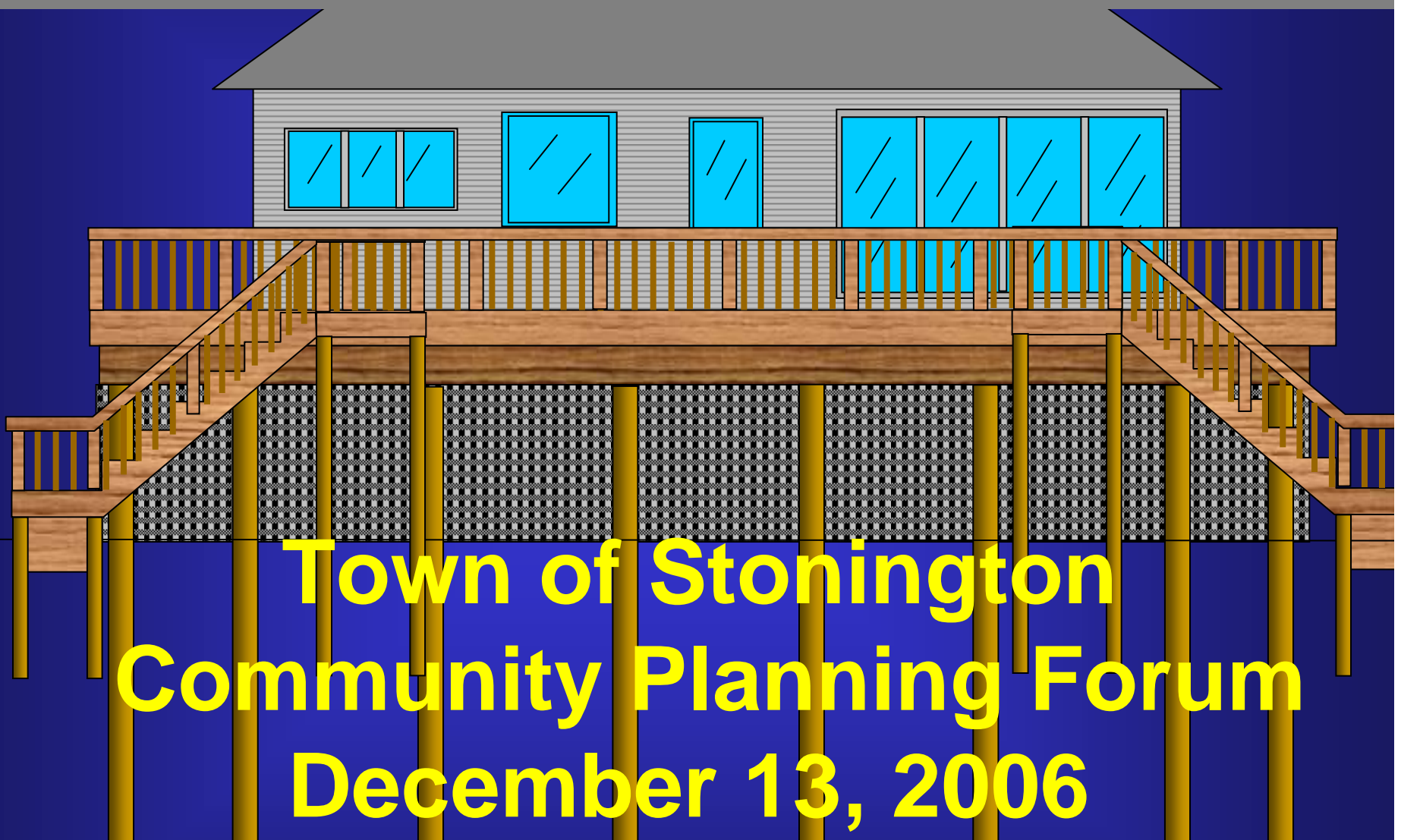




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IN THE 100 YEAR FLOODPLAIN



Town of Stonington
Community Planning Forum
December 13, 2006



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IN THE 100 YEAR FLOODPLAIN

The National Flood Insurance Program (NFIP)

DIANE IFKOVIC

NFIP COORDINATOR

CTDEP, INLAND WATER RESOURCES DIVISION

FLOOD MANAGEMENT SECTION

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Flood Insurance Facts

- Most homeowners policies do not cover flooding.
- You can buy flood insurance no matter what your flood risk is and if property was previously flooded.
- Flood insurance is available for renters and condos.
- Flood insurance is available through private insurance companies and agents.
- Federal disaster assistance is only available if the President declares a disaster.





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IN THE 100 YEAR FLOODPLAIN

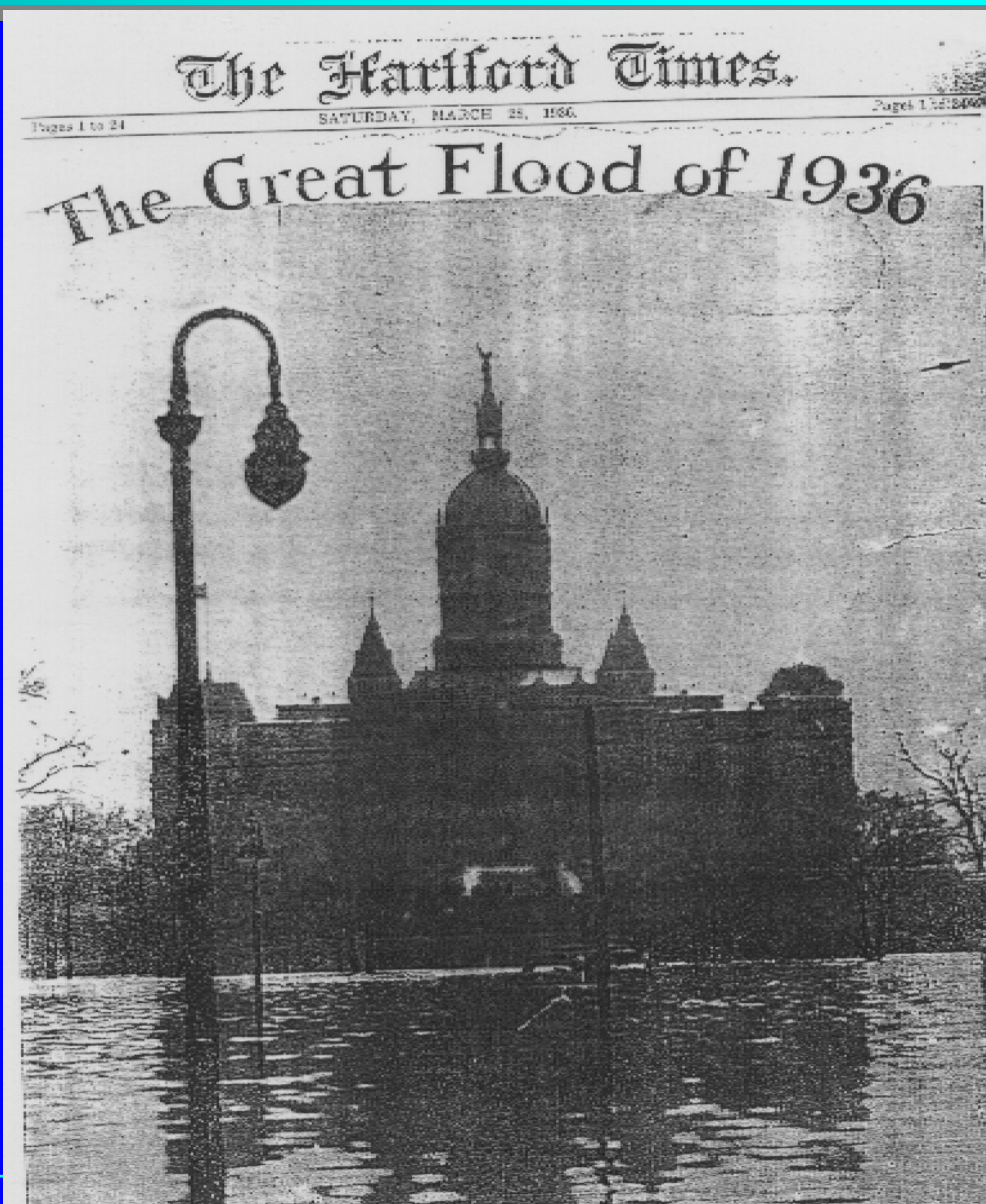
Headlines from the Past

THE GREAT CONNECTICUT RIVER FLOOD OF 1936

To this day the great flood of 1936 remains as the highest flood of record for the Connecticut River. Caused by a rapid snowmelt combined with heavy rains, the great flood of March 1936 caused widespread damage throughout the Connecticut River valley.

This headline from The Hartford Times shows the State Capitol surrounded by flood waters on March 25, 1936.

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Background of the NFIP

- **National Flood Insurance Act of 1968**
 - Established the NFIP
 - Required mapping of flood-prone areas
 - Made flood insurance available in communities that meet floodplain management requirements
- **Flood Disaster Protection Act of 1973**
 - Mandated purchase of flood insurance for insurable structures within flood-prone areas as condition of loan from federally-insured banks and lenders





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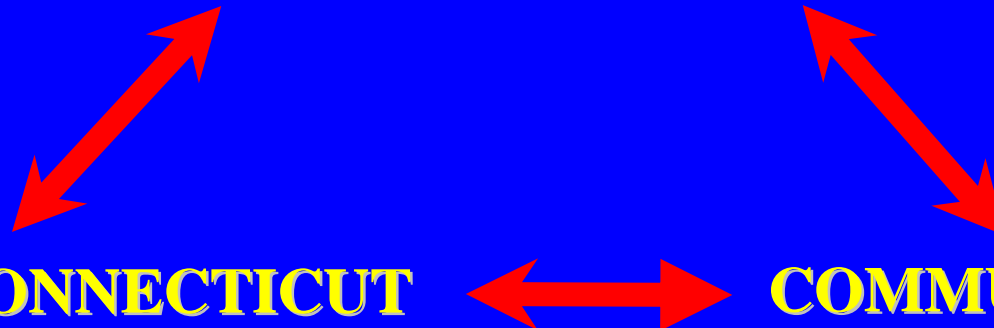
Organizational Structure Roles & Responsibilities

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

Sets Policy & Establishes Regulatory Standards for Floodplain Management and Insurance Aspects of NFIP, Develops the Flood Maps and Studies, Provides Mitigation Grants, Disaster Response & Recovery, Training for State & Local Officials, and Assesses Community Compliance with the NFIP

STATE OF CONNECTICUT
DEPT. OF ENVIRONMENTAL
PROTECTION

COMMUNITY



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IN THE 100 YEAR FLOODPLAIN

Roles & Responsibilities

- **State of Connecticut (CTDEP)**
 - Provide technical and specialized assistance to local governments, design professionals and the public
 - Review floodplain ordinances or regulations adopted by the communities for minimum NFIP compliance
 - Provide financial assistance to communities through hazard mitigation grants
 - Conduct training workshops for professionals and local officials on NFIP issues
 - Conduct community visits on a periodic basis to determine NFIP compliance





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IN THE 100 YEAR FLOODPLAIN

Roles & Responsibilities

- **Local Community**
 - Adopt & enforce a floodplain management ordinance or regulation that meets or exceeds the minimum NFIP standards
 - Assign an individual the responsibility for the floodplain management program
 - Inspect all development to assure compliance with the local floodplain ordinance.





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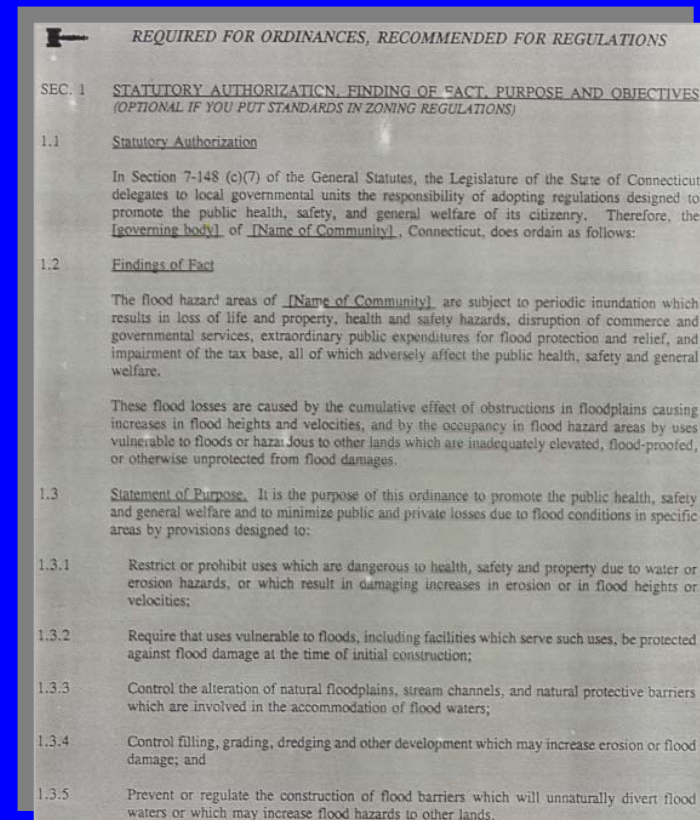
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IN THE 100 YEAR FLOODPLAIN

Regulations & Ordinances

To participate in the NFIP, a community must include and enforce 100-year floodplain management requirements in local ordinances and regulations in order to participate in the NFIP.

Every Connecticut community participates in the NFIP.



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IN THE 100 YEAR FLOODPLAIN

Permits

Local municipality enforces the federal NFIP regulations through the local zoning and building permit process.

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FLOODPLAIN DEVELOPMENT PERMIT

Permit No. _____

Date: _____

Location of Property: _____

Applicant: _____

Type of Development: _____ Excavation: _____ Fill: _____ Grading: _____ Buildings or other structures: _____ Other alterations (specify): _____

Size of Development: _____

Location in Floodplain: a. _____ Inside regulatory floodway limits.
b. _____ Outside floodway limits.
c. _____ Inside floodplain--no regulatory floodway established.

Development Standards Data (Ref: Ordinance # _____):

1. If a. or c. above is checked, attach engineering certification and supporting data as required.
2. Required lowest floor elevation _____ MSL (NGVD).
3. Actual (as built) lowest floor elevation _____ MSL (NGVD). Attach surveyed certification as required.
4. Flood-proofing information (if applicable):
 - a. Required flood-proofed elevation _____ MSL (NGVD).
 - b. Actual (as built) flood-proofed elevation _____ MSL (NGVD). Attach engineering certification and supporting data as required.

Comments: _____

Applicant acknowledgement: I understand that the issuance of this permit is contingent upon the above information being correct and that the plans and supporting data have been or shall be provided as required. I agree to comply with all applicable provisions of Ordinance # _____ and all other laws or ordinances affecting the proposed development.

Applicant (Signature) _____ Date _____

Date of Issuance _____ By _____

Department Use only: Inspection # _____ by _____
Inspection # _____ by _____
Inspection # _____ by _____
Inspection # _____ by _____

Approved for Compliance: _____ Signature _____ Title _____ Date _____

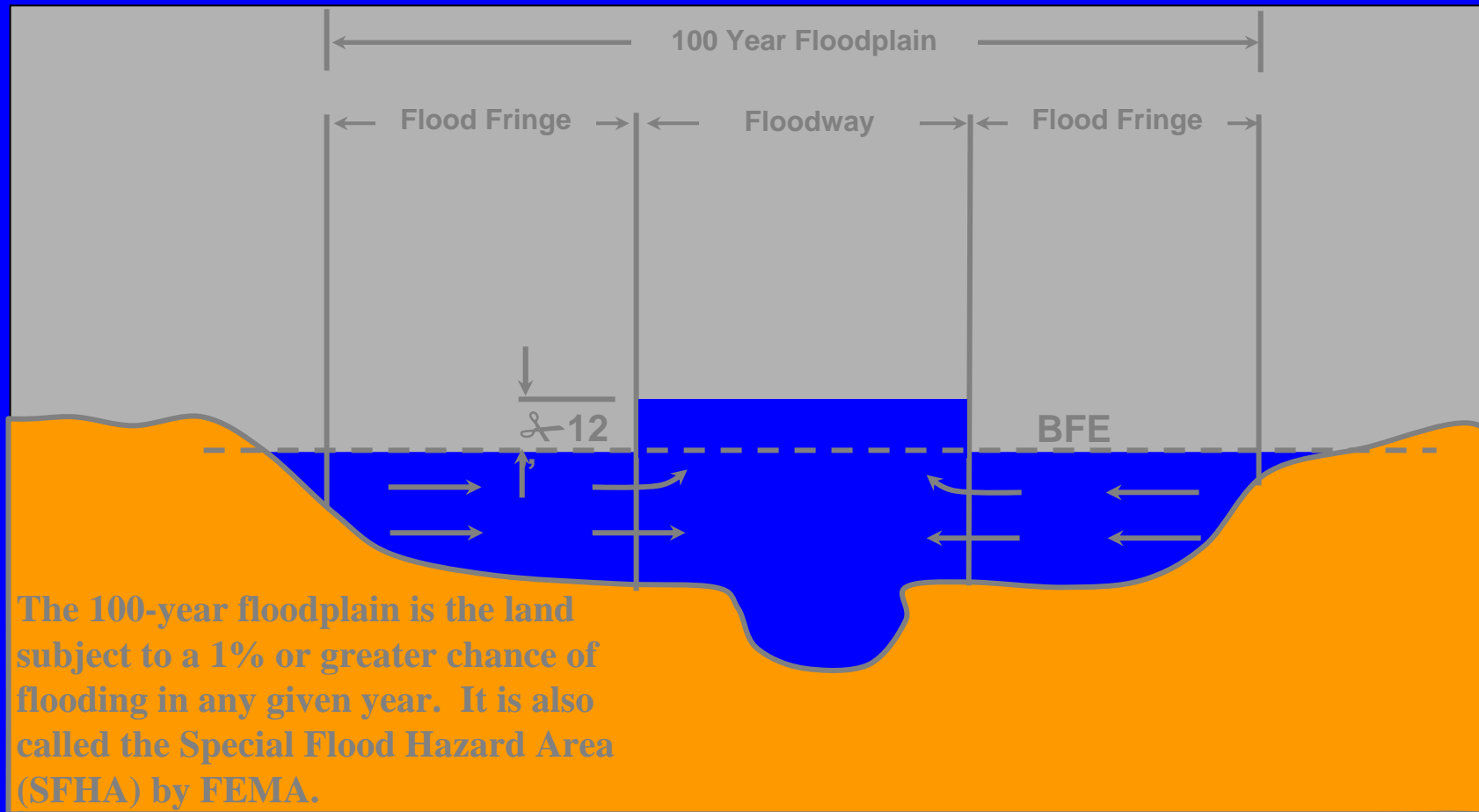


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IN THE 100 YEAR FLOODPLAIN

What is the 100-Year Floodplain?



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IN THE 100 YEAR FLOODPLAIN

NFIP Definitions

- **FIRM** - Flood Insurance Rate Map
- **A Zone** - Special flood hazard area subject to 1% or greater chance of flooding in any given year. Also called the 100-year floodplain. (A, AE, A1-30, AH, AO)
- **V Zone** - Coastal high hazard area subject to flooding & wave action (velocity). (V, VE, V1-30)
- **Base Flood Elevation (BFE)** - flood elevation having a 1% chance of being equaled or exceeded in any given year. Also called the 100-year flood.





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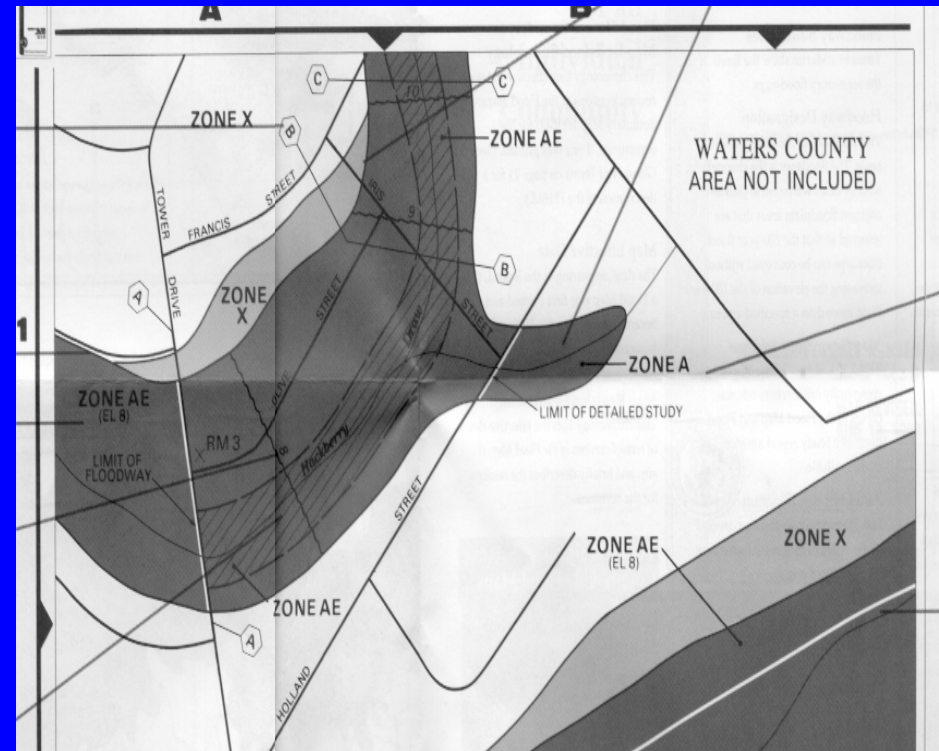
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IN THE 100 YEAR FLOODPLAIN

Flood Insurance Rate Maps (FIRM)

FIRM - 100-year floodplains are shown in dark gray and are designated A, AE, A1-30, AO, AH, V, VE, V1-30.

Floodway - The floodway is the channel of the river and any adjacent land needed to discharge the base flood (100-year flood event). It is a gray hatched area on the FIRM. No development or encroachments are allowed in the regulatory floodway.



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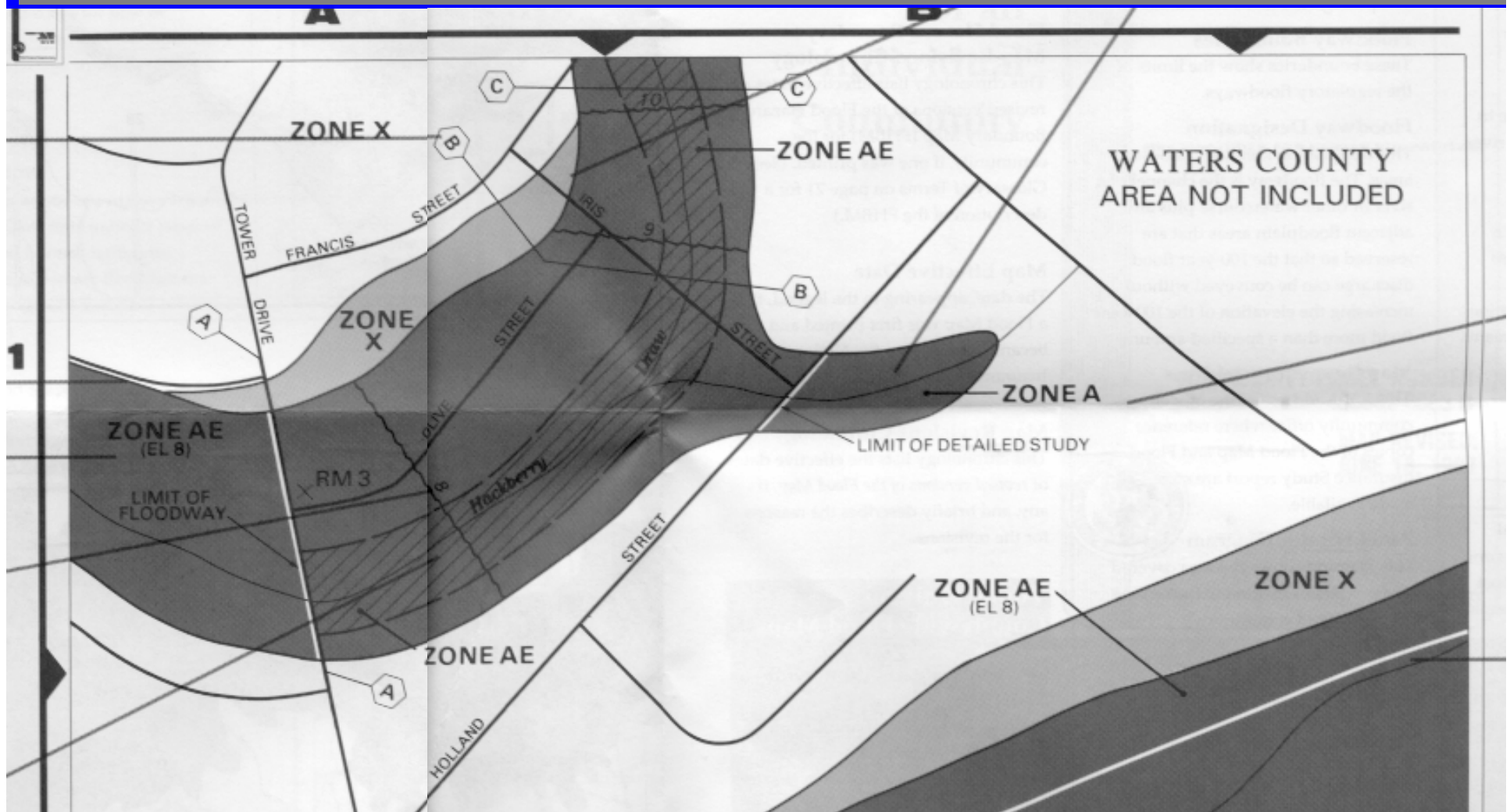




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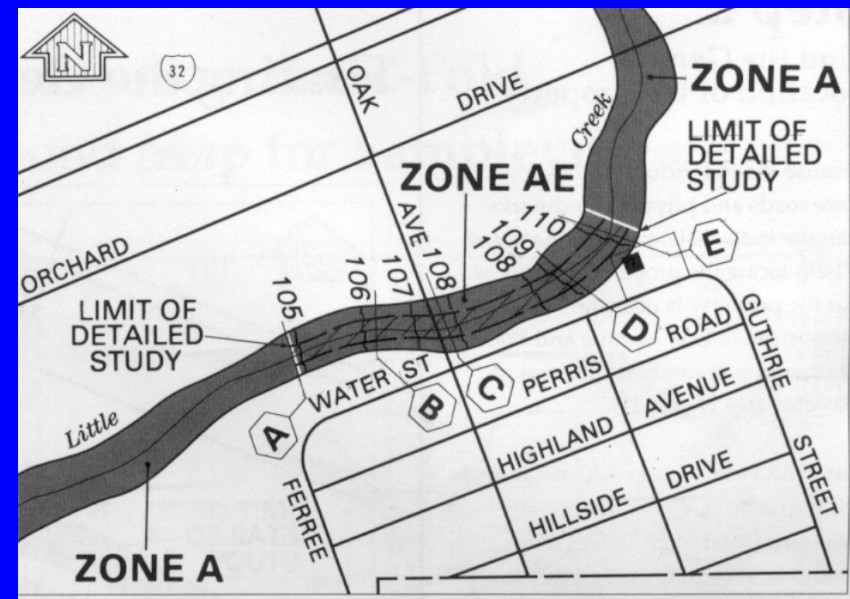
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FIRM - A Zones

AE zones have stated base flood elevations (BFE).

Un-numbered A Zones are established by approximate methods - usually based on 10' contour interval topographic mapping with little or no field surveying. Unnumbered A-Zones were intended for areas where little development pressure was anticipated.



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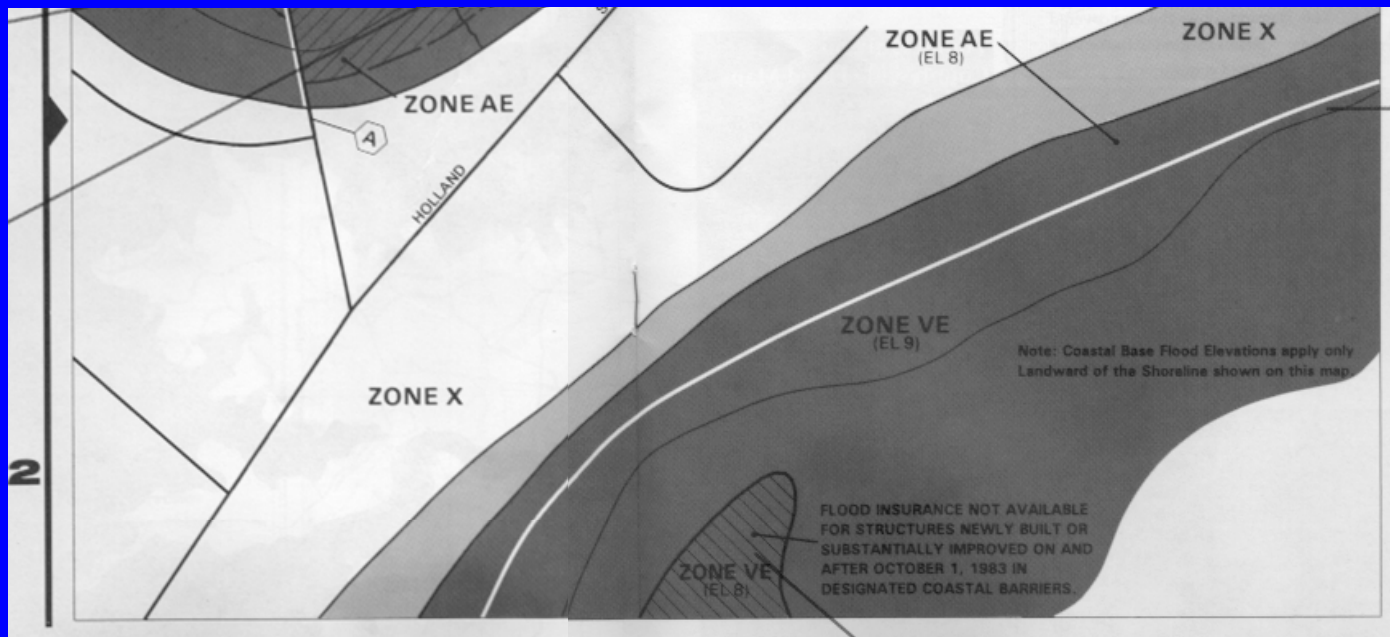
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FIRM - V Zones

V Zones (velocity zone) are located directly along the coast and are subject to both flooding and wave action.



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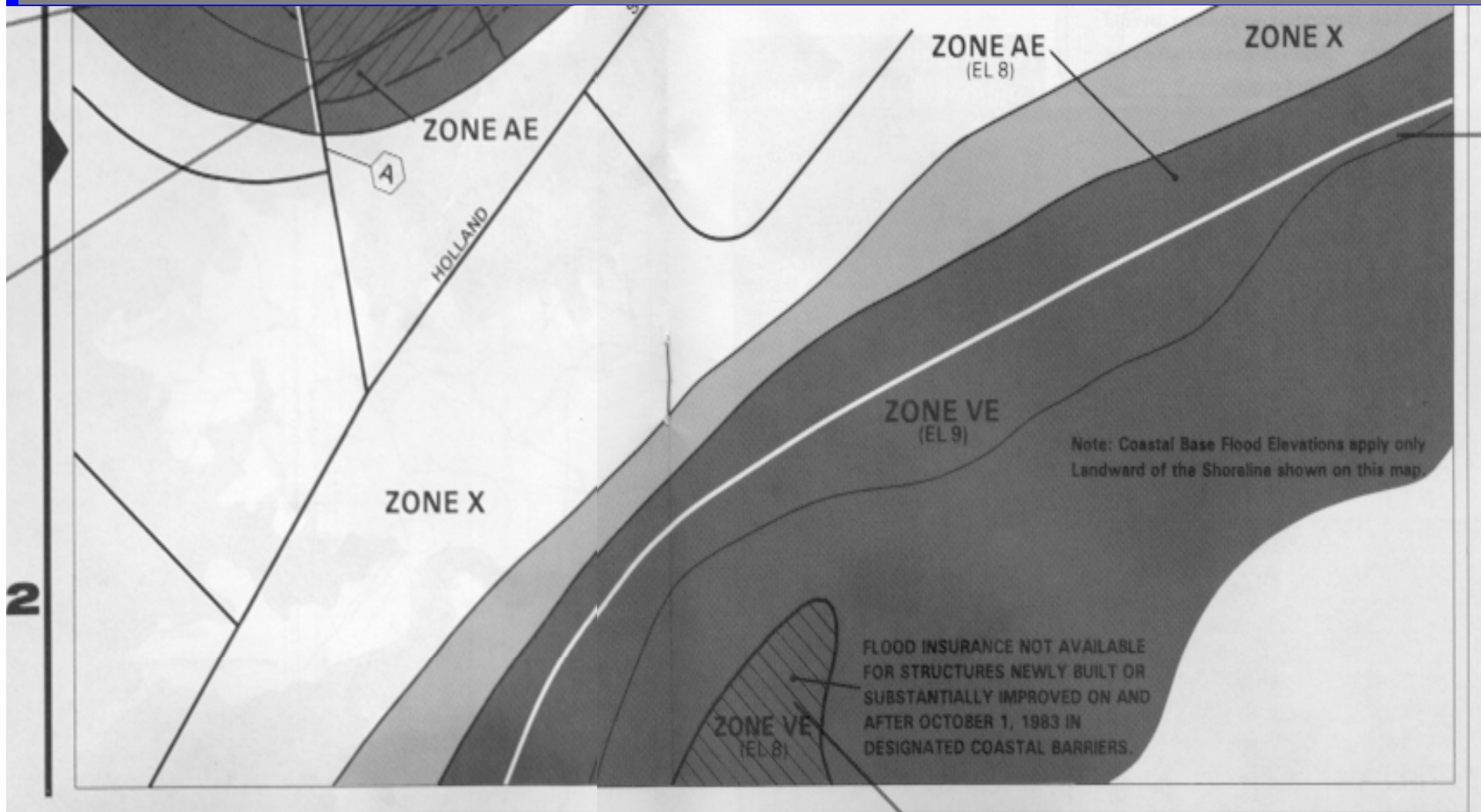




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A-ZONE Residential Requirements

- ✧ New and substantially improved residential structures must have the lowest floor, including the basement, elevated at or above the BFE.
- ✧ In A zones, the lowest floor is measured at the top of the floor.
- ✧ Fully enclosed areas below the lowest floor must have the required permanent openings (flood vents) to allow for the automatic entry and exit of flood water. These areas must be unfinished and useable solely for parking, building access and limited storage. If the area meets these requirements, this floor is not considered the building's lowest floor.
- ✧ Un-numbered A Zones must meet the same elevation requirements and the property owner must establish BFE.

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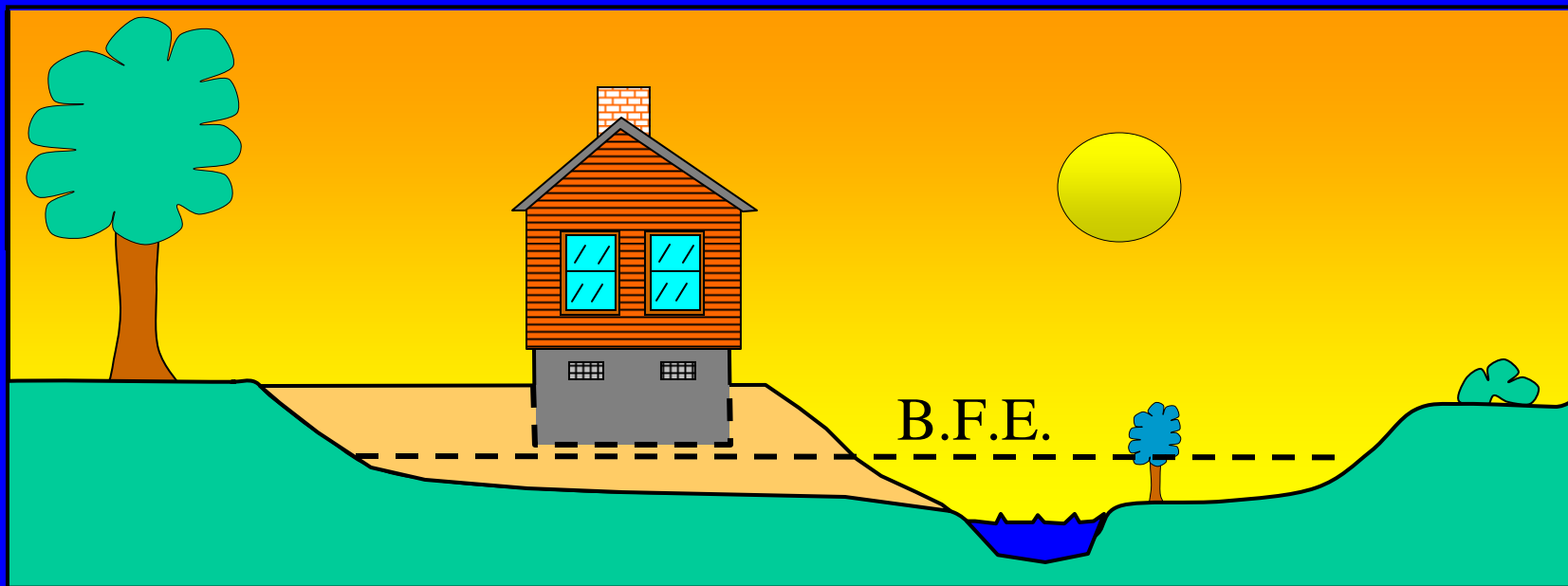
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Elevated Residential Structures in A-Zones

Lowest floor must be elevated at or above BFE



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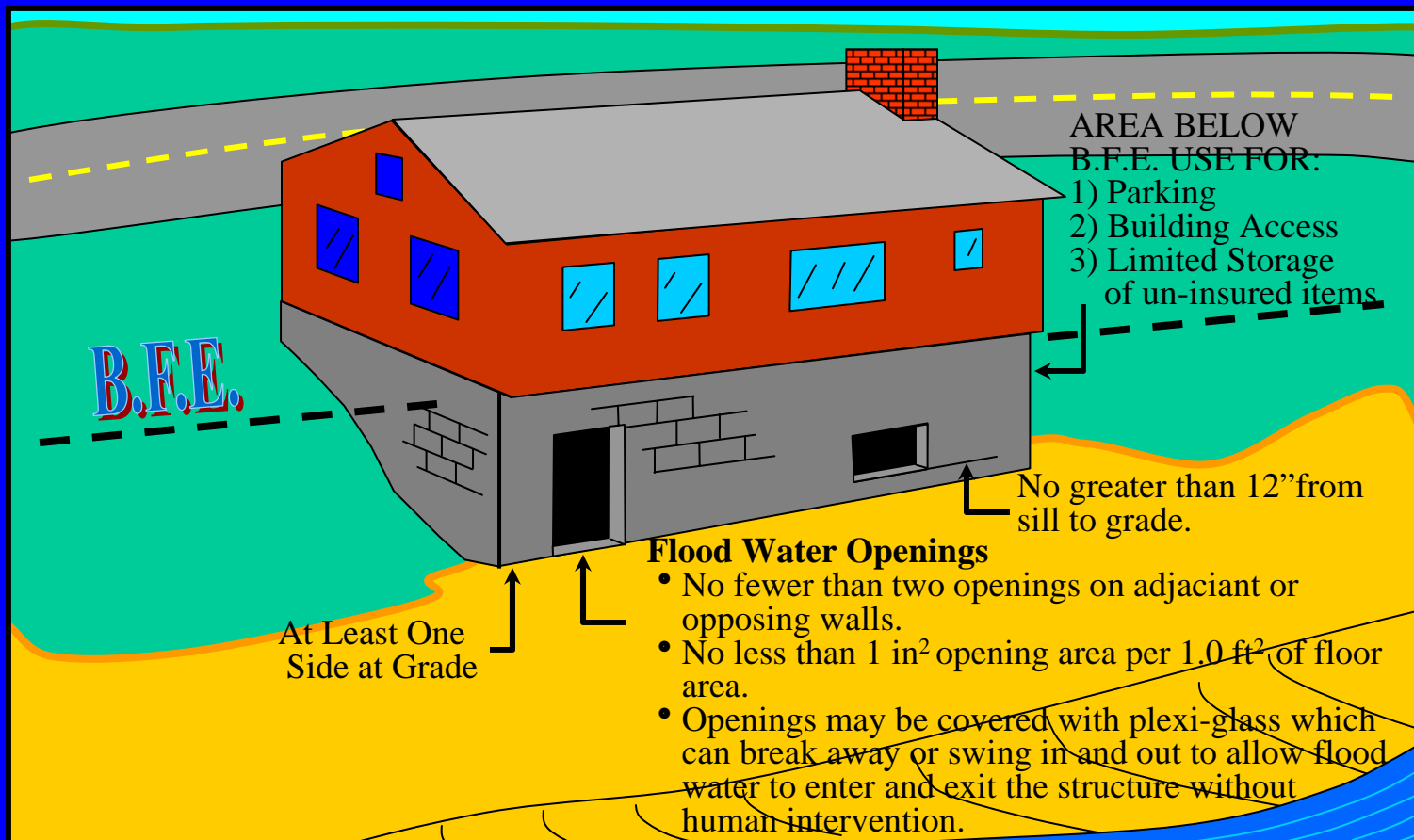


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A-Zone Fully Enclosed Areas Below the BFE



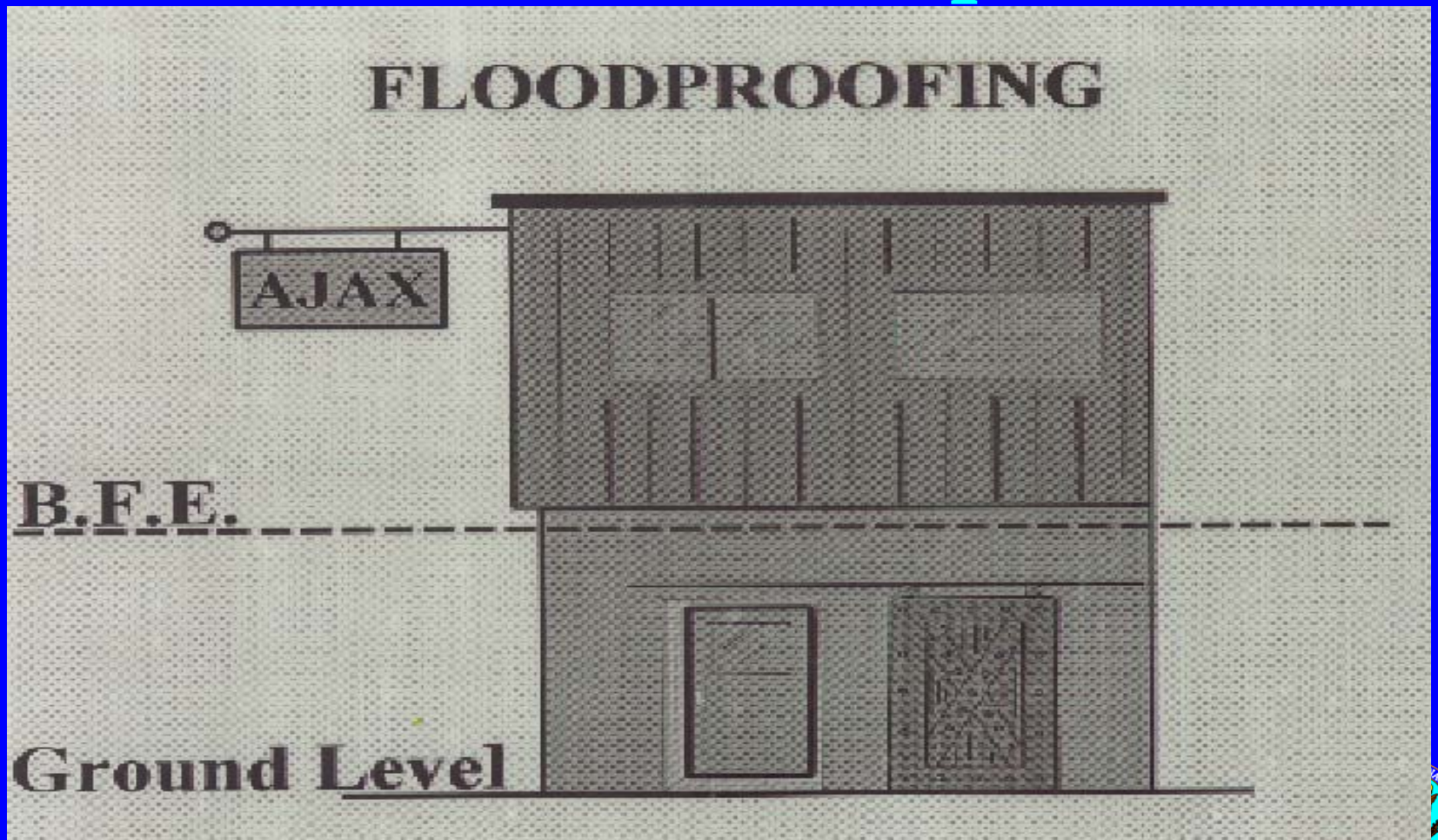


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A-ZONE Commercial Requirements



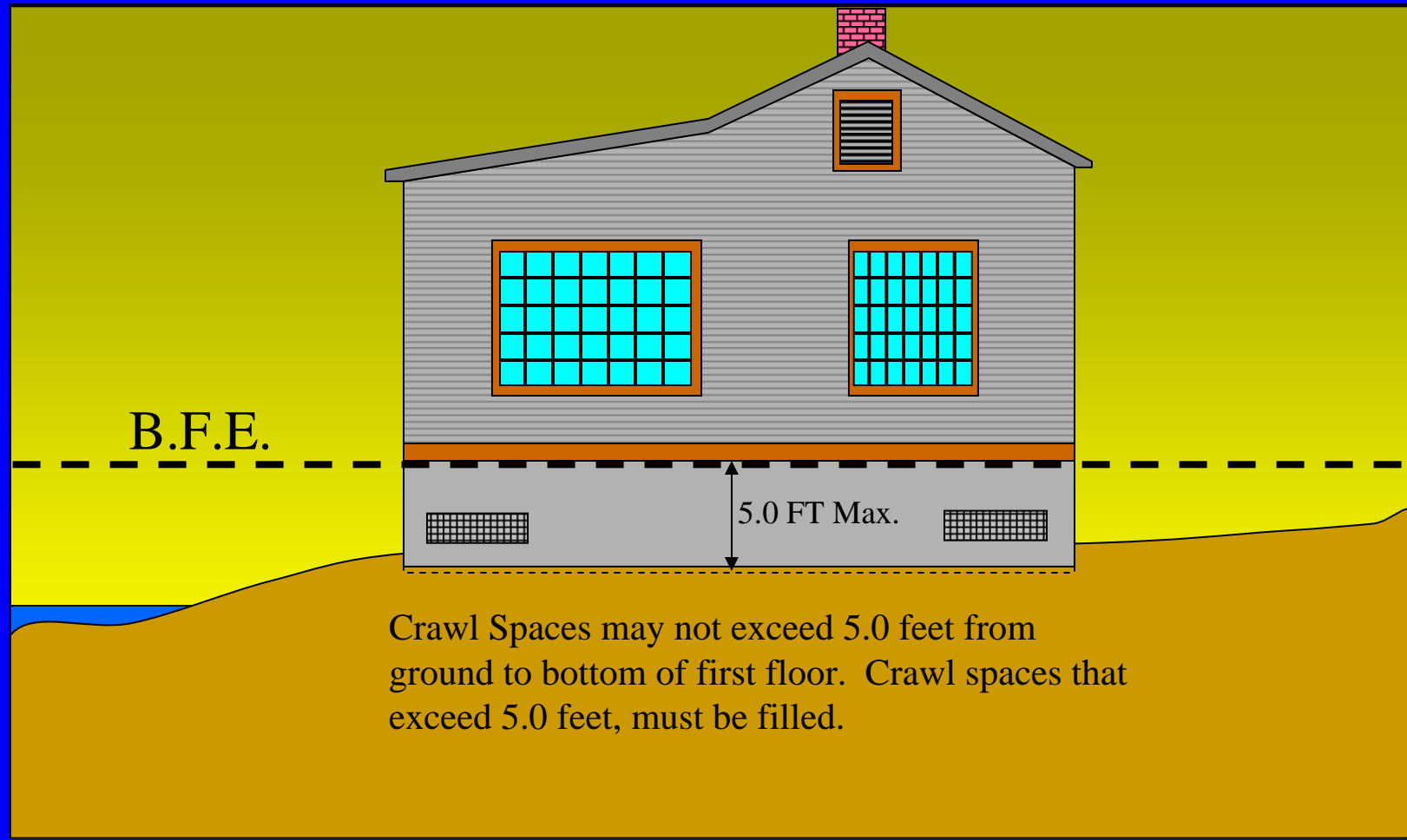


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Crawl Space Policy



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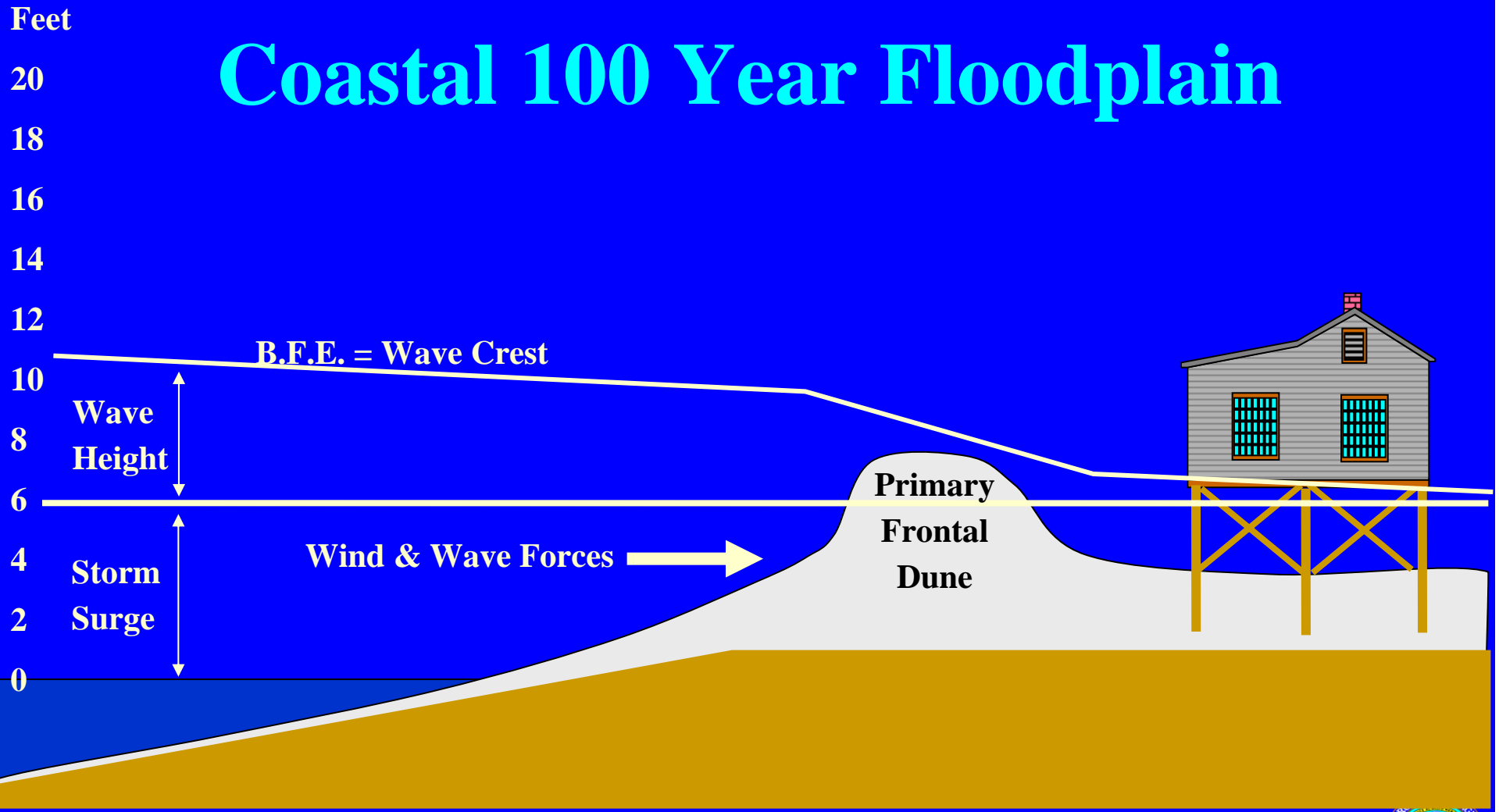




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V-Zone Requirements

1. Bottom of lowest horizontal supporting member must be above B.F.E.
2. The Building must be certified to withstand wind and water forces.
3. Break-A-Way Panels are required below B.F.E.
4. Human alteration of dunes is prohibited
5. Area below B.F.E. can only be used for parking and limited storage (no utilities).
6. Fill may not be used for structural support.



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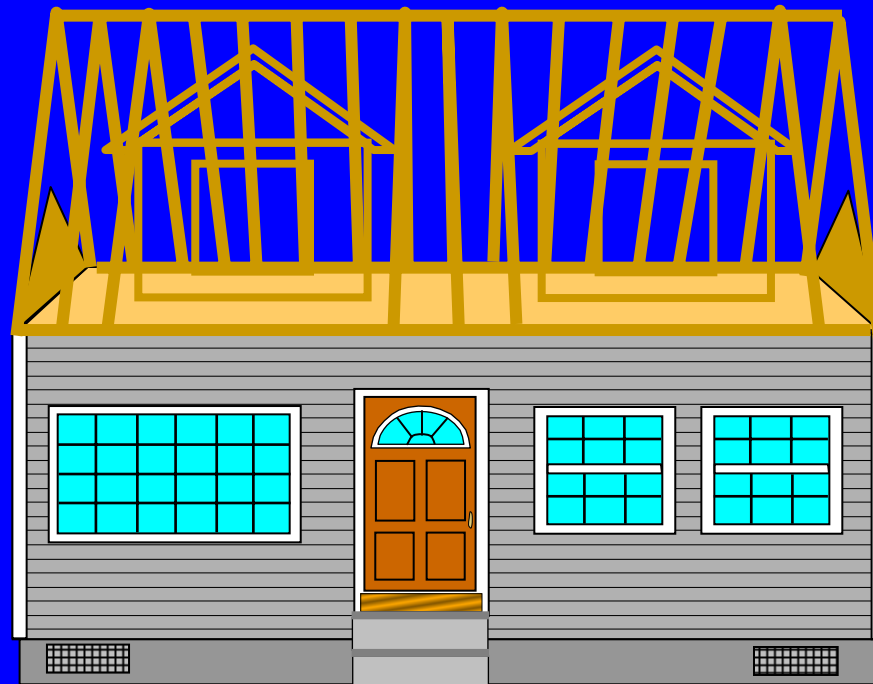
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Substantial Improvement

Any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the “start of construction” of the improvement.



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Variances

✳️ **A variance is a grant of relief by a community from the terms of a land use, zoning or building code regulation.**

✳️ **A variance must pertain only to the land, not to any structure, its inhabitants or owners. Characteristics should be unique to the property and not shared by adjacent parcels. Financial hardship is not a reason for granting a variance.**

✳️ **The granting of a variance is a local decision, not a FEMA decision. Granting too many variances can have repercussions for the community (suspension or probation from the NFIP).**

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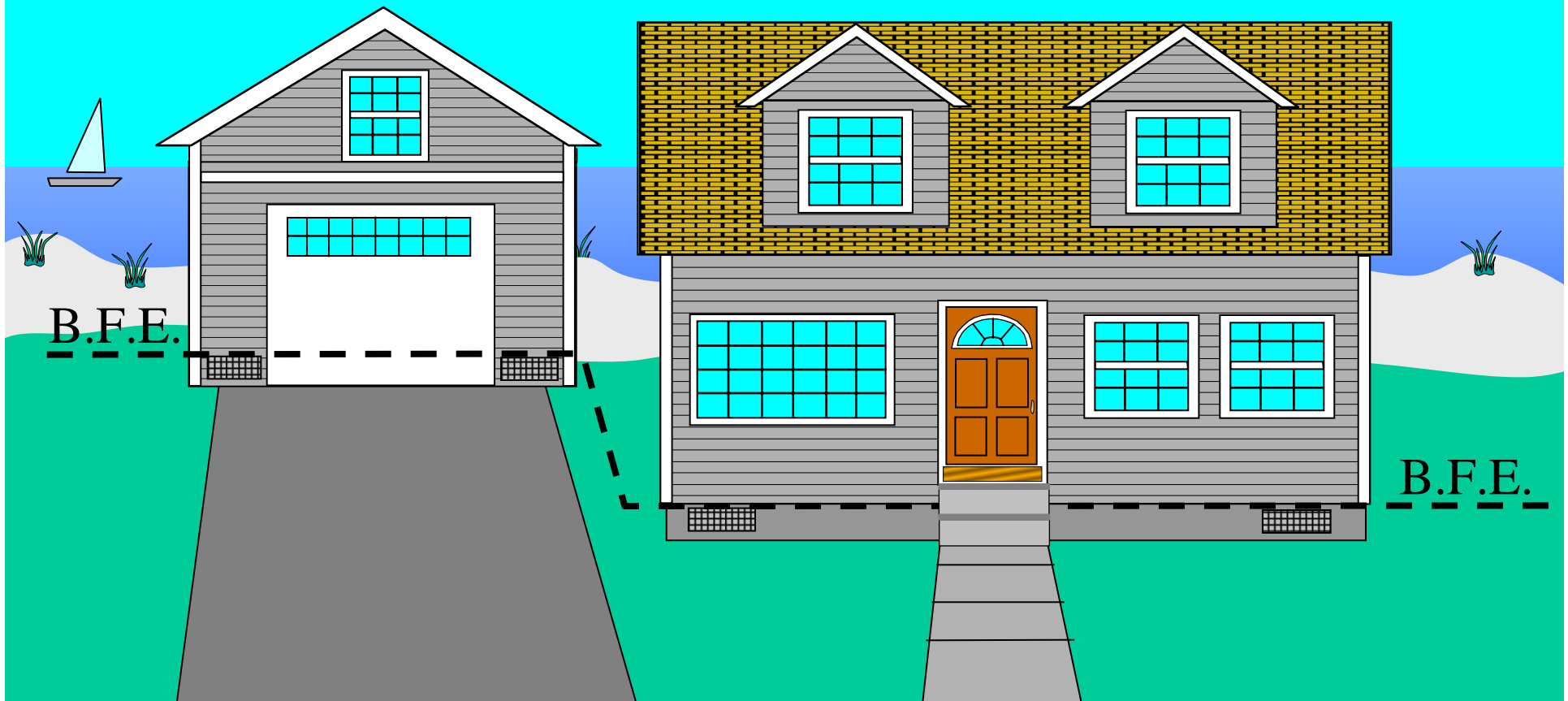
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ACCESSORY STRUCTURES: USE CRITERIA FOR FULLY ENCLOSED AREA BELOW B.F.E.

- 1) 2 Openings, no more than 1 foot above lowest grade.
- 2) Size of openings: Sum of area of openings must be 1 Inch² per 1 foot² of floor space.
- 3) No utilities or finished materials below BFE.
- 4) Used only for parking, access to upper floors, and limited (un-insured) storage.





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IN THE 100 YEAR FLOODPLAIN

Letters of Map Change (LOMC)

- **LOMA - Letter of Map Amendment**
 - FEMA Form MT-EZ single lot or structure, no fee, FIRM, Elevation Certificate, Assessor's Map
- **LOMR-F - Letter of Map Revision Based on Fill**
 - Home was built on fill, same as above, fee \$400
- **LODR - Letter of Determination Review**
 - Flood Hazard Determination Review
 - FEMA Form 81-93, \$80 fee, FIRM, Assessor's Map
 - Must be signed by borrower & lender, and postmarked no later than 45 days following the date the lender notified the borrower





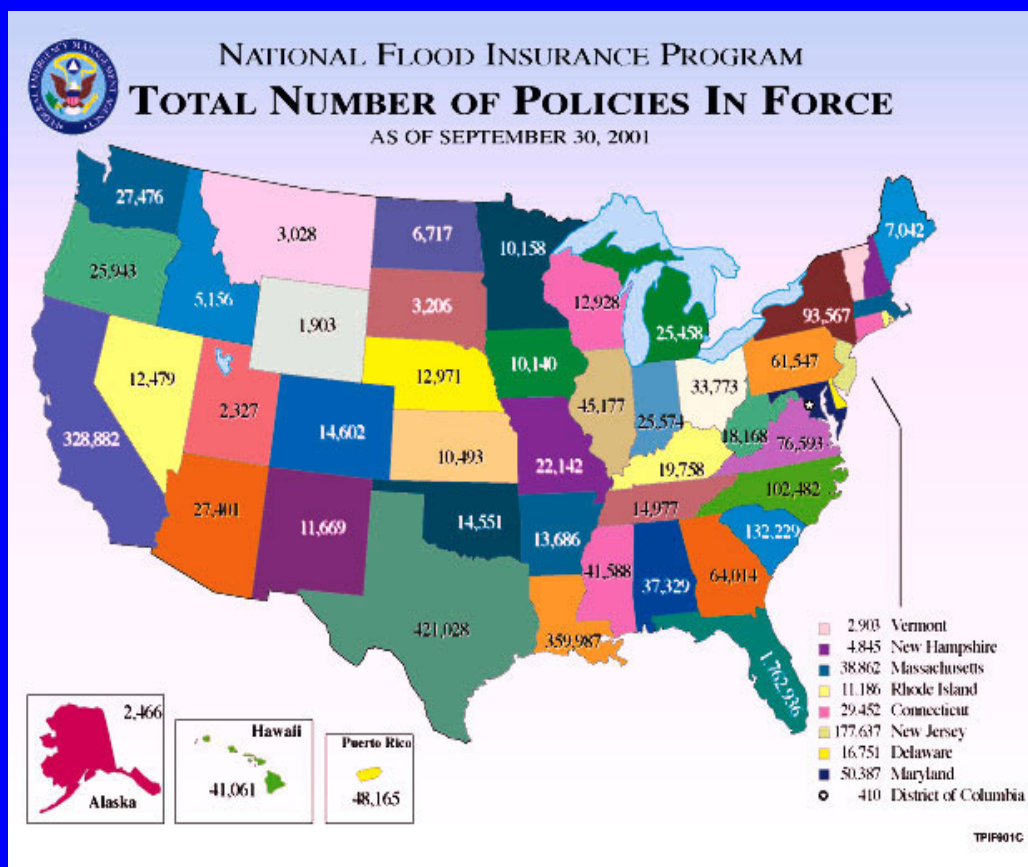
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IN THE 100 YEAR FLOODPLAIN

Data current as of
September 30, 2006

CT Flood Insurance Policy Info



**Policies in Force =
33,787**

**Insurance in Force
= \$6,809,624,600**

**Written Premium =
\$27,006,529**

**Claims 1/1/78-9/30/06
= \$107,308,101**

**Total number of
losses = 14,196**

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IN THE 100 YEAR FLOODPLAIN

Flood Insurance Rates in CT

- Cost of flood insurance highest in U.S.
- Average premium \$800/year
- Inland \$600-\$800/year
- Coastal \$800-1200/year
- Cost depends on: A vs. V zone, basement, elevation compared to BFE, Pre vs. Post FIRM construction or any mitigation projects





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IN THE 100 YEAR FLOODPLAIN

Flood Insurance Town of Stonington

Number of Policies = 888

A Zone = 705 V Zone = 53 B, C, X Zone = 130

Residential = 790 Commercial=98

Insurance in Force = \$184,670,100

Number of Losses since 1978 = 51

Paid Losses = \$186,000





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IN THE 100 YEAR FLOODPLAIN

Flood Insurance Borough of Stonington

Number of Policies = 291

A Zone = 204 V Zone = 59 B, C, X Zone = 28

Residential = 272 Commercial=19

Insurance in Force = \$70,125,600

Number of Losses since 1978 = 6

Paid Losses = \$12,123





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IN THE 100 YEAR FLOODPLAIN

Community Rating System (CRS)

- Both the Borough and Town of Stonington participate in FEMA's CRS program.
- Voluntary program that recognizes floodplain management practices above minimum.
- Both are currently at Class 9, 5% discount.
- Greater discounts = public information, stricter zoning regulations, open space





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IN THE 100 YEAR FLOODPLAIN

Contact Information

Diane Ifkovic, Environmental Analyst III

State NFIP Coordinator

CTDEP, 79 Elm Street, Hartford, CT 06106

Phone: (860) 424-3537

Fax: (860) 424-4075

Email: diane.ifkovic@po.state.ct.us





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Questions and Answers

CTDEP Flood Management Program

(860) 424-3706

FEMA website: www.FEMA.gov

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