ORDINANCE NO. 2020-87

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SAN MARCOS, TEXAS AMENDING CHAPTER 39 OF THE SAN MARCOS CITY CODE REGARDING FLOOD DAMAGE PREVENTION BY PROVIDING FOR ENHANCED FLOOD DAMAGE PREVENTION AND MITIGATION STANDARDS; PROVIDING A SAVINGS CLAUSE; PROVIDING FOR THE REPEAL OF ANY CONFLICTING PROVISIONS; AND PROVIDING AN EFFECTIVE DATE.

RECITALS:

1. City staff proposed amendments to Chapter 39, Flood Damage Prevention, of the San Marcos City Code to provide for enhanced flood prevention and mitigation standards.

2. The City Council hereby finds and determines that the adoption of the following ordinance incorporating such amendments is in the interest of the public health, welfare and safety.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SAN MARCOS, TEXAS:

SECTION 1. Chapter 39, Flood Damage Prevention, of the San Marcos City Code is hereby amended as follows (Added text is indicated by underlining. Deleted text is indicated by strikethroughs.):

ARTICLE 1. - IN GENERAL

Secs. 39.001—39.010. Reserved.

ARTICLE 2. FLOOD PROTECTION

DIVISION 1. - GENERALLY

Sec. 39.011. Statutory authorization.

The legislature of the State of Texas has in V.T.C.A., Water Code § 16.315, et seq., delegated the responsibility to local governmental units to adopt regulations designed to minimize flood losses.

(1) Authority. The regulations in this article are authorized under the City's Charter, and V.T.C.A., Water Code § 16.315 and § 26.177.

(2) Applicability. This article applies to all areas of special flood hazard within the corporate limits of the city. For land inside the city limits, the areas of special flood hazard shall be those identified in the latest flood insurance study or letter of map revision (LOMR) issued to the city by the Federal Emergency

Management Agency (FEMA), which shall apply to requirements of this article on the effective date of such documents.

(3) This article is also applicable within the city's extraterritorial jurisdiction (ETJ) when not regulated solely by the respective county per an active interlocal agreement. For land in the city's ETJ, the areas of special flood hazard shall be those identified in the latest flood insurance study or LOMR issued by FEMA, which shall apply to requirements of this article on the effective date of such documents.

Sec. 39.012. Findings of fact.

As a part of these provisions, the city finds that:

(1) The special flood hazard areas of the city are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare.

(2) These flood losses are the result of the cumulative effect of obstructions in floodplains which cause an increase in flood heights and velocities, and by the occupancy of special flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, floodproofed, or otherwise protected from flood damage.

(3) The city, in an attempt to require the development of property in such a way as to not cause adverse impact from stormwater and flooding, has caused this article to be enacted.

Sec. 39.013. Statement of purpose.

It is the purpose of this article to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions by provisions designed to:

(1) Protect human life and health;

(2) Maximize the cost effectiveness of expenditures of public money for flood control projects;

(3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

(4) Minimize prolonged business interruptions;

(5) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in special flood hazard areas;

(6) Help maintain a stable tax base for the city by providing for the organized development of all areas in such a manner as to minimize future areas of flooding; and

(7) Ensure that potential property owners are notified that property is in a special flood hazard area.

Sec. 39.014. Methods of reducing flood losses.

To accomplish its purpose, this article uses the following methods:

(1) Restricts or prohibits uses that are dangerous to health, safety or property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

(2) Requires that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage throughout their intended life span;

(3) Controls the alteration of natural floodplains, their protective barriers and stream channels, which help accommodate or channel floodwaters;

(4) Prevents the construction of barriers which will divert floodwaters and subject other lands to greater flood hazards; and

(5) Controls development which would cause greater erosion or potential flood damage such as grading, dredging, filling, and excavation.

Sec. 39.015. Definitions.

In this chapter:

Adjacent Natural Grade means the highest point of elevation of the finished surface of the ground within the area between the building and the property line or, when the property line is more than five feet from the building, between the building and a line five feet from the building.

Appeal means a request to the director for a review of the floodplain administrator's interpretation of any provision of this article.

Appurtenant structure means a structure that is located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure.

Area of shallow flooding means a designated AO or AH zone on the community's flood insurance rate map (FIRM) with base flood average depths of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by sheet flow or ponding.

Area of special flood hazard means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. The term "special flood hazard area", for purposes of these regulations, is synonymous with the phrase "area of special flood hazard".

Base flood means the flood having a one percent chance of being equaled or exceeded in any given year (also called the "regulatory flood"). Also known as the 1% Annual Chance Flood or 100-Year Flood.

Base flood elevation (BFE) means the water surface elevation of the base flood at a certain location within the floodplain as determined by the Working Flood Model or the FIRM, whichever is higher.

Basement means any area of a building having its floor sub-grade (below ground level) on all sides. For the purposes of floodplain regulations, the floor elevation of a basement is the lowest floor.

Breakaway wall means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or the supporting foundation system.

Building. See "structure."

Certification means a certification by a registered professional engineer or other party but does not constitute a warranty or guarantee of performance, expressed or implied. Certification of data is a statement that the data is accurate to the best of the certifier's knowledge. Certification of analyses is a statement that the analyses have been performed correctly and in accordance with sound engineering practices. Certification of structural works is a statement that the works are designed in accordance with sound engineering practices to provide protection from the base flood. Certification of "as built" conditions is a statement that the structure(s) has been built according to the plans being certified, is in place, and is fully functioning.

Community Rating System (CRS) is a program administered by FEMA that recognizes and encourages community floodplain management activities that exceed the minimum

NFIP standards. Participating in the CRS provides an incentive to maintaining and improving a community's floodplain management program over the years, by automatically reducing flood insurance premiums for the participating community.

Critical facility means a facility for which even a slight chance of flooding might be too great. Critical facilities include, but are not limited to schools, nursing homes, hospitals, police, fire and emergency response installations, installations which produce, use or store hazardous materials or hazardous waste.

Director means the director of engineering and capital improvements or the department director designated by the city manager.

Development means any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavating, drilling operations or storage of materials or equipment.

Dry Land Access means walkways, driveways, and roadways on land with an elevation not less than the base flood elevation.

Elevated building means a non-basement building built to have the lowest floor elevated above the ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

(1) Built, in the case of a building in zones A1—30, AE, A, A99, AO, AH, AR, X, and D, to have the top of the elevated floor elevated above the ground level by means of pilings, columns (posts and piers), or shear walls parallel to the flow of the water; and

(2) Adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of the base flood. In the case of zones A1—30, AE, A, A99, AO, AH, AR, X, D, the term "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of floodwaters.

Existing construction means, for the purposes of determining insurance rates, structures for which the "start of construction" commenced before the effective date of the FIRM. "Existing construction" may also be referred to as "existing structures."

Existing manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) was completed before November 25, 1974, when floodplain management regulations were adopted.

Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Flood or flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters or the unusual and rapid accumulation or runoff of surface waters from any source.

Flood Buffer means the designated area beyond the base flood limits where structures will be subject to elevation requirements to provide the same level of protection as those within the base floodplain.

Flood hazard boundary map (FHBM) means an official map of a community, on which the Federal Emergency Management Agency (FEMA) has delineated the areas of flood hazards and regulatory floodway.

Flood insurance rate map (FIRM) means an official map on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

Flood insurance study (FIS) means the official report provided by the Federal Emergency Management Agency that contains flood profiles, as well as the flood hazard boundary-floodway map and the water surface elevations of the base flood.

Floodplain means any land susceptible to being inundated by water as a result of a specific frequency flood. For instance, the base floodplain is the 1% floodplain area of land that in a given year has a 1% likelihood of flooding. The 0.2% floodplain is the area of land that in a given year has a 0.2% likelihood of flooding.

Floodproofing means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodplain or flood prone area means any land area susceptible to being inundated by water from any source (see "flooding").

Floodplain administrator means the engineer appointed by the director to administer and implement the provisions of this article.

Floodplain Development Permit means any permit or approval required to be obtained from the City for any stage of development or any construction related activities in the base floodplain.

Floodplain management means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations.

Floodplain management regulations means this chapter and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control ordinance), and other applications of police power. This term describes federal, state or local regulations in any combination thereof, which provide provisions for the purpose of flood damage prevention and reduction.

Floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to carry and discharge the base flood without substantively increasing the water surface elevation of the base flood. Also known as the Regulatory Floodway.

Floodway fringe means that portion of the area of special flood hazard not occupied by the floodway.

Freeboard means a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. "Freeboard" tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

Functionally dependent facility means a facility which cannot be used for its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and shipbuilding and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

Highest adjacent grade means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic structure means any structure that is:

(1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register.

(2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic or a district preliminarily determined by the Secretary to qualify as a registered historic district:

(3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

(4) Individually listed on a local inventory historic places in communities with historic preservation programs that have been certified either:

(a) By an approved state program as determined by the Secretary of the Interior, or

(b) Directly by the Secretary of the Interior in states without approved programs.

Increased cost of compliance (~~O~~ICC) means the coverage by a standard flood insurance policy under the NFIP that provides for the payment of a claim for the cost to comply with the State of Texas and the City of San Marcos floodplain management laws or ordinances after a direct physical loss by flood, when the city declares the structure to be "substantially" or "repetitively" flood-damaged. ICC coverage is provided for in every standard NFIP flood insurance policy, and will help pay for the cost to floodproof, relocate, elevate, or demolish the structure.

Landscaping means minor excavation, or filling for the purposes of enhancing the exterior appearance of a structure with plant materials or decorative structures. When fill material is brought onto a site for the purposes of elevating the existing grade in a floodplain, the fill is subject to standards in this ordinance.

Lowest floor means the lowest floor of the lowest enclosed area (including basement), except when all the following criteria are met:

(1) The enclosed area is designed to flood to equalize hydrostatic pressure during floods with walls or openings;

(2) The enclosed area is unfinished (not carpeted, dry walled, etc.) and used solely for low damage potential uses, such as building access, parking or storage;

(3) Machinery and service facilities (e.g., hot water heater, furnace, electrical service) contained in the enclosed area are located at least one- and one-half foot (1.5') above the base flood elevation; and

(4) The floor is not below grade on all sides.

Manufactured home means any structure designed for residential use which is wholly or in substantial part, made, fabricated, formed or assembled in manufacturing facilities for installation or assembly and installation on a building site. Manufactured housing includes factory-built homes, mobile homes, manufactured homes and modular homes and also includes park trailers, travel trailers and other similar vehicles placed on a site for greater than one hundred eighty (180) consecutive days.

Manufactured home park or subdivision (mobile home park) means a parcel or contiguous parcels of land divided into two or more manufactured home lots for rent or sale.

Map means the flood hazard boundary map (FHBM) or the flood insurance rate maps (FIRM) for a community issued by the agency.

Mean sea level (MSL) means North American Datum of 1983 (NAD83) Texas South Central FIPS 4204 Feet or other datum, to which base flood elevations shown on a community's flood insurance rate map are referenced.

National Geodetic Vertical Datum (NGVD) means the nationwide reference surface for elevations throughout the United States made available by the National Geodetic Survey with the establishment of thousands of benchmarks throughout the continent.

New construction means construction for which the "start of construction" commenced after the date of this chapter.

New manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of this chapter.

Participating community, also known as an eligible community, means a community in which FEMA has authorized the sale of flood insurance.

Principally above ground means that at least 51 percent of the actual cash value of the structure is above ground.

Recreational vehicle means a vehicle which is:

(1) Built on a single chassis;

(2) Four hundred square feet or less when measured at the largest horizontal projection;

(3) Designed to be self-propelled or permanently towable by a truck; and

(4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use (includes park trailers and travel trailers).

Note: If the recreational vehicle is left in floodplain for more than 180 consecutive days, the recreational vehicle must comply with the requirements of this chapter as if it were a manufactured home.

Reasonably safe from flooding means base floodwaters will not inundate the land or damage structures to be removed from the SFHA and that any subsurface waters related to the base flood will not damage existing or proposed buildings.

Repetitive loss means flood-related damages sustained by a structure on two separate occasions during a ten-year period ending on the date of the event for which the second claim is made, for which the cost of repairs at the time of each such flood event, on the average, equaled or exceeded 25 percent of the market value of the structure before the damages occurred.

Riverine means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

Special flood hazard area (SFHA) (see "area of special flood hazard") means an area having special flood hazard and shown on an FHBM or FIRM as Zone A, AO, AH, A1—30, AE, A99, AR, V, VE, or V1—30.

Start of construction means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within one year ~~180 days~~ of the permit date. It includes substantial improvement. The actual start means the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Structure means a walled and roofed building, manufactured home, or any gas or liquid storage tank that is principally above ground.

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. Substantial damage also means flood-related damages sustained by a structure on two separate occasions during a ten-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damages occurred.

Substantial improvement means any repair, reconstruction, addition, or other improvement of a structure, during the life of the structure, the cumulative cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. The term does not, however, include either:

(1) Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; or

(2) Any alteration of a "historic structure" provided that the alteration would not preclude the structure's continued designation as a "Historic Structure".

Variance means a grant of relief by the planning and zoning commission from the requirements of this article when specific enforcement would result in unnecessary hardship. A variance, therefore, permits construction or development in a manner that would be otherwise prohibited by this article.

Violation means the failure of a structure or other development to be fully compliant with this article. A structure or other development without a floodplain development permit, elevation certificate, other certifications, or other evidence of compliance required in this article is presumed to be in violation until such time as that documentation is provided.

Water surface elevation means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1988 Geoid 03(or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

Working Flood Model means the model most recently approved by the Federal Emergency Management Agency as updated by the City of San Marcos to reflect cumulative impacts of development.

Secs. 39.016—39.020. Reserved.

DIVISION 2. ADMINISTRATION AND ENFORCEMENT

Sec. 39.021. Basis for establishing the areas of special flood hazard.

The areas of special flood hazard are those identified in scientific and engineering reports entitled:

(1) "Flood Insurance Study for Hays County, Texas, and Incorporated Areas," dated September 2, 2005, with accompanying flood insurance rate maps and any revisions thereto;

(2) "Flood Insurance Study for Caldwell County, Texas, Unincorporated Areas," dated December 30, 2020, ~~June 19, 2012,~~ with accompanying flood insurance rate maps and any revisions thereto;

(3) "Flood Insurance Study for Guadalupe County, Texas, and Incorporated Areas," dated December 30, 2020, ~~November 2, 2007,~~ with accompanying flood insurance rate maps and any revisions thereto;

(4) "Flood Insurance Study for Comal County. Texas, and Incorporated Areas," dated September 2, 2009, with accompanying flood insurance rate maps and any revisions thereto; are hereby adopted by reference and declared to be a part of this chapter.; and,

(5) The "Working Flood Model" which shall be used to determine the current extents and elevation of the base flood during times of ongoing developments and pending map revisions.

In the City of San Marcos, the Flood Insurance Rate Maps reflect the base flood limits as floodway. Any revision or amendment to the flood insurance study which is requested by a landowner in the city shall be submitted to the floodplain administrator. All requests for map amendment or map revision must be approved by the floodplain administrator in writing prior to their submission to FEMA. If modification of the base floodplain is proposed, an effective conditional letter of map amendment or conditional letter of map revision shall be on file with the floodplain administrator prior to any development. All submittals to FEMA shall be made at no cost to the city. No certificate of occupancy shall be issued for any structure until all data supporting that compliance with this Chapter has been submitted and approved by the floodplain administrator.

Sec. 39.022. Establishment of floodplain development permit.

A floodplain development permit is required for all proposed construction or other development within regulatory floodplains or other areas of flooding identified by the City of San Marcos to ensure conformance with the provisions of this chapter.

Sec. 39.023. Compliance.

No development shall hereafter occur without full compliance with the terms and provisions of this chapter and other applicable regulations including but not limited to Subpart B – Land Development Code regulations.

Sec. 39.024. Abrogation and greater restrictions.

This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

Sec. 39.025. Interpretation.

In the interpretation and application of this chapter all provisions shall be:

(1) Considered as minimum requirements;

(2) Liberally construed in favor of the city; and

(3) Deemed neither to limit nor repeal any other powers granted under state statutes.

Sec. 39.026. Warning and disclaimer of liability.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods have occurred and will occur again. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city or any official or employee thereof for any flood damages that result from reliance on this article or any administrative decision lawfully made thereunder.

Sec. 39.027. Designation of floodplain administrator.

The director shall appoint a floodplain administrator to administer and implement the provisions of this chapter.

Sec. 39.028. Duties and responsibilities of the floodplain administrator.

Duties and responsibilities of the floodplain administrator include:

(1) Maintain and hold open for public inspection all records pertaining to the provisions of this chapter unless protected from disclosure by law;

(2) Review, approve or deny all applications for floodplain development permits;

(3) Review permits for proposed development to assure that the developer has obtained all necessary permits from those federal, state or local government agencies (including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334) from which prior approval is required. Developer will submit documentation of those necessary permits to the city and such documentation is to be maintained on file with the floodplain development permit;

(4) Review reports, studies, plans and specifications for compliance with the requirements of this article;

(5) Verify and record the actual elevation (in relation to mean sea level) of the lowest floor of all new construction and substantial improvements, by requiring an elevation certificate sealed by a licensed professional;

(6) Verify and record the actual elevation (in relation to mean sea level) to which the new or substantially improved nonresidential structures in A-zones have been floodproofed by requiring an elevation certificate sealed by a licensed professional;

(7) Provide interpretation as needed as to the exact location of the boundaries of the areas of special flood hazard and regulatory floodway (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The floodplain administrator shall make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided for in this chapter;

(8) Notify in riverine situations, adjacent communities, the Texas Water Development Board (TWDB) and the Texas Commission on Environmental Quality (TCEQ) prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency, and assure that maintenance is provided within the altered or relocated portion of the watercourse so that the flood-carrying capacity is not diminished;

(9) When base flood elevation data or floodway data has not been provided in accordance with this chapter, the floodplain administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, in order to administer the provisions of this article;

(10) Coordinate with other departments in the city to assure that the requirements of this chapter are fully met;

(11) Participate actively in evaluating the variance requests and provide input and recommendations in variance hearings/proceedings;

(12) Coordinate all change requests to the FIS and FIRM or FHBM, or both, with the requestor, state, and FEMA;

(13) Submit new technical data. A community's base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but not later than six months after the date such information becomes available, a community shall notify FEMA of the changes by submitting technical or scientific data. Such a submission is necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements will be based upon current data. This submittal to FEMA shall be at the developer's, who is requesting the change, expense and at no cost to the city;

(14) When a regulatory floodway has not been designated, the floodplain administrator shall not permit new construction, substantial improvements, or other development (including fill) within Zones A1—30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood ~~more than one foot~~ at any point within the community; and

(15) The floodplain administrator shall maintain a record of all actions taken under the provisions of this article, including but not limited to appeals or request for a variance as a matter of public record or for submittal to the Federal Emergency Management Agency.

(16) Make the Working Flood Model available and notify individuals or entities proposing developments if changes to the base flood are occurring simultaneously so that the Working Flood Model shall be inclusive of the cumulative impacts.

Sec. 39.029. Floodplain development permit procedures.

A floodplain development permit application must be submitted to the floodplain administrator in conjunction with a Watershed Protection Plan, Site Development Permit, Building Permit, or Certificate of Occupancy when undertaking any development activities in an area of special flood hazard. Application for a floodplain development permit must be submitted on forms furnished by the city and must include a level of information consistent with the phase of development such that conformance with flood hazard reduction and floodplain reclamation standards can be demonstrated. Plans shall be drawn to scale showing the location, dimensions, and elevation of the area under consideration for development, drainage facilities, perimeter setbacks, environmental features such as base floodplain areas, wetlands, and other protected areas, proposed earth and landscape alterations, existing and proposed structures, and the location of the foregoing in relation to areas of special flood hazard. Additionally, the following information, certified by a professional who is authorized to certify such information in the state, is required:

(1) *Application*:

a. Elevation Certificate from licensed professional engineer or registered land surveyor with the following:

i. Elevations of the area of development in relation to mean sea level (such as a contour map) for both existing and proposed development;

ii. Elevation in relation to mean sea level, of the lowest floor (including basement) of all new and substantially improved structures;

iii. Elevation in relation to mean sea level to which any nonresidential structure will be flood proofed;

d. A certificate from a registered professional engineer or architect that the nonresidential flood proofed structure will meet the flood proofing criteria of section 39.043;

e. Existing and proposed infrastructure; ~~and~~

f. Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.

g. A floodplain analysis meeting the standards of Division 3; and

h. A statement certifying all requirements under this chapter have been met.

(2) Approval or denial of a development permit by the administrator will be based on the requirements of this article and the following factors:

a. The danger to life and property due to flooding, increased inundation or erosion damage;

b. The susceptibility of the proposed Facility and its contents to flood damage and the effect of such damage on the individual owner;

c. The danger that materials may be swept onto other lands to the injury of others;

d. The compatibility of the proposed development with existing and anticipated development;

e. The safety of access to or through the property in times of flooding for ordinary and emergency vehicles, city utility service vehicles, or maintenance vehicles;

f. The costs of providing governmental services during and after flood conditions including maintenance and repair of streets, bridges, public utilities and facilities such as sewer, gas, electrical, and water systems;

g. The expected heights, velocity, duration, rate or rise and sediment transport of the floodwaters expected at the site;

h. The necessity to the facility of a waterfront location, where applicable;

i. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;

j. The relationship of the proposed use to the comprehensive plan for that area; and

k. The requirements of FEMA as a part of the National Flood Insurance Program.

(3) *Construction*: Upon placement of the lowest floor, or flood proofing by whatever construction means, the permit holder must submit to the floodplain administrator a certification of the elevation of the lowest floor or flood proofed elevation, as built, in relation to mean sea level. Certification must be prepared by or under the direct supervision of a registered land surveyor or professional engineer who is authorized to certify such information in the state, and certified by same. Any work undertaken prior to submission of the certification will be at the permit holder's risk.

The floodplain administrator will review the lowest floor elevation and flood proofing certificate. If these documents or any other construction activities do not conform to the requirements of this chapter, the permit holder must immediately cease further work, and correct any deficiencies. Failure of the permit holder to submit the surveyed lowest floor elevation, flood proofing certificate or failure to correct any deficiencies will result in a stop-work order for the project.

(4) *Revocation of permit*. The floodplain administrator may revoke a floodplain development permit or approval issued under the provisions of this chapter or other ordinance of the city when the applicant has provided information that is inaccurate or no longer valid or made a false statement or misrepresentation of a material fact in the application or plans upon which the permit or approval was based.

(5) *Expiration*. A floodplain development permit issued under this chapter shall expire one year from the date of approval if construction has not commenced, or two years from the date of approval, if construction has not been completed.

Sec. 39.030. Variance and appeal procedures.

(1) The planning and zoning commission will hear and decide requests for variances from the requirements of this chapter. The variance shall be supported by a statement of justification prepared by a registered professional engineer licensed in the State of Texas.

(2) The director will hear and decide appeals only when it is alleged that an error in any requirement, decision, or determination is made by the floodplain administrator in the enforcement or administration of this chapter.

(3) Any person aggrieved by the decision of the director or the planning and zoning commission may appeal the decision to a court of competent jurisdiction.

(4) Variances may only be granted when there is:

(a) A showing of good and sufficient cause;

(b) A determination that failure to grant the variance would result in exceptional hardship; and

(c) A determination that the granting of a variance will not result in increased flood heights, additional threats to public expense, create a nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

(5) Variances may only be granted for the minimum necessary deviation from the standards in this article to afford the requested relief.

(6) Variances will not be granted within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.

(7) Variances may be issued for the repair or rehabilitation of historic structures if the proposed repair or rehabilitation would not preclude the structure's continued designation as a historic structure, and the variance is the minimum necessary to preserve the historic character and design of the structure.

(8) Variances may be issued for new construction, substantial improvements, and for other development necessary for the conduct of a functionally dependent use if:

(a) The criteria of paragraphs (4) through (6) of this section are met; and

(b) The structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

Sec. 39.031. Factors to consider in granting a variance request.

The planning and zoning commission shall consider all technical evaluations, provisions specified in other sections of this article, and:

(1) Any increase in flood levels in any designated floodway that would result during the base flood discharge;

(2) The danger that materials may be swept onto other lands to the injury of others;

(3) The danger to life and property due to flooding or erosion damage;

(4) The safety of access to the property in times of flood for ordinary and emergency vehicles;

(5) The susceptibility of the proposed facility and its contents to flood damage and the effect of the damage on the individual owner;

(6) The importance of the services provided by the proposed facility to the community;

(7) The necessity to the facility of a waterfront location for the proposed use, where applicable;

(8) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;

(9) The compatibility of the proposed use with existing and anticipated development;

(10) The relationship of the proposed use to the comprehensive plan and floodplain management program for the area;

(11) Access to the property in times of flood for ordinary and emergency vehicles;

(11) The expected heights, velocity, duration, rate of rise, and sediment of transport of the flood waters expected at the site;

(12) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges; and

(13) The request for variance is not an after-the-fact request.

Sec. 39.032. Special variances for historic structures.

Variances may be approved by the planning and zoning commission in the following special circumstances:

For historic structures, upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

Sec. 39.033. - Special conditions.

The planning and zoning commission may attach reasonable conditions to a variance to further the purposes of this article.

Sec. 39.034. - Variance notification.

(1) The floodplain administrator will notify in writing an applicant to whom a variance is granted that:

   (a) The issuance of a variance to construct a structure below the base flood elevation will result in increased premium rates for flood insurance commensurate with the increased risk resulting from the reduced lowest floor elevation; and

   (b) Construction below the base flood level increases risks to life and property.

(2) A copy of the notice will be recorded by the floodplain administrator in the Hays, Caldwell, Guadalupe, or Comal County, as appropriate, deed records in a manner so that it appears in the chain of title of the affected parcel of land. The floodplain administrator will maintain a record of all actions involving an appeal and will report all variances issued to FEMA.

(3) The floodplain administrator will notify in writing if the variance is denied.

Sec. 39.035. Stop work orders.

Upon notice from the floodplain administrator that work on any building, structure, dike, bridge or any improvement which would affect water drainage is being done contrary to the provisions of this chapter, or in a dangerous or unsafe manner, such work shall be immediately stopped. Notice will be in writing and be given to the owner of the property or to his agent, or to the person doing the work, and will state the conditions under which work may be resumed. When an emergency exists, no written notice is required to be given by the floodplain administrator; provided however, written notice shall follow within five working days from the time oral notice to stop is issued.

Sec. 39.036. Penalties for violation.

Violations of the provisions of this article or failure to comply with any of its requirements shall constitute a misdemeanor. Each violation shall be deemed a separate offense for each and every day during which any violation of any of the provisions of this article is committed or continued. Any person found guilty of violating a provision of this article may be punished as provided for in section 1.015 of this Code.

Secs. 39.037—39.040. Reserved.

DIVISION 3. STANDARDS FOR FLOOD HAZARD REDUCTION

Sec. 39.041. General standards.

In all areas of special flood hazards, determined by FEMA or by the community in areas where FEMA has not determined the areas of special flood hazard, the following provisions apply:

(1) The floodplain administrator shall review permits for proposed construction or other development, including the placement of manufactured homes, so that a determination may be made whether or not such construction or other development is proposed within flood-prone areas.

(2) The developer of new construction, substantial improvements, and other development proposals must assure that all necessary permits have been obtained from those governmental agencies from which approval is required by federal or state law, including Section 404 of the Federal Water Pollution Control Act, as amended, or by other regulating agencies.

(3) All new construction and substantial improvements must be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

(4) All new construction and substantial improvements must be constructed with materials and utility elements resistant to flood damage.

(5) All new construction or substantial improvements must be constructed by methods and practices that minimize flood damage.

(6) Electrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities, including duct work, must be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(7) Subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, must be assured that they will be reasonably safe from flooding and meet the standards of section 39.043. If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to assure that:

    a. All such proposals are consistent with the need to minimize flood damage within the flood-prone area,

b. All public and private utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and

c. Adequate drainage is provided to prevent danger to life and property due to flooding, increased inundation, or erosion damage.

(8) New and replacement water supply systems must be designed to prevent infiltration of floodwaters into the systems.

(9) New and replacement sanitary sewage systems must be designed to prevent infiltration of floodwaters into the systems and discharges from the systems into floodwaters, and on-site waste disposal systems must be located and constructed to avoid impairment to them or contamination from them during flooding.

(10) New construction and substantial improvements, when located in multiple flood zones with varying base flood elevations or in same flood zone with multiple base flood elevations must meet the requirements for the flood zone with the most stringent requirements and the highest base flood elevation.

Sec. 39.042. Standards for approximate A-zones.

On land located within the areas of special flood hazard established in section 39.021, where streams exist for which no base flood elevation data or regulatory floodway has been provided by FEMA, the following provisions apply:

(1) Compliance with the standards listed in section 39.041.

(2) Base flood elevation data must be submitted to the floodplain administrator for all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or five acres, whichever is the lesser, if not otherwise required by this article.

(3) The floodplain administrator will obtain, review, and reasonably use any base flood elevation and floodway data available from a federal, state, or other source, including data developed pursuant to subsection 39.042(2). When such base flood elevation data is used, the new construction, substantial improvements, or other development must meet the elevation and non-elevation requirements of sections 39.043 through 39.046.

(4) When the base flood elevation data is used, the floodplain administrator will:

a. Obtain from the developer in the form of an elevation certificate the elevation (in relation to the mean sea level) of the lowest floor (including the basement) of all new and substantially improved structures;

b. Obtain, if the structure has been flood proofed in accordance with the requirements of section 39.043, the elevation in relation to the mean sea level to which the structure has been flood proofed; and

c. Maintain a record of all such information.

(5) When the base flood elevation data is not available from any source, the lowest floor of the new construction and substantial improvements must be elevated to three feet above the highest adjacent grade, (or two feet above the highest crown of the adjacent roadway).

(6) Any alteration, repair, reconstruction or improvements to a building that is in compliance with the provisions of this article must meet the requirements of "new construction" as contained in this article; and

(7) Any alteration, repair, reconstruction or improvements to a building that is not in compliance with the provisions of this article may be undertaken only if the non-conformity is not furthered, extended, or replaced.

Sec. 39.043. Specific standards for AE, AH, and AO Zones.

In all Zones AE, AH, and AO where base flood elevation data has been provided, as set forth in section 39.021, the following provisions apply:

(1) Compliance with the standards in section 39.041.

(2) *Residential structures*.

a. All new construction or substantial improvements of residential structures within zones AE and AH must have the lowest floor (including basement) elevated to two feet foot above the base flood elevation.

b. All new construction and substantial improvements of residential structures within AO zone must have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM (at least two feet if no depth number is specified).

c. A registered professional engineer, architect or land surveyor shall submit an elevation certification to the floodplain administrator that this standard is satisfied.

(3) *Nonresidential structures*.

a. All new construction or substantial improvements of nonresidential structures must have the lowest floor (including basement) elevated to two feet above the base flood elevation. Nonresidential structures within zones

AE and AH may not be flood-proofed in lieu of being elevated unless a variance is granted pursuant to section 39.030, and provided that together with all attendant utility and sanitary facilities, be designed so that below the base flood elevation plus two feet the structure is water-tight with walls substantially impermeable to the passage of water, and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect must certify that the provisions of this subsection are satisfied. The FEMA floodproofing certificate must be prepared and submitted to the floodplain administrator along with any corresponding operational and maintenance plans.

b. All new construction and substantial improvements of nonresidential structures within zone AO must:

i. Have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM (at least two feet if no depth number is specified), or

ii. Together with attendant utility and sanitary facilities be completely flood proofed to that level to meet the flood proofing standard specified in subsection (3) a. of this section.

(4) *Elevated structures*. For all new construction or substantial improvements, fully enclosed areas below the lowest floor elevation may be usable solely for parking of vehicles, building access, or storage. These enclosed areas must be designed and constructed to allow for the entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls.

a. Designs for meeting this requirement must be certified by a professional engineer or architect, to meet or exceed the following minimum criteria:

i. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding must be provided;

ii. The bottom of all openings must be no higher than one foot above grade; and

iii. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided they provide the required net area of the openings and permit the automatic entry and exit of floodwaters.

b. Access to the enclosed area must be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance

equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator); and

c. The interior portion of the enclosed areas may not be partitioned, temperature-controlled, or finished into separate rooms.

(5) *Designation*. Until a regulatory floodway is designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within zones A 1—30 and AE on the FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood at any point within the community.

(6) *Adequate drainage*. Within zones AH or AO, adequate drainage paths shall be required around structures on slopes to guide floodwaters around and away from proposed structures.

(7) *Wet Floodproofing*. Small detached residential structures (garages, storage sheds) may be exempt from the freeboard requirements if they are not used for human habitation; designed to have low flood damage potential; firmly anchored and placed on the building site in a way that presents minimum resistance to flood flows; constructed with electrical and other services mounted above the flood hazard elevation; and fitted with openings that allow the automatic entry and exit of floodwater. For details refer to FEMA Technical Bulletin 7-93.

(8) *Dry Floodproofing*. Non-residential structures may be exempt from the freeboard requirements if they are constructed with flood-resistant material that protect to 2.0 feet above the base flood elevation. Flood resistant materials are building products that can withstand direct and prolonged contact with floodwaters for at least 72 hours, without resulting in damage other than what can be corrected cosmetically. This option is not available to residential buildings, or mixed-use buildings with a majority of floor area dedicated to residential uses. For details refer to FEMA Technical Bulletin 2- 93.

(9) *Encroachments*. Encroachments, including fill, new construction, substantial improvements and other developments within the floodplain are prohibited unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge. An increase in the water surface elevation of a floodplain may be permitted only when all of the following conditions are met:

a) The property owner owns both sides of the floodplain to the extent of the increase in water surface elevation, and

b) The increase in the regulatory floodplain is contained in a dedicated drainage easement or right-of-way, and

c) The increase in water surface elevation for the 1% annual chance flood does not exceed six inches.

(10) *Increase in Discharge*. The increase in discharge due to the loss of storage shall be accounted for in all reclamation analyses.

Sec. 39.044. Additional provisions for manufactured homes and recreational vehicles.

(1) All manufactured homes to be placed within zone A shall be installed using methods and practices which minimize flood damage. For the purpose of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse or lateral movement. Methods of anchoring may include but are not limited to use of over-the-top or frame ties to ground anchors. This requirement is in addition to other applicable anchoring requirements for resisting wind forces.

(2) All manufactured homes shall be in compliance with section 39.041.

(3) Manufactured homes that are placed or substantially improved within zones AH and AE on the community's FIRM on sites (i) outside of a manufactured home park or subdivision, (ii) in a new manufactured home park or subdivision, (iii) in an expansion to an existing manufactured home park or subdivision, or (iv) in an existing manufactured home park or subdivision where a manufactured home has incurred substantial damage as the result of a flood, shall be elevated on a permanent foundation so that the lowest floor of the manufactured home is at or above two foot above the base flood elevation and that the home shall be securely anchored to an adequately anchored foundation system in accordance with section 39.041.

(4) Manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within zones AH, and AE on the community's FIRM that are not subject to subsection (3) of this section shall be elevated so that either (i) the lowest floor of the manufactured home is at or above two foot above the base flood elevation, or (ii) the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system in accordance with section 39.041.

(5) All recreational vehicles placed on sites within zones AH, and AE must either:

(a) Be on the site for fewer than 180 consecutive days;

(b) Be fully licensed and ready for highway use; or

(c) Meet the requirements for new construction, including anchoring and elevation requirements for manufactured homes in this subsection.

A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

Sec. 39.045. Reserved.

Sec. 39.046. Existing structures.

(1) Structures and uses of structures which lawfully exist prior to the effective date of this ordinance and which do not conform to this article may be continued subject to the following conditions:

(a) In floodway. Existing structures and uses within a floodway shall not be expanded or enlarged unless the effect of proposed expansion or enlargement does not cause an additional increase in floodway elevation during the occurrence of the base flood discharge, as certified by a registered professional engineer.

(b) Modifications to existing structure. Any repair, reconstruction or improvement of an existing structure within a floodplain which constitutes substantial improvement shall be undertaken only in full compliance with this article, and the owner shall be required to obtain a floodplain permit before repair, reconstruction or improvement shall begin.

Sec. 39.46.1. Access.

New development proposals will be designed, to the maximum extent practicable, so residential building sites, walkways, driveways, and roadways are located on land with a natural grade with elevation not less than the base flood elevation and with dry land access.

Sec. 39.46.2. Materials Storage.

The following uses are prohibited within a designated floodplain:

(1) Storage or processing of materials that are hazardous, flammable, or explosive in the identified special flood hazard area.

(2) Storage of material or equipment that, in time of flooding, could become buoyant and pose an obstruction to flow in identified floodway areas.

Storage of material or equipment not otherwise prohibited shall be firmly anchored to prevent flotation. Dumpsters shall be located in an enclosure designed to withstand flood conditions in accordance with Section 39.041(7), Wet Floodproofing. The enclosure shall be constructed to prevent the dumpster from becoming buoyant and a

flood hazard. Dumpsters used during construction activities shall be anchored or located in an enclosure.

Sec. 39.46.3. Construction.

Construction activities within the floodplain that temporarily or permanently alter drainage characteristics will make accommodations to phase the drainage work such that at all times the conveyance of drainage from the surrounding areas will remain unaffected. No temporary increase in water surface elevation is allowed unless fully contained within drainage easement or designated right-of-way.

Sec. 39.46.4. Floodplain Buffer

In order to protect structures from the risk of flooding to an elevation equal to properties located within the floodplain a Floodplain Buffer has been established. A Floodplain Buffer will extend beyond the existing floodplain limits to the ground elevation matching the Base Flood Elevation plus the required Freeboard of two feet. Structures proposed within the Floodplain Buffer will be required to elevate to the Freeboard elevation and submit an elevation certificate to the City prior to the issuance of a Certificate of Occupancy.

Sec. 39.047. Critical facilities.

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the SFHA, preferably outside the 0.2% annual chance floodplain. Construction of new critical facilities may be permissible within the SFHA if feasible alternative sites are unavailable. Critical facilities constructed within the SFHA shall have the lowest floor elevated 3.0 feet above the base flood elevation at the site. Flood proofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities to the maximum extent possible.

Sec. 39.048. Management methods and practices.

The city shall use the following methods and practices for stormwater management:

(1) Limit or regulate the rate of stormwater runoff from development to that which existed under conditions prior to development in those portions of the city as specified by the city;

(2) Limit or control changes in the path of stormwater across or away from a site or development;

(3) Limit or control alterations to existing watercourses and drainage facilities either within or outside areas of special flood hazard;

(4) Control the use of existing or proposed drainage easements such that the easement remains useable for its intended purpose;

(5) Limit or prohibit development in areas of special flood hazard;

(6) Require compliance with city drainage design guidelines, specifications, and details;

(7) Establish drainage easements to control development and limit flood damage;

(8) Prohibit dumping of refuse, fill, garbage, grass clippings, brush, waste concrete, or other objectionable material in existing drainage facilities including swales, ditches, storm drains, inlets, watercourses, gutters, or culverts;

(9) Regulate or control filling, grading, clearing, dredging, paving, berming, or other earthwork which may increase stormwater runoff, change drainage patterns, or otherwise increase flood hazard, or damage;

(10) Control development that is dangerous to health, safety, or property in times of flooding, or which cause increases in flood heights, velocities, or flow rates;

(11) Require adequate maintenance by landowner of drainage facilities and watercourses such that they retain their capacity for conveying stormwater.

ARTICLE 3. FLOODPLAIN RECLAMATION STANDARDS

Sec. 39.049. Purpose, applicability, exceptions and coordination.

(a) *Purposes*.

(1) The purpose of this section is to specify standards and procedures for reclamation or alteration of floodplain land consistent with the city's objectives to maintain water quality, preserve natural areas and trees, assure the safety and welfare of its residents with respect to flood hazards, and to implement in part master plan policies relating to environmental quality and open space.

(2) It is the intent of the city council that the requirements of this article comply with federal requirements pertaining to the Federal Emergency Management Agency's authority concerning flood hazards and the Corps of Engineer's jurisdiction over waters of the United States, including wetlands under Section 404 of the Clean Water Act.

(3) It is the further intent of this article that development on floodplain land be integrated with the city's standards for preserving water quality and providing open space.

(4) Land located within the floodplain may be reclaimed or altered for purposes of development only in accordance with the standards and procedures set forth in this article.

(b) *Applicability*. The standards in this article apply whenever a property owner seeks to reclaim, excavate or otherwise alter land within the design floodplain of a waterway that has a contributing drainage area of 120 acres or more. For purposes of this article, any of the following activities constitute reclamation or alteration:

(1) Filling in a floodplain;

(2) Channelization, impoundment, realignment, deepening, or other modification of a drainage way;

(3) Removal of significant tree stands within a floodplain;

(4) Site preparation for construction of structures or improvements, including grading or removal of topsoil within a floodplain.

(c) *Authority*. The regulations in this Article are authorized under the City's Charter, V.T.C.A., Water Code § 16.315 and § 26.177.

(d) *Exceptions*. Fill-in drainageways that are not mapped by FEMA are exempt from the requirements of this article provided that the watershed area contributing to the floodplain that is affected by placement of fill is wholly owned by the applicant.

(e) *Coordination of applications*. If jurisdictional waters of the United States exist on the property to be reclaimed, the applicant shall provide the city with a copy of all reports, studies, plans and other data that are submitted to the U.S. Army Corps of Engineers in conjunction with an application for approval of a Federal Section 404 permit.

Sec. 39.49.1. Fill.

(a) Fill sites, upon which structures will be constructed or placed, must be compacted to 95 percent of the maximum density obtainable with the Standard Proctor Test method or an acceptable equivalent method;

(b) Fill slopes shall not be steeper than one foot vertical to two feet horizontal;

(c) Adequate protection against erosion and scour is provided for fill slopes. When expected velocities during the occurrence of the base flood are greater than five feet per second armoring with stone or rock protection shall be provided. When expected

velocities during the base flood are five feet per second or less protection shall be provided by covering them with vegetative cover;

(d) Fill shall be composed of clean granular or earthen material.

Sec. 39.49.2. Compensatory Storage.

Fill within the special flood hazard area shall result in no net loss of natural floodplain storage, or increase in water surface elevations during the base flood. The volume of the loss of floodwater storage due to filling in the special flood hazard area shall be offset by providing an equal volume of flood storage by excavation or other compensatory measures at or adjacent to the development site.

Sec. 39.050. Preservation of natural features.

No wetlands or other significant natural features shall be reclaimed within a water quality zone or buffer zone established under articles 1, 2 or 3 of chapter 5 of the city's land development code authorized under a mitigation plan prepared in accordance with this article, which demonstrates that reclamation or alteration of the floodplain will improve the water quality of the runoff and/or stabilize an existing area of erosion and will continue the maintenance of flood and flow characteristics of the waterway, and which provides for protection of altered areas during and after alteration and development of adjacent land.

Sec. 39.051. Floodplain easements.

Appropriate drainage and flood maintenance easements shall be granted to the city prior to approval of a plat application on all floodplain land that remains following reclamation authorized under the approved qualified watershed protection plan.

Sec. 39.052. Stream velocity.

Alterations of the floodplain shall not create an erosive water velocity on- or off-site. The mean velocity of stream flow at the site after fill shall be no greater than the mean velocity of the stream flow under existing conditions. No alteration to the floodplain will be permitted which would increase velocities of flood waters to the extent that significant erosion of floodplain soils will occur either on the subject property or on other properties whether adjacent, upstream or downstream. Mean channel velocities that exceed six f.p.s. are considered to be erosive.

Sec. 39.053. Side slopes.

(a) The following standards apply to slide slopes:

(1) To insure maximum accessibility to the floodplain for maintenance and other purposes, and to lessen the probability of slope erosion during periods of high

water, maximum slopes of filled area shall not exceed four feet horizontal to one foot vertical.

(2) Soil retention blankets must be installed on all fill slopes to promote the revegetation of the slope.

(b) Rock gabion construction, decorative stone faced reinforced concrete rip-rap or an approved equal erosion protection measure is required on slopes steeper than 3:1.

(c) Vertical walls, terracing and other slope treatments will be considered only as 1) part of a landscaping plan submission, and 2) if no unbalancing of stream flow results.

(d) Grass cover is required for all cut and fill slopes 3:1 or flatter. Fill slopes shall be seeded with at least three herbaceous species including grasses, legumes, and wild flowers, selected from the following list. A minimum of three of the species from the plant list in the Technical Manual for this Section shall be used, one of which must be a flowering species.

Sec. 39.054. Mitigation plans.

The mitigation plan for reclamation or alteration of a buffer zone or other floodplain area may provide for restoration, creation, enhancement, or preservation of aquatic habitats to ensure that activities result in minimal adverse effects to the aquatic environment. The mitigation plan may, but need not be, the same as a mitigation plan required for obtaining a Section 404 permit.

SECTION 2. In codifying the changes authorized by this ordinance, paragraphs, sections and subsections may be renumbered and reformatted as appropriate consistent with the numbering and formatting of the San Marcos City Code.

SECTION 3. If any word, phrase, clause, sentence, or paragraph of this ordinance is held to be unconstitutional or invalid by a court of competent jurisdiction, the other provisions of this ordinance will continue in force if they can be given effect without the invalid portion.

SECTION 4. All ordinances and resolutions or parts of ordinances or resolutions in conflict with this ordinance are repealed.

SECTION 5. This ordinance will take effect after its passage, approval and adoption on second reading.

PASSED AND APPROVED on first reading on December 2, 2020.

PASSED, APPROVED AND ADOPTED on second reading on December 15, 2020.

Jane Hughson
Mayor

Attest:

Approved:

Tammy K. Cook
Interim City Clerk

Michael J. Cosentino
City Attorney