distribution of natural gas, electricity, telecommunications, radio or television communications.

Variance. A grant of permission by the City commission that authorizes a specific suspension or waiver of one or more of the development rules and regulations of the City.

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Section 3
Development Requirements and Procedures

3.01 Platting Requirements

A. Final Plat – A Final Plat shall be required by the City of San Benito, whereby the owner of a tract of land, located within the limits or in the extra-territorial jurisdiction of a municipality, who divides the tract in two or more parts for the purpose of sale, or to lay out a subdivision or building lots or any lots, or streets, alleys, parks or other portions intended for public use or the use of purchasers or owners of lots, shall cause a final plat to be made in accordance with this development manual and with the Local Government Code. A Final Plat shall substantially conform to an approved Preliminary Plat, or a revised Preliminary Plat must be submitted for formal approval. Final Plat approval will be granted only on the condition that all lots can stand alone in terms of public and semi-public improvements. Every structure hereafter erected or enlarged shall be located on a lot of record as identified on a Final Plat for the property.

B. Preliminary Plat – Preliminary Plat approval will be granted only on the condition that all lots can stand alone in terms of public and semi-public improvements. Development Plan approval is typically required prior to approval of a Preliminary Plat. However, Preliminary Plat and Development Plan applications may be submitted and considered concurrently. A Preliminary Plat approval is typically required prior to approval of a Final Plat, Minor Plat, or Replat. However, at the discretion of the Planning & Zoning Department, the City shall have the option to accept applications for Final Plats, Minor Plats, or Replats concurrently with applications for the associated Preliminary Plats and Development Plans. The approval of the Preliminary Plat by the City shall be effective for a period of twelve (12) months after the date of formal approval. Following a twelve (12) month period after the approval of a Preliminary Plat, the Preliminary Plat or any portion of the Preliminary Plat which has not had final plat approval by the Planning and Zoning Commission, will be considered invalid. At the discretion of the Planning & Zoning Department, the expiration date of an approved Preliminary Plat may be extended an additional twelve (12) months without the need to resubmit through the typical approval process for new Preliminary Plats. Request for extension shall be made by the property owner in writing at least fourteen (14) calendar days prior to the end of the first eighteen (18) month period. Preliminary Plats are not filed with the County.

C. Replat – A Replat will be required to further subdivide a lot which has already been final platted. When replatting, a lot of record must be replatted in its entirety. In addition, all replats of commercially zoned land and all replats of single-family and two-family residential zoned land of more than six lots must be considered in a public hearing in accordance with the Local Government Code. Upon approval and County filing, a Replat will be treated as a Final Plat with regard to the development process of the City of San Benito. Replat approval will be granted only on the condition that all lots can stand alone in terms of public and semi-public improvements. Development Plan and Preliminary Plat approval is typically required prior to approval of a Replat. However, at the

discretion of the Planning & Zoning Department, the City shall have the option to accept applications for Replats concurrently with applications for the associated Preliminary Plats and Development Plans.

D. Minor Plat – A Minor Plat may be obtained for a subdivision that involves four or fewer lots that fronts on an existing street, does not require the creation of any new street or the extension of municipal facilities, and is not a Replat. A Minor Plat can be "administratively approved" by the City Manager or designee. The City Manager or designee shall not unreasonably disapprove a Minor Plat which meets the City's standards and requirements. Upon request by the land owner, the City Manager or designee shall be required to refer any disapproved Minor Plat to the Planning and Zoning Commission for consideration and public hearing. Upon approval and County filing, a Minor Plat will be treated as a Final Plat with regard to the development process of the City of San Benito. Development Plan and Preliminary Plat approval is typically required prior to approval of a Minor Plat. However, at the discretion of the Planning & Zoning Department, the City shall have the option to accept applications for Minor Plats concurrently with applications for the associated Preliminary Plats and Development Plans.

3.02 Development Plan Requirements

A. Development Plan approval is required for all construction other than projects which involve only interior building remodel. Projects performed and funded by the City of San Benito are exempt from this requirement to the extent that such projects are for the construction or maintenance of public streets, drainage, water and/or sanitary sewer facilities. Development Plans may proceed through staff review and approval so long as no variances are required. Development plan approval will be required when any of the following apply:

1. Any proposed new development, including building construction or site improvements (grading, paving, drainage, water, sanitary sewer, etc.).

2. Any change in the location, configuration, or square footage of any existing building, driveway, fire lane, parking area, on-site public drainage system, open drainage channel, or storm water detention facility.

3. Any platting or subdivision of real property.

B. Existing legal non-conforming structures may maintain a legal nonconforming status until the requirement for a Development Plan is triggered per the section above or until the use or operation of the structure or property ceases or becomes vacant for a period of twelve (12) months or more, in which case, the startup of any use of the structure or property will require compliance with all applicable provisions of this development manual, including platting and Development Plan application.

C. The approval of a Development Plan shall be effective for a period of eighteen (18) months after the date of formal approval. Following an eighteen (18) month period after the approval of a Development Plan, the Development Plan will be considered invalid. At the discretion of the Planning and Zoning Department, the expiration date of an approved Development Plan may be extended an additional twelve (12) months without the need to resubmit through the typical approval process for new Development Plans. Request for extension shall be made by the property owner in writing at least fourteen (14) calendar days prior to the end of the first eighteen (18) month period.

3.03 Platting and Development Plan Procedures

A. All plats, Development Plans, construction plans and building plans shall be submitted to the Building Inspection Division of the Planning & Zoning Department. Persons wishing to discuss specific questions in the development process should contact the appropriate department/division, but all formal submittals should be made to the Building Official in order to provide a coordinated review.

B. Prior to submitting a plat or Development Plan, the developer/owner should consult with the appropriate City staff concerning the proposal. Staff will assist in determining whether the proposed development is generally consistent with City of San Benito standards, plans and policies. City review staff will be available on a regular basis for a meeting with any person wishing to discuss projects in review or proposed for submittal. The project engineer or architect is encouraged to attend the review meeting in order to directly receive pertinent information regarding the proposed project. This meeting will not provide a full review of any particular project, but will provide the opportunity for a developer, architect or engineer to ask questions regarding City policies, process, plans, and requirements. Persons wishing to schedule a review meeting should contact the Building Official or the Planning & Zoning Department.

C. Upon submittal, plats, Development Plans, permit applications, building plans, construction plans, and other related items will be reviewed by applicable Public Works staff. The Planning Department will coordinate all submittals and returns of marked-up copies. The Planning Department will also coordinate payment of City fees, acceptance of tax certificates, and acceptance of final file copies. The developer shall be responsible to provide copies of plats and Development Plans to the electric, telephone, gas, cable, and solid waste disposal utility companies for review and comment. The developer shall coordinate with each utility company prior to plat or development plan approval to ensure that adequate utility easements are provided to serve the proposed development. In order to prevent delays in obtaining building or construction permits, the developer shall obtain letters from each utility (electric and gas at a minimum) indicating that the utility has reviewed the plat or Development Plan and that the developer has satisfied the utility's easement requirements. The developer shall provide copies of the utility acceptance letters to the City at the time of permit application. The City shall have the right to refuse issuance of building permits and construction permits if proof of utility company acceptance is not provided to the City.

D. All plats and Development Plans submitted for review will be on the City's active list for a period of three months from the date of each submittal. After the three-month period, a project may be considered abandoned and may be removed from the City's files. Substantial developer-initiated changes in the project from one submittal to the next that need additional review will require an additional payment equal to one-half of the original review fee.

E. Following completion of the review process, plats must be submitted to the Planning and Zoning Commission. If a variance is requested, Preliminary Plats will be forwarded City Commission after going before the Planning and Zoning Commission. Although City Commission will consider the recommendations of the Planning and Zoning Commission, City Commission is not required to adhere to those recommendations.

F. Following completion of the review process, Development Plans can be granted approval by City staff if the Development Plans conform with all applicable requirements of the City. If a variance is requested, upon completion of staff review, Development Plans will be forwarded to the Planning and Zoning Commission and then to City Commission for public hearing. Although City Commission will consider the recommendations of the Planning and Zoning Commission, City Commission is not required to adhere to those recommendations.

3.04 Building Permits

A. All building activities within the City of San Benito shall comply with the City of San Benito Code of Ordinances.

B. Prior to commencement of any building activities, the owner, developer or contractor shall secure a Building Permit, a site Construction Permit (if applicable) and an Earth Disturbance Permit (if applicable), all properly issued by the City of San Benito. Simultaneous construction of public and private improvements may be approved by the Planning and Zoning Department in some instances where a written request of sufficient merit, as determined by the Planning and Zoning Department, has been made by the applicant. However, without written approval of the Planning and Zoning Department, no building or construction permit for private improvements, including but not limited to permits for electrical, mechanical, plumbing, signs, paving, etc. (with the exception of temporary power permits associated with construction), will be issued for any residential or commercial building until all public improvements associated with the development are completed and accepted by the City and until gas and electrical service has been made available to each lot. These public improvements and franchise utilities constitute the basic infrastructure required to serve the development and include construction of streets, sidewalks, drainage, water and sanitary sewer facilities.

C. Commercial Building Permit applications will not be granted until a Development Plan has been approved and the construction and acceptance of all required public and semi-public improvements (fire lanes, fire lines, fire hydrants and other appurtenances, sidewalks, driveway approaches, drainage facilities, water and sanitary sewer service

connections, etc.) as shown on the approved Development Plan. Simultaneous construction of public and private improvements will require written approval of the Planning and Zoning Department.

D. A foundation permit may be issued, on a case-by-case basis, based on the approved Development Plan that adequately addresses the location and elevations of water and sanitary sewer services in relation to the proposed finish floor elevation of the building.

E. No building construction above the slab may be commenced prior to the construction and approval of all fire lanes, fire lines, fire hydrants and other waterline appurtenances.

F. Some items of public and semi-public improvements (i.e. sidewalks, driveway approaches, grading and drainage improvements, water and sanitary sewer service connections) may be constructed simultaneously with the building provided a cash escrow is deposited with the City to cover 100 percent of the cost of the improvements. A non-refundable fee will be charged by the City for escrow handling. On cash escrow's where the developer satisfactorily completes all public and semipublic improvements, the City will return the entire amount escrowed (without interest). If the developer fails to complete the project, then the escrowed funds will be retained by the City. The City will either use the funds to complete the public improvements associated with the project, or the City will hold the funds and apply them for public improvements on a future project at the same location. The City shall be entitled to retain all interest earned on the escrowed funds.

G. Three-party contracts may be considered on case-by-case basis and are subject to approval by the City Commission.

H. The developer shall coordinate with each utility company prior to plat or development plan approval to ensure that adequate utility easements are provided to serve the proposed development. In order to prevent delays in obtaining building or construction permits, the developer shall obtain letters from each utility (electric and gas at a minimum) indicating that the utility has reviewed the plat or Development Plan and that the developer has satisfied the utility's easement requirements. The developer shall provide copies of the utility acceptance letters to the City at the time of permit application. The City shall have the right to refuse issuance of building permits and construction permits if proof of utility company acceptance is not provided to the City.

I. Building Permits shall be valid for a period of six (6) months from the date of permit issuance. That portion of the building activities which is not substantially complete within six (6) months will require a new permit and the remaining building activities must comply with the most current City standards and regulations, unless a variance is granted by the City Commission. In cases of large scale building projects which require longer than six (6) months to complete, the Building Official, upon approval by the Planning & Zoning Department, shall be authorized to provide permit extensions which do not require compliance with new building codes.

3.05 Construction Permits

A. Prior to commencement of any construction activities (paving, drainage, utilities, etc.) the owner, developer or contractor shall secure a Construction Permit properly issued by the City of San Benito. A Construction Permit will be issued only after City requirements have been met.

B. Three-party contracts may be considered on case-by-case basis and are subject to approval by the City Commission.

C. Construction must be underway within six (6) months from the date of permit issuance and the improvements must be substantially completed within eighteen (18) months from the date of permit issuance. That portion of the construction which is not substantially complete within eighteen (18) months will require a new permit and the remaining construction must comply with the most current City standards and regulations, unless a variance is granted by the City Commission.

D. Any construction activities involving grading, filling, excavation, or trenching activities, shall also require an Earth Disturbance Permit.

3.06 Earth Disturbance Permits

A. No grading, filling, excavation, or trenching activities, shall be performed within the limits of the City of San Benito except by an unexpired Earth Disturbance Permit properly issued by the City. An Earth Disturbance Permit will be issued only after the requirements outlined in this development manual and other City requirements have been met. The City of San Benito shall be exempt from this requirement.

B. In order to apply for an Earth Disturbance Permit, the applicant must submit various plans and items as outlined in this document. An Earth Disturbance Permit will not be issued until all of the required submittal items have been approved.

C. The applicant must pay an Earth Disturbance Permit fee.

D. An Earth Disturbance Permit will not be issued if the work is deemed to adversely affect drainage on adjacent or other properties, create a traffic safety problem, or be considered a mining operation. Specific use district zoning is required for mining, including such mining as sand and gravel removal.

E. Earth disturbance within in the floodway or floodplain will trigger additional requirements.

F. Earth disturbance impacting trees is prohibited prior to the approval of a Development Plan for commercial developments. The Development Plan requirement may be waived by the Planning and Zoning Department for earth disturbance activities necessary to improve drainage or for utility work if such activities are not associated with demolition,

construction, expansion, or reconfiguration of a commercial building, fire lane, commercial parking lot, outdoor storage area, or outdoor area used for business operations.

G. An Earth Disturbance Permit is not required for the addition of topsoil or similar material used to spread over grassed areas in average depths of less than two inches.

H. The contractor shall establish erosion control devices in accordance with the current Texas Pollution Discharge Elimination System (TPDES) requirements. Texas Commission on Environmental Quality (TCEQ) requirements must be followed by the developer and contractor.

I. Grading, filling, excavating, and/or trenching activities must be underway within six (6) months from the date of permit issuance and must be substantially completed within eighteen (18) months from the date of permit issuance. That portion of the work which is not substantially complete within eighteen (18) months will require a new permit and the remaining work must comply with the most current City standards and regulations, unless a variance is granted by the City Commission.

3.07 Driveway Permits

A. No driveway shall be constructed within the limits of the City of San Benito except by an unexpired Driveway Permit properly issued by the City. A Driveway Permit will be issued only after the requirements outlined in this development manual and other City requirements have been met. The City of San Benito shall be exempt from this requirement.

B. In order to apply for a Driveway Permit, the applicant must submit various plans and items as outlined in this document. A Driveway Permit will not be issued until all of the required submittal items have been approved. The applicant must pay a Driveway Permit fee. A Driveway Permit will not be issued if the driveway is deemed to create a traffic problem or a potential safety problem. If granted, a Driveway Permit shall be effective for a period of thirty (30) days from the date the permit is issued. The driveway must be constructed within the thirty (30) day period or a new permit will be required. The contractor shall construct all City permitted driveways within five (5) days of the sawcut and removal of the existing pavement. In addition to the requirements described above, access to state controlled highways shall require State permits through the Texas Department of Transportation (TxDOT).

3.08 Sign Permits

A. No sign or advertising structure shall be erected, relocated, posted, painted or maintained within the City by any person, firm or corporation without first obtaining a permit therefor, properly issued by the City Building official, except as may otherwise be provided in the City's sign ordinance.

B. Any person applying for a sign permit must show proof of property damage and public liability insurance in an amount not less than ten (10) times the construction cost of the sign and containing standard provisions that the sign contractor or property owner are insured against claims by third persons for negligence of the contractor or owner or their agents, officers, or employees in the construction, erection, or maintenance of the proposed sign. Electrical signs shall also require electrical permits. Permits for advertising signs (billboards) shall also require approval of the City Commission.

C. No sign permit shall be issued except after receipt of an application prescribed by the building official and showing the sign location, size, type, height, materials of constructions, surface area and such other information as the building official shall require. When required by the building official, plans shall be prepared by a registered professional engineer or architect.

D. The fee for all permitted signs shall be as provided for in the fee schedule which can be obtained from the City of San Benito Planning Department. When a sign is erected, placed or maintained or work started thereon before obtaining a sign permit, there shall be a late fee equal to twice the amount of the sign permit fee. The late fee does not excuse full compliance with the sign code provisions.

E. A permit for a sign shall expire if the work is not started within sixty (60) days, or is not completed within one hundred and twenty (120) days after work has commenced. A new permit shall be required to replace any permit which has expired. Any permit issued in conflict with the provisions of this section is void.

3.09 Development of Land Served by Substandard Public Improvements (or Not Served by Public Improvements)

A. General Provisions: This section deals with lots or tracts that are not served by public improvements or that are served by one or more existing substandard public improvements including water, sanitary sewer, streets, sidewalks or storm drainage. Such developments must meet these required minimum standards in order to obtain a building permit for a new building or if an addition is being made to an existing building. In reviewing the required Development Plan, the City staff will note areas that fail to meet minimum standards. If in the opinion of the City staff, on a case-by-case basis, these minimums are not adequate, more extensive improvements may be required as necessary. Additionally, each of the lots or tracts must follow all City master plans for streets, utilities, parks and other public improvements.

B. Paving: Development must be served by minimum street right-of-way as determined by the adopted Thoroughfare Plan shall be required.

C. Water Lines: If development is to occur on land which is not currently served or which is currently served by sub-standard water utilities, the owner, developer or applicant may be required to extend the existing system or improve the existing system to current requirements.

D. Fire protection: Inadequate or substandard water line size may require line upgrades and additional fire hydrants or other measures may be needed in order to provide adequate fire protection.

E. Sanitary Sewers: If improvement is to occur on land that is not currently served or that is served by substandard sanitary sewer utilities, the owner, developer, or applicant may be required to extend the existing system or improve the existing system to current requirements.

F. Septic Systems: Application for construction and operation of a septic system must be submitted to Cameron County. Application, fees, tests, design and on-site inspections must be submitted and coordinated with Cameron County. The tract of land must consist of one (1) acre or more to qualify for a septic system. If the project includes a septic system, prior to issuance of a Certificate of Occupancy by the City of San Benito, the City must be in receipt of the following:

1. Approved septic system permit by Cameron County

2. Approved design by Cameron County

3. Approved final inspection by Cameron County

Septic systems will not be permitted within the City limits of the City of San Benito for Single-Lot Single-Family Residential where any part of the platted lot or tract is within 100 feet of an existing City sanitary sewer line, unless otherwise approved by the Planning and Zoning Department. Septic systems will not be permitted within the City limits of the City of San Benito for Multi-Lot Residential or Non- Residential uses (including Multi-Family) where any part of the platted lot or tract is within 1,000 feet of an existing City sanitary sewer line, unless otherwise approved by the Planning and Zoning Department. The requirements to connect to the City's sewer system may be enforced even if the improvements must include a lift station, force main or both. The requirement will not be enforced in instances where the Planning and Zoning Department determines that the connection is impractical.

G. Drainage: Storm water detention may be required for any development at the discretion of the City Engineer or Planning and Zoning Department. All site drainage resulting in concentrated flow must discharge to an adequate outfall condition capable of conveying the proposed runoff for a 100-year rainfall event. Concentrated flow shall discharge from the site to public right-of-way or a drainage easement. In the event that a drainage easement cannot be obtained from adjacent property owners, the developer shall take measures to, as closely as practical, simulate pre-existing drainage flow rates and patterns.

3.10 Abandonment of Real Property

A. General Provisions: An Abandonment Ordinance is required for abandonment of any public right-of-way. Any easement may be abandoned with a Certificate of Abandonment in accordance with paragraph (c) below. Requests for abandonment shall be made in writing to the Planning & Zoning Department. The City will file with the County all documents that are required to record the transaction. An application fee must accompany all requests and the Cameron County filing fees shall be submitted with a separate check. If applicable, fair market value will be established by the City based on information, acceptable to the City. Should appraisals be required, the cost shall be paid in advance by the applicant. Any relocation, adjustment or other construction shall be the financial responsibility of the applicant. The following information must be provided with any request for abandonment of real property by the City of San Benito:

1. Metes and bounds description of the property to be abandoned
2. Exhibit showing the property to be abandoned
3. Letters of Release from utility companies, if applicable
4. Application fee made payable to City of San Benito
5. Filing fee made payable to Cameron County Clerk

B. Additional Requirements for Certain Abandonments.

1. Abandonment of an improved street or alley:
    a. Fair market value of the real property and the improvements that are to be removed or converted to private use
    b. Dedication of easements for any facilities that are to remain
2. Abandonment of street or alley right-of-way (unimproved):
    a. Fair market value of the real property
    b. Dedication of easements for any facilities that are to remain
3. Abandonment of a part of an occupied easement where the reduction in easement will adversely affect the operation and maintenance of the facility:
    a. Fair market value of the released area
    b. Compensation for detriment to the remainder
4. Abandonment of an occupied easement in exchange for another easement at the request of the property owner:

a. Fair market value of the difference in value if the abandoned easement is greater than the replacing easement

b. Escrowed funds for the cost to relocate and/or reconstruct any streets, drainage improvements, utilities, or other facilities (unless otherwise waived by the City)

To abandon an easement in exchange for an equivalent easement, or when it is determined that an easement is no longer necessary, a Certificate of Abandonment, or such other documents as may be legally required, shall be filed of record with Cameron County. This certificate shall be filed only after all information for abandonment of an easement on real property has been submitted and a final approval for abandonment has been made by the Planning and Zoning Department.

3.11 Parkland Dedication – (RESERVED)

3.12 Variances and Exceptions

A. Variances requested on a plat or Development Plan will be scheduled for Planning and Zoning Commission after staff's review. After the Planning and Zoning Commission hearing, variance requests will be scheduled for a City Commission hearing.

B. An administrative fee will be charged by the City for processing variance requests.

C. Where the City Commission, in its judgment, finds that hardship or practical difficulties may result from strict compliance with the regulations outlined in this development manual, and/or that the purpose of the regulations may be served to a greater extent by an alternative proposal, the City Commission may approve exceptions to these subdivision regulations so that substantial justice may be done and the public interest secured, provided that such exception shall not have the effect of nullifying the intent and purpose of the regulations. In approving exceptions, the City Commission may require such conditions and stipulations that will, in its judgment, secure substantially the objectives of the standards of the regulations.

D. A petition for any such exception shall be submitted in writing by the owner/agent, four weeks prior to any council meeting, to the Planning & Zoning Department. The request shall state fully the grounds for the application and all facts relied upon by the applicant. All supporting exhibits, fees and documents must be included with the application. Incomplete applications will not be processed until all documents are received by staff.

3.13 Tax Certificate Requirement

A. A current Tax Certificate must be included with all plat submittals, Development Plan submittals, Construction Permit applications, and Building Permit applications. All taxes

due to the City of San Benito must be current at the time of approval of plats and Development Plans and at the time of issuance of construction and building permits. A current, original (official) Tax Certificate must be provided to the City prior to filing of any Final Plat, Replat, or Minor Plat.

3.14 Title Opinion Requirement

A. To provide evidence that the owner has adequate title and authority to convey dedication, a Title Opinion must be submitted for all plats or actions that include dedication of land or easements to the City. Said Title Opinion must be deemed to be satisfactory by the City Attorney and will be at the sole expense of the owner. In the event there is one or more lien holder(s), written approval by the lien holder(s) must be provided to show agreement with the plat or dedication. Dedication along state routes shall be by warranty deed.

3.15 Phasing a Development

A. Development may be performed in phases by establishing phase lines and/or lot lines on a Development Plan. Each phase shall be capable of standing alone, as development occurs, and shall not be dependent on future construction associated with separate phases to meet City standards or requirements. All required public, semipublic and private improvements, as defined by this development manual, (roads, turn lanes, deceleration lanes, traffic control devices, sidewalks, screening walls, etc.), shall be designed and constructed with each phase in conformance with all applicable City standards.

3.16 Traffic Impact Analysis Requirement

A. When a proposed development is estimated to generate more than 1,000 vehicle trips per day, a traffic impact analysis shall be required with the submittal of a preliminary plat application or a Development Plan. The traffic impact analysis shall be prepared in accordance with accepted engineering practices. The purpose of the traffic impact analysis is to determine the need for traffic mitigation measures which may include, but are not limited to, dedication of additional right-of-way, construction of turning lanes, or construction of traffic control facilities. Any mitigating measures required shall be the responsibility of the developer, unless a cost-sharing agreement is approved by the City.

B. Traffic Impact Analysis Standards
    a. Acceptable level of service. A level of service "C" is the design objective for the city. A TIA must attempt to identify sufficient transportation improvements to achieve or maintain a level of service "C" or better.

    b. Study area. The minimum transportation impact study area shall include the entire neighborhood plus any neighborhood that abuts or is adjacent to the proposed development.

c. Contents. Specific report requirements may vary depending on the site location and characteristics, geographic area, and size and type of development. However, each TIA must clearly state all assumptions and methodologies, and contain at a minimum, the following:

    i. Transportation system.

        1. Vicinity map that relates the site location to the thoroughfare and local street system.
        2. Thoroughfare designation according to the city thoroughfare plan.
        3. Number of roadway lanes, lane widths, and right-of-way widths.
        4. Traffic signal locations.

    ii. Land uses.

        1. Existing and proposed (if applicable) land use characteristics for the subject site.
        2. Number of acres (gross and net) classified by zoning and density.
        3. Approximate gross square footage of existing and proposed structures.

d. Background traffic.

    i. Existing conditions.

        1. Current traffic counts (both average daily traffic and morning and afternoon peak hours) on thoroughfares and collectors around the site shall be collected for the TIA and the counts shall be not more than one-year old. The city's most current annual traffic counts may be used for the TIA if available.
        2. Turning movements at critical intersections should be collected for the intersection's analysis.
        3. For proposed new developments, if the site will be built in the future year, projected growing traffic volume, calculated by using a growth factor, between the current year and a tentative built year should be added to the current traffic counts. The growth factor will be determined by the city based on historical data from the city's annual counts.

    ii. Projected build-out assumptions.

e. Site traffic; trip generation.

    i. Assume full development and occupancy.
    ii. Show in tabular form the land use components, the trip generation rates (daily and peak hour), and total trips generated by land use types.

iii. Use the latest Trip Generation Manual published by Institute of Transportation Engineers.
iv. No passerby trip reductions allowed.

f. Capacity analysis.

i. Separate maps illustrating traffic volumes for different scenarios:

1. Non-site traffic projections for design year (ADT and AM/PM peak hour turning movements);
2. Development traffic (ADT and AM/PM peak hour turning movements); and
3. Non-site traffic plus development traffic for design year (ADT and AM/PM peak hour turning movements).

ii. Capacity analysis of roadway links shall be performed for the ultimate design. Identify level of service with and without development site traffic. If the roadway links exhibit a LOS D, E, or F, then intersection analyses will need to be performed for those facilities.

g. Mitigation of impacts.

i. Identification of actions or alternatives required to maintain an acceptable level of service on the street system. Candidate actions include:

1. Roadway link and intersection improvements.
2. New or modified traffic signals.
3. Access locations and driveway design.
4. Transportation system management programs.
5. Neighborhood traffic deviators/controls.

ii. Site plans or preliminary engineering plans for all thoroughfares, local streets, and intersection improvements must as a minimum conform to the requirements of the city's land development code.

h. Revised traffic figures. If the proposal is significantly revised by the planning and zoning commission and/or city commission, then revised traffic figures must be generated in order to comply with the final recommendation.

i. Waiver of requirement. If the proposed development or zoning change generates less than 1,000 average daily trips, the city's director of public works or city engineer may waive the requirement.

j. Completion by registered professional engineer. The traffic impact analysis shall be completed by a registered professional engineer with a background in traffic engineering.

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Section 4
Submittal and Plan Requirements

4.01 Submittal Requirements

A. Submittals shall comply with all requirements as set forth in this development manual. Submittal documents which do not include all of the necessary items or comply with the submittal standards as described throughout this development manual may be subject to rejection.

B. The following items shall be submitted to the Planning Department:

1. Staff Review Submittals for Plats and Development Plans:

    a. Submit directly to the Planning Department
        i. Two (2) full size, bond paper copies (24"X36")
        ii. Four (4) reduced size, bond paper copies (11"x17")
        iii. City Fees and Current Tax Certificates

    b. Submit directly to the PLANNING & ZONING DEPARTMENT.*
        i. PDF copy of all drawings

2. P&Z Submittals for Plats and Development Plans:

    a. Submit directly to the Planning Department:
        i. Two (2) full size, bond paper copies (24"x36")
        ii. Ten (10) reduced size, bond paper copies (11"x17")
        iii. City Fees and Current Tax Certificates

    b. Submit directly to PLANNING & ZONING DEPARTMENT.*
        i. PDF copy of all drawings

3. City Commission Submittals for Plats and Development Plans:

    a. Submit directly to the Planning Department
        i. Two (2) full size, bond paper copies (24"x36")
        ii. Ten (10) reduced size, bond paper copies (11"x17")
        iii. City Fees and Current Tax Certificates

    b. Submit directly to PLANNING & ZONING DEPARTMENT.*
        i. PDF copy of all drawings

    c. Final Submittals for Plats and Development Plans:

        i. Submit directly to the Planning Department

ii. One (1) full size, mylar signed, sealed and dated copy (24”x36”)
iii. Four (4) reduced size, bond paper copies (11”x17”)
iv. City Fees and Current Tax Certificates

d. Submit directly to PLANNING & ZONING DEPARTMENT. *
i. PDF copy of all drawings, signed, sealed and dated
ii. AutoCAD dwg files, version 2010 or later, showing all line work and text

4. Staff Review Submittals for Construction Plans, Building Plans, Etc.:

a. Submit directly to the Building Code Enforcement Division.
i. Two (2) full size, bond paper copies (22”X34” or 24”x36”)
ii. Four (4) reduced size, bond paper copies (11”x17”)
iii. City Fees and Current Tax Certificates

b. Submit directly to BUILDING CODE ENFORCEMENT DIVISION.*
i. PDF copy of all drawings

5. Final Submittals for Construction Plans, Building Plans, Etc.:

a. Submit directly to the Building Code Enforcement Division.
i. Two (2) full size, bond paper signed, sealed and dated copies (22”X34” or 24”x36”)
ii. Four (4) half size, bond paper copies (11”x17”)
iii. City Fees and Current Tax Certificates

b. Submit directly to BUILDING CODE ENFORCEMENT DIVISION.*
i. PDF copy of all drawings, signed, sealed and dated
ii. AutoCAD dwg files, version 2010 or later, showing all line work and text

*Note: Hard copies and electronic media can be delivered by hand delivery, courier, FedEx, UPS, US Postal Service, etc. Electronic files can also be sent by email or FTP. Please call or check the Planning & Zoning Department web site for current mailing address and email.

NOTE: ALL DEVELOPMENT PLANS, PLATS, CONSTRUCTION PLANS, CITY FEES, AND TAX CERTIFICATES ARE DUE AT THE TIME OF INITIAL SUBMITTAL. ALL FEES AND TAX CERTIFICATES SHALL BE SUBMITTED DIRECTLY TO THE CITY.

4.02 Single-Lot Single-Family Plan Requirements

A. This section applies to individual single-family construction projects involving infill development. Single-family construction projects which involve multiple lots shall comply with the Multi-Lot Single-Family Residential Development Plan criteria. The

following is a checklist for items, which shall be included, as applicable, on each Single-Lot Single- Family Residential Development Plan submitted for review:

1. A title block located at the bottom right hand side of the page to include project's name, addition's name, lot, block and phase designations, total acreage, zoning classification and address if available

2. A summary table to include total land area (square feet / acres) and the building area (square feet)

3. City of San Benito signature block per the following:

   APPROVED BY THE CITY OF SAN BENITO

   SIGNATURE: _____

   PRINTED NAME: _____

   TITLE OF CITY OFFICIAL: _____

   DATE: _____

4. North arrow

5. Date (all revision dates should also be indicated)

6. Location map (at legible scale)

7. Sheet size of 22" X 34"

8. Scale (must be legible)

9. Name, address and phone number of contact persons of developer/owner and Engineer of Record (or Architect of Record)

10. Distances and bearings of the lot including total land area and subdivision lot & block designation. The entire platted lot or tract shall be shown on the Development Plan

11. Iron rods set or found and shown on the plan

12. Contours with intervals of two feet (2') or less or spot elevations indexed to the NAD 1983 State Plane Coordinate System using the appropriate horizontal projection for the applicable zone, and indexed to the NAVD 1988 vertical datum

13. Building setback lines

14. Zoning of subject lot and adjoining property

15. Easements, deed restrictions or encumbrances which impact development of the lot

16. Control of access lines, corner clips and clear vision areas

17. Streets, alleys and easements adjacent to the site showing right-of-way and limits of paving

18. Existing and proposed streets, driveways and sidewalks

19. Existing and proposed water and sanitary sewer utilities and services

20. Fire protection including fire hydrants, fire lanes, fire lines and related devices, if applicable

21. Franchise utilities serving the property

22. Finished floor elevation. The builder is responsible to furnish the City with a form survey (surveyor certification of elevation and location) prior to construction of a foundation.

23. Requested variances from City requirements shall be clearly listed on the face of the Development Plan

24. All Development Plans must include a note with the following wording:

> "Notice: Approval of this Development Plan does not entitle the developer to deviate from City zoning, development policy, construction standards, or building standards, except for those variances which are listed on the Variance Table provided on this Development Plan. All other deviations shown on the Development Plan, whether deviations from City zoning, City development requirements, or City design standards, are not approved and the developer shall be required to seek official variance approval or provide a conforming, substantially similar, alternative for staff review prior to approval of any construction or building permits."

B. The following is a list of accompanying documents or items, which shall be included, as applicable, with each Single-Lot Residential Development Plan submitted for review:

1. Tax certificate showing all tax payments to the City of San Benito are current. Taxes must be current as of the date of formal City approval of the Development Plan.

4.03 Multi-Lot Single-Family Plan Requirements

A. The following is a checklist for items, which shall be included, as applicable, on each Multi-Lot Single-Family Residential Development Plan submitted for review:

1. A title block located at the bottom right hand side of the page to include project's name, addition's name, lot, block and phase designations, total acreage, zoning classification and address if available

2. A summary table to include total land area (square feet / acres), total area per phase (square feet / acres), total number of lots and number of lots per phase, minimum lot size (square feet / acres), minimum dwelling size (square feet), and density per acre

3. City of San Benito signature block per the following:

   APPROVED BY THE CITY OF SAN BENITO

   SIGNATURE: _____

   PRINTED NAME: _____

   TITLE OF CITY OFFICIAL: _____

   DATE: _____

4. North arrow

5. Date (all revision dates should also be indicated)

6. Location map (at legible scale)

7. Sheet size of 22" X 34"

8. Scale (must be legible)

9. Name, address and phone number of contact persons of developer/owner and engineer.

10. Distances and bearings of the lot including total land area, subdivision lot & block designation and phase lines (if any). The entire platted lot or tract shall be shown on the Development Plan.

11. Iron rods set or found and shown on the plan

12. Existing contours with intervals of two feet (2') or less or spot elevations indexed to the NAD 1983 State Plane Coordinate System using the appropriate horizontal projection for the applicable zone, and indexed to the NAVD 1988 vertical datum

13. Building setback lines

14. Zoning of subject lot and adjoining property

15. Easements, deed restrictions or encumbrances which impact development of the lot

16. Control of access lines, corner clips and clear vision areas

17. Streets, alleys and easements adjacent to the site showing right-of-way and limits of paving

18. Existing and proposed streets, driveways and sidewalks

19. Existing and proposed water and sanitary sewer utilities and services

20. Fire protection including fire hydrants, fire lanes, fire lines and related devices, if applicable

21. Common areas and common area access and parking

22. Screening devices, if applicable

23. Dumpster location, if applicable

24. Franchise utilities serving the property

25. Finished floor elevation. The builder is responsible to furnish the City with a form survey (surveyor certification of elevation and location) prior to construction of a foundation.

26. Requested variances from City requirements shall be clearly listed on the face of the Development Plan

27. Location of all proposed freestanding signage.

28. All Development Plans must include a note with the following wording:

> "Notice: Approval of this Development Plan does not entitle the developer to deviate from City zoning, development policy, construction standards, or building standards, except for those variances which are listed on the Variance Table provided on this Development Plan. All other deviations shown on the Development Plan, whether deviations from City zoning, City development requirements, or City design standards, are not approved and the developer shall be required to seek official variance approval or provide a conforming, substantially similar, alternative for staff review prior to approval of any construction or building permits."

B. The following is a list of accompanying documents or items, which shall be included, as applicable, with each Multi-Lot Residential Development Plan submitted for review:

1. Tax certificate showing all tax payments to the City of San Benito are current. Taxes must be current as of the date of formal City approval of the Development Plan.

2. Preliminary site improvement plans/exhibits prepared by a Texas Licensed Professional Engineer (including grading, drainage, water, and sanitary sewer)

3. Preliminary Landscape Plan

4.04 Non-Residential (or Commercial) and Multi-Family Residential Plan Requirements

A. The following is a checklist for items, which shall be included, as applicable, on each Non-Residential (Commercial) Development Plan submitted for review:

1. A title block located at the bottom right hand side of the page to include project's name, addition's name, lot, block and phase designations, total acreage, zoning classification and address if available (

2. A summary table to include total land area (square feet / acres) and the building area (square feet)

3. City of San Benito signature block per the following:

APPROVED BY THE CITY OF SAN BENITO

SIGNATURE: _____

PRINTED NAME: _____

TITLE OF CITY OFFICIAL: _____

DATE: _____

4. North arrow

5. Date (all revision dates should also be indicated)

6. Location map (at legible scale)

7. Sheet size of 22" X 34"

8. Scale (must be legible)

9. Name, address and phone number of contact persons of developer/owner and engineer.

10. Distances and bearings of the lot including total land area, subdivision lot & block designation and phase lines (if any). The entire platted lot or tract shall be shown on the Development Plan.

11. Iron rods set or found and shown on the plan

12. Existing contours with intervals of two feet (2') or less or spot elevations indexed to the NAD 1983 State Plane Coordinate System using the appropriate horizontal projection for the applicable zone, and indexed to the NAVD 1988 vertical datum

13. Building setback lines

14. Zoning of subject lot and adjoining property

15. Easements, deed restrictions or encumbrances which impact development of the lot

16. Control of access lines, corner clips and clear vision areas

17. Streets, alleys and easements adjacent to the site showing right-of-way and limits of paving

18. Existing and proposed streets, driveways, fire lanes, sidewalks, and parking areas

19. Existing and proposed water and sanitary sewer utilities and services

20. Fire protection including fire hydrants, fire lanes, fire lines and related devices, if applicable

21. Landscape and open space areas

22. Screening devices, if applicable

23. Dumpster locations, if applicable

24. Franchise utilities serving the property

25. Finished floor elevations. The builder is responsible to furnish the City with a form survey (surveyor certification of elevation and location) prior to construction of a foundation.

26. Requested variances from City requirements shall be clearly listed on the face of the Development Plan

27. Location of all proposed freestanding signage.

28. All Development Plans must include a note with the following wording:

"Notice: Approval of this Development Plan does not entitle the developer to deviate from City zoning, development policy, construction standards, or building standards, except for those variances which are listed on the Variance Table provided on this Development Plan. All other deviations shown on the Development Plan, whether deviations from City zoning, City development requirements, or City design standards, are not approved and the developer shall be required to seek official variance approval or provide a conforming, substantially similar, alternative for staff review prior to approval of any construction or building permits."

B. The following is a list of accompanying documents or items, which shall be included, as applicable, with each Non-Residential (Commercial) Development Plan submitted for review:

1. Tax certificate showing all tax payments to the City of San Benito are current. Taxes must be current as of the date of formal City approval of the Development Plan.

2. Preliminary site improvement plans/exhibits prepared by a Texas Licensed Professional Engineer (including grading, drainage, water, and sanitary sewer)

3. Preliminary Landscape Plan

4.05 Preliminary Plat Plan Requirements

A. The following is a checklist for items, which shall be included, as applicable, on each Preliminary Plat submitted for review:

1. A title block located at the bottom right hand side of the page to include project's name, addition's name, lot, block and phase designations, total acreage, zoning classification and address if available

2. A summary table to include (as applicable):

    a. Non-Residential: total land area (square feet / acres) and the building area (square feet) for Non-Residential developments

    b. Residential: total land area (square feet / acres), land area per phase (square feet / acres), total number of lots and number of lots per phase, minimum lot size (square feet / acres), minimum dwelling size (square feet), and density per acre

3. City of San Benito signature block

    APPROVED BY THE CITY OF SAN BENITO

    SIGNATURE: _____

PRINTED NAME: _____

TITLE OF CITY OFFICIAL: _____

DATE: _____

4. North arrow
5. Date (all revision dates should also be indicated)
6. Location map (at legible scale)
7. Sheet size of 22" X 34"
8. Scale (must be legible)
9. Name, address and phone number of contact persons of developer/owner and engineer and/or surveyor
10. Iron rods set or found and shown on the plan
11. Contours with intervals of two feet (2') or less or spot elevations indexed to the NAD 1983 State Plane Coordinate System using the appropriate horizontal projection for the applicable zone, and indexed to the NAVD 1988 vertical datum
12. Abstract(s) and Survey(s) of subject tract
13. Abstract and Survey lines
14. Boundary line, accurate in scale, of the subject tract
15. Building setback lines
16. The layout and approximate dimensions of proposed lots, blocks, etc.
17. Lot number, block letter designations, and square footage / acreage of each lot
18. Zoning of subject property and adjoining property
19. The names of adjacent subdivisions and/or the names of record owners of adjoining parcels of unplatted land
20. Designation of boundaries of municipalities, counties, and special districts

21. Existing and proposed streets and alleys including widths of right-of-way and pavement, street names, and any proposed dedication of right-of-way in accordance with the requirements of the Thoroughfare Plan

22. Easements, deed restrictions or encumbrances

23. Control of access lines, corner clips and clear vision areas

24. Median openings, turning lanes, acceleration and deceleration lanes

25. For residential developments, park dedication provisions are to be addressed by the Park Board prior to approval of the preliminary plat. The park dedication agreement shall be noted on the face of the plat with the approval date.

26. All land proposed for public use dedication or to be reserved for the common use of all property owners, together with conditions or limitations of such use. Such reservations and dedications must be identified with a lot and block designation except street and alley rights-of-way. Right-of-way dedication square footage and acreage must be listed on the plan.

27. Other features which impact the subject property including, but not limited to, buildings, cemeteries, parks, landfills and monuments

28. Phase lines must be clearly delineated, with improvements capable of standing alone as development occurs and not depending on future construction to meet City standards or requirements.

29. Variances from this development manual that may be requested shall be listed on the face of the plat.

B. The following is a list of accompanying documents or items, which shall be included, as applicable, with each Preliminary Plat submitted for review:

1. Tax certificate showing all tax payments to the City of San Benito are current. Taxes must be current as of the date of formal City approval of the Preliminary Plat.

2. A copy of an approved Development Plan or a copy of a Development Plan to be considered by the City

3. Preliminary site improvement plans/exhibits prepared by a Texas Licensed Professional Engineer (including grading, drainage, water, and sanitary sewer).

4. Preliminary Landscape Plan

4.06 Final Plats, Replats, and Minor Plat Plan Requirements

A. The following is a checklist for items, which shall be included, as applicable, on each Final Plat, Replat, or Minor Plat submitted for review:

1. A title block located at the bottom right hand side of the page to include project's name, addition's name, lot, block and phase designations, total acreage, zoning classification and address if available

2. A summary table to include (as applicable):

    a. Non-Residential: total land area (square feet / acres), total number of lots, minimum lot size (square feet / acres)

    b. Residential: total land area (square feet / acres), total number of lots, minimum lot size (square feet / acres), minimum dwelling size (square feet), and density per acre

3. City of San Benito signature block per the following:

    APPROVED BY THE CITY OF SAN BENITO

    SIGNATURE: _____

    PRINTED NAME: _____

    TITLE OF CITY OFFICIAL: _____

    DATE: _____

4. North arrow

5. Date (all revision dates should also be indicated)

6. Location map (at legible scale)

7. Sheet size of 22" X 34"

8. Scale (must be legible)

9. Name, address and phone number of contact persons of land owner and surveyor

10. Location of corner pins and monuments, including description and indication of whether found or set

11. Abstract(s) and Survey(s) of subject tract

12. Abstract and Survey lines

13. Zoning of subject property and adjoining property

14. The names of adjacent subdivisions and/or the names of record owners of adjoining parcels of unplatted land

15. Designation of boundaries of municipalities, counties, and special districts

16. Boundary line, accurate in scale and with exact distances and bearings, of the subject tract and each lot within the subdivision including exact acreage and square footage per lot

17. Designations of lots and blocks within the subdivision

18. Metes and bounds description of the subdivision, with exact acreage, in reference to the deed records of the County, including the volume and page of the deed for the land being platted

19. Building setback lines

20. Existing and proposed street and alley right-of-way and access easements, indicating street names, right-of-way or easement widths, and curve data. Any proposed dedication of right-of-way, including right-of-way dedication square footage and acreage, in accordance with the requirements of the Thoroughfare Plan.

21. Easements, deed restrictions or encumbrances. A note regarding responsibility for maintenance shall be included for all drainage easements

22. Control of access lines, corner clips and clear vision areas

23. All land proposed for public use dedication or to be reserved for the common use of all property owners, together with conditions or limitations of such use. Such reservations and dedications must be identified with a lot and block designation except street and alley rights-of-way.

24. Right-of-way and public property to be abandoned should be identified on the plat, but information being provided separately as required for the creation of an abandonment ordinance.

25. The 100-year flood plain per current FEMA Flood Insurance Rate Map (FIRM), if applicable, shall be delineated. If the floodplain is not mapped, the developer is responsible for making this determination using a FEMA approved method.

26. Other features which impact the subject property including, but not limited to, buildings, cemeteries, parks, landfills and monuments

27. For all residential development, the park dedication shall be finalized at the time of approval of the final plat including all dedications and/or fees to be paid at this time. The park dedication agreement, including the approval date, must be noted on the face of the plat.

28. Variances from this development manual shall be listed on the face of the plat.

29. Certification by a Registered Professional Land Surveyor (R.P.L.S.), registered in the State of Texas, to the effect that the plan represents a survey made by him or under his direct supervision and that all the monuments and corner pins shown exist and are correctly described

30. An Owner's Certificate of Dedication of all streets, alleys, parks, easements and other public ways, signed and acknowledged before a notary public by the owner, trustee(s) or person(s) duly authorized to sign the plat. This will include any lien holder(s) on the property.

31. All plats must include the following wording:
    "Notice: Selling a portion of this addition by metes and bounds is a violation of the city Subdivision Ordinance and State platting statutes and is subject to fines and withholding of utilities and building permits."

B. The following is a list of accompanying documents or items, which shall be included, as applicable, with each Final Plat, Replat, or Minor Plat submitted for review:

    1. Tax certificate showing all tax payments to the City of San Benito are current. Taxes must be current as of the date of formal City approval of the Plat.

    2. Filing of a letter of credit for maintenance or maintenance bond executed by a surety company holding a license to do business in the state of Texas, and acceptable to the planning and zoning commission and the city commission in an amount equal to twenty-five (25) percent of the cost of the improvements required, as estimated by the Planning and Zoning Department and/or city engineer conditioned that the subdivider will warrant such improvements in good condition for a period of twenty-four (24) months after approval of the final plat, or cash in the same amount deposited . Such bond shall be submitted for approval as to form and legality by the city attorney.

    3. A copy of an approved Development Plan or a copy of a Development Plan to be considered by the City

    4. Site construction plans prepared by a Texas Licensed Professional Engineer (including grading, paving, drainage, water, sanitary sewer, erosion control, and construction details)

    5. Landscape Plan

4.07 Conveyance Plat Plan Requirements – (RESERVED)

4.08 Building Permit Application Plan Requirements

A. The following is a list of accompanying documents or items, which shall be included, as applicable, with each Building Permit application submitted for review:

1. Tax certificate showing all tax payments to the City of San Benito are current.
2. A copy of an approved Development Plan.
3. A copy of the filed Final Plat, Replat or Minor Plat.
4. Architectural plans (floor plan, building elevations, etc.)
5. Mechanical, electrical, and plumbing plans (MEP)
6. Structural plans
7. Site construction plans prepared by a Texas Licensed Professional Engineer (including grading, paving, drainage, water, sanitary sewer, erosion control, and construction details).
8. Landscape Plan
9. Any other plans or information needed for proper review of the Building Permit application

4.09 Construction Permit Application Plan Requirements

A. Construction plans shall contain engineering data for the construction of all improvements consistent with current city development standards and master plans. The following is a checklist for items, which shall be included, as applicable, as part of each set of construction plans submitted for review:

1. The plans shall be signed, sealed, and dated by a Professional Engineer licensed in the State of Texas (the Engineer of Record). In addition to the license number of the Engineer of Record, the plans shall indicated the firm registration number of the engineering firm responsible for preparation of the plans, which shall be registered as an engineering firm with the Texas Board of Professional Engineers. If standardized construction detail sheets, schedules, or specifications are included in the plans they shall be noted on the sheet index. If such standardized construction detail sheets, schedules, or specifications are not sealed by the Engineer of Record, then the Engineer of Record shall include a statement under the sheet index stating that the construction detail sheets, schedules, and/or specifications have been selected by the

Engineer of Record and have been deemed appropriate by the Engineer of Record for their specified use on the project.

2. The plans shall be drawn to a standard sheet size of 22" X 34".

3. The plans shall have a cover sheet including, at a minimum, the project name/description, engineer and firm licensure/registration information as described above, a location map, a sheet index, and the contact information for the developer/owner and engineer. When possible, contact information for the surveyor should also be included.

4. The maximum scale for all construction plans shall be 1" = 40' (1" = 20' is preferred). Construction plans for street construction shall be drawn to a scale of 1" = 20'.

5. Typical plan and/or profile sheets shall include the following basic items:

    a. Title block including project name/description and information about the Engineer of Record and the engineering firm

    b. North arrow on all plan sheets

    c. Date (all revision dates should also be indicated)

    d. Scale (must be legible)

    e. Engineer's seal for completed plans or a preliminary stamp (specifying that plans are preliminary, for review only, and not for construction purposes)

    f. Benchmark description indexed to the NAD 1983 State Plane Coordinate System using the appropriate horizontal projection for the applicable zone, and indexed to the NAVD 1988 vertical datum

6. Construction plan sets should typically include the following plan sheets as well as other sheets deemed appropriate by the Engineer of Record:

    a. A grading plan including existing and proposed one-foot interval elevation contours and spot elevations. Grades shall be indexed to the NAD 1983 State Plane Coordinate System using the appropriate horizontal projection for the applicable zone, and indexed to the NAVD 1988 vertical datum. The grading plan shall include a proposed finished floor elevation for all buildings and a proposed finished pad elevation for all pad sites. Note that the builder is responsible for furnishing a certification of the foundation elevation and location prior to construction of a foundation.

    b. Typical Cross-Sections of proposed public streets and alleys drawn to a maximum scale of 1" = 10' horizontal and 1" = 2' vertical, and drawn from

beyond right-of-way to beyond right-of-way. Proposed street and alley pavement sections shall conform to City of San Benito standards unless otherwise approved by the City Engineer.

c. Paving Plans for driveways, fire lanes, parking areas, and sidewalks indicating pavement types, thicknesses, and dimensions

d. Paving Plans and Profiles for each public street and alley with top of curb grades for streets and centerlines for alleys. The plan view shall show all existing features and the profile view shall include the existing ground. The profile grade lines and cross-sections of intersecting streets should be adjusted to provide a smooth junction and proper drainage.

e. Roadway Cross-Sections for each arterial or collector street indicating cut and fill and the limits of earth work

f. A Drainage Area Map which shall include size and delineation of drainage areas, storm frequency, storm water runoff calculations, designation of points of concentration, and any additional data necessary for the proper design of drainage facilities

g. Drainage Plans for storm sewers showing drainage calculations, hydraulic data, pipe grades and sizes, manholes and junction boxes, other pipe connections, inlets, and outfall structures. Storm sewers for public systems (and all other storm sewers as required by the City Engineer or Planning and Zoning Department) must be profiled and shall include hydraulic grade line.

h. Drainage Plans for open channels showing drainage calculations, hydraulic data and depth of flow, channel grades, channel material, channel geometry, inlet structures, culverts, bridges, and outfall structures (such as concrete rip-rap, etc.). Open channels for public systems (and all other open channels as required by the City Engineer or Planning and Zoning Department) must be profiled and shall include depth of flow. Cross-sections may be required on a case-by-case basis.

i. Drainage Plans for storm water detention ponds showing drainage calculations, hydraulic data, pond depth and geometry, pond material, and other information necessary for proper design review and construction of the proposed improvements. If an underground storm water detention facility is proposed, then appropriate plans and details should be provided.

j. Water Line Plans showing pipe sizes, location of valves, fire hydrants, fittings and other appurtenances, including installation and backfill details. All public water lines (of any size) and all private water lines 12” in diameter and larger must be profiled. Water line profiles shall include the station, elevation and description of utility crossings.

k. Sanitary Sewer Plans and Profiles indicating pipe grades and sizes, manholes, cleanouts and other appurtenances, including installation and backfill details. Profiles are not required for private sanitary sewer services under 250 feet long and 6-inches or less in diameter, if they do not cross other private properties. Sanitary sewer lines or services crossing other private properties must be in easements and must be profiled. Sanitary sewer connections which extend more than 10 feet into the paved section of public streets must be profiled for the section which is located in the right-of-way. Private sanitary sewer profiles shall include the station, elevation, existing and proposed ground lines, and the location and description of utility crossings.

l. An Erosion Control Plan prepared in accordance with the current Texas Pollution Discharge Elimination System (TPDES) requirements and all other applicable requirements of the Texas Commission on Environmental Quality (TCEQ). For all projects requiring a SWPPP based on TPDES/TCEQ requirements, the contractor or the developer/owner shall provide the Department of Public Works with a copy of the SWPPP and the Construction Site Notice (and NOI if applicable) prior to any earth disturbance activities.

m. A Traffic Control Plan shall be submitted for all proposed construction within a street right-of-way. The traffic control plan shall incorporate all applicable requirements of the Texas Manual on Uniform Traffic Control Devices (TMUTCD).

n. Street Lighting Plan for all projects involving public street construction

B. The following is a list of accompanying documents or items, which shall be included, as applicable, with each Construction Permit application submitted for review:

1. Tax certificate showing all tax payments to the City of San Benito are current. Taxes must be current as of the date of formal City approval of the Plat.

2. A copy of an approved Development Plan

3. A copy of the filed Final Plat, Replat or Minor Plat

4. Landscape Plan

4.10 Earth Disturbance Permit Application Plan Requirements

A. The following is a list of accompanying documents or items, which shall be included, as applicable, with each Earth Disturbance Permit application submitted for review:

1. Tax certificate showing all tax payments to the City of San Benito are current. Taxes must be current as of the date of formal City approval of the Plat.

2. A copy of an approved Development Plan

3. A copy of the filed Final Plat, Replat or Minor Plat.

4. A Grading Plan prepared and submitted in accordance with the plan preparation/submittal requirements described under the section on Construction Permit Application Plan Requirements above.

5. Drainage Plans prepared and submitted in accordance with the plan preparation/submittal requirements described under the section on Construction Permit Application Plan Requirements above.

6. An Erosion Control Plan prepared in accordance with the current Texas Pollution Discharge Elimination System (TPDES) requirements and all other applicable requirements of the Texas Commission on Environmental Quality (TCEQ). For all projects requiring a SWPPP based on TPDES/TCEQ requirements, the contractor or the developer/owner shall provide the Department of Public Works with a copy of the SWPPP and the Construction Site Notice (and NOI if applicable) prior to any earth disturbance activities. Note: Erosion control plans shall be prepared in accordance with the plan preparation/submittal requirements described under the section on Construction Permit Application Plan Requirements above.

4.11 Driveway Permit Application Plan Requirements

A. Application for a driveway permit can be made as part of the Development Plan request or as a separate request. Driveway permit applications shall contain sufficient information to allow the city to fully assess the adequacy of the proposed driveway design. A Driveway Permit application shall include a driveway plan. The following is a checklist for items, which shall be included, as applicable, on the driveway plan:

1. Title block including property address, property legal description, and information contact information for the property owner and contractor

2. North arrow

3. Date

4. Scale (must be legible)

5. The dimensions, locations and design of the driveway(s) being requested

6. The location of any building or structure on the site, either existing or proposed

7. List uses on commercial lots (such as office, retail store, gas station, etc.)

8. The layout of all drive lanes, fire lanes, and parking areas including the proposed internal circulation patterns

9. All existing or proposed driveways, gutters, storm sewers, manholes, fire hydrants, utility poles, underground utilities, service fixtures, etc., which may be impacted by the driveway construction or may affect driveway operations

10. Any existing driveways or curb cuts located on the property, adjacent properties, or properties across the street

11. The geometric design features of the connecting roadway, including the roadway width, roadway material (concrete or asphalt), the presence of a median, the number and width of travel lanes, the presence of a shoulder or a parking lane, etc.

12. The distances to the nearest intersecting streets and driveways

13. Circular driveways shall be prohibited unless the meet the following criteria:
    i. Double / U shaped entry driveway approaches, for residential homes with three (3) car garages or more.
    ii. Full width of drive and radii shall not occupy more than 70 percent of the frontage width, or a maximum of 30 feet, whichever is less measured at the edge of roadway.
    iii. A five-foot setback is required for each driveway entrance.

B. The following is a list of accompanying documents or items, which shall be included, as applicable, with each Driveway Permit application submitted for review:

1. Tax certificate showing all tax payments to the City of San Benito are current. Taxes must be current as of the date of formal City approval of the Plat.

2. A copy of the filed Final Plat, Replat or Minor Plat.

4.12 Sign Permit Application Plan Requirements

A. No sign permit shall be issued except after receipt of an application prescribed by the building official and showing the sign location, size, type, height, materials of constructions, surface area and such other information as the building official shall require. When required by the building official, plans shall be prepared by a registered professional engineer or architect.

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Section 5
Screening Devices and Fence Regulations

5.01 General Provisions

A. The intent of this section is to provide for visual screening of non-single-family parking lots, trash container and storage areas.

B. A screening device shall be a solid wood, brick, stone or decorative block masonry wall not less than six (6) feet nor greater than eight (8) feet in height measured at the highest finished grade. Brick, stone or decorative block masonry walls shall be designed by a Texas licensed engineer. Construction and location details of the required screening devices shall be shown as part of the Development Plan for all multi-family and non-residential uses. The required screening device shall be constructed prior to any building permits being issued for multi-family and non-single-family developments. In areas where multi-family development or non-residential development is proposed adjacent to established single-family residential dwellings, the screening device shall be constructed prior to issuance of a building permit. The developer/owner will not be allowed to escrow the screening device portion of the project costs under the performance escrow policy.

C. A four (4) foot screening wall maintenance easement shall be provided on private property for all City-maintained screening walls adjacent to a City right-of-way.

5.02 Screening Between Single-Family Residential and Multi-Family Residential Uses

A. There shall be constructed a minimum six (6) foot screening device along any portion of a multi-family parking lot or trash container area which adjoins any portion of a single-family detached and attached residential use. The construction of the screening wall is the responsibility of the multi-family property owner.

5.03 Screening Between Non-Residential and Residential Uses

A. There shall be constructed a minimum six (6) foot screening device along any portion of a non-residential development parking lot or trash container area which adjoins any portion of a single-family detached or attached residential, townhouse, or multi-family residential use. The construction of the screening wall is the responsibility of the commercial property owner.

5.04 Screening of Refuse Areas

A. Location of refuse storage areas

1. Refuse storage areas shall be located on the side or rear of the building as to facilitate pickup by refuse collection agencies.

2. Refuse storage areas shall not be located with required yard setbacks.

3. Refuse storage areas shall not be located within fifty (50) feet of property zoned as a single-family residential district.

4. Each refuse facility shall be located so as to facilitate pickup by refuse collection agencies with adequate reinforced paved areas for loading and unloading.

B. Refuse storage that is not within a screened service area shall be screened on three sides in accordance with one of the following methods. The fourth side shall be utilized for pickup service with an optional gate to secure the area. The minimum height shall be the taller of six (6) feet or one (1) foot above the height of the refuse storage area that is required to be screened.

1. A fence or wall constructed of a primary building material that is similar to the main building.

2. Redwood, cedar, preservative pressure treated wood, or other similar materials, screened with large evergreen shrubs planted four (4) feet on center and staggered thirty (30) to thirty-six (36) inches.

3. Fence posts shall be rust-protected metal, masonry or concrete. Six (6) -inch concrete filled steel pipes, painted in a neutral color, shall be located to protect the enclosure from truck operations.

4. The Planning and Zoning Commission and City Commission may approve alternative screening during consideration of the site plan application if it finds that the property proposes an adequate screening of the refuse storage area compatible with surrounding land uses.

5. New development shall be required to install a SS drainage line and water line spigot with the enclosed refuse facility.

5.05 Screening Requirements for Outside Storage

A. Where outside storage of equipment, material, goods and supplies for non-retail purposes is permitted by ordinance, all outside storage shall be screened from the view of any adjacent public street by a screening wall not less than six (6) feet in height. Materials and supplies may not be stacked higher than the height of the wall. The wall shall be placed beyond the required ten (10) foot landscaped strip. Other portions of the storage yard not adjacent to or fronting a street, may be fenced with a solid, opaque fence.

B. A detail of the proposed opaque fence in section and elevation and/or a manufacturer's detail and specifications must be provided on the Development Plan for a project and/or as part of the fence permit process. The fence must completely conceal outside storage.

C. This provision does not apply to display of goods for sale incidental to a retail use, plant nursery, sales and rental of motor vehicles, mobile homes, boats or trailers.

5.06 Screening Requirements for Roof Projections

A. Screening shall also be required for approved projections above the building roofline. These shall include but are not limited to such projections as satellite dishes, communication towers, and heating and air conditioning units. The screening shall consist of materials similar to that used in the front façade of the building and shall be constructed to a height appropriate for screening the allowed projection from view at ground level within sixty (60) feet of the subject building.

5.07 Maintenance Requirements

A. Required screening walls shall be maintained in good condition by the property owner.

B. Required screening walls which are to be maintained by the City when within the right-of-way or within a wall maintenance easement, at the time of initial development, the developer shall pay 20 percent of the total cost of initial construction, to be placed in the City's screening wall maintenance account for future repair and upkeep of the screening walls within the City.

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Section 6
Off-Street Parking and Loading Requirements

6.01 General Provisions

A. Off-street parking spaces shall be provided at the time any building or structure is erected or structurally altered. Parking which is provided shall be shown on a Development Plan when such a plan is required. All parking and loading or unloading facilities, approaches, access driveways and stacking or storage parking spaces for vehicles shall be paved with concrete or asphalt. This provision shall also apply to any use located on the property with no building or structure, i.e. public or private parking lots. Trailers are defined as vehicles.

6.02 Parking Requirements Based on Use

A. Businesses are encouraged to provide as many spaces as possible utilizing parking formulas in this Section. Parking which is provided shall be shown on a Development Plan, when such a plan is required.

B. All required off-street parking shall be in accordance with the following requirements.

C. Business or Professional Office:

1. One (1) parking space for each three hundred (300) square feet of floor area.

2. Assembly or Exhibition Hall: One (1) parking spaces for each one hundred (100) square feet of floor area used thereof. With fixed seating, one (1) parking space for each four (4) seats or bench seating spaces.

D. Day Care: One (1) parking space per faculty plus one (1) parking space per then (10) children plus one (1) stacking spaces per three (3) children.

E. Dwellings, Single-Family Attached or Detached: A minimum of one (1) car garage plus one (1) additional parking space shall be provided.

F. Dwellings, Multi-Family: Two (2) parking spaces for each dwelling unit.

G. Hospital: One (1) space per bed, plus additional parking as required for other listed categories.

H. Hotel, Motel or Inn: One (1) parking space for each one (1) guest room or suite for the first one-hundred (100) guests and three-quarters (0.75) of a parking space for each one (1) guest room or suite for additional guests plus one (1) space for each three hundred (300) square feet of commercial floor area contained therein.

I. Manufacturing or Industrial Establishment: One (1) parking space for each three hundred (300) square feet of floor area.

J. Retail Store or Personal Service Establishment: One (1) parking space for each 250 square feet of Gross Leasable Area.

K. Restaurant, Night Club, Cafe or Similar Recreation or Amusement Establishment: One (1) parking spaces for each one hundred (100) square feet of floor area.

L. Warehouse or Storage: One (1) parking space for each 2,000 square feet of floor area.

6.03 Rules for Computing Number of Required Parking Spaces

A. "Floor area" shall mean the gross floor area of the specific use. Where fractional spaces result, the parking spaces required shall be constructed to the nearest whole number.

B. The parking space requirement for a use not specifically mentioned herein shall be the same as required for a use of similar nature.

C. Whenever a building or use constructed or established after the effective date of this development manual is changed or enlarged in floor area, number of employees, number of dwellings units, seating capacity or otherwise, to create a need for an increase of ten (10) percent or more in the number of existing parking spaces, such spaces shall be provided on the basis of the enlargement or change. Whenever a building or use existing prior to the effective date of this development manual is enlarged to the extent of fifty (50) percent or more in floor area or in the area used, said building or use shall then and thereafter comply with the parking requirements set forth herein.

D. In the case of mixed uses, the parking spaces required shall equal the sum of the requirements of the various uses computed separately. In the event that the developer of a mixed-use development wishes to reduce the overall parking provided, a parking study based on recognized industry standards and indicating how the uses work together in a way that their peak use periods are phased, may be submitted for review by City staff. An approval of reduced parking would be in the form of a parking variance, to be approved by the City Commission.

6.04 Location of Parking Spaces

A. Where an increase in the number of spaces is required by a change or enlargement of use or where such spaces are provided collectively or used jointly by two (2) or more buildings or establishments, the required spaces may not be located in excess of five hundred (500) feet from any other non-residential building served.

B. In any case where the required parking spaces are not located on the same lot with the building or use served, or where such spaces are collectively or jointly provided and used, a written agreement thereby assuring their retention for such purposes, shall be properly

drawn and executed by the parties concerned and shall be filed with the development plan application.

C. For detached single family or duplex residential uses, it shall be unlawful for any owner of property to allow a driveway or parking surface in the required front yard setback to exceed 27 feet in width on lots 60 feet wide or greater or 45 percent of the lot width for lots less than 60 feet in width. For purposes of this requirement, the lot width shall mean the width of the lot measured at the front yard setback. Driveways shall be paved with concrete except that expansion of an existing driveway may be with concrete or a continuation of an existing non-conforming material adjacent to the side of the driveway being expanded, provided that the total parking area complies with the width requirements herein and not more than 45 percent of the required front yard shall be used for parking. A permit is required for all driveway and parking surface improvements.

6.05 Minimum Dimensions for Off-Street Parking

A. The minimum dimensions for off-street parking shall be as follows:

1. Ninety (90) Degree Angle Parking: Each parking space shall be not less than nine (9) feet wide or less than eighteen (18) feet in length. Maneuvering space shall be in addition to parking space and shall be not less than twenty-four (24) feet perpendicular to the building or parking line.

2. Sixty (60) Degree Angle Parking: Each parking space shall be not less than (9) feet wide perpendicular to the parking angle nor less than twenty (20) feet in length when measured at right angles to the building or parking line. Maneuvering space shall be in addition to parking space and shall be not less than twenty (20) feet perpendicular to the building or parking line.

3. Forty-Five (45) Degree Angle Parking: Each parking space shall be not less than nine (9) feet wide perpendicular to the parking angle nor less than nineteen (19) feet in length when measured at right angles to the building or parking line. Maneuvering space shall be in addition to parking space and shall be not less than eighteen (18) feet perpendicular to the building or parking line.

4. Parallel Parking: Each parking space shall be not less than ten (10) feet wide nor less than twenty-four (24) feet in length. Parallel parking will not be considered except when it can be situated in such a manner that persons entering and exiting vehicles will be out of the flow of traffic.

B. When off-street parking facilities are located adjacent to a public alley, the width of said alley may be assumed to be a portion of the maneuvering space requirement. Where off-street parking facilities are provided in excess of the minimum amounts herein specified, or when off-street parking facilities are provided but not required by this development manual, said off-street parking facilities shall comply with the minimum requirements for parking and maneuvering space herein specified.

6.06 Minimum Dimensions for Off-Street Loading Areas

A. All buildings (except single-family, duplex and multi-family dwellings) hereafter erected, reconstructed or enlarged so as to require additional parking spaces shall have adequate permanent off-street facilities providing for the loading and unloading of merchandise and goods within or adjacent to the building in such a manner as not to obstruct the freedom of traffic movement on the public rights-of-way.

B. All loading areas are to be indicated on the development plan.

C. Required off-street loading facilities may be adjacent to a public alley or private service drive, or may consist of a berth within a structure.

D. No portion of a loading facility or space may extend into a public right-of-way, a fire lane, or into an off-street parking space.

    1. Loading spaces may, with the approval of the City, be located within off-street parking spaces that are anticipated to be unused when deliveries are to be made. Typically, this will apply to fast-food restaurants, and pad retail sites.

E. The off-street loading spaces or truck berths shall provide maneuvering areas on site to prevent any blockage of public right-of-way.

6.07 Accessible Parking Requirements

A. Accessible parking spaces and/or loading zones shall be provided by the building or facility owner, agent, or occupants in accordance with the Americans With Disabilities Act (ADA), Texas Department of Licensing and Regulation (TDLR) and other applicable agency requirements, if any. All other requirements shall be established by the state or federal authority having jurisdiction.

Section 7
Water Improvements

7.01 General

The purpose of this section is to outline the general requirements for the design of water improvements and provide typical details for construction. The City of San Benito's City Engineer should be consulted if any deviations from these standards are anticipated before and during construction. In cases where design limitations or physical barriers restrict compliance with the provisions of this section, alternatives are to be considered by the City Engineer prior to construction and final acceptance of the improvements.

7.02 Design Standards

All water mains extended or proposed to the City of San Benito's water distribution systems shall be designed and constructed in accordance to the following requirements.

A. All water mains must be designed in accordance with ***Subchapter D: Rules and Regulations for Public Water Systems*** of the Texas Commission on Environmental Quality (TCEQ), current edition.

B. Water improvements to the City of San Benito water distribution system are to be designed by a Professional Engineer licensed to practice in the State of Texas.

C. Water mains are to be designed and installed with a minimum cover of four (4) feet unless approved by the City Engineer.

D. Water mains shall be a minimum of 8 inches in diameter. Fire Hydrant lead line shall be no less than 6 inches in diameter. The City may require larger diameter lines based on several factors including demand, service areas, Fire Marshal requirements, and historical data.

E. On cul-de-sac streets less than 400 feet, fire hydrants should be located at the entrance of the cul-de-sac. The City Fire Marshals has final authority regarding the quantity and location of proposed fire hydrants. Additional installations may also be required by the City Engineer for future developments.

F. Valves shall be spaced at a maximum of 800 feet or as directed by the City Engineer. Valves should also be installed on any stub-outs for future line extensions.

G. Water line pipe shall conform to AWWA C900, C905, or C909 requirements and have a minimum Pressure Class or Pressure Rating of no less than 150 psi. Pipe diameters 12 inches or smaller shall be AWWA C900 PVC DR18. Pipe diameters 14 inches and larger shall conform to AWWA C905.

H. Water jetting is not allowed under any circumstance for utility crossings or within a roadway. Water jetting for water lines outside of roadways may be considered if a licensed geotechnical engineer has determined the soil is suitable for jetting AND if approved by the City Engineer.

I. Tapping sleeves and valves shall meet AWWA specifications with a minimum working pressure of 150 psi.

J. All fittings shall be Ductile Iron, meeting the specifications of A.N.S.I/AWWA C110

K. Deflections and bends shall utilize the Mega-lug, Mega-flange, and joint resistant fittings.

L. Galvanized pipe or fittings are not allowed, with the exception of a 2-inch riser on blow-offs.

M. Fire Hydrants shall be located with a maximum spacing of 500 feet between fire hydrants in areas with a residential land use, and a maximum 300 feet spacing between fire hydrants in areas with a non-residential land use.

N. The design of a water distribution system shall incorporate a means to achieve a two-source water line loop. This may require extensions or off-site utility improvements. Exceptions to the looped water line requirement will be evaluated on a case by case basis.

O. Blue reflective markers shall be installed on the centerline of access road to indicate the location of a fire hydrant.

P. Concrete thrust blocks on water main fittings should be placed to withstand the test pressure of 150 psi.

Q. Project Close-out documents shall include an electronic and (or) hard copy of Final Record Drawings. Electronic drawings are preferred.

R. Water Main – Sanitary Sewer Crossings:

Primary Condition	**Proposed Water Existing Sanitary**				**Proposed Water Proposed Sanitary or Existing Water Proposed Sanitary**			
Secondary Condition	Water Over Sanitary		Water Under Sanitary		Water Over Sanitary		Water Under Sanitary	
If the Clearance Is	Less Than 2’	Greater Than 2’ But Less Than 9’	Less Than 2’	Greater Than 2’ But Less Than 9’	Less Than 2’	Greater Than 2’ But Less Than 9’	Less Than 2’	Greater Than 2’ But Less Than 9’
*Protection Requirement	1	2	3	4	5	6	3	6

Protection requirements for sanitary sewer crossings (Unless variance is granted by the TCEQ) (All clearances shall be measured from outside wall to outside wall)

1. Center one (1) 20-foot joint of C-900 PVC DR-18, Class 150, waterline pipe over sanitary sewer; 6-inch absolute minimum clearance.

2. If no evidence of sanitary sewer leakage, center one joint of water line over sanitary sewer: 24-inch absolute minimum clearance. If the sewer line is leaking, the sewer line shall be replaced with 150 psi lined ductile iron or PVC pipe with appropriate adapters on all lined ductile iron or PVC pipe with appropriate adapters on all portions of the sanitary sewer within 9-feet of the water main.

3. Not allowed

4. Auger 9-feet minimum each side of sanitary sewer, place one 20-foot joint of C-900 PVC, 150 psi, centered under sanitary sewer. Fill bored hole with bentonite/clay mixture: 2-foot absolute minimum clearance or replace the existing sanitary sewer with 150 psi line ductile iron or PVC pipe with appropriate adapters on all portions of the sanitary within 9-feet of the water main.
5. Minimum 18-foot joint of sanitary sewer, 150 psi lined ductile iron or PVC pipe centered at the water line; 6-inch absolute minimum clearance.

6. If clearance is between 2 to 9-feet:

a. Center a minimum 18-foot joint of 150 psi lined ductile iron or PVC pipe at water line.

b. Use cement-stabilized sand backfill (minimum 2 sacks cement per cubic yard of sand) starting at a point ¼ of the pipe diameter above the bottom of the sanitary sewer to 1-foot above the top of sanitary sewer, or one sanitary sewer diameter, whichever is larger. Center one joint of sanitary sewer pipe about the water main.

7.03 Testing Requirements

A. Water mains shall be tested for leakage in accordance with AWWA Standard C-900 (150 psi) for two hours. Air from the water line shall be removed before the start of testing.

B. Water mains and service lines shall be chlorinated before it can begin service. The chlorinating substance shall be applied at the beginning of each pipe section for testing.

C. Water mains and service lines should be flushed before testing by City inspector for bacteria. All costs associated with bacterial testing is to be paid by the Contractor, including retests.

7.04 Right of Way Crossings

A. Water distribution mains that are located within state right of way must conform to the requirements of the Texas Department of Transportation (TxDOT). Water distribution mains that cross railroads must conform to the requirements of the railroad company whose right-of-way is being crossed. Water distribution mains crossing creeks or drainage channels regulated by FEMA shall require encasement. Below grade crossings are preferred; however, aerial crossings may be considered. Thrust restraint shall be provided at points of transition from buried to exposed pipe and at changes in alignment of exposed pipe. Air release valves shall be provided at the high point of all crossings. Below grade crossings of creeks and drainage channels shall have a minimum cover of 3.5-feet below the creek flowline at the time of construction. All below grade crossings will require steel encasement with all ends capped and sealed. The casing shall be carried into the bank a distance that should consider changes in the creek channel. This distance shall be beyond the high bank, outside of a projected 1H:1V slope from the high bank away from the channel.

7.05 Encasement

A. Steel cylinder pipe shall be used for all encasement pipe. Other encasement pipe material may be used per TCEQ requirements and City specifications. Carrier pipes sized less than 30 inches shall use an encasement pipe with a wall thickness of no less than 3/8-inch. For carrier pipes 30 inches and larger, a wall thickness of no less than 1/2-inch shall be used. Coating of encasement pipe may be required in special soil conditions. All carrier pipes will be supported by casing spacers in accordance with the specifications and details, and shall have joints restrained by an approved method that will allow the removal of the

carrier pipe from the encasement pipe in a single direction by means of tension on the carrier pipe only.

7.06 Easements

A. Water mains constructed outside of public rights of way shall be in easements of not less than 15 feet in width except for the following: if the water main is deeper than 6 feet, the easement width shall be not less than 20 feet; and if the water main depth is greater than 14 feet, the easement width shall be 30 feet. If both water and wastewater mains are located within the same easement, the width shall not be less than 25 feet (larger widths will be required depending on the depth of the sewer main). Where water lines will be adjacent to building structures, easement width shall be increased.

7.07 Water Improvement Details

Section 8
Wastewater Improvements

8.01 General

The purpose of this section is to outline the general requirements for the design of wastewater improvements and provide typical details for construction. The City of San Benito's City Engineer should be consulted if any deviations from these standards are anticipated before and during construction. In cases where design limitations or physical barriers restrict compliance with the provisions of this section, alternatives are to be considered by the City Engineer prior to construction and final acceptance of the improvements.

8.02 Design Standards

A. All wastewater mains must be designed in accordance with Design Criteria for Sewage Systems by the Texas Commission on Environmental Quality (TCEQ) TAC 217, current edition.

B. Wastewater improvements to the City of San Benito wastewater collection systems are to be designed by a Professional Engineer licensed to practice in the State of Texas.

C. Wastewater mains are to be designed and installed with minimum cover of four (4) feet unless approved by the City Engineer.

D. Sanitary Sewer lines shall be a minimum of eight (8) inches in diameter, except laterals and force mains. The City may require larger diameter lines based on several factors including demand, service areas, and historical data.

E. Gravity sewer lines shall be designed with a straight alignment and a uniform grade between manholes. Horizontal curvature between manholes is not allowed. The table below shows the minimum and maximum pipe slopes for waste water lines.

Table 2-1 Minimum and Maximum Sanitary Sewer Pipe Slopes

Size of Pipe (inches)	Minimum Slope (%)	Maximum Slope (%)
8	0.33	8.40
10	0.25	6.23
12	0.20	4.88
15	0.15	3.62
18	0.11	2.83
21	0.09	2.30
24	0.08	1.93
27	0.06	1.65
30	0.055	1.43
33	0.05	1.26
36	0.045	1.12
39	0.04	1.01
Greater than 39	*	*

* Pipes larger than 39 inches in diameter slopes are determined by Manning's formula to maintain a velocity greater than 2.0 (ft/s) and less than 10.0 (ft/s) when flowing full.

Manning's Formula

$$V = \frac{1.49}{n} \; x \; R_h^{0.67} \; x \; \sqrt{S}$$

V = velocity (ft/s)
n = Manning's roughness coefficient (0.013)
R_h = hydraulic radius (ft)
S = slope (ft/ft)
Reference: *TCEQ Chapter 217, Subchapter C: Conventional Collection Systems*

F. Wastewater pipe diameters shall be designed to serve the anticipated development, but shall not be less than the following requirements:

1. Single Family 8 inches
2. Commercial, Retail, Multi-Family 8 inches
3. Industrial 12 inches
4. Educational Facilities 12 inches

G. Water jetting is not allowed under any circumstance for sewers crossing or within a roadway. Water jetting for sewers outside of roadways may be considered if a licensed

geotechnical engineer has determined the soil is suitable for jetting AND if approved by the City Engineer.

H. Sanitary Sewer manholes shall be placed at a maximum of 500 foot spacing or as directed by the City Engineer. The table below shows the maximum manhole spacing as required by TCEQ.

Table 2-2 Maximum Sanitary Sewer Manhole Spacing

Pipe Diameter (inches)	**Maximum Manhole Spacing (feet)**
6-15	500
18-30	800
36-48	1000
54 or greater	2000
Reference: *TCEQ Chapter 217, Subchapter C: Conventional Collection Systems*	

I. Sewer main and service line pipe shall conform to SDR26 meeting requirements of ASTM D-3034. Force mains shall conform to SDR21.

J. All lots must be serviced with single service stub-outs, including a clean-out located at the right of way or within an easement. Service locations should be marked on the curb or gutter with an "S" not less than (4) inches in size or in a manner approved by the City of San Benito.

K. Single service connections shall be extended for each lot and a cleanout shall be installed at the right of way or within an easement. For land use other than single family residential, individual services shall be provided for each unit or suite. If a shell building is proposed, the project engineer shall provide a reasonable assumption to the number of suites that the shell building may hold.

L. Single-family residential private service connections shall be a minimum of four (4) inches in diameter. Multi-family residential, commercial, and industrial private service connections shall be a minimum of six (6) inches in diameter.

M. Rubber gaskets shall conform to ASTM D-1869, D-361 or C-443. A maximum of 15 inches of manhole grade adjustment rings is allowed and a minimum of five (5) inch of grade rings is required between the manhole and the rings.

N. Manhole rings and covers shall have a minimum 30 inch opening and include the City of San Benito logo provided in the details sections and rain guards. Manhole cover is to be hinged and traffic rated fiber composite. (See details at the end of this section)

O. Project Close-out documents shall include an electronic and hard copy of Final Record Drawings. Electronic drawings are preferred.

8.03 Testing Requirements

A. Infiltration/Exfiltration: The total infiltration or exfiltration, as determined by test, shall not exceed 200 gallons per inch diameter per mile of pipe per 24 hours at a minimum test head of 2 feet. If the quantity of infiltration or exfiltration exceeds the maximum quantity specified, remedial action shall be undertaken in order to reduce the infiltration or exfiltration to an amount within limits as specified. Infiltration or exfiltration tests shall be performed on the total footage on the project. Copies of all tests results shall be made available to the city. The air test shall conform to the procedure described in ASTM C 828 or other appropriate procedures.

B. Deflection: Deflection tests shall be performed on all flexible and semi-rigid pipes. The test shall be conducted after the final backfill has been placed. No pipe shall exceed a deflection of 5%. The deflection test should be performed using a rigid ball or mandrel and have a diameter equal to 95% of the inside diameter of the pipe being tested. The test should not be performed using mechanical pulling devices. The city's construction inspector must be present at the time of testing.

C. Pressure Test:

Table 2-3 Minimum Testing Times for Low-Pressure Air Test

Pipe Diameter (inches)	Minimum Time (seconds)	Maximum Length for Minimum Time (feet)	Time for Longer Length (seconds/foot)
6	340	398	0.855
8	454	298	1.520
10	567	239	2.374
12	680	199	3.419
15	850	159	5.342
18	1020	133	7.693
21	1190	114	10.471
24	1360	100	13.676
27	1530	88	17.309

30	1700	80	21.369
33	1870	72	25.856
Reference: *TCEQ Chapter 217, Subchapter C: Conventional Collection Systems*			

D. Video Camera Inspection: The City of San Benito may perform a video inspection prior to final acceptance of work but is not necessary for approval. Any defects including but not limited to, sagging, leaking, infiltration, separation of joints, service connection, defects, or loss of roundness shall require repair and must be reported to the City Engineer.

8.04 Manholes

A. Manholes will be required to facilitate maintenance, cleaning, and inspection at changes in horizontal alignment (including at the center of horizontally curved sections of main where the included angle equals or exceeds 45-degrees), changes in grade, changes in pipe size and at junctions with other wastewater mains or collection lines. Manholes will be required at the junctions where service leads, 6-inch diameter or larger, join mains.

B. When a change in the size of a wastewater main or collection line occurs without a change in grade, the inside top of pipe (soffit) elevations will be matched in the manhole. Elevation differences between pipes at a manhole will require a drop manhole if >2' above FL.

C. A 0.1-foot drop through the manhole is desired.

D. At the end of a main or collection line, the line shall be terminated with a manhole or clean out as per TCEQ requirements. Clean-outs shall only be allowed when there is no physical means for an extension and the line is less than 4 feet in depth. If an extension is anticipated, a plugged stub-out of one full pipe joint with a clean-out is required.

E. Manholes may be constructed of fiberglass or concrete. Fiberglass manholes may only be used in non-structural areas as a special design. Watertight sealed manholes with bolt-down lids shall be provided in creek beds and in floodplains

F. Manhole sizes shall be as follows:

Manhole Diameter	Main Size
4 ft	<18 in.
5 ft	≥18 in. < 30 in.
6 ft	≥36 in.

G. Manholes 10 feet to 20 feet deep shall be at least 5 feet in diameter and manholes over 20 feet deep shall be at least 6 feet in diameter.

8.05 Right of Way Crossings

A. Wastewater collection mains located within state right of way must conform to the requirements of the Texas Department of Transportation (TxDOT).

B. Wastewater collection mains that cross railroads must conform to the requirements of the railroad company whose right-of-way is being crossed.

C. For wastewater collection mains crossing creeks or drainage channels, piers must support the elevated sections of such crossings. Dry bore all crossings of existing streets unless otherwise authorized by the Director of Public Utilities.

D. Below grade crossings of creeks and drainage channels shall have a minimum cover of 3.5-feet below the flowline at the time of construction. All below grade crossings will require encasement with steel encasement pipe and all ends shall be capped and sealed. The casing shall be carried into the bank a distance that should consider changes in the creek channel. This distance shall be beyond the high bank, outside of a projected 1H:1V slope from the high bank away from the channel. If the pipe is less than 3.5-feet in depth, steel encasement and concrete capping shall be required.

8.06 Encasement

A. Steel cylinder pipe shall be used for all encasement pipe. Other encasement pipe material may be used per TCEQ requirements and City Specifications. Carrier pipes sized less than 30 inches shall use an encasement pipe with a wall thickness no less than 3/8-inch. For carrier pipes 30 inches and larger, a wall thickness of no less than 1/2-inch shall be used. Coating of encasement pipe may be required in special soil conditions.

B. When required, encasement pipe diameter shall be as specified in the specifications and details. Encasement pipes shall extend 2-feet beyond the back of both curbs on the street. Ends of encasement pipes shall be sealed to prevent the intrusion and collection of groundwater.

C. All carrier pipes will be supported by casing spacers in accordance with the specifications and details, and shall have joints restrained by an approved method that will allow the removal of the carrier pipe from the encasement pipe in a single direction by means of tension on the carrier pipe only.

8.07 Easements

A. Wastewater lines constructed outside of or not adjacent to public rights-of-way shall be in easements of not less than 15 feet in width except for the following: if the sewer main bury is deeper than 10 feet, the easement width shall be not less than 20 feet: and if the sewer main bury is greater than 14 feet, the easement width shall be 30 feet. If both wastewater and water mains are located within the same easement, the width shall not be less than 25 feet (larger widths will be required depending on the depth of the sewer main).

B. The easement must be located such that the centerline of the wastewater line is no closer than 5.5-feet to the closest edge of the easement.

8.08 Wastewater Improvement Details

Section 9

Drainage Improvements Policy

9.01 General

The purpose of this section is to outline the general requirements for the design of storm water improvements and provide typical details for construction. The City of San Benito's City Engineer should be consulted if any deviations from these standards are anticipated before and during construction. In cases where design limitations or physical barriers restrict compliance with the provisions of this section, alternatives are to be considered by the City Engineer prior to construction and final acceptance of improvements.

9.02 Drainage Improvements

All storm sewer mains extended or proposed to the City of San Benito's storm water collection systems and watercourses shall be designed and constructed in accordance to the following requirements.

A. General Policy:

1. All Development within the City of San Benito or its Extraterritorial Jurisdiction (ETJ) shall include planning, design and construction of storm drainage systems in accordance with this manual.

2. Drainage reports and drainage improvements shall be performed and designed by a Professional Engineer licensed to practice in the State of Texas and are subject to approval by the City Engineer.

3. All drainage studies and design plans shall be formulated and based upon ultimate, fully developed watershed or drainage area runoff conditions. In certain circumstances where regional detention is in place or a master plan has been adopted, a development may plan to receive less than ultimate developed flow from upstream with the approval of the City Engineer.

4. Storm water must be carried to an adequate or acceptable outfall. An adequate outfall is one that does not create or increase flooding or erosion conditions downstream and is approved by the City Engineer.

5. Proposed storm water discharge rates and velocities from a development shall not exceed the runoff from existing, pre-development conditions, unless a detailed study is prepared that demonstrates that no unacceptable adverse impacts will be created. Adverse impacts include: new or increased flooding of existing insurable (FEMA) structures, significant increases in flood elevations over existing roadways,

unacceptable rises in FEMA base flood elevations, and new or increased stream bank erosion.

6. If a development drains into an improved channel or storm water drainage system designed under a previous drainage policy, then the hydraulic capacities of downstream facilities must be checked to verify that increased flows, caused by the new development, will not exceed the capacity of the existing system or cause increased downstream structure flooding. If there is not sufficient capacity to prevent increased downstream flooding, then detention or other acceptable measures must be adopted to accommodate the increase in runoff due to the proposed development.

7. Storm water runoff may be stored in detention and retention basins to mitigate potential downstream problems caused by a proposed development. Proposed detention or retention basins shall be analyzed both individually and as a part of the watershed system, to assure compatibility with one another and with the City's overall Storm Water Management Master Plan for that watershed (if available). Storage of storm water runoff, near to the points of rainfall occurrence, such as the use of parking lots, ball fields, property line swales, parks, road embankments, borrow pits and on-site ponds is desirable and encouraged.

8. Alternatives to detention or retention, for mitigation of potential downstream problems caused by proposed development, include: acquisition of expanded drainage easements, ROW, or property owner agreements; downstream channel and/or roadway bridge/culvert improvements or stream bank erosion protection; and financial contributions to the City of San Benito's Storm Water Utility Program for future improvements. These alternatives will be considered, as presented by the developer, on a case-by-case basis.

9. Stream bank stabilization and protection shall be required to prevent erosion and sedimentation from creeks, streams, and channels.

10. Required Easements:

    a. Drainage easements shall be required for both on-site and off-site public storm water drainage improvements, including standard engineered channels, storm drain systems, public detention/retention facilities and other storm water controls.

    b. Temporary drainage easements may be allowed off-site for temporary channels when future off-site development is anticipated to enclose the channel in conduit or follow an altered alignment. Temporary drainage easements will not be maintained by the City and will not terminate until permanent drainage improvements meeting City standards are installed and accepted. Temporary drainage easements will require written approval from the City Engineer and the City Attorney.

c. Private drainage easements, not dedicated to the city, may be required for private storm water drainage improvements serving multiple lots or for storm water controls on a property.

d. Access easements shall be provided for access to public storm water drainage improvements where necessary for maintenance.

11. Required Right of Way:

a. All drainage improvements in residential developments shall be located within rights of way.

b. Floodplain right of way shall be provided on sites along natural or improved earthen drainage ways (other than standard engineered channels). Floodplain rights of way shall encompass all areas below a ground elevation one foot above the water surface elevation of the base flood. The right-of-way shall also include at least a 15-foot wide maintenance strip along both sides of the channel or, if the City Engineer so allows, at least a 20- foot wide maintenance strip along one side of the channel.to provide ingress and egress for maintenance of the banks, as determined and required by the City Engineer. The access shall be part of the floodplain right of way itself and not a separate easement. Floodplain rights of way are not routinely maintained by the City.

c. All proposed developments within the City of San Benito and its (ETJ) shall comply with all local, county, state and federal regulations and all required permits or approvals shall be obtained by the developer.

d. The policy of the City San Benito is to avoid substantial or significant transfer of storm water drainage runoff from one basin to another and to maintain historical drainage paths whenever possible. However, the transfer of storm water drainage from basin to basin may be necessary in certain instances and will be reviewed by the City Engineer on a case-by-case basis.

9.03 Design Storm Requirements

A. Rainfall and Intensity: the table below shows the Intensity-Duration-Frequency coefficients for Cameron County that are to be used for Intensity Calculations:

Table 3-1 Intensity-Design-Duration Coefficients for Cameron County, Texas

Recurrence Interval (years)	IDF Coefficients		
	e	b	d
2	0.8299	65.5690	12.6865

5	0.8114	82.9421	12.6302
10	0.8004	95.4717	12.6506
25	0.7870	110.9163	12.7470
50	0.7762	102.7404	12.7443
100	0.7667	131.4408	13.0203

1. The rainfall intensity can be calculated by the formula shown below:

$$\boldsymbol{i = \frac{b}{(t_c + d)^e}}$$

Nomenclature:

i = intensity (inches/hour)
t_c = time of concentration (minutes)
e, B, d = IDF Coefficients (reference Table 3-1)

B. Time of Concentration: The time of concentration can be estimated by associating velocity and three typical flow regimes; pipe or channel flow, shallow concentrated flow, and overland/sheet flow. Each system should be calculated accordingly.

1. The time of concentration for shallow concentrated flow can be calculated by the formula shown below:

$$\boldsymbol{t_c = \frac{L}{60V}}$$

Nomenclature:

t_c = travel time (minutes)
L = watercourse length (feet)
V = average flow velocity (feet/second)

a. The shallow concentrated flow velocity can be calculated by the formula shown below:

$$\boldsymbol{V = K_u k S_p^{0.5}}$$

Nomenclature:

K_u= 3.28

V = velocity (feet/second)
k = intercept coefficient (reference Table 3-2)
S_p = slope (%)

Table 3-2 Intercept Coefficients

Land Cover / Flow System	k
Forest with heavy ground litter; hay meadow (overland flow)	0.076
Trash fallow or minimum tillage cultivation; contour or strip cropped; woodland (overland flow)	0.152
Short grass pasture (overland flow)	0.213
Cultivated straight row (overland flow)	0.274
Nearly bare and untilled (overland flow); alluvial fans in western mountainous regions	0.305
Grassed waterway (shallow concentrated flow)	0.457
Unpaved (shallow concentrated flow)	0.491
Paved area (shallow concentrated flow); small upland gullies	0.619
Reference: *FHWA Urban Drainage Design Manual, 3rd Edition (2013)*	

b. Manning's Equation shall be used to estimate average flow velocities in channels and conduits. Storm water runoff shall be calculated for fully developed conditions. The minimum inlet time of concentration is 10 minutes.

$$V = \left(\frac{1.49}{n}\right) R^{2/3} S^{1/2}$$

Nomenclature:

V = velocity (feet/second)
n = Manning's roughness coefficient
R = Hydraulic radius (feet)
S = slope

C. Runoff Coefficients

1. Runoff Coefficients shall be determined for each drainage area. Weighted coefficients shall be determined with application of the Weighted Runoff Coefficient formula when multiple surfaces exist.

$$C_W = \frac{(C_1 A_1 + C_2 A_2 + C_3 A_3 + \ldots + C_n A_n)}{A_{total}}$$

Nomenclature:

C_W = Weighted Runoff Coefficient
C_n = Runoff Coefficient n-th term
A_n = Area of n-th term (acres)
A_{total} = Total Area (acres)

Table 3-3 Runoff Coefficients

Type of Drainage Area	Runoff Coefficient, C
Business	
Downtown areas	0.70 – 0.95
Neighborhood areas	0.50 – 0.70
Residential	
Single-family	0.30 – 0.50
Multi-units, attached	0.40 – 0.60
Multi-units, detached	0.60 – 0.75
Suburban	0.25 – 0.40
Apartment dwelling areas	0.50 – 0.70
Industrial	
Light areas	0.50 – 0.80
Heavy areas	0.60 – 0.90
Lawns	
Sandy soil, flat, 2%	0.05 – 0.10
Sandy soil, average, 2 – 7%	0.10 – 0.15
Sandy soil, steep, 7%	0.15 – 0.20
Heavy soil, flat, 2%	0.13 – 0.17
Heavy soil, average, 2 – 7%	0.18 – 0.22
Heavy soil, steep, 7%	0.25 – 0.35
Streets	
Asphaltic	0.70 – 0.95
Concrete	0.80 – 0.95
Brick	0.70 – 0.85
Miscellaneous	
Parks, cemeteries	0.10 – 0.25
Playgrounds	0.20 – 0.40
Railroad yard areas	0.20 – 0.40
Unimproved areas	0.10 – 0.30
Drives and walks	0.75 – 0.85
Roofs	0.75 – 0.95
Reference: *FHWA Urban Drainage Design Manual, 3rd Edition (2013)*	

9.04 Drainage Report Requirements

A. Requirements: the following information shall be required as part of the drainage report for new developments:

1. Summary of Project

    a. Existing and Proposed conditions.

2. Vicinity map showing location of project

3. Location of proposed site with respect to the latest FEMA Floodplain map

4. Summary of Soil Conditions and Soil Classifications

5. Summary of Existing Drainage Conditions

6. Summary of Proposed Drainage Conditions

7. Summary of detention requirements based on the 2, 10 and 25 year storm events.

8. Attachments

    a. Exhibit A – Drainage Area Map

        i. All contributing areas
        ii. Contours and spot elevations
        iii. Direction of flow
        iv. Existing and Proposed storm sewer systems and outfalls
        v. Design assumptions

    b. Exhibit B – FEMA Floodplain Map with respect to project location

    c. Exhibit C – Soils Survey Map

    d. Exhibit D – Drainage Calculations

        i. Runoff, detention and hydraulic summary
        ii. Time of concentration (Tc) estimates
        iii. Runoff coefficient (c) assumptions
        iv. Storage volume calculations (Modified Rational Method)
        v. Pipe and inlet capacities
        vi. Detention pond dimensions
        vii. Hydraulic Grade Line (HGL)

9.05 Storm Water Detention Design:

A. General Policy:

1. Storm water runoff increases resulting from development shall be mitigated on-site for the 2, 10, 25-year meteorological events. The Modified Rational Method is to be used for determination of storm water storage requirements for developments less than 10 acres. Reference Table 3-4 for the Modified Rational Method calculation example. Developments less than 0.5 acre will not be required to detain on site.

Table 3-4 Modified Rational Method

(A)	**(B)**	**(C)**	**(D)**	**(E)**	**(F)**	**(G)**
Duration	Intensity	Q_{in}	V_{in}	Q_{out}	V_{out}	Storage
(min)	(in/hr)	(cfs)	(cf)	(cfs)	(cf)	(cf)

(A) – Duration in minutes
(B) – Intensity for respective duration
(C) – Developed conditions peak discharge
(D) – Developed conditions runoff volume
(E) – Pre-developed peak discharge
(F) – Pre-developed conditions runoff volume
(G) – Storage required ($V_{in} – V_{out}$)

2. Storm water runoff shall be released from detention area into a receiving system at the pre-developed rate for the 2, 10, 25-year frequency storm events.

3. On-site detention facilities shall be placed in dedicated areas unless otherwise approved by the City Engineer.

4. Maintenance of on-site detention areas shall be maintained by the property owner(s) or a home owner's association if applicable.

B. Drainage Detention Calculation Requirements:

1. Calculate runoff from site for existing conditions:

    a. Calculate runoff coefficient (C) based on ground cover, slope, soil type, etc.

    b. Calculate time of concentration (Tc), or time for runoff to flow from furthest hydraulic point of property to the collection point.

    c. From curve, select intensity (I) corresponding to time of concentration (Tc).

d. Calculate runoff (Q).

2. Calculate runoff conditions from site for improved conditions:

    a. Calculate runoff coefficient (c) based on improvements; i.e., paving, buildings, green areas.

    b. Calculate revised time of concentration (Tc).

    c. Determination of intensity and runoff not required at this stage.

3. Calculate on-site storage required:

    a. Storage required equals the difference between the volume of runoff generated in the improved condition and the volume of runoff that can be discharged based on the pre-developed conditions.

    b. The volume in and the volume out is calculated for storms of varying durations.

    c. Select maximum storage indicated for compliance with the City of San Benito drainage policy.

    d. Time of concentration beginning with calculated (t) for future conditions.

    e. Intensity for corresponding time of concentration. These values are from the rainfall intensity graph or from Cameron County statistical data.

    f. Q is the runoff rate in cubic feet per second. It is calculated from the rational formulate being Q = CIA.

    g. Volume of runoff in cubic feet for developed property. This is determined by multiplying the time of concentration (Tc) and the runoff amount (Q).

    h. Determine the maximum runoff rate from the existing conditions.

    i. The volume of runoff that can be discharged during the time of concentration (Tc). This is determined by multiplying the time of concentration (Tc) and the Q out.

9.06 Storm Sewer Design:

A. General Policy

1. Storm sewer systems are to be designed to convey the runoff resulting from a 25-year frequency storm event and checked for the 50-year storm event. Calculations are to be submitted to City Engineer for approval.

2. Plan and profile of proposed storm water infrastructure shall be required.

3. Storm water infrastructure shall be designed such that the hydraulic grade line (HGL) is at least 12 inches below the adjacent top of curb.

4. Rubber-gasket, Class III, reinforced concrete pipe (RCP) shall be used for storm water systems. Any other type of pipe is to be submitted to the City Engineer for approval.

5. Manholes or junction boxes shall be used at all changes in pipe size and direction. Reference Table 3-4 for suggested manhole spacing of storm water systems.

Table 3-4 Suggested Storm Sewer Manhole Spacing

Pipe Size (inches)	Maximum Spacing (feet)
12 to 24	300
27 to 36	375
39 to 54	450
60 and greater	900
Reference: *TxDOT Hydraulic Design Manual (2014)*	

6. Pipe slopes shall be designed to provide a minimum velocity of 3 feet per second (ft/s) and a maximum velocity of 12 feet per second (ft/s). Reference Table 3-5 for minimum pipe slopes of storm water systems.

Table 3-5 Minimum Storm Sewer Pipe Slopes

Diameter (inches)	Slope (foot/foot)	Slope (%)
8	0.0075	0.75
10	0.0056	0.56
12	0.0044	0.44
15	0.0032	0.32
18	0.0026	0.26
21	0.0021	0.21

24	0.0017	0.17
27	0.0015	0.15
30	0.0013	0.13
33	0.0011	0.11
36	0.0010	0.10
42	0.0008	0.08
48	0.0007	0.07
54	0.0006	0.06
60	0.0005	0.05
66	0.0005	0.05
72	0.0004	0.04
Reference: *FHWA, Urban Drainage Design Manual, 3rd Edition (2013)*		

7. All proposed outfalls shall provide a concrete sloped-end treatment approved by the City Engineer according to the City of San Benito standard drainage detail. Velocity dissipations shall be used when outlet velocities exceed the suggested maximum.

8. The minimum cover for all storm sewer pipe systems is 3 feet below finished grade. Depth of cover not meeting the 3-foot requirement shall be submitted to the City Engineer for approval.

9. Trench protection is to be used on all storm sewer systems given a depth of 5 feet or greater according to the latest OSHA regulations.

9.07 Drainage Improvement Details

Section 10
Street and Roadway Policy

10.01 General

The purpose of this section is to outline the general requirements for the design of roadways within the City and provide typical details for construction. The City of San Benito's City Engineer should be consulted if any deviations from these standards are anticipated before and during construction. In cases where design limitations or physical barriers restrict compliance with the provisions of this section, alternatives are to be considered by the City Engineer. All street and roadway improvements shall conform to the City of San Benito's Code of Ordinances and the adopted Thoroughfare Plan.

10.02 Standards for Public Roads

A. The following table shows the minimum specifications for the design of streets and roadways. These specifications do not govern any state highways within the city and shall conform to meet the Texas Department of Transportation specifications.

Table 4-1 Street Classification/Flexible Pavements Standards

Characteristic	Street Classification			
	Local	**Collector**	**Minor Arterial**	**Principal Arterial**
Street Width (back of curb to back of curb (B-B)	33' B-B	48' B-B	60' B-B	80' B-B
Minimum Structural Section				
Subgrade[1]	6 inches	6 inches	12 inches	12 inches
Flexible Base[2]	8 inches	10 inches	12 inches	12 inches
Hot Mix Asphaltic Concrete (HMAC)[3]	2 inches	2 ½ inches	3 inches	3 inches
Min. Transverse Slope	2%	2%	2.5%	2.5%
Min. Longitudinal Slope	0.2%	0.2%	0.2%	0.2%
Min. Width of Curb and Gutter	18 inches	18 inches	18 inches	18 inches

A. Subgrade should be compacted to 95% maximum dry density, as determined by the standard proctor (ASTM D698), and treated with lime at an applicable rate if the

plasticity index of the soils is greater than 20. All compacted subgrade shall extend to a minimum of 1 foot behind the proposed back of curb.

B. The flexible base shall be compacted to 95% maximum dry density, as determined by the standard proctor (ASTM D698), and treated with lime at an applicable rate if the plasticity index of the soils is greater than 12. All compacted flexible base shall extend to a minimum of 1 foot behind the proposed back of curb.

C. All hot mix asphaltic concrete shall consist of Type "D", crushed limestone aggregate and be compacted to 95% of the maximum theoretical dry density.

D. 40' B-B may be designated as a local or collector street depending on the streets function.

E. Corner clips and radius dimension given in the table below shall govern on all City intersections with the exception of intersections on TxDOT right-of-way.

Table 4-2 Corner Clip & Radius Dimensions

Corner Clip / Radius Dimension					
Roadway Type	Minor Residential (60' ROW)	Residential Collector (80' ROW)	Collector (80' ROW)	Minor Arterial (100' ROW)	Principal Arterial (120' ROW)
Minor Residential (60' ROW)	(15' / 20')	(20' / 20')	(30' / 25')	(40' / 30')	(50' / 35')
Residential Collector (80' ROW)	(20' / 20')	(20' / 25')	(30' / 30')	(40' / 35')	(50' / 40')
Collector (80' ROW)	(30' / 25')	(30' / 30')	(30' / 35')	(40' / 40')	(50' / 50')
Minor Arterial (100' ROW)	(40' / 30')	(40' / 35')	(40' / 40')	(40' / 50')	(50' / 50')
Principal Arterial (120' ROW)	(50' / 35')	(50' / 40')	(50' / 50')	(50' / 50')	(50' / 50')

10.03 Standards for Private Roads

A. Public road standards in Section A above apply to any private roads within the City of San Benito.

B. The width of access agreements for private roads are to be established as the same width required for public street right-of-way.

C. Street light standards for public roads shall be applied to private roads.

10.04 Testing Requirements

A. Material testing should be performed by a Professional Geotechnical Engineer licensed to practice in the State of Texas.

B. Material testing shall be paid by the developer through the Material Testing Fee (3%). Additional funds may be required if additional costs are incurred, and must be paid for before final acceptance of the subdivision.

C. The following table shows the testing requirements for material types in a typical roadway.

Table 4-3 Material Testing Requirements

Material Type	Testing Requirement	
Subgrade	1 test for every 1,000 square yards of street area for compaction and depth using standard proctor compaction test	
Flexible Base	1 test for every 1,000 square yards of street area for compaction and depth using standard proctor compaction test	
Hot Mix Asphaltic Concrete (HMAC)	1 test for every 1,500 square yards of street area for thickness verification using core samples	
Concrete	**Curb & Gutter**	**Concrete Pavement**
	3 cylinders for every 1,500 linear feet of curb and gutter to be broken at 7 and 28 days	3 cylinders for every 1,000 square yards, slump & air test for every 1,000 square yards

10.05 Sidewalk Requirements

A. All sidewalk and ramp construction shall meet the accessibility standards provided in the Texas Accessibility Standards (Texas Civil Statutes, Article 9102).

B. Sidewalks shall be a minimum four (4) feet in width in residential zones and five (5) foot minimum width in commercial zones.

C. Sidewalk alignment shall match existing alignment in the area.

D. In residential zones, sidewalk shall be constructed 4 feet from back of curb according to unless otherwise approved by the Planning Director and City Engineer.

E. Sidewalks should be constructed with a minimum of four (4) inch thick concrete, reinforced with 6" x 6" No. 6 gauge wire mesh or No. 3 bars at O.C.E.W. (On Centers Each Way).

F. All concrete shall be 5-sack concrete and shall have a minimum compressive strength of 3000 psi at 28 days.

G. Sidewalk shall slope toward the street with a maximum transverse slope of ¼ inch per foot (2%), 1-inch above the top of curb, and a maximum longitudinal slope of ½ inch per foot (5%).

H. Subgrade and 2" sand cushion should be compacted to 90% standard proctor.

I. Bar lift, plastic chairs or approved equal shall be installed to keep reinforcement at center of concrete thickness.

J. Contraction joints shall be placed at every 6 feet and expansion joints at every 30 feet.

K. Exposed aggregate concrete is not allowed. Concrete sidewalks shall be non-slip broom finished transverse to the walkway.

L. Ramps shall be placed at all intersection with roadways or where required by law/City. Curb and Gutter must be saw cut at the location of the proposed ramp.

10.06 Street Light Requirements

A. Table 4-3 below shows the City of San Benito street light requirements.

Table 4-4 Streetlight Spacing & Requirements

Streetlights Standards				
Street Type	**Fixture Type**	**Luminosity (Lumens)**	**Minimum Spacing**	**Maximum Spacing**
Arterial or Principle Arterial	High-Pressure Sodium Vapor	27,500	200 feet	250 feet
Residential Collector	High-Pressure Sodium Vapor	27,500	250 feet	300 feet
Minor Residential, Option 1	High-Pressure Sodium Vapor	27,500	N/A	400 feet
Minor Residential, Option 2	High-Pressure Sodium Vapor	16,000	N/A	200 feet

B. Streetlights shall be installed at intersections, cul-de-sacs, and any other location considered necessary by the Planning Director and/or the City Engineer within the subdivision and any street adjacent to it.

C. The cost of streetlight improvements is collected from the developer. For developments that are private subdivisions, the governing H.O.A. shall compensate the cost of maintenance and operation.

D. Existing streetlights within a subdivision or along the adjacent streets to the subdivision shall be upgraded to the proper luminary level referenced in Table 4-4 Streetlight Requirements & Spacing during the platting and approval process and the building permit stage.

10.07 Street and Roadway Improvement Details

Section 11
Erosion Control Policy

11.01 General

The purpose of this section is to outline the general requirements and erosion control measures for developments within the City and the City's ETJ. The City of San Benito's City Engineer should be consulted if any deviations from these standards are anticipated before and during construction. In cases where design limitations or physical barriers restrict compliance with the provisions of this section, alternatives are to be considered by the City Engineer. All storm water measures shall be in accordance with guidelines provided by the Texas Commission on Environmental Quality (TCEQ).

11.02 Erosion Control Permitting

All construction activity within the City of San Benito or the City's ETJ shall be designed, constructed and coordinated in accordance to the following requirements.

A. Requirements for obtaining storm water general permit coverage for construction projects that will disturb 5 or more acres.

1. Review your facility's compliance history ranking

    a. If your facility is new or has a ranking of "high" or "average", continue to Step 2.
    b. If it is "poor", then your facility is not eligible for coverage under a general permit. You must apply for an individual permit instead.

2. Read the general permit (TXR150000) to make sure it applies to your situation.

3. Prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). See details on Part III of General Permit TXR150000.

4. Submit and original completed Notice of Intent (NOI) form with an original signature and fee as noted on the NOI.

5. Before starting construction, post a copy of the Site Notice at the construction site. Leave the notice posted until construction is completed.

6. Site Notice for Primary Operators of Large Construction Activities.

7. Site Notice for Secondary Operators of Large Construction Activities.

B. Requirements for small construction sites that disturb from 1 to less than 5 acres.

1. Review your facility's compliance history ranking:

    a. If your facility does not have a compliance history ranking or has a ranking of "high" or "average", continue with Item 2.

    b. If it is "poor", then your facility is not eligible for coverage under a general permit but it may be eligible under an individual industrial wastewater permit.

2. Read the general permit (TXR150000) to make sure it applies to our situation.

3. Adhere to the requirements of the general permit (TXR150000).

4. Prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). See details on Part III of General Permit TXR150000.

5. Sign and post a construction site notice.

6. At least 2 days before beginning construction, provide a copy of the site notice to the operator of any Municipal Separate Storm Water Sewer System (MS4) into which storm water will be discharged.

7. MS4s include streets, channels, gutters, ditches or anything else that is publicly owned and designed to collect or transport storm water.

8. As long as the requirements of the general permit are followed, there will be no fees, Notice of Intent (NOI), or Notice of Termination (NOT) required.

C. Requirements for small construction sites that disturb less than 1 acre.

1. Coverage under General Permit TXR150000 is not required if construction project disturbs less than 1 acre and not part of a larger common plan of development.

2. If the construction project affecting less than 1 acre is part of a larger plan, it must be considered under General Permit TXR150000.

3. Construction activity is part of a large plan of development if it is completed in one or more of the following ways:

    a. Separate stages

    b. Separate phases

    c. Combination with other construction activities

4. The development in phases is identified in plats, blueprints, marketing plans, contracts, building permits, public notice or hearing, zoning requests.

11.03 Erosion Control During Construction

A. Non-structural Erosion Control Measures

1. Non-Structural measures shall be utilized for watershed planning, minimizing disturbances to existing watercourses and adjacent properties, and reduce sediment transport.

B. Structural Erosion Control Measures

1. Structural measures shall be utilized to reduce sediment transport from disturbed areas due to rainfall runoff.

C. Performance Objectives: The primary performance objectives of an erosion control plan include:

1. Conduct all land disturbance activities in a manner that effectively reduces accelerated soil erosion and reduces sediment transport and offsite deposition.

2. Design and construct all temporary or permanent facilities for the conveyance of water around, through, or from the disturbed area to limit the flow of the water non-erosive velocities.

3. Remove sediment caused by accelerated soil erosion from surface runoff water before it leaves the site.

4. Stabilize the areas of land disturbance with permanent vegetative cover or storm water quality control measures.

11.04 Erosion Control Details