

FLOOD DAMAGE PREVENTION REGULATIONS

FOR

COUNTY OF FORT BEND, TEXAS



ADOPTED BY

FORT BEND COUNTY COMMISSIONERS COURT

FINAL DRAFT
COUNTY JUDGE

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COUNTY COMMISSIONERS

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FLOOD DAMAGE PREVENTION REGULATIONS

Effective _____, 2024

ARTICLE 1. STATUTORY AUTHORIZATION, FINDING OF FACT, PURPOSE AND METHODS

Section 1.01 Statutory Authorization

These Regulations are promulgated pursuant to and in conformity with Section 16.315 *et. seq.* of the Texas Water Code which authorizes local governmental units to adopt regulations designed to regulate land use and minimize flood losses.

Section 1.02 Findings of Fact

- (a) The flood hazard areas of Fort Bend County, Texas (herein also referred to as the "Community") 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.
- (b) These flood losses are created by the cumulative effect of obstructions in floodplains which cause increase in flood heights and velocities, and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, flood-proofed or otherwise protected from flood damage.

Section 1.03 Statement of Purpose

It is the purpose of these Regulations to promote the public health, safety and general welfare and to minimize public and private losses due to the flood conditions in specific areas by provisions designed to:

- (a) Protect human life and health;
- (b) Minimize expenditures of public money for costly flood control projects;
- (c) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (d) Minimize prolonged business interruptions;

- (e) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in the floodplain;
- (f) Help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such manner as to minimize future flood damage; and
- (g) Provide information to property owners to help identify flood-prone areas and restrictions related to development and construction.

Section 1.04 Methods of Reducing Flood Losses

In order to accomplish its purposes, these Regulations use the following methods:

- (a) Restrict or prohibit Development that is dangerous to health, safety or property in times of flood, or cause excessive increase in flood heights or velocities;
- (b) Require that Development vulnerable to floods, including facilities which serve such Development, be protected against flood damage at the time of initial construction;
- (c) Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodations of flood waters;
- (d) Control filling, grading, dredging, and other Development which may increase flood damage; and
- (e) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

Section 1.05 Severability

It is the intention of these Regulations that the sections, paragraphs, sentences, clauses and phrases of these Regulations are severable; and if any section, paragraph, sentence, clause or phrase of these Regulations shall be declared void, ineffective or unconstitutional by a valid judgment or final decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining sections, paragraphs, sentences, clauses or phrases hereof, since the same would have been enacted by this Court without the incorporation herein of any such unconstitutional section, paragraph, sentence, clause or phrase.

ARTICLE 2. DEFINITIONS

Unless specifically defined below, words or phrases used in these Regulations shall be interpreted to give them the meaning they have in common usage and to give these Regulations its most reasonable application.

1. **44 CFR, SECTION 60.3** – The National Flood Insurance Program Regulation for “floodplain management criteria for flood prone areas.”
2. **44 CFR, SECTION 65.12** – The National Flood Insurance Program Regulation defining the “revision of flood insurance rate maps to reflect base flood elevations caused by proposed encroachments.”
3. **ACCESSORY STRUCTURE** – A stand-alone structure that is on the same parcel of property as a principal structure and the use of which is incidental to the use of the principal structure. An Accessory Structure specifically excludes any structure used for human habitation.
4. **APPEAL** – A request for a review of the Floodplain Administrator’s interpretation of any provision of these Regulations or a request for a variance.
5. **APPLICANT** – An individual, proprietorship, corporation, association, and/or other legal entity required to obtain a Development Permit under these Regulations or someone who has applied for a Development Permit.
6. **AREA OF FUTURE CONDITIONS FLOOD HAZARD** – The land area that would be inundated by the one percent (1%) annual chance (100-year) flood based on an updated hydrologic and hydraulic study.
7. **AREA OF SHALLOW FLOODING** – Designated AO, AH, AR/AO, AR/AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a 1 percent or greater annual chance of flooding to an average depth of 1 to 3 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 ponding or sheet flow.
8. **AREA OF SPECIAL FLOOD HAZARD** – The land in the floodplain within a community subject to a one percent (1%) or greater chance of flooding in any given year. The area may be designated as Zone A on the Flood Insurance Rate Map (FIRM). After detailed rate making has been completed in preparation for publication of the FIRM, Zone A usually is refined into Zones A, AE, AH, AO or A1-99.

9. **ATLAS-14 STUDY** – A drainage study, approved by the Fort Bend County Drainage District, prepared using the Drainage Criteria Manual for the purpose of computing the 100-year water surface elevations and water surface ponding elevations for drainage infrastructure and natural watercourses. Design rainfall depths are based on the National Oceanic and Atmospheric Administration’s (NOAA) Atlas 14, Volume 11 precipitation-frequency analysis at latitude 29.5427°, longitude -95.5013°.
10. **BASE FLOOD** – The flood having a one percent (1%) chance of being equaled or exceeded in any given year.
11. **BASE FLOOD ELEVATION (BFE)** – The elevation shown on the Flood Insurance Rate Map (FIRM) and found in the accompanying Flood Insurance Study (FIS) for Zones A, AE, AH, AO or A1-A99 that indicates the water surface elevation resulting from the flood that has a 1% chance of equaling or exceeding that level in any given year – also called the Base Flood.
12. **BASEMENT** – Any area of the building having its floor subgrade below ground level on all sides.
13. **BREAKAWAY WALLS** – 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 supporting foundation system.
14. **COMMUNITY** – Any State, County, area or political subdivision thereof, or any Indian tribe or authorized tribal organization, or Alaska Native village or authorized native organization, which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction. For the purpose of these Regulations, Community shall mean Fort Bend County, Texas.
15. **CONVEYANCE ZONE** – An area that actively conveys runoff, where the product of the depth times the velocity of flow is greater than or equal to 2.5 ft²/sec.
16. **COUNTY** – Fort Bend County, Texas.
17. **CRITICAL FEATURE** – An integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.
18. **DEVELOPMENT** – Any man-made change in improved and/or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of

equipment and materials.

- 19. DEVELOPMENT PERMIT** – An official approval issued by the Floodplain Administrator that allows an Applicant to proceed with construction of a Development project.
- 20. DRAINAGE** – The runoff which flows over land as a result of precipitation. This shall include sheet flow, flow in streets and flows which may concentrate in local drainage systems with or without defined channels, including pumped detention basins.
- 21. DRY FLOODPROOFING** – A combination of measures that results in a structure, including the attendant utilities and equipment, being watertight with all elements substantially impermeable to the entrance of floodwater and with structural components having the capacity to resist flood loads.
- 22. ELEVATED BUILDING** – means a non-basement building, which has its lowest elevated floor, raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.
- 23. ELEVATION** – Height above sea level in feet. The North American Vertical Datum (NAVD) of 1988 shall be used. If a datum other than NAVD 1988 is used, a conversion to NAVD 1988 must be provided and both datums must be documented within all elevation analysis.
- 24. EXISTING CONSTRUCTION** – For the purpose of determining insurance rates, structures for which the “start of construction” commenced before the effective date of the FIRM or before January 1, 1975, for FIRM’s effective before that date. “Existing construction” may also be referred to as “existing structure.”
- 25. EXISTING MANUFACTURED HOME PARK OR SUBDIVISION** – 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 before the effective date of the floodplain management regulations adopted by a community.
- 26. EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR MANUFACTURED HOME SUBDIVISION** – 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).

27. **FEMA** – Federal Emergency Management Agency
28. **FILL** – Anything used to raise the existing ground elevation, including but not limited to, sands, dirt, soil, rock, concrete or cement.
29. **FILLING** – The act of placing Fill on a parcel of land.
30. **FIRM** – Flood Insurance Rate Map
31. **FLOOD INSURANCE RATE MAP (FIRM)** – An official map of a community, on which the Federal Emergency Management Agency has delineated both the special flood hazard areas and the risk premium zones applicable to the County. In these regulations, the map shall be called “FIRM.” The map is divided into zones which are used for setting regulatory requirements. The type of permit, and the requirements of the permit will vary depending on the zone in which a property is located.
32. **FLOOD OR FLOODING** – A general and temporary condition of partial or complete inundation of normally dry land areas from: (1) the overflow of inland or tidal waters; or (2) the unusual and rapid accumulation of runoff of surface waters from any source.
33. **FLOOD DAMAGE-RESISTANT MATERIAL** – Any construction material capable of withstanding partial or total inundation by floodwaters for 72 hours or more without sustaining any damage that requires more than cosmetic repair.
34. **FLOOD ELEVATION STUDY** – An examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood related erosion hazards.
35. **FLOOD INSURANCE STUDY (FIS)** – See *Flood Elevation Study*.
36. **FLOODPLAIN OR FLOOD-PRONE AREA** – Any land area susceptible to being inundated by water from any source (see definition of “Flooding”).
37. **FLOODPLAIN ADMINISTRATOR** – The **County Engineer** is designated as the Floodplain Administrator.
38. **FLOODPLAIN MANAGEMENT** – 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 and floodplain management regulations.
39. **FLOODPLAIN MITIGATION** – A hydraulically equivalent volume of floodplain

storage sufficient to offset a reduction in floodplain storage or conveyance capacity.

- 40. FLOODPLAIN MANAGEMENT REGULATIONS** – 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. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.
- 41. FLOOD PROOFING** – 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.
- 42. FLOOD PROTECTION SYSTEM** – Those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the areas within a community subject to a “special flood hazard” and the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.
- 43. FLOODWAY** – see **Regulatory Floodway**.
- 44. FREEBOARD** – A difference in elevation usually expressed in feet above a flood level for purposes of floodplain management. “Freeboard” is intended 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 condition, such as a wave action, bridge openings, and the hydrological effect of urbanization of the watershed.
- 45. FUNCTIONALLY DEPENDENT USE** – A use which cannot perform 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 ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.
- 46. HAZARDOUS WASTE MANAGEMENT FACILITIES** – Any facility used for storage, processing or disposal of any waste identified or listed as hazardous by the Administrator of the United States Environmental Protection Agency,

pursuant to 42 U.S.C.6901, et seq., as amended.

- 47. HIGHEST ADJACENT GRADE** – The highest natural elevation of the ground surface prior to construction next to the proposed wall or foundation of a structure.
- 48. HISTORIC STRUCTURE** – Any structure that is:
- (1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of the 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 district 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 of 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.
- 49. IMPROVEMENT** – The process of erecting, constructing, enlarging, altering, and/or repairing of any development.
- 50. INTERIOR BUILDOUT** – Interior renovation of a non-residential structure to create functional space for the specific needs of an existing or future tenant.
- 51. LEVEE** – A man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.
- 52. LEVEE SYSTEM** – A flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.
- 53. LOWEST FLOOR** – The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, used solely for parking of vehicles, building access or storage in an area other than a basement area is not

considered a building's lowest floor; **provided** that such an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirement of 44 CFR, Section 60.3 of the National Flood Insurance Program regulation.

- 54. MANUFACTURED HOME OR HOUSING** – A structure as defined under Chapter 1201.003 (12), (18), and (20) of the Texas Occupation Code – Manufactured Housing – including a structure transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities.
- 55. MANUFACTURED HOME PARK OR MANUFACTURED HOME SUBDIVISION** – A parcel (or contiguous parcels) of land containing two (2) or more manufactured home lots for rent or sale.
- 56. MEAN SEA LEVEL** – For the purpose of the National Flood Insurance Program, the National American Vertical Datum (NAVD) of 1988 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map (FIRM) are referenced.
- 57. NATURAL FLOW or NATURAL DRAINAGE** – The movement of stormwater runoff over land, including sheet flow, unaffected by Development.
- 58. NATURAL GROUND or NATURAL GRADE** – The original ground elevation unaffected by construction techniques such as fill, landscaping, or berms.
- 59. NEW CONSTRUCTION** – For floodplain management purposes, structures for which the “Start of Development” commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.
- 60. NEW MANUFACTURED HOME PARK OR SUBDIVISION** – 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 floodplain management regulations adopted by a community.
- 61. NON-RESIDENTIAL STRUCTURE** – Any building or structure that all or part of which requires the issuance of a Certificate of Compliance from the Fort Bend County Fire Marshal.
- 62. ON-SITE STORAGE PROCESSING OR DISPOSAL** – Any activity defined in

Section 335.42 (a) (44) [156.22.05.102 (a) (44)] Texas Administrative Code.

- 63. ORDINARY REPAIR** – Any reconstruction, rehabilitation, or improvement of a structure or structures where the cost of the improvements is less than fifty percent (50%) of the Fort Bend Central Appraisal District value of the structure before “start of construction”.
- 64. OWNER** – An individual, proprietorship, corporation, association, and/or other legal entity that owns a parcel of land as defined by the Fort Bend Central Appraisal District.
- 65. PERSON** – An individual, sole proprietorship, corporation, nonprofit corporation, partnership, joint venture, organization and/or limited liability company.
- 66. PLAT** – A map or drawing of a proposed subdivision prepared in a manner suitable for recording in the County Clerk's records and containing accurate and detailed engineering data, dimensions, and dedicatory statements and certificates.
- 67. RECREATIONAL VEHICLE** – A vehicle which is built on a single chassis; 400 square feet or less when measured at the largest horizontal projections; self-propelled or permanently towable by a light duty truck; and designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use. This definition includes park trailers, travel trailers and other similar vehicles.
- 68. REGULATORY FLOODWAY** – The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.
- 69. REPETITIVE LOSS STRUCTURE** – An NFIP-insured structure that has had at least two paid flood losses of more than \$1,000 each in any 10-year period since 1978.
- 70. RESIDENTIAL STRUCTURE** – A structure designed for human habitation, whether as a permanent residence or as temporary or seasonal living quarters, consisting of three or fewer attached units.
- 71. RISING WATER** – The increase in level and/or intensity of an overflowing of water onto normally dry land.
- 72. RIVERINE** – Relating to, formed by, or resembling a river (including tributaries),

stream, brook, etc.

73. SPECIAL FLOOD HAZARD AREA – See *Area of Special Flood Hazard*.

74. START OF CONSTRUCTION – (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (Pub. L. 97-348)), includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either 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 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 a 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.

75. START OF DEVELOPMENT – The start of land preparation activities, such as grading, filling, excavation, installation of streets or underground utilities, structures and other such development.

76. STRUCTURE – A walled and roofed building, with at least two outside rigid walls and a fully secured roof, a gas or liquid storage tank that is principally above ground, a Manufactured Home or a shipping container (when it remains in place for more than 180 days).

77. SUBDIVISION – The division of any tract or parcel of land by plat, map, or description into two or more parts to lay out:

- 1) A subdivision of the tract, including an addition;
 - 2) Lots; or
 - 3) Streets, alleys, squares, parks, or other parts of the tract intended to be dedicated to public use or for the use of purchasers or owners of lots fronting on or adjacent to the streets, alleys, squares, parks, or other parts;
- or

- 4) A division regardless of whether it is made by using a metes and bounds description in a deed, by using a contract of sale or other executor contract to convey, or by using any other method.

Subdivision shall also include the subdivision, re-platting or other alterations of any tract of land, reserve or lot which is part of a previously recorded subdivision. Subdivision shall not include the division of land for agricultural purposes only, land divided by partition deeds executed by co-tenants for the purpose of effecting a partition of land, division of land for the purpose of settling family estates providing the division does not include any dedication or layout of streets or other public or private access ways, and division of a tract of land separated by two or more spaces or lots that are to be rented, leased or offered for rent or lease for a term of less than 60 months without a purchase option, for installation of manufactured homes for use and occupancy as residence.

78. SUBSTANTIAL DAMAGE – Damage of any origin, man-made or natural, including but not limited to flood, fire or wind, sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty percent (50%) of the Fort Bend Central Appraisal District value of the structure before the damage occurred.

79. SUBSTANTIAL IMPROVEMENTS – Any reconstruction, rehabilitation, addition, or improvement of a structure or structures where the cost of the improvements equals or exceeds fifty percent (50%) of the Fort Bend Central Appraisal District Value of the structure before “Start of Development.” This includes structures which have incurred “substantial damage,” regardless of the actual repair work performed. An improvement is started when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not the alteration affects the external dimensions of the structure. For the purpose of determining if an improvement is a substantial improvement, the Applicant must submit data reflecting the CAD value of the structure prior to being damaged, improved or modified and the cost of the restoration, improvement or modification. Costs shall include the value of all labor and materials. The term does not, however, include either: (1) any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by Fort Bend County local official(s) and which are the minimum necessary conditions; or (2) any alteration of a “historic structure,” provided that the alteration will not preclude the structure’s continued designation as a “historic structure.”

- 80. SUBSTANTIALLY REPAIR** – see *Substantial Improvements*
- 81. TOPOGRAPHY** – The description of the three-dimensional shape of the land surface based upon elevation contours.
- 82. UNINCORPORATED AREA** – The area in Fort Bend County, Texas, that is not within an incorporated area of a city, town, or village.
- 83. UTILITY** – A person, as defined herein, engaged in this State in the:
- a. generation, transmission, or distribution and sale of electric power;
 - b. transportation, distribution and sale through a local distribution system of natural or other gas for domestic, commercial, industrial, or other use;
 - c. ownership or operation of a pipeline for the transmission or sale of natural or other gas, natural gas liquids, crude oil or petroleum products to other pipeline companies, refineries, local distribution systems, municipalities, or industrial consumers;
 - d. provision of telephone, internet, television, or other data transmission service to others including cell towers;
 - e. production, transmission, or distribution and sale of steam or water;
 - f. operation of a railroad; or
 - g. the provisions of sanitary sewer service to others.
- 84. VARIANCE** – A grant of relief by a community from the requirements of these Regulations. A variance, therefore, permits construction or development in a manner otherwise prohibited by these Regulations. (For full requirements see Section 60.6 of the National Flood Insurance Program regulations.)
- 85. VIOLATION** – The failure of a structure or other development to be fully compliant with the community’s floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in these Regulations is presumed to be in violation until at such time the documentation is provided.
- 86. WATER SURFACE ELEVATION** – The height of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas in relation to National American Vertical Datum (NAVD) of 1988.
- 87. WET FLOODPROOFING** – The use of flood damage-resistant materials and construction techniques to minimize flood damage to a structure by intentionally allowing floodwaters to enter and exit automatically without human intervention.

FINAL DRAFT

ARTICLE 3. GENERAL PROVISIONS

Section 3.01 Land to Which These Regulations Apply

These Regulations shall apply to all unincorporated areas within the jurisdiction of Fort Bend County, Texas, and to those jurisdictions which have entered into an Interlocal Agreement with the County for the administration of Flood Damage Prevention Regulations. A list of these jurisdictions is provided in Appendix 1 of these Regulations.

Section 3.02 Basis for Establishing the Areas of Special Flood Hazard

(a) Effective FIS and FIRM Data

The Areas Of Special Flood Hazard identified by the Federal Emergency Management Agency in the current scientific and engineering report entitled, "Flood Insurance Study (FIS) for Fort Bend County Texas and Incorporated Areas," dated January 29, 2021, with accompanying Flood Insurance Rate Maps and/or Flood Boundary-Floodway Maps (FIRM and/or FBFM) dated January 29, 2021 and any revisions thereto are hereby adopted by reference and declared to be a part of these Regulations.

(b) Atlas-14 Study Data

New flood elevation data and drainage studies, based on Atlas-14 rainfall data, has been produced by the Fort Bend County Drainage District. Upon approval of the Atlas-14 Study by the Fort Bend County Drainage District, the Floodplain Administrator may require the study data to be administered for purposes of these Regulations as though it were a part of the effective FIRM. To the extent of any inconsistencies between the Atlas-14 Study data and the effective FIRM, the more restrictive (higher) base flood elevation shall be controlling, and in no instance may any determination or designation that is based on the effective FIRM be reduced by the Atlas-14 Study data.

Section 3.03 Establishment of a Development Permit

A Development Permit shall be required to ensure conformance with the provisions of these Regulations.

Section 3.04 Abrogation and Greater Restrictions

The Fort Bend County Regulations for Floodplain Management heretofore existing are repealed and shall be replaced by these Fort Bend County Flood Damage Prevention Regulations. However, the Regulations for Floodplain Management shall continue to apply to construction pursuant to permits issued prior to the effective date of these Regulations. Except as herein above expressly provided, these Regulations are not intended to repeal, abrogate, or impair any existing easements, covenants or deed restrictions. Where these Regulations and other restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

Section 3.05 Construction of Regulations

In the interpretation and application of these Regulations, all provisions shall be (a) considered as minimum requirements; (b) liberally construed in favor of the government body; and (c) deemed neither to limit nor repeal any other powers granted under State statutes.

Section 3.06 Warning and Disclaimer of Liability

The degree of flood protection required by these Regulations is reasonable for regulatory purposes and is based on scientific and engineering considerations. On rare occasions, greater floods can and will occur and flood heights may be increased by man-made or natural causes. These Regulations do not imply that the land outside the areas of the special flood hazards or uses permitted within such areas will be free from flooding or flood damage. These Regulations shall not create liability on the part of Fort Bend County, or any official or employee thereof, for any flood damage that results from the reliance on these Regulations or any administrative decision lawfully made thereunder. Liability shall not be created on the part of Fort Bend County, or any official or employee thereof, for the flood damages that result from the Applicant or Owner's non-compliance with these Regulations.

ARTICLE 4. ADMINISTRATION

Section 4.01 Designation of the Floodplain Administrator

The County Engineer, or his or her designee is hereby appointed the Floodplain Administrator to administer and implement the provisions of these Regulations and other appropriate sections of 44 CFR (National Flood Insurance Program Regulations) pertaining to floodplain management.

Section 4.02 Duties and Responsibilities of the Floodplain Administrator

Duties and responsibilities of the Floodplain Administrator shall include, but are not limited to, the following:

- (a) Maintain and hold open for public inspection all records pertaining to the provisions of these Regulations.
- (b) Review a permit application to determine whether proposed development will be reasonably safe from flooding.
- (c) Review, approve or deny all applications for Development Permits required by adoption of these Regulations.
- (d) Review permits for proposed development to assure all necessary permits have been obtained from those Federal, State or local governmental 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.
- (e) Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (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.
- (f) Notify, in riverine situations, adjacent communities and the State Coordinating Agency, which is the Texas Water Development Board (TWDB) and also 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.
- (g) Assure that the flood-carrying capacity within the altered or relocated watercourse is maintained.
- (h) When base flood elevation data has not been provided in accordance with Section

3.02, the Floodplain Administrator shall obtain, review and reasonably utilize any base flood elevation data available from a Federal, State or other source, in order to administer the provisions of Article 5.

- (i) When a regulatory floodway has not been designated, the Floodplain Administrator must require that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A 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 result in a rise of the base flood elevation except through an approved Variance.
- (j) Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program Regulations, a community may approve certain development in Zones A1-30, AE or AH on the community's FIRM which increases the water surface elevation of the base flood by more than 1 foot, provided that the community first completes all of the provisions required by Section 65.12. However, Fort Bend County has adopted rules that require a zero impact on any base flood water surface elevation except through an approved Variance.
- (k) The Floodplain Administrator, or duly authorized representative, may enter any building, structure, or premises to perform any duties imposed by these Regulations.
- (l) Determine non-compliance with diversion or impoundment of the Natural Flow of surface waters and refer to the County or District Attorney's Office for enforcement, when necessary.

Section 4.03 Permit Procedures

- (a) When a Development Permit is Required

A Development Permit must be obtained prior to any of the following actions:

- (1) For locations within an Area of Special Flood Hazard:
 - (i) Prior to the start of any Development;
 - (ii) Prior to making a Substantial Improvement to any structure; or
 - (iii) Prior to Interior Buildout of non-residential structures.
- (2) For locations Outside an Area of Special Flood Hazard:
 - (i) Prior to construction of a Structure that meets or exceeds 400 square feet

in area;

- (ii) Prior to Installation of pavement or roof coverings, impervious to rainwater, that meets or exceeds 400 square feet in area except for pools and associated decking/patio. Pools do not require a Development Permit if they are located outside the Special Flood Hazard Area;
- (iii) Prior to Fill placement or excavation greater than 500 cubic yards per acre of land;
- (iv) Prior to grading changes that cause an alteration to natural drainage flow and/or an increase or decrease in natural ground elevation by more than six (6) inches; or
- (v) Prior to Interior Buildout of non-residential structures.

(b) Documentation Required for Permitting

The application for a Development Permit shall be submitted to the Floodplain Administrator by the Owner or the agent of the Owner specifically authorized to act on the Owner's behalf on approved forms and shall include, but is not limited to:

- (1) A site plan showing the details of the proposed Development, including locations, dimensions and elevations of proposed landscape alterations, existing and proposed structures, the placement of manufactured homes, and the location of the foregoing in relation to areas of special flood hazard; and relationship to all easements and roadways. The site plan shall be drawn to-scale or have sufficient dimensioning to effectively communicate the size and location of proposed structures. Commercial development requires prior approval by the Fort Bend County Engineering Department;
- (2) Design drawings for on-site septic systems that will be utilized for proposed structures;
- (3) Metes and bounds description of the property, if located outside of a platted subdivision;
- (4) Recorded copy of property deed;
- (5) Permit fee, as reflected in the Fort Bend County Fee Schedule. Where Development has commenced before a Development Permit is obtained, the Development Permit fee shall be doubled; permit fees are non-refundable;
- (6) Permits from other Local, State, and Federal agencies. The Owner is responsible for compliance with all applicable local, state and federal regulations and permit requirements, and the Owner must maintain

compliance with those regulations and requirements; and

- (7) Additional information, drawings, specifications or documents, as requested by the Floodplain Administrator.

(c) Additional Documentation for Development within Areas of Special Flood Hazard

The following documentation, in addition to those listed in Section 4.03(b), shall be provided by the Applicant for Development located within an Area of Special Flood Hazard:

- (1) A floodplain mitigation plan, prepared by a licensed professional engineer, for any proposed Filling on the property which results in a reduction in floodplain storage or conveyance capacity including the volume of flood proofed structures;
- (2) Foundation design drawings, prepared by a licensed professional engineer, for structures supported on an open foundation, such as piles, piers, posts or columns;
- (3) Details on the size, quantity and placement of flood openings for fully enclosed areas below the lowest floor which are subject to flooding. The requirements for flood openings shall comply with Section 5.02(k) of these Regulations;
- (4) Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.

(d) Conditions for Permit Approval

Approval or denial of a Development Permit by the Floodplain Administrator shall be based on the requirements established in these Regulations and the following relevant factors:

- (1) The danger to life or damage to property due to the flooding or erosion damage;
- (2) The susceptibility of the proposed Development and its contents to flood damage and the effect of such damage on other properties or structures;
- (3) The danger that materials may be swept onto other lands to the injury of others;
- (4) The compatibility of the proposed use with existing and anticipated development;
- (5) The safety of access to the property in times of flood for ordinary and emergency vehicles;
- (6) The cost of providing governmental services during and after flood conditions including maintenance and repair of streets and bridges, and public utilities

- and facilities such as sewer, gas, electrical, and water systems;
- (7) The expected heights, velocity, duration, rate of rise and sediment transport of the flood water and the effects of wave action if applicable, expected at the site;
 - (8) The necessity to the facility of a waterfront location, where applicable;
 - (9) The availability of alternative locations, not subject to flooding or erosion damage, for the purpose of use; and
 - (10) The relationship of the proposed use to the comprehensive plan for that area.
- (e) Issuance of a Development Permit
- (1) A Development Permit application will be accepted and approved by the Floodplain Administrator only after the Development Permit is deemed to be in compliance with all Fort Bend County Regulations.
 - (2) The Floodplain Administrator shall determine the minimum elevation of the lowest floor (including basement) of a new or substantially improved structure, and the minimum elevation shall be stated on the Development Permit.
 - (3) The Development Permit will not be issued without a dated signature of the Floodplain Administrator or duly authorized representative.
 - (4) The Development Permit and related information will be filed in the Community depository at the Fort Bend County Engineering Department.
- (f) Documentation Required at Project Completion
- (1) Within seven (7) calendar days of completion of construction of the Development project, Applicant will deliver to the Floodplain Administrator a final elevation certificate (FEMA 81-31) of “as-built” lowest floor elevation for any new and substantially improved structures, certified by a registered professional engineer, surveyor, or architect;
 - (2) Within seven (7) calendar days of completion of construction of the Development project, Applicant will deliver to the Floodplain Administrator a floodproofing certificate from a registered professional engineer or architect for a non-residential floodproofed structure, meeting the dry flood proofing criteria of Section 5.02(e)(2).

ARTICLE 5. STANDARDS FOR FLOOD HAZARD REDUCTION

Section 5.01 Standards for Development Outside Areas of Special Flood Hazard

(a) General Requirements

- (1) No person may divert or impound the natural flow of surface waters or allow a diversion or impounding to continue in a manner that damages the property of another by the overflow of the water diverted or impounded. Any such damage, as established by a property owner claiming damage to his property and accepted by the Floodplain Administrator, may result in an action as provided in Article 10.
- (2) Fort Bend County will require compliance with the Fort Bend County Drainage Criteria Manual, which is incorporated by reference herein and may be obtained from the Fort Bend County Clerk, the Fort Bend County Engineer or the Fort Bend County Drainage District Engineer.

(b) Subdivisions

- (1) All subdivision proposals including manufactured home parks and subdivisions shall be consistent with the requirements set by these Regulations.
- (2) All proposals for development of subdivisions including manufactured home parks and subdivisions shall meet Development Permit requirements of Section 3.03, Section 4.03, and the provisions of Article 5 of these Regulations.
- (3) All subdivision proposals including manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.
- (4) All subdivision proposals including manufactured home parks and subdivisions shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

(c) Minimum Elevation of the Lowest Floor

Structures located outside of the Special Flood Hazard Area shall have the lowest floor elevated to a minimum elevation that meets the highest of the following criteria:

- (1) Two (2) feet above the one-percent annual chance (100-year) water surface elevation of a detention pond serving the development in which the structure

is located.

- (2) Two (2) feet above the lowest top of curb elevation within, or adjacent to, each lot or reserve; or in the absence of a curb, two (2) feet above the highest natural ground along the perimeter of the structure foundation.
- (3) One (1) foot above any down-gradient roadway or down-gradient drainage restraint.

(d) Residential Construction

For new construction of any residential structure located outside of the Special Flood Hazard Area, the minimum elevation of the lowest floor shall comply with the requirements of Section 5.01(c).

(e) Non-Residential Construction

- (1) For new construction of any non-residential structure located outside of the Special Flood Hazard Area, the minimum elevation of the lowest floor shall comply with the requirements of Section 5.01(c).
- (2) Civil construction plans, approved by the Fort Bend County Engineering Department, are required for any property developed for commercial use.

(f) Accessory Structures

Accessory structures located outside of the Special Flood Hazard Area are exempt from meeting minimum floor elevation requirements.

(g) Manufactured Homes

- (1) For the placement of any manufactured home located outside of the Special Flood Hazard Area, the minimum elevation of the lowest floor shall comply with the requirements of Section 5.01(c).
- (2) Fort Bend County has Regulations Concerning Minimum Infrastructure Standards for Manufactured Home Rental Communities, which must be complied with in addition to these Regulations if the land is to be developed into a manufactured home park.

(h) Fill Material and Excavation

- (1) If more than 500 cubic yards of fill material are to be added per acre of land, the Applicant must provide hydraulic analysis (drainage plan), showing no impact to adjacent properties or streams, prepared by a registered professional engineer and approved by the Fort Bend County Drainage District.
- (2) A simplified grading plan may be approved if less than 500 cubic yards of fill material per acre of land are added to the property. Each acre may not be

affected by more than 500 cubic yards of fill material. The property owner is required to equally disburse and spread fill material to ensure no more than 500 cubic yards of fill being placed on each acre.

- (3) Fill material shall be placed no closer than ten (10) feet from the property line unless mitigation measures, approved in advance by the Floodplain Administrator, are provided, such as drainage ditches or swales, to address any potential negative impact to adjoining properties. This requirement does not apply to lots within recorded subdivisions with an overall grading plan that was approved by the Fort Bend County Engineering Department.
- (4) Excavations shall have side slopes no steeper than 3:1, or shall not be allowed closer than twenty (20) feet plus twice the depth of the excavation from the property line.
- (5) If the natural flow of water on the property is modified, the property owner is required to mitigate for the altered flow. Natural flow may include sheet flow, swale, ditch, slough or other natural or man-made means of conveyance of water. Forms of mitigation may include ditches, swales, detention/retention ponds and any other means approved by the Floodplain Administrator.

Section 5.02 Standards for Development within a Special Flood Hazard Area

(a) General Requirements

- (1) All new construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent floatation, collapse or lateral movement of structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
- (2) All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damage.
- (3) All new construction or substantial improvements shall be constructed with materials resistant to flood damage.
- (4) All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located as to prevent water from entering or accumulating within the components during conditions of flooding.
- (5) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
- (6) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from the

system into flood waters.

- (7) On-site sewage facilities shall be located to avoid impairment to them or contamination from them during flooding.
- (8) Fort Bend County will require compliance with the Fort Bend County Drainage Criteria Manual, which is incorporated by reference herein and may be obtained from the Fort Bend County Clerk, the Fort Bend County Engineer or the Fort Bend County Drainage District Engineer.

(b) Subdivisions

- (1) All subdivision proposals including manufactured home parks and subdivisions shall be consistent with the requirements set by these Regulations.
- (2) All proposals for development of subdivisions including manufactured home parks and subdivisions shall meet Development Permit requirements of Section 3.03, Section 4.03, and the provisions of Article 5 of these Regulations.
- (3) Base flood elevation data shall be generated for subdivision proposals and other proposed development including manufactured home parks and subdivisions, which are greater than 50 lots or five (5) acres, whichever is lesser, if not otherwise provided pursuant to Section 3.02 or Section 4.02(h) of these Regulations.
- (4) All subdivision proposals including manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.
- (5) All subdivision proposals including manufactured home parks and subdivisions shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

(c) Minimum Elevation of the Lowest Floor

Structures located within Special Flood Hazard Areas shall have the lowest floor elevated to a minimum elevation that meets the highest of the following criteria:

- (1) Two (2) feet above the Base Flood Elevation as determined in the effective FIS and FIRM data.
- (2) Two (2) feet above the one-percent annual chance (100-year) water surface elevation as determined in an Atlas-14 Study.
- (3) Two (2) feet above the one-percent annual chance (100-year) water surface elevation of a detention pond serving the development in which the structure

is located.

- (4) Two (2) feet above the lowest top of curb elevation within, or adjacent to, each lot or reserve; or in the absence of a curb, two (2) feet above the highest natural ground along the perimeter of the structure foundation.
- (5) One (1) foot above any down-gradient roadway or down-gradient drainage restraint.

(d) Residential Construction

For new construction and substantial improvement of any residential structure located within the Special Flood Hazard Area, the minimum elevation of the lowest floor shall comply with the requirements of Section 5.02(c).

(e) Non-Residential Construction

- (1) For new construction and substantial improvement of any non-residential structure located within the Special Flood Hazard Area, the minimum elevation of the lowest floor shall comply with the requirements of Section 5.02(c).

- (2) Alternatively, non-residential construction can be dry floodproofed and designed so that, below the Base Flood Elevation, the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice outlined in this subsection. A record of such certification which includes the specific elevation (in relation to mean sea level) to which such structures are flood-proofed shall be maintained by the Floodplain Administrator.

- (3) Civil construction plans, approved by the Fort Bend County Engineering Department, are required for any property developed for commercial use.

(f) Accessory Structures

- (1) For new construction and substantial improvement of any accessory structure located within the Special Flood Hazard Area, the minimum elevation of the lowest floor shall comply with the requirements of Section 5.02(c).
- (2) Alternatively, accessory structures may be wet floodproofed in lieu of being

elevated if the following conditions are met:

- (i) The accessory structure must be anchored to resist flotation, collapse and lateral movement.
- (ii) The portions of the accessory structure located below the Base Flood Elevation must be constructed with flood damage-resistant materials.
- (iii) Mechanical and utility equipment for the accessory structure must be elevated or dry floodproofed to or above the Base Flood Elevation.
- (iv) The accessory structure must have flood openings installed to protect the structure from hydrostatic pressure. The design must meet the performance standards for openings as described in paragraph (k) of this Section and must allow for the automatic entry and exit of floodwaters without manual operation or the presence of a person (or persons).

(g) Manufactured Homes

- (1) Manufactured homes placed or substantially improved within a Special Flood Hazard Area, which meet one of the following location criteria, shall be elevated such that the lowest floor complies with the minimum elevation requirements of Section 5.02(c):

- (i) outside 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;
- (iv) on a site in an existing park which a manufactured home has incurred substantial damage as a result of a flood.

- (2) Manufactured homes placed or substantially improved in an existing manufactured home park shall be elevated such that:

- (i) the lowest floor complies with the minimum elevation requirements of Section 5.02(c); or
- (ii) the chassis is supported by reinforced piers no less than 36 inches in height above grade and securely anchored.

- (3) Manufactured homes shall be installed using methods and practices which minimize flood damage 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 applicable state and local anchoring requirements for resisting wind forces.

- (4) Fort Bend County has Regulations Concerning Minimum Infrastructure Standards for Manufactured Home Rental Communities, which must be complied with in addition to these Regulations if the land is to be developed

into a manufactured home park.

(h) Fill Material and Excavation

- (1) The placement of fill material within the Special Flood Hazard Area which causes a reduction in floodplain storage or conveyance capacity must be offset with a minimum hydraulically equivalent (one-to-one) volume of mitigation sufficient to offset the reduction. Such mitigation shall be within the same watershed and shall be provided on the same property within the same hydrologic sub-watershed or at an alternate site, meeting the approval of the Floodplain Administrator. Mitigation plans, prepared by a licensed engineer, shall be submitted to the Floodplain Administrator which include analysis that demonstrates the proposed fill placement would not result in any increase in the Base Flood Elevation. If a mitigation storage pond is proposed, the design must include an approved outfall capable of fully draining the mitigation storage volume by gravity as the floodwaters recede, so that full capacity will be available for subsequent flood events. The use of pumping systems to drain mitigation storage is not allowed. A full hydrological and hydraulic analysis must be submitted to support a request for mitigation outside the boundaries of the property being developed.
- (2) Residential construction on an individual lot may be exempt from the mitigation requirements of Section 5.02(h)(1) if all of the following conditions are met:

- (i) The lot is located within a recorded subdivision with a plat that was recorded prior to the effective date of the applicable FIRM or approved Atlas-14 Study.
- (ii) The lot will be used as a single-family residence.
- (iii) Filling and grading activity will not encroach within any Regulatory Floodway or Conveyance Zone.
- (iv) Filling and grading plans shall comply with the requirements of Section 5.01(h) of these Regulations.

(i) Hazardous Waste Management Facilities

In order to promote and protect the public interest in providing appropriate protection against the perils of flood losses, no Development Permits will be granted for the construction of any injection well or other type of disposal site for hazardous material or any Hazardous Waste Management Facility in any flood prone areas or Areas of Special Flood Hazard, as delineated on the FIRM, with the exception of on-site sewage facilities for storage, processing or disposal of on-site

generated waste (See Section 5.02(a)(6) and (7)).

(j) Recreational Vehicles

Recreational vehicles placed on sites within a Special Flood Hazard Area shall either (1) be on the site for fewer than 180 consecutive days, or (2) be fully licensed and ready for highway use, or (3) meet the permit requirements of Section 4.03, and the elevation and anchoring requirements for "Manufactured Homes" in paragraph (g) of this section. 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.

(k) Enclosures

New construction and substantial improvements of structures with fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage, in an area other than a basement, and are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum requirements:

- (1) A minimum of two (2) flood openings on separate walls having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;
- (2) The bottom of all openings shall be no higher than one (1) foot above grade; and
- (3) Openings shall be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of flood waters.

(l) Additional Standards for Regulatory Floodways and Conveyance Zones

Floodways and Conveyance Zones are located within Areas of Special Flood Hazard and delineated on the effective FIRM or an approved Atlas-14 Study. Since these areas are extremely hazardous due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions shall apply:

- (1) Encroachments are prohibited, including fill, new construction (including fencing that would impact flow), substantial improvements and other development within the adopted Regulatory Floodway or Conveyance Zone 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.

- (2) All new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article 5.

(m) Additional Standards for Areas of Shallow Flooding (AO/AH Zones)

Located within Areas of Special Flood Hazard established in Section 3.02, are areas designated as shallow flooding. These areas have special flood hazards associated with base flood depths of 1 to 3 feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow; therefore, the following provisions apply:

- (1) All new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least two (2) feet above the depth number specified in feet on the Community's FIRM (at least three feet if no depth number is specified).
- (2) All new construction and substantial improvements of non-residential structures shall comply with the following requirements:
 - (i) Have the lowest floor (including basement) elevated above the highest adjacent grade at least two (2) feet above the depth number specified in feet on the Community's FIRM (at least three feet if no depth number is specified), or;
 - (ii) Together with attendant utility and sanitary facilities be dry floodproofed and designed so that below the Base Flood Elevation the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads of effects of buoyancy.
- (3) A registered professional engineer or architect shall submit a certification to the Floodplain Administrator that the standards of this Section, as proposed in Section 4.03, are satisfied.
- (4) All new construction within Zones AH or AO shall have adequate drainage paths around structures on slopes, to guide flood waters around and away from proposed structures.

ARTICLE 6. OTHER REGULATIONS

In addition to the Regulations herein, prior to the issuance of Development Permit, the development must also comply with all regulations of Fort Bend County, including:

Section 6.01 On-site Sewage Facilities (OSSF) System Permits

OSSF permits are required in accordance the Texas Health and Safety Code and Fort Bend County regulations for all properties that do not obtain a connection to an approved sewer system. Development shall comply with the requirements of Fort Bend County Environmental Health Department.

Section 6.02 Drainage Criteria Manual

Fort Bend County has adopted a Drainage Criteria Manual. The commercial development of any tract of land or building of any non-residential structure shall include detention and other drainage facilities. All commercial development shall be approved by the Fort Bend County Drainage District.

Section 6.03 Manufactured Home Regulations

The development of a Manufactured Home Park shall comply with Regulations Concerning Minimum Infrastructure Standards for Manufactured Home Rental Communities as adopted by Fort Bend County.

Section 6.04 Regulations of Subdivisions

All subdivisions shall comply with the requirements of the Regulations of Subdivisions as adopted by Fort Bend County.

Section 6.05 Fort Bend County Fire Code

Fort Bend County has established standards for fire protection and life safety. All development subject to these rules shall be approved by the Fort Bend County Fire Marshal.

Section 6.06 Order Adopting Certain Restrictions on the Connection of Utilities in the Unincorporated Areas of Fort Bend County.

In accordance with Texas Local Government Code Section 232.106, the Fort Bend County Commissioners Court adopted an Order restricting a utility from serving or connecting any subdivided land without a proper plat review and approval.

Section 6.07 Orders for Regulation of Outdoor Lighting

Fort Bend County has adopted Outdoor Lighting Regulations. All commercial development shall obtain approval for new outdoor lighting prior to issuance of a Development Permit.

ARTICLE 7. VARIANCES

Section 7.01 Variance Procedures

- (a) An Applicant may file a written request for a Variance from any provision of these Regulations with the Floodplain Administrator.
- (b) Variance requests shall be heard by the Fort Bend County Commissioners Court.
- (c) The Floodplain Administrator shall report Variances to the Federal Emergency Management Agency upon request.
- (d) The Floodplain Administrator shall maintain a record of all actions involving a Variance and shall make such record available to the public.
- (e) Variances may be issued for the reconstruction, rehabilitation or restoration of historic structures listed on the National Register of Historic Places, certified or preliminary, determined by the Secretary of Interior to contribute historical significance, the State Inventory of Historic Places, a local inventory (if one exists) or historic places in the Community that have been certified without regard to the procedures set forth in the remainder of these Regulations. Variances may be issued 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.
- (f) Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the relevant factors in Section 4.03(d) have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing a variance increases.
- (g) Upon consideration of the factors noted above and the intent of these Regulations, the Fort Bend County Commissioners Court may attach such other conditions to the granting of Variances as it deems necessary to further the purpose and objectives of these Regulations (See Section 1.03, Statement of Purpose).
- (h) Variances shall not be issued within any Regulatory Floodway if any increase in the base flood elevation would result.
- (i) Prerequisites for granting Variances:
 - (1) Variances shall only be issued upon a determination that the Variance is the

- minimum necessary, considering the flood hazard, to afford relief;
- (2) Variances shall only be issued upon:
 - (i) showing a good and sufficient cause;
 - (ii) a determination that failure to grant the Variance would result in exceptional hardship to the Owner or Applicant; and
 - (iii) a determination that the granting of a Variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or regulations.
 - (3) Any Applicant to whom a Variance is granted shall be given written notice that the structure will be permitted to be built with the lowest floor elevation below the base flood elevation, and that the cost of flood insurance will commensurate with the increased risk resulting from the reduced lowest floor elevation.
 - (j) Variances may be issued by the Fort Bend County Commissioners Court provided that: (1) the criteria outlined in Section 7.01(a)-(h) are met; and (2) the structure or other development is protected by methods that minimize flood damage during the base flood and create no additional threats to public safety.
 - (k) A decision of the Commissioners Court shall be final. The Applicant may appeal the decision on a Variance request following the procedures described in Article 9 of these Regulations.

ARTICLE 8. REVOCATIONS

Section 8.01 Revocation of Permit

The Floodplain Administrator may revoke or suspend a permit or approval, issued under the provisions of these Regulations, for the following reasons:

- (a) In cases where there have been false statements or misrepresentation as to a material fact in the application or plans upon which the permit or approval was based; or
- (b) In cases where County inspection determines that Construction or Development fails to comply with the plans upon which the permit or approval was based.

ARTICLE 9. APPEALS

Section 9.01 Appeal Procedures

- (a) A decision by the Floodplain Administrator to deny the issuance of, revoke, or suspend a permit or deny a Variance request shall be final.
- (b) An Applicant may file a request for an Appeal of that decision with the Floodplain Administrator.
- (c) All requests must be in writing.
- (d) An Applicant must seek his or her remedy under this procedure before seeking his or her remedy in court. Submittal of an Application for a Development Permit is deemed to be a waiver of the right to challenge these Regulations before timely exhausting remedies herein provided.
- (e) All requests for an Appeal must be delivered to the Floodplain Administrator with a copy to the Commissioner of the Precinct in which the affected property lies no later fifteen (15) calendar days after the date when the denial, revocation, or suspension becomes final. The request shall include an address for the Applicant to receive notices related to the Applicant's Appeal by certified mail. The Applicant waives the right to an Appeal if the request is not timely received by the Floodplain Administrator.
- (f) Appeals may be requested when it is alleged by the Applicant that there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of the Applicant's permit.
- (g) The Applicant may submit new information supporting the request for an Appeal. The Floodplain Administrator shall review any new information submitted and make a final determination. The Floodplain Administrator shall send written notice of the final determination to the Applicant within fifteen (15) calendar days of receipt of the request for an Appeal or such other time as reasonably necessary.
- (h) If the Applicant believes that the decision of the Floodplain Administrator is in error; the Applicant may within ten (10) calendar days of receiving written notice of the final determination submit in writing to the Floodplain Administrator a request for review by the Commissioners Court.
- (i) Upon receiving the request, the item shall be placed for review on the next meeting of the Fort Bend County Commissioners Court. The Commissioners Court shall hear and render judgment on an Appeal.
- (j) The Appellant must be present in person (or by virtual appearance) at the appeal hearing. If the Appellant is not present at the appeal hearing, the Appeal will be automatically denied.

- (k) A decision of the Commissioners Court shall be final. On final decision of the Commissioners Court, the Applicant may appeal the decision by filling a petition in a court of competent jurisdiction in Fort Bend County.
- (l) The Floodplain Administrator shall maintain a record of all actions involving an Appeal and shall make such record available to the public.
- (m) A decision of the Floodplain Administrator is not stayed during the pendency of an Appeal.

ARTICLE 10. VIOLATIONS AND PENALTIES

Section 10.01 Notice of Violation

Upon notice from the Floodplain Administrator or designated representative that the work on any Development is being done contrary to the provisions of these Regulations, contrary to the site and/or development plans approved by the Floodplain Administrator or designated representative, or in a dangerous or unsafe manner, such work shall stop immediately and the Owner or Applicant shall be responsible for restoring the property to its pre-existing condition. Such notice shall be in writing and shall be given to the Applicant, the Owner of the property or to the Owner's agent. Where an emergency exists, no written notice shall be required to be given by the Floodplain Administrator and the County may take necessary actions to mitigate hazardous conditions and restore the property to its pre-existing conditions.

Section 10.02 Contempt of Commissioners Court

- (a) Any person, firm, corporation or agent who shall violate a provision of these Regulations, or fail to comply therewith, or with any of the requirements therefore, or who shall erect, construct, or alter any structure, or has erected, constructed, altered or repaired a building or structure in violation, shall be guilty of Contempt of Commissioners Court of Fort Bend County, Texas. Each person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any such provisions of these Regulations is committed, or continued and upon conviction of any such violation such person shall be punished within the limits as provided by state law.
- (b) Commissioners Court may punish cases of contempt by fine or imprisonment in accordance with the provisions of Section 81.023 of the Texas Local Government Code, as amended. Any person securing a permit under these Regulations does so on the representation to Commissioners Court that he or she will comply with

the terms of the permit and with these requirements and other County regulations. Commissioners Court has the power to enforce its orders by civil contempt for violations of such representations. If the Commissioners Court finds the defendant to be guilty of contempt, it will enter such orders consistent with general law as it deems appropriate to punish the person guilty of contempt, and will enter such other and further orders enforceable by civil and criminal contempt, and consistent with its authority under general laws, as Commissioners Court deems necessary to enforce and protect its jurisdiction over the matter, and to uphold the integrity of these Regulations. Procedures for contempt proceedings before Commissioners Court will be consistent with procedures in actions before other courts in this State for enforcement of court orders, and for the protection of the jurisdiction of courts by the process of contempt.

Section 10.03 Enforcement and Penalties

(a) Civil Remedies

- (1) Injunctive Relief – Pursuant to Section 16.323 of the Texas Local Government Code, if it appears that a person has violated, is violating, or is threatening to violate these Regulations, the County Attorney is authorized to file suit for injunctive relief in a court of competent jurisdiction to restrain the person from continuing the violation or threat of violation including, but not limited to, an order directing the person to remove illegal improvements and restore the property to pre-existing conditions and/or an order allowing the County to remove illegal improvements and restore the property to pre-existing conditions. The County shall be entitled to all reasonable costs related to such removal and restoration.
- (2) Civil Penalty – Pursuant to Section 16.322 and 16.323 of the Texas Local Government Code, the County Attorney may file suit in a court of competent jurisdiction to recover from a person who violates these Regulations a civil penalty in an amount not to exceed \$100.00 for each act of violation. Each violation of these Regulations and each day, or part thereof, a continuing violation occurs is considered a separate violation.
- (3) Reasonable Costs – Where allowed by law, the County Attorney may recover all reasonable expenses incurred in obtaining injunctive relief, civil penalties, or both, including reasonable attorney’s fees, court costs, mediation fees and investigatory costs

(b) Criminal Remedies

Pursuant to Section 16.3221 of the Texas Local Government Code, a person who violates these Regulations (including violations of conditions and safeguards established in connection with conditions) or fails to comply with any of its requirements commits a Class C misdemeanor offense and shall upon conviction thereof be fined not more than \$500.00 for each violation. Each violation of these Regulations and each day, or part thereof, of a continuing violation is considered a separate offense.

(c) Other Lawful Action

Nothing herein contained shall prevent the County from taking such other lawful action as is necessary to prevent or remedy any violation.

Section 10.04 Notice in Real Property Records

Upon a finding of violation by Commissioners Court or another court of law, Fort Bend County may file against any parcel of land that is in violation of these Regulations, a notice in the County's real property records, identifying any condition on the property that the County determines violates the rules adopted by these Regulations. Once the violation is resolved, any individual may request a notice from the Floodplain Administrator stating that the property is now in compliance and ask that it be filed in the Real Property Records of Fort Bend County. A fee for this action will be charged in accordance with the Fort Bend County Fee Schedule adopted by Commissioners Court. The violator shall bear this and all other costs of effecting compliance.

END

APPENDIX 1

LIST OF JURISDICTIONS UNDER INTERLOCAL AGREEMENT WITH
FORT BEND COUNTY FOR ADMINISTRATION OF FLOOD DAMAGE
PREVENTION REGULATIONS

FINAL DRAFT

JURISDICTIONS UNDER INTERLOCAL AGREEMENT WITH FORT BEND
COUNTY FOR ADMINISTRATION OF FLOOD DAMAGE PREVENTION
REGULATIONS

Jurisdiction Name	NFIP Community Number
Chelford City MUD	481568
City of Kendleton	481551
Fort Bend County MUD No. 2	481272
Fort Bend County MUD No. 23	481590
Fort Bend County MUD No. 25	481570
Fort Bend County MUD No. 34	481520
Fort Bend County MUD No. 35	481519
Fort Bend County MUD No. 41	481591
Fort Bend County MUD No. 42	481605
Mission Bend MUD No. 1	481578
Town of Thompsons	481642
Village of Fairchilds	481675
Village of Pleak	481615