

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ORANGE, TEXAS
AMENDING THE CODE OF ORDINANCES CHAPTER 3 "BUILDING AND
CONSTRUCTION" BY ADDING ARTICLE 3.1800 "FLOOD RESISTANT
CONSTRUCTION" INCLUDING NEW FLOODPLAIN MAPS; FINDING THAT THIS
ORDINANCE IS BENEFICIAL TO THE HEALTH, SAFETY AND GENERAL WELFARE
OF THE CITY; PROVIDING A SEVERABILITY CLAUSE; PROVIDING AN EFFECTIVE
DATE; REPEALING ALL ORDINANCES IN CONFLICT WITH THIS ORDINANCE;
ESTABLISHING A PENALTY FOR VIOLATION OF THIS ORDINANCE; AND MAKING
CERTAIN FINDINGS THERETO**

WHEREAS, construction of buildings and structures in the community affects the health, safety and welfare of residents; and

WHEREAS, building codes are necessary to regulate the construction of buildings and structures so that they are built in a safe manner; and

WHEREAS, the City of Orange occasionally is subject to flooding from storms; and

WHEREAS, the City Council desires to make sure that all new construction is built to reduce the damage to buildings and structures from flooding; and

WHEREAS, the City Council finds that this ordinance is beneficial to the health, safety and general welfare of the city; and

WHEREAS, the City of Orange published in the official newspaper a legal notice giving the public notification of the date, time, and place of a public hearing to receive comments and questions concerning this proposed ordinance; and

WHEREAS, the City Council conducted a public hearing on October 26, 2021 at 5:30 PM in the City Council Chambers at 220 N. Fifth Street, Orange, Texas to receive comments and questions from the general public about this proposed floodplain ordinance; now, therefore,

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ORANGE, TEXAS:

Section 1. That, the Code of Ordinances Chapter 3 "Building and Construction" is hereby amended to add Article 3.1800 "Flood Resistant Construction" as written in Exhibit A to this ordinance, including the floodplain maps.

Section 2. That, Exhibit A to this ordinance is incorporated into this ordinance as though written verbatim in the ordinance.

Section 3. That, if any section, or subsection clause, sentence or paragraph of this ordinance, including the attached exhibits, shall be found to be illegal, invalid or void by any court of competent jurisdiction, then such findings shall not affect the remaining portions of this ordinance, but the same shall be valid and in effect, it being the expressed intention of the City Council of the City of Orange, Texas, to pass each and every sentence, clause, paragraph, section or exhibit individually.

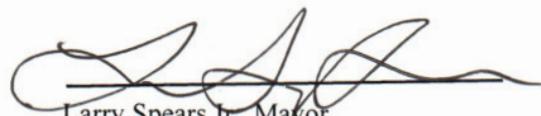
Section 4. That, this Ordinance shall become effective upon second and final reading and publication as required by the City Charter and State law.

Section 5. That, all Ordinances that are in conflict with the provisions of this Ordinance be repealed to the extent of such conflict and all other Ordinances of the City not in conflict with the provisions of this Ordinance shall remain in full force and effect.

Section 6. That, whosoever shall violate, or cause to be violated, any provision of this ordinance shall, upon conviction therefore, be punished as provided in the general penalty provision found in Section 1.106 of the City of Orange Code of Ordinances.

PASSED AND APPROVED on first reading this the 26th day of October, 2021.

PASSED, APPROVED AND ADOPTED on final reading this the 9th day of November, 2021.



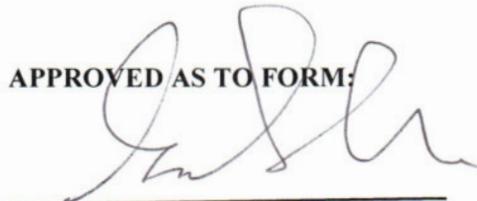
Larry Spears Jr., Mayor

ATTEST:



Patricia Anderson, City Secretary

APPROVED AS TO FORM:



City Attorney

EXHIBIT A

ARTICLE 3.1800 FLOOD RESISTANT CONSTRUCTION / FLOOD DAMAGE PREVENTION ORDINANCE

SECTION 3.1810 - STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND METHODS

SECTION 3.1811. STATUTORY AUTHORIZATION

The Legislature of the State of Texas has in the Flood Control Insurance Act, Texas Water Code, Section 16.315 delegated the responsibility of local governmental units to adopt regulations designed to minimize flood losses. Therefore, considering the above-mentioned Act and 44CFR section 60.3 (d) and (e), the City Council of Orange, Texas does ordain as follows:

SECTION 3.1812. FINDINGS OF FACT

(1) The flood hazard areas of the City of Orange, Texas 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 created by the cumulative effect of obstructions in floodplains which cause an 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, floodproofed or otherwise protected from flood damage.

SECTION 3.1813. STATEMENT OF PURPOSE

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

- (1) Protect human life and health.
- (2) Minimize expenditure of public money for costly 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 floodplains.
- (6) Help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize future flood blight areas; and
- (7) Ensure that potential buyers are notified that property is in a flood area.

SECTION 3.1814. METHODS OF REDUCING FLOOD LOSSES

In order to accomplish its purposes, this ordinance uses the following methods:

- (1) Restrict or prohibit uses that are dangerous to health, safety, or property in times of flood, or cause excessive increases in flood heights or velocities.
- (2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.
- (3) Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters.
- (4) Control filling, grading, dredging and other development which may increase flood damage.
- (5) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters, or which may increase flood hazards to other lands.

SECTION 3.1820 DEFINITIONS

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

ALLUVIAL FAN FLOODING - means flooding occurring on the surface of an alluvial fan or similar landform which originates at the apex and is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths.

APEX - means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

APPURTEnant STRUCTURE – means a structure which is on the same parcel of property as the principal structure to be insured and the use of which is incidental to the use of the principal structure

AREA OF FUTURE CONDITIONS FLOOD HAZARD – means the land area that would be inundated by the 1-percent-annual chance (100 year) flood based on future conditions hydrology.

AREA OF SHALLOW FLOODING - means a 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.

AREA OF SPECIAL FLOOD HAZARD - is the land in the floodplain within a community subject to a 1 percent or greater chance of flooding in any given year. The area may be designated as Zone A on the Flood Hazard Boundary Map (FHBM). After detailed rate making has been completed in preparation for publication of the FIRM, Zone A usually is refined into Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-30, VE or V.

BASE FLOOD - means the flood having a 1 percent chance of being equaled or exceeded in any given year.

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, A1-A30, AR, V1-V30, or VE 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.

BASEMENT - means any area of the building having its floor subgrade (below ground level) on all sides.

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 supporting foundation system.

CRITICAL FEATURE - means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.

DEVELOPMENT - means any man-made change to improved and 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 or materials.

ELEVATED BUILDING – means, for insurance purposes, a non-basement building, which has its lowest elevated floor, raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

EXISTING CONSTRUCTION - means for the purposes of determining rates, structures for which the "start of construction" commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. "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) is completed before the effective date of the floodplain management regulations adopted by a community.

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:

- (1) the overflow of inland or tidal waters.
- (2) the unusual and rapid accumulation or runoff of surface waters from any source.

FLOOD ELEVATION STUDY – means 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.

FLOOD INSURANCE RATE MAP (FIRM) - means 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 community.

FLOOD INSURANCE STUDY (FIS) – see *Flood Elevation Study*

FLOODPLAIN OR FLOOD-PRONE AREA - means any land area susceptible to being inundated by water from any source (see definition of flooding).

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 and floodplain management regulations.

FLOODPLAIN MANAGEMENT REGULATIONS - means 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.

FLOOD PROTECTION SYSTEM - means those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding to reduce

the extent of the area 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.

FLOOD PROOFING - 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.

FLOODWAY – see *Regulatory Floodway*

FUNCTIONALLY DEPENDENT USE - means a use, which cannot perform its intended purpose unless it is located or carried out near 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.

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 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 or 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.

LEVEE - means 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 to provide protection from temporary flooding.

LEVEE SYSTEM - means 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.

LOWEST FLOOR - means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking or vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor, **provided** that such enclosure is not built to render the structure in violation of the applicable non-elevation design requirement of Section 60.3 of the National Flood Insurance Program regulations.

MANUFACTURED HOME - means 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. The term "manufactured home" does not include a "recreational vehicle".

MANUFACTURED HOME PARK OR SUBDIVISION - means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

MEAN SEA LEVEL - means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

NEW CONSTRUCTION - means, for the purpose of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

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 floodplain management regulations adopted by a community.

PRIMARY FRONTAL DUNE - means a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to erosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope.

RECREATIONAL VEHICLE - means a vehicle which is (i) built on a single chassis; (ii) 400 square feet or less when measured at the largest horizontal projections; (iii) designed to be self-propelled or permanently towable by a light duty truck; and (iv) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

REGULATORY FLOODWAY - means the channel of a river or other watercourse and the adjacent land areas that must be reserved to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

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

SAND DUNES - mean naturally occurring accumulations of sand in ridges or mounds landward of the beach.

SPECIAL FLOOD HAZARD AREA - see *Area of Special Flood Hazard*

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.

STRUCTURE - means, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

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 IMPROVEMENT - means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before "start of construction" of the improvement. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. 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 the local code enforcement official and which are the minimum necessary to assure safe living 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."

VARIANCE – means a grant of relief by a community from the terms of a floodplain management regulation. (For full requirements see Section 60.6 of the National Flood Insurance Program regulations.)

VIOLATION - means 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 Section 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) 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 1929 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

SECTION 3.1830 GENERAL PROVISIONS

SECTION 3.1831. LANDS TO WHICH THIS ORDINANCE APPLIES

The ordinance shall apply to all areas of special flood hazard with the jurisdiction of the City of Orange, Texas, Community Number 480512.

SECTION 3.1832. BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD

The areas of special flood hazard identified by the Federal Emergency Management Agency in the current scientific and engineering report entitled, "The Flood Insurance Study (FIS) for Orange County Texas and Incorporated Areas" dated December 16, 2021, with accompanying Flood Insurance Rate Maps (FIRM) dated December 16, 2021, and any revisions thereto are hereby adopted by reference and declared to be a part of this ordinance.

SECTION 3.1833. ESTABLISHMENT OF DEVELOPMENT PERMIT

A Floodplain Development Permit shall be required to ensure conformance with the provisions of this ordinance.

SECTION 3.1834. COMPLIANCE

No structure or land shall hereafter be located, altered, or have its use changed without full compliance with the terms of this ordinance and other applicable regulations.

SECTION 3.1835. ABROGATION AND GREATER RESTRICTIONS

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

SECTION 3.1836. INTERPRETATION

In the interpretation and application of this ordinance, all provisions shall be; (1) considered as minimum requirements; (2) liberally construed in favor of the governing body; and (3) deemed neither to limit nor repeal any other powers granted under State statutes.

SECTION 3.1837. WARNING AND DISCLAIMER OR LIABILITY

The degree of flood protection required by this ordinance is considered 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. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the community or any official or employee thereof for any flood damages that result from reliance on this ordinance, or any administrative decision lawfully made hereunder.

SECTION 3.1840 ADMINISTRATION

SECTION 3.1841. DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR

The Building Official is hereby appointed the Floodplain Administrator to administer and implement the provisions of this ordinance and other appropriate sections of 44 CFR (Emergency Management and Assistance - National Flood Insurance Program Regulations) pertaining to floodplain management.

SECTION 3.1842. DUTIES & RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR

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

- (1) Maintain and hold open for public inspection all records pertaining to the provisions of this ordinance.
- (2) Review permit application to determine whether to ensure that the proposed building site project, including the placement of manufactured homes, will be reasonably safe from flooding.
- (3) Review, approve or deny all applications for development permits required by adoption of this ordinance.
- (4) Review permits for proposed development to assure that 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.
- (5) 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.
- (6) Notify, in riverine situations, adjacent communities and the State Coordinating Agency which is 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.
- (7) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.
- (8) When base flood elevation data has not been provided in accordance with Article 3, Section B, the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation data and floodway data available from a Federal, State, or other source, in order to administer the provisions of Article 5.
- (9) 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 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.

(10) 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, 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 the provisions required by Section 65.12.

SECTION 3.1843. PERMIT PROCEDURES

(1) Application for a Floodplain Development Permit shall be presented to the Floodplain Administrator on forms furnished by him/her and may include, but not be limited to, plans in duplicate drawn to scale showing the location, dimensions, and elevation of proposed landscape alterations, existing and proposed structures, including the placement of manufactured homes, and the location of the foregoing in relation to areas of special flood hazard. Additionally, the following information is required:

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

(b) Elevation in relation to mean sea level to which any nonresidential structure shall be floodproofed.

(c) A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure shall meet the floodproofing criteria of Article 5, Section B (2).

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

(e) Maintain a record of all such information in accordance with Article 4, Section (B)(1).

(2) Approval or denial of a Floodplain Development Permit by the Flooplain Administrator shall be based on all the provisions of this ordinance and the following relevant factors:

(a) The danger to life and property due to flooding 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 use with existing and anticipated development.

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

(f) The costs 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.

(g) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, 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.

SECTION 3.1844. VARIANCE PROCEDURES

(1) The Appeal Board, as established by the community, shall hear, and render judgment on requests for variances from the requirements of this ordinance.

(2) The Appeal Board shall hear and render judgment on an appeal only when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this ordinance.

(3) Any person or persons aggrieved by the decision of the Appeal Board may appeal such decision in the courts of competent jurisdiction.

(4) The Floodplain Administrator shall maintain a record of all actions involving an appeal and shall report variances to the Federal Emergency Management Agency upon request.

(5) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this ordinance.

(6) Variances may be issued for new construction and substantial improvements to be erected on a lot of 1/2 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 C (2) of this Article have been fully considered. As the lot size increases beyond the 1/2 half acre, the technical justification required for issuing the variance increases.

(7) Upon consideration of the factors noted above and the intent of this ordinance, the Appeal Board may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this ordinance (Article 1, Section C).

(8) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(9) Variances may be issued for the repair or rehabilitation of 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.

(10) Prerequisites for granting variances:

(a) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(b) 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 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 ordinances.

(c) Any application to which 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 be commensurate with the increased risk resulting from the reduced lowest floor elevation.

(11) Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that (i) the criteria outlined in Article 4, Section D (1)-(9) are met, and (ii) 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.

SECTION 3.1850 PROVISIONS FOR FLOOD HAZARD REDUCTION

SECTION 3.1851. GENERAL STANDARDS

In all areas of special flood hazards the following provisions are required for all new construction and substantial improvements:

- (1) All new construction or substantial improvements shall 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.
- (2) All new construction or 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 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 systems into flood waters; and,
- (7) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

SECTION 3.1852. SPECIFIC STANDARDS

In all areas of special flood hazards where base flood elevation data has been provided as set forth in (i) Article 3, Section B, (ii) Article 4, Section B (8), or (iii) Article 5, Section C (3), the following provisions are required:

- (1) **Residential Construction** - new construction and substantial improvement of any residential structure shall have the lowest floor (including basement), elevated to or above the base flood elevation. A registered professional engineer, architect, or land surveyor shall submit a certification to the Floodplain Administrator that the standard of this subsection as proposed in Article 4, Section C (1) a., is satisfied.
- (2) **Nonresidential Construction** - new construction and substantial improvements of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement) elevated to or above the base flood level or together with attendant utility and sanitary facilities, be designed so that below the base flood level 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 the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice as 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 floodproofed shall be maintained by the Floodplain Administrator.
- (3) **Enclosures** - new construction and substantial improvements, 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 which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

(a) A minimum of two 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.

(b) The bottom of all openings shall be no higher than 1 foot above grade.

(c) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(4) Manufactured Homes -

(a) Require that all manufactured homes to be placed within Zone A on a community's FHB or FIRM shall be installed using methods and practices which minimize flood damage. For the purposes 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 applicable State and local anchoring requirements for resisting wind forces.

(b) Require that manufactured homes that are placed or substantially improved within Zones A1-30, 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 on which a manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

(c) Require that manufactured homes be placed or substantially improved on sites in an existing manufactured home park or subdivision with Zones A1-30, AH and AE on the community's FIRM that are not subject to the provisions of paragraph (4) of this section be elevated so that either:

(i) the lowest floor of the manufactured home is at or 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 to resist flotation, collapse, and lateral movement.

(5) **Recreational Vehicles** - Require that recreational vehicles placed on sites within Zones A1-30, AH, and AE on the community's FIRM either (i) be on the site for fewer than 180 consecutive days, or (ii) be fully licensed and ready for highway use, or (iii) meet the permit requirements of Article 4, Section C (1), and the elevation and anchoring requirements for "manufactured homes" in paragraph (4) 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.

SECTION 3.1853. STANDARDS FOR SUBDIVISION PROPOSALS

(1) All subdivision proposals including the placement of manufactured home parks and subdivisions shall be consistent with Article 1, Sections B, C, and D of this ordinance.

(2) All proposals for the development of subdivisions including the placement of manufactured home parks and subdivisions shall meet Floodplain Development Permit requirements of Article 3, Section C; Article 4, Section C; and the provisions of Article 5 of this ordinance.

(3) Base flood elevation data shall be generated for subdivision proposals and other proposed development including the placement of manufactured home parks and subdivisions which is greater than 50 lots or 5 acres, whichever is lesser, if not otherwise provided pursuant to Article 3, Section B or Article 4, Section B (8) of this ordinance.

(4) All subdivision proposals including the placement of manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.

(5) All subdivision proposals including the placement of 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.

SECTION 3.1854. STANDARDS FOR AREAS OF SHALLOW FLOODING (AO/AH ZONES)

Located within the areas of special flood hazard established in Article 3, Section B, are areas designated as shallow flooding. These areas have special flood hazards associated with flood depths 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; therefore, the following provisions apply:

(1) All new construction and substantial improvements of **residential** structures have the lowest floor (including basement) elevated to or above the base flood elevation or the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least 2 feet if no depth number is specified).

(2) All new construction and substantial improvements of **non-residential** structures.

(a) have the lowest floor (including basement) elevated to or above the base flood elevation or the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified), or

(b) together with attendant utility and sanitary facilities be designed so that below the base specified flood depth in an AO Zone, or below the Base Flood Elevation in an AH Zone, level 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 Article 4, Section C are satisfied.

(4) Require within Zones AH or AO adequate drainage paths around structures on slopes, to guide flood waters around and away from proposed structures.

SECTION 3.1855. FLOODWAYS

Floodways - located within areas of special flood hazard established in Article 3, Section B, are areas designated as floodways. Since the floodway is an extremely hazardous area 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, substantial improvements, and other development within the adopted regulatory floodway 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) If Article 5, Section E (1) above is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article 5.

(3) Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program Regulations, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community **first** completes all the provisions required by Section 65.12.

SECTION 3.1856. COASTAL HIGH HAZARD AREAS

Located within the areas of special flood hazard established in Article 3, Section B, are areas designated as Coastal High Hazard Areas (Zones V1-30, VE, and/or V). These areas have special flood hazards associated with high velocity waters from tidal surges and hurricane wave wash; therefore, in addition to meeting all provisions outlined in this ordinance, the following provisions must also apply:

- (1) Obtain the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures, and whether or not such structures contain a basement. The Floodplain Administrator shall maintain a record of all such information.
- (2) All new construction shall be located landward of the reach of mean high tide.
- (3) All new construction and substantial improvements shall be elevated on pilings and columns so that:
 - (i) the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level.
 - (ii) the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of (3)(i) and (ii) of this Section.
- (4) Provide that all new construction and substantial improvements have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood latticework, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system.

For the purpose of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

- (i) breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and
- (ii) the elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and nonstructural). Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards. Such enclosed space shall be useable solely for parking of vehicles, building access, or storage. Such space shall not be used for human habitation.

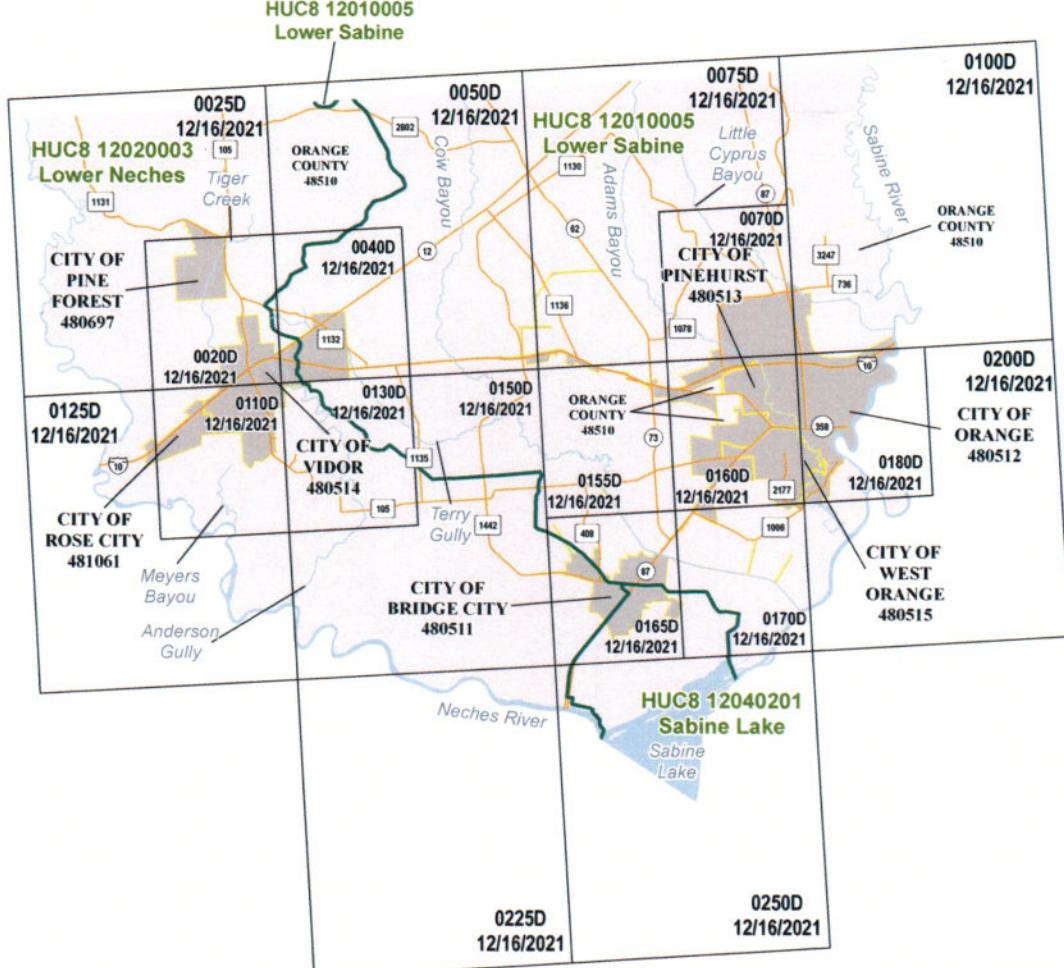
- (5) Prohibit the use of fill for structural support of buildings.
- (6) Prohibit man-made alteration of sand dunes and mangrove stands that increase potential flood damage.
- (7) **Manufactured Homes -**

Require that manufactured homes placed or substantially improved within Zone V1-30, V, and VE 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 on which a manufactured home has incurred "substantial damage"

as the result of a flood, meet the standards of paragraphs (1) through (6) of this section **and** that manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within Zones V1-30, V, and VE on the community's FIRM meet the requirements of Article 5, Section B(4) of this ordinance.

(8) Recreational Vehicles -

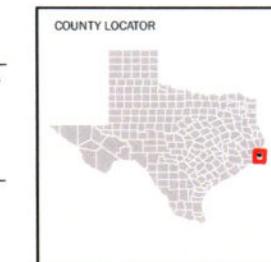
Require that recreational vehicles placed on sites within Zones V1-30, V, and VE on the community's FIRM either (i) be on the site for fewer than 180 consecutive days, or (ii) be fully licensed and ready for highway use, or (iii) meet the requirements in Article 3, Section C of this ordinance and paragraphs (1) through (6) 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.



1 inch = 18,333 feet
0 15,000 30,000 60,000 feet

Map Projection: State Plane Lambert Conformal Conic, Texas Central Zone FIPS 4203 Feet; North American Datum 1983; Western Hemisphere; Vertical Datum: NAVD 88

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP INDEX

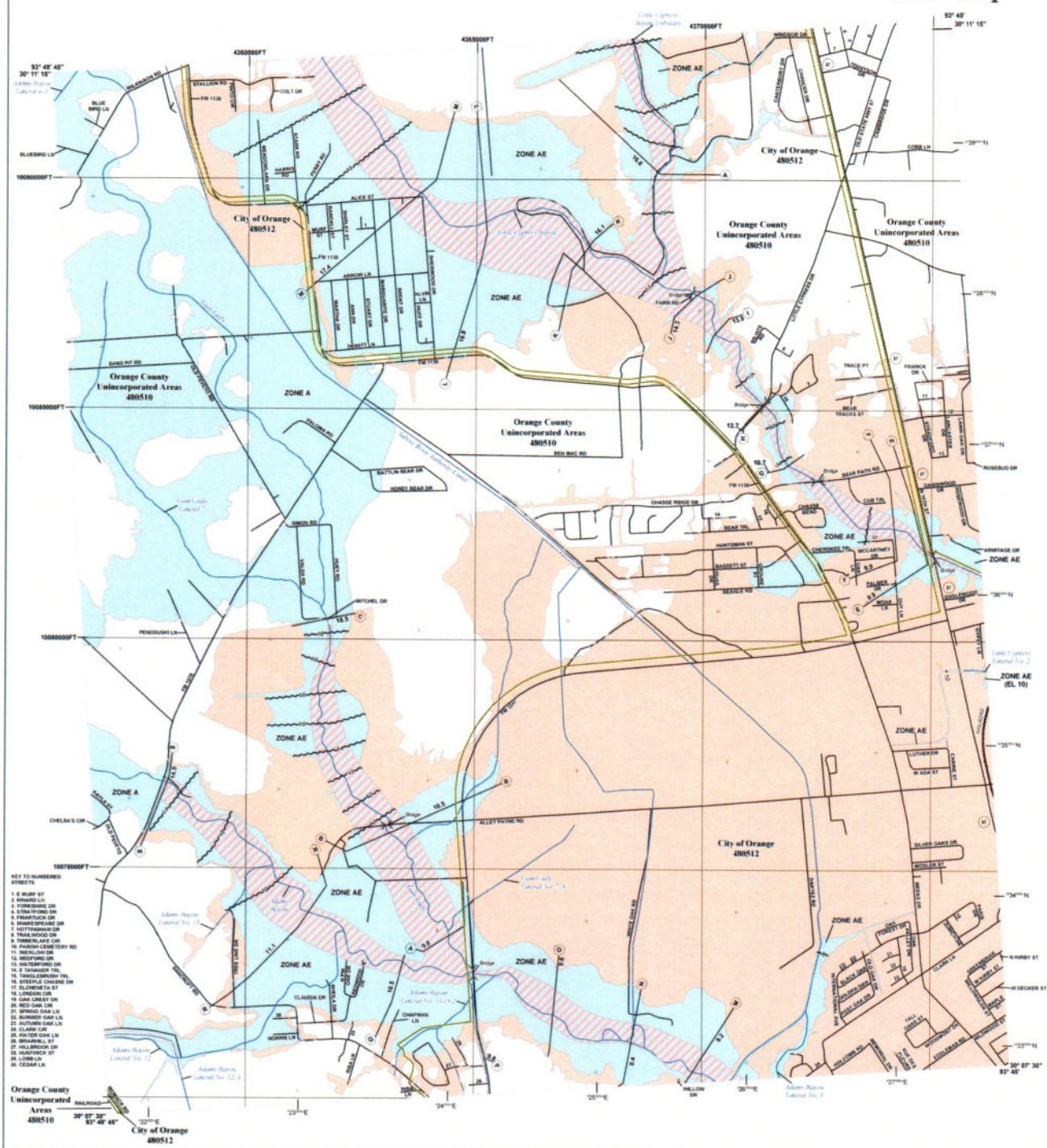
ORANGE COUNTY, TEXAS AND INCORPORATED AREAS

PANELS PRINTED:
0020, 0025, 0040, 0050, 0070, 0075, 0100, 0110, 0125, 0130, 0150, 0155, 0160, 0165, 0170, 0180, 0200, 0225, 0250



MAP NUMBER
48361CIND0A

MAP EFFECTIVE
DECEMBER 16, 2021



FLOOD HAZARD INFORMATION

SEE REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT.
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE AVAILABLE IN DIGITAL FORMAT AT
[HTTPS://MSC.FEMA.GOV](https://msc.fema.gov)

Without Base Flood Elevation (BFE)

With BFE or Depth Zone AE, AH, VE, AE

Regulatory Floodway

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
Future Conditions 1% Annual

Other Flood Hazard Zone X

Area with Reduced Flood Risk due to Levee
See Notes: Zone X

Area with Flood Risk due to Levee Zone D

OTHER AREAS OF FLOOD HAZARD

OTHER AREAS Area of Minimal Flood Hazard Zone X

Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

17.2 Cross Sections with 1% Annual Chance

17.5 Water Surface Elevation

Coastal Transect

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

Base Flood Elevation Line (BFE)

Limit of Study

OTHER FEATURES Jurisdiction Boundary

NOTES TO USERS

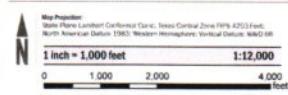
For information and guidance about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including federal insurance, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program, contact the FEMA Flood Map Service Center website at <https://msc.fema.gov>. Available products include the FIRM, the FIRM panel, the FIRM panel index map, the FIRM panel index map with boundaries, and digital versions of this map. Many of these products can be ordered or obtained directly from the website.

For community and individual map date refer to the Flood Insurance Study Report for the community.

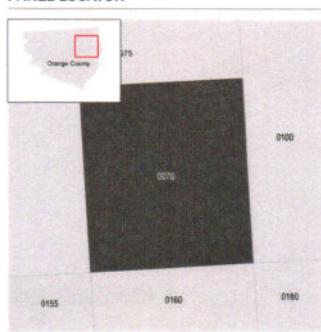
To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-633-6500.

Base map information shown on this FIRM was derived from U.S. Census Bureau TIGER files, date 2017.

SCALE



PANEL LOCATOR



FEMA
National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

ORANGE COUNTY, TEXAS
and Unincorporated Areas

PANEL 70 of 250



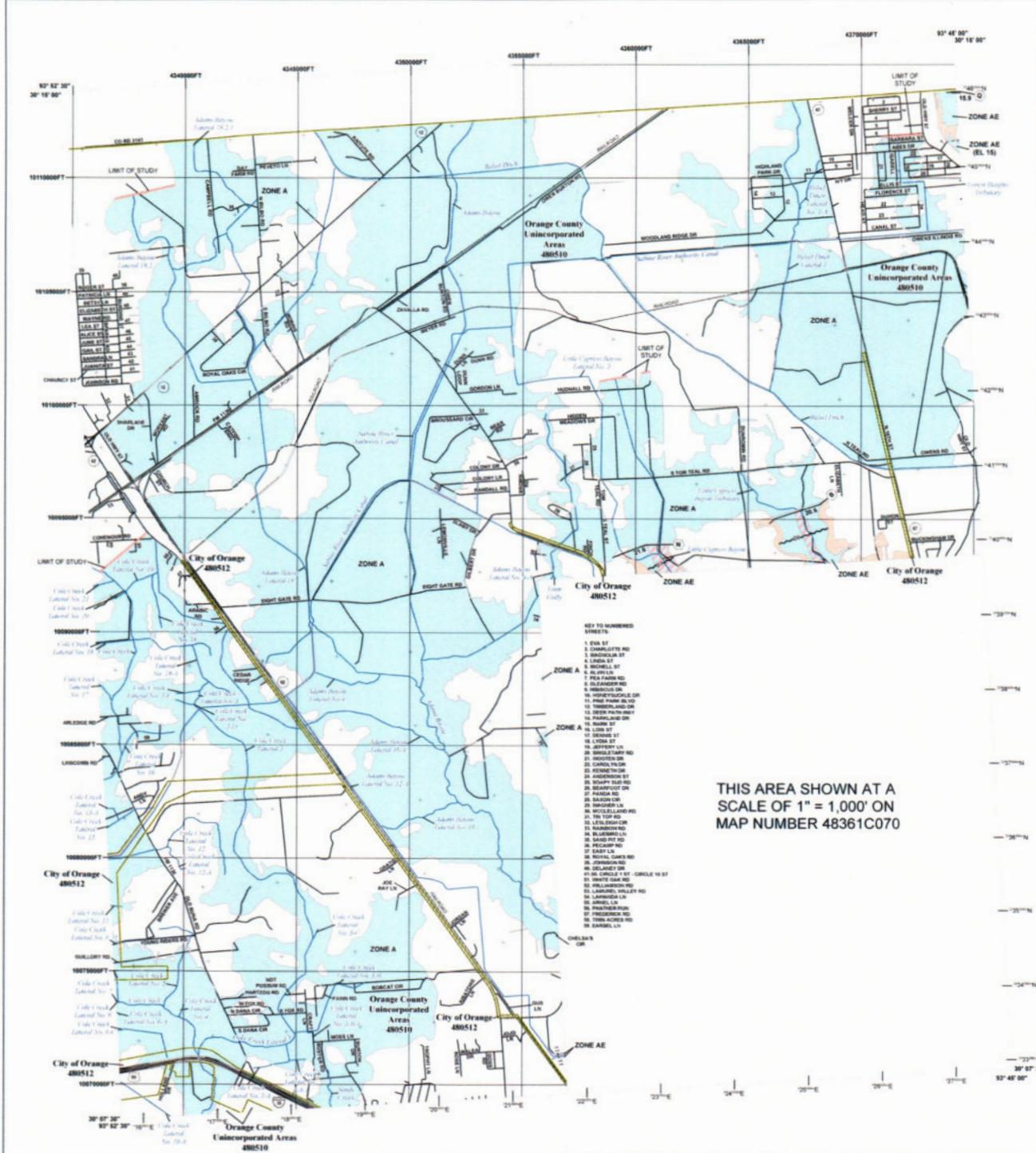
FEMA

Panel Contents
COMMUNITY NUMBER 480512 0070 0070 D
CITY OF ORANGE 480512 0070 0070 D

VERSION NUMBER 2.2.1

MAP NUMBER 48361C00700

EFFECTIVE DATE DECEMBER 16, 2021



FLOOD HAZARD INFORMATION

SEE FIRM REPORT FOR DETAILED LEGEND AND PANEL LAYOUT.
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
[HTTPS://MSC.FEMA.GOV](https://msc.fema.gov)

SPECIAL FLOOD HAZARD AREA

Without Base Flood Elevation (BFE)
With BFE or Depth Zone AE, A9, AH, VC, AV

Regulatory Floodway

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. See X Future Conditions 1% Annual Change Flood Hazard Zone

Area with Reduced Flood Risk due to Levee

See Notes. See X

OTHER AREAS OF FLOOD HAZARD

Area with Flood Risk due to Levee. See D

NO SCREEN Area of Minimal Flood Hazard. Zone X

Area of Undetermined Flood Hazard. Zone D

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

18.2 Cross Sections with 1% Annual Chance Water Surface Elevation

Coastal Transect

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

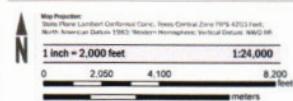
NOTES TO USERS

For information and questions about the Flood Insurance Rate Map (FIRM), available products associated with the FIRM, including historic versions, the current date for each FIRM panel, how to order products, or the National Flood Insurance Program, contact your insurance agent or call the National Flood Insurance Program at 1-877-338-2627, or visit the FEMA Flood Map Service Center website at <https://msc.fema.gov>. For information on the National Flood Insurance Program, contact your insurance agent or call the National Flood Insurance Program at 1-800-633-6500.

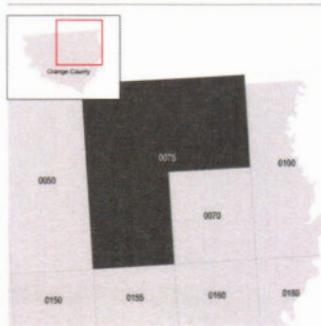
To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-633-6500.

Base map information shown on the FIRM was derived from U.S. Census Bureau TIGER files, dated 2017.

SCALE



PANEL LOCATOR



FEMA
National Flood Insurance Program
Panel Locator

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

ORANGE COUNTY, TEXAS
JULY 2021 EDITION

PANEL 75 OF 250

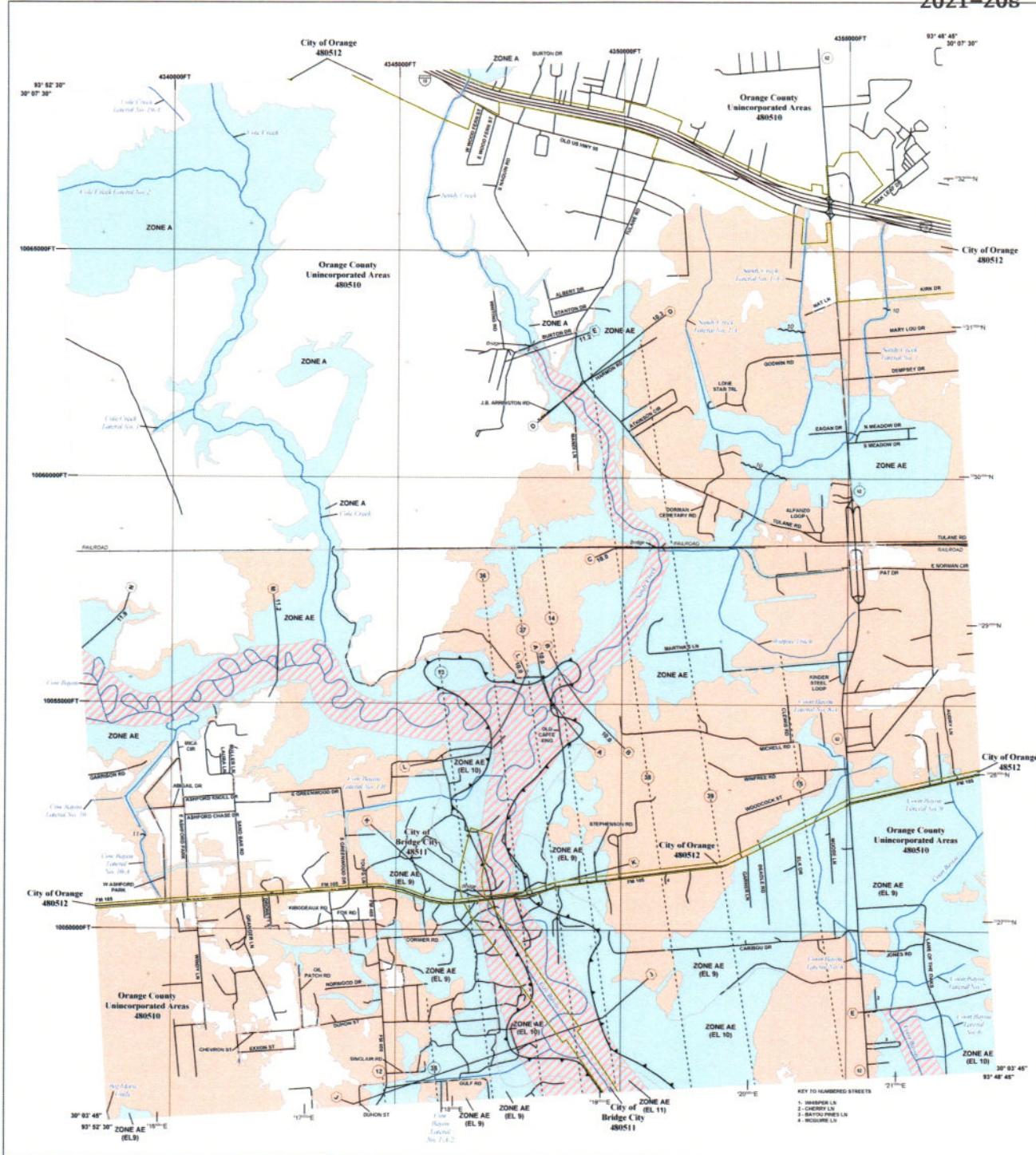


Panel Locating
COMMUNITY
CITY OF ORANGE
NUMBER 480512
480561
PANEL 0075
0075
SUFFIX D
D

VERSION NUMBER
2.2.21

MAP NUMBER
48361C0075D

EFFECTIVE DATE
DECEMBER 16, 2021



FLOOD HAZARD INFORMATION

SEE FIGURE FOR DETAILED LEGEND AND FIRM PANEL LAYOUT.
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
[HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)

Without Base Flood Elevation (BFE)

With BFE or Depth Zone AE, AO, AH, VE, AE

SPECIAL FLOOD HAZARD AREAS

Regulatory Floodway

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X

Future Conditions 1% Annual Chance Flood Hazard Zone X

Area with Reduced Flood Risk due to Levee

See Notes Zone X

Area with Flood Risk due to Levee Zone D

OTHER AREAS OF FLOOD HAZARD

NO SCREEN Area of Minimal Flood Hazard Zone X

Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

E 18.2 Cross Sections with 1% Annual Chance Water Surface Elevation

E 17.5 Coastal Transect

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

M 12.2 Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

NOTES TO USERS

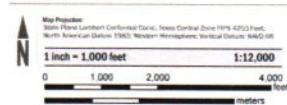
For information and questions about the Flood Insurance Rate Map (FIRM), insurance products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program, contact your insurance agent or call the FEMA Flood Map Service Center at 1-877-536-3267, or visit the FEMA Flood Map Service Center website at <https://msc.fema.gov>. Available products include the FIRM, Flood Insurance Study (FIS), Flood Insurance Rate Map (FIRM), Flood Insurance Rate Map (FIRM) with Flood Insurance Study (FIS), and digital versions of the map. Many of these products can be ordered or obtained directly from the website.

For community and countywide map details refer to the Flood Insurance Study Report for the community.

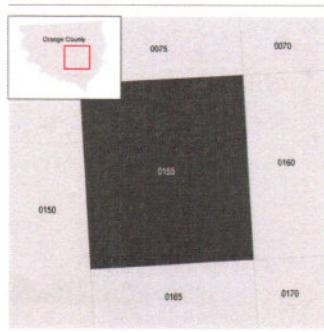
To determine if flood insurance is available in this community, contact your insurance agent or visit the National Flood Insurance Program at 1-800-633-6222.

Base map information shown on this FIRM was derived from U.S. Census Bureau TIGER files, revised 2011.

SCALE



PANEL LOCATOR

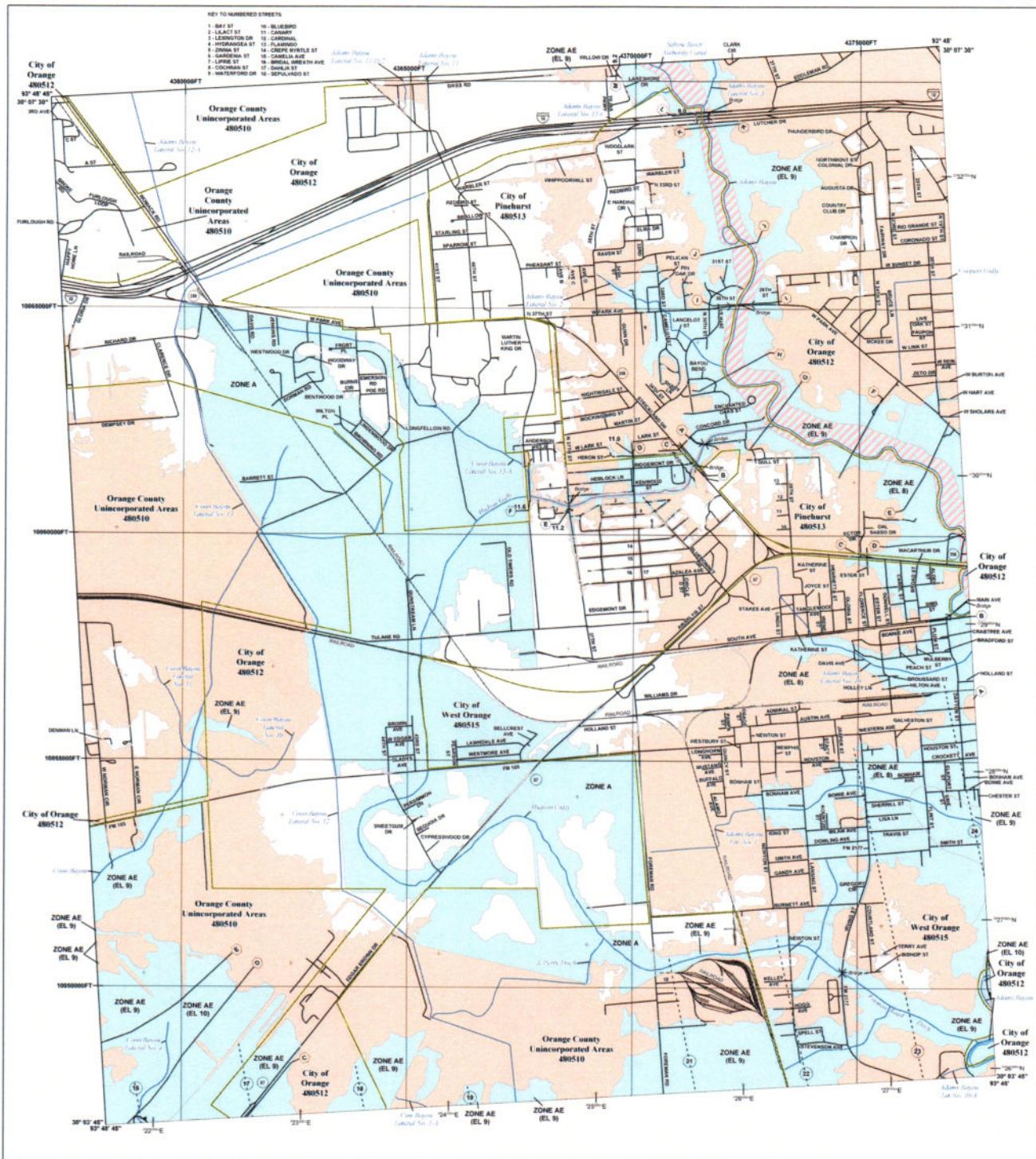
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAPORANGE COUNTY, TEXAS
and Incorporated Areas

Panel 155 of 250



National Flood Insurance Program

Community
CITY OF BRIDGE CITY 480511 0319 0
CITY OF ORANGE 480512 0320 0
ORANGE COUNTY 480230 0315 0VERSION NUMBER
2.2.2.1MAP NUMBER
4836101550EFFECTIVE DATE
DECEMBER 16, 2021



FLOOD HAZARD INFORMATION

SEE REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
[HTTPS://FEMA.GOV](https://www.fema.gov)

Without Base Flood Elevation (BFE)

With BFE or Depth Zone AE, A1, AH, VE, All

Regulatory Floodway

0.2% Annual Chance Flood Hazard. Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone A

Future Conditions 1% Annual

Chase Flood Hazard Zone A

Area with Reduced Flood Risk due to Levee

See Notes. Zone A

Area with Flood Risk due to Levee Zone D

NO SCREEN Area of Minimal Flood Hazard Zone X

Area of Undetermined Flood Hazard Zone D

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

18.2 Cross Sections with 1% Annual Chance

Water Surface Elevation

8 Coastal Transect

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

11.1 Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

NOTES TO USERS

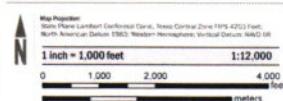
For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with the FIRM, including federal insurance, the current map date for each FIRM panel, the panel products, or the National Flood Insurance Program, contact your insurance agent or call the National Flood Insurance Program Customer Service Center at 1-877-336-2627, or visit the FEMA Flood Map Service Center website at <https://floodmaps.fema.gov>. Available products include flood insurance, flood preparedness, and flood risk management products, including the National Flood Insurance Program, and other digital versions of this map. Many of these products can be ordered or obtained directly from the vendor.

For community and coordinate map data refer to the Flood Insurance Study Report for the community.

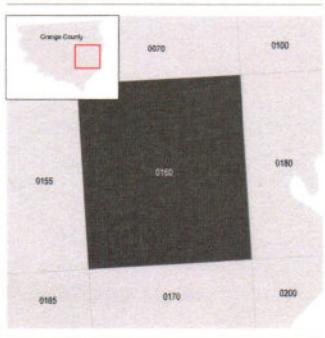
To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6262.

Base map information shown on this FIRM was derived from U.S. Census Bureau, TIGER files, dated 2007.

SCALE



PANEL LOCATOR



FEMA
National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

ORANGE COUNTY, TEXAS
and surrounding areas

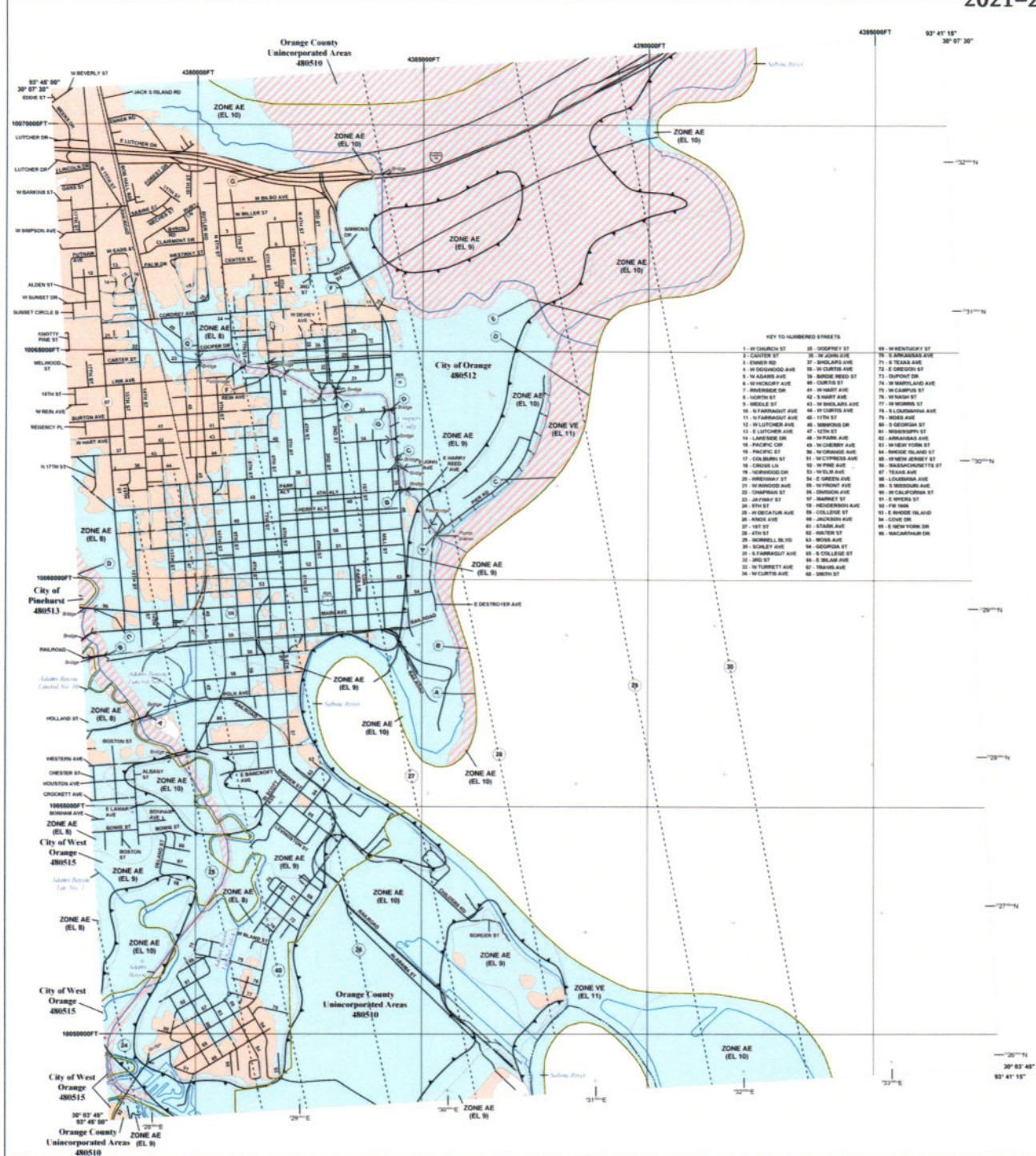
PANEL 160 or 250



VERSION NUMBER 2.22.1
MAP NUMBER 48361C01600
EFFECTIVE DATE DECEMBER 16, 2021

COMMUNITY NUMBER PANEL SUFFIX

CITY OF WEST ORANGE 480512 0160 0
CITY OF PINEHURST 480513 0160 0
CITY OF ORANGE 480512 0160 0
EDWARD COUNTY 480501 0160 0



FLOOD HAZARD INFORMATION

SEE PAGE 2 FOR DETAILED LEGEND AND INDEX MAP FOR THIS PANEL.

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTPS://MSC.FEMA.GOV](https://msc.fema.gov)

SPECIAL FLOOD HAZARD AREAS

Without Base Flood Elevation (BFE)
With BFE or Depth (Zone AE, AD, AH, VE, AR)
Riparian Floodway

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone 3

Future Conditions 1% Annual

Chance Flood Hazard Zone R

Area with Reduced Flood Risk due to Levee

See Notes.

Area with Flood Risk due to Levee Zone L

Area of Minimal Flood Hazard Zone K

Area of Undetermined Flood Hazard Zone U

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

18.2 Cross Sections with 1% Annual Chance Water Surface Elevation

17.8 Coastal Transect

Profile Baseline

Hydrographic Feature

37.1 Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including federal insurance, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program, contact the FEMA Flood Map Service Center website at <https://msc.fema.gov>. Available products include the Flood Insurance Rate Map, the Flood Insurance Study, the Flood Hazard Boundary Map, and the digital version of this map. Many of these products can be ordered or obtained directly from the website.

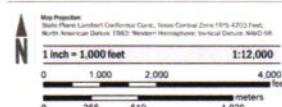
For community and county map data, refer to the Flood Insurance Study Report for the community or county.

1. Information if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-633-6262.

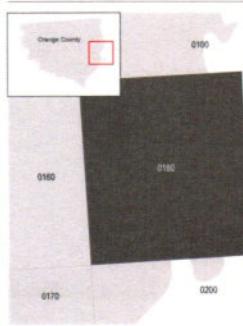
Base map information shown on the FIRM was derived from U.S. Census Bureau TIGER files, dated 2017.

Base map information shown on the FIRM was derived from U.S. Census Bureau TIGER files, dated 2017.

SCALE



PANEL LOCATOR



National Flood Insurance Program
Flood Insurance Rate Map

ORANGE COUNTY, TEXAS

and Pinellas, Florida

PANEL 180 or 250



FEMA

Community Number Panel Suffix

CITY OF WEST ORANGE 480515 0160 D

CITY OF PINELANDS 480513 0160 D

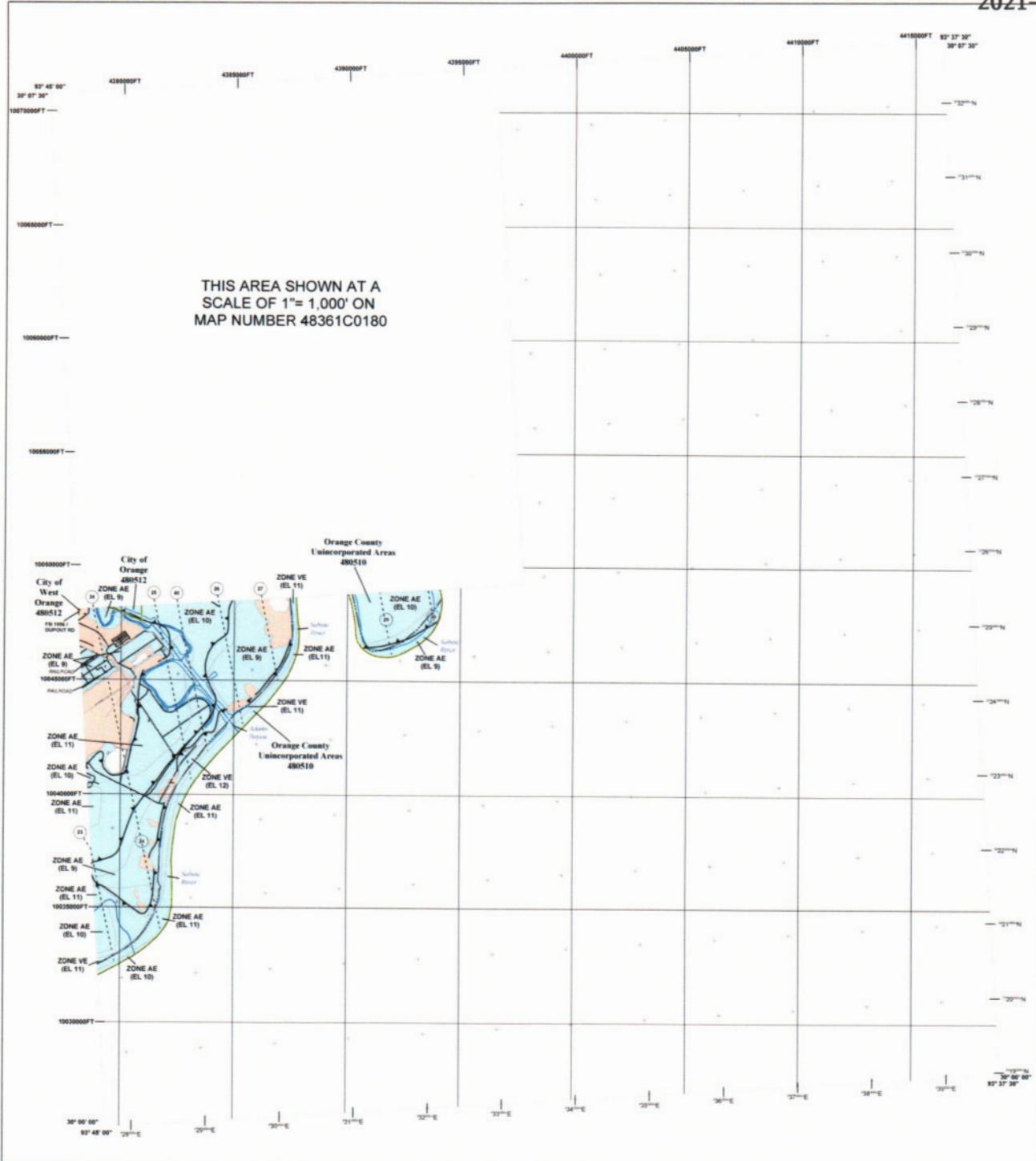
CITY OF WEST ORANGE 480515 0160 D

ORANGE COUNTY 480550 0160 D

VERSION NUMBER
2.2.1

MAP NUMBER
48361C01B0D

EFFECTIVE DATE
DECEMBER 16, 2021



FLOOD HAZARD INFORMATION

SEE FIRM REPORT FOR DETAILED LEGEND AND INDEX MAP FOR PANEL LAYOUT.
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)

SPECIAL FLOOD HAZARD AREAS

- Without Basic Flood Elevation (BFE)
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- Area of Minimal Flood Hazard Zone X
- Area of Undetermined Flood Hazard Zone D
- Area of Reduced Flood Risk due to Levee See Notes: Zone X
- Area of Flood Risk due to Levee Zone D

OTHER AREAS

GENERAL STRUCTURES

OTHER FEATURES

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), audience products associated with the FIRM, including historic versions, the current map date for each FIRM panel, hours under prints, or the National Flood Insurance Program, contact the National Flood Insurance Program at 1-877-336-2227, or visit the FEMA Flood Map Service Center website at <https://msc.fema.gov>. For information on the National Flood Insurance Program, including the National Flood Insurance Study Report, and/or other products, contact the National Flood Insurance Program at 1-800-336-2607.

For comments and complaints map dates refer to the Flood Insurance Study Report for the jurisdiction.

To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-336-2607.

Base map information shown on this FIRM was derived from U.S. Census Bureau TIGER® Rec. Date 2011.

Limit of Moderate Wave Action: Zone AE has been divided by a line of Moderate Wave Action (LWMA).

The LWMA represents the approximate vertical line of the 1% chance breaking wave. The effects of wave action on buildings and structures in the Zone AE area beyond the LWMA are expected to be less than those in the Zone VE. Zone VE is not identified.

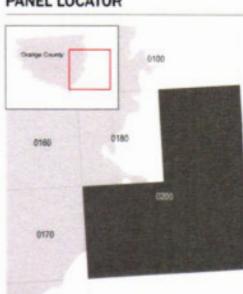
For areas beyond the LWMA, wave action effects will be similar to, but less severe than, those in the Zone VE.

Limit of Moderate Wave Action (LWMA)

SCALE

Map Projection: StatePlane Lambert Conformal Conic, Texas Central Zone FIPS 4273 Feet, North American Datum 1983, Western Hemisphere; Vertical Datum: NAD 88
1 inch = 2,000 feet
1:24,000
0 2,050 4,100 8,200
0 500 1,000 2,000
meters

PANEL LOCATOR



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

ORANGE COUNTY, TEXAS
and Incorporated Areas

PANEL 200 of 250



FEMA

Panel 200 of 250

Community: CITY OF WEST ORANGE, CITY OF ORANGE, ORANGE COUNTY

Number: 480512, 480512, 480510

Panel: 0000, 0000, 0000

Suffix: 0, 0, 0

FEMA
National Flood Insurance Program

VERSION NUMBER
2.2.1

MAP NUMBER
48361C0200D

EFFECTIVE DATE
DECEMBER 16, 2021