



National Flood Insurance Program Regulations

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North Carolina Emergency Management
Floodplain Management Section



Legal Authorities Governing Floodplain Management Regulations

Municipal: The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Parts 3, 5, and 8 of Article 19 of Chapter 160A; and Article 8 of Chapter 160A of the North Carolina General Statutes

County: The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Parts 3 and 4 of Article 18 of Chapter 153A; and Part 121, Article 6 of Chapter 153A of the North Carolina General Statutes



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How Legislation Becomes a Regulation

- Legislation is signed into law
- FEMA (or other Federal agency) proposes a rule in *Federal Register*
- Public Comment Period (usually 60 or 90 days)



How Legislation Becomes a Regulation

- FEMA reviews and consolidates comments
- FEMA proposes Final Rule incorporating any necessary changes – includes supplementary information that responds to comments

Statutory versus Regulatory



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NFIP Regulations

- Communities must adopt and enforce ordinances that meet or exceed NFIP criteria
- NC Legislature allows flood damage prevention regulations to exceed minimum federal requirements: Chapter 143-138(e)
- NFIP criteria are designed to ensure that new buildings will be protected from flood elevation levels shown on Flood Insurance Rate Map (FIRM)



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Importance of Regulations

- Describe Program
- Define terms used to run Program
- Provide minimum floodplain management criteria for communities to adopt and enforce
- Provide technical criteria and requirements for revising and amending flood hazard areas on flood maps
- Codify fees charged for reviewing map change requests



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Organization of NFIP Regulations

- Part 59 — General Provisions:
 - Definitions and Program description
- Part 60 — Criteria for Land Management and Use:
 - Floodplain management ordinances
- Part 65 — Identification and Mapping of Special Hazard Areas:
 - Map revisions, floodways, and levees
- Part 67 — Appeals from Proposed Flood Elevation Determinations:
 - Types of appeals and appeal procedures



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Organization of NFIP Regulations

- Part 70 — Procedure for Map Correction:
 - Administrative procedure for review of scientific or technical submissions by property owner who believes their property has been inadvertently included in Special Flood Hazard Area (SFHA)
 - LOMAs and conditional LOMAs
- Part 72 — Procedures and Fees for Processing Map Changes (LOMR & LOMR-F):
 - Fee schedule and payment procedures



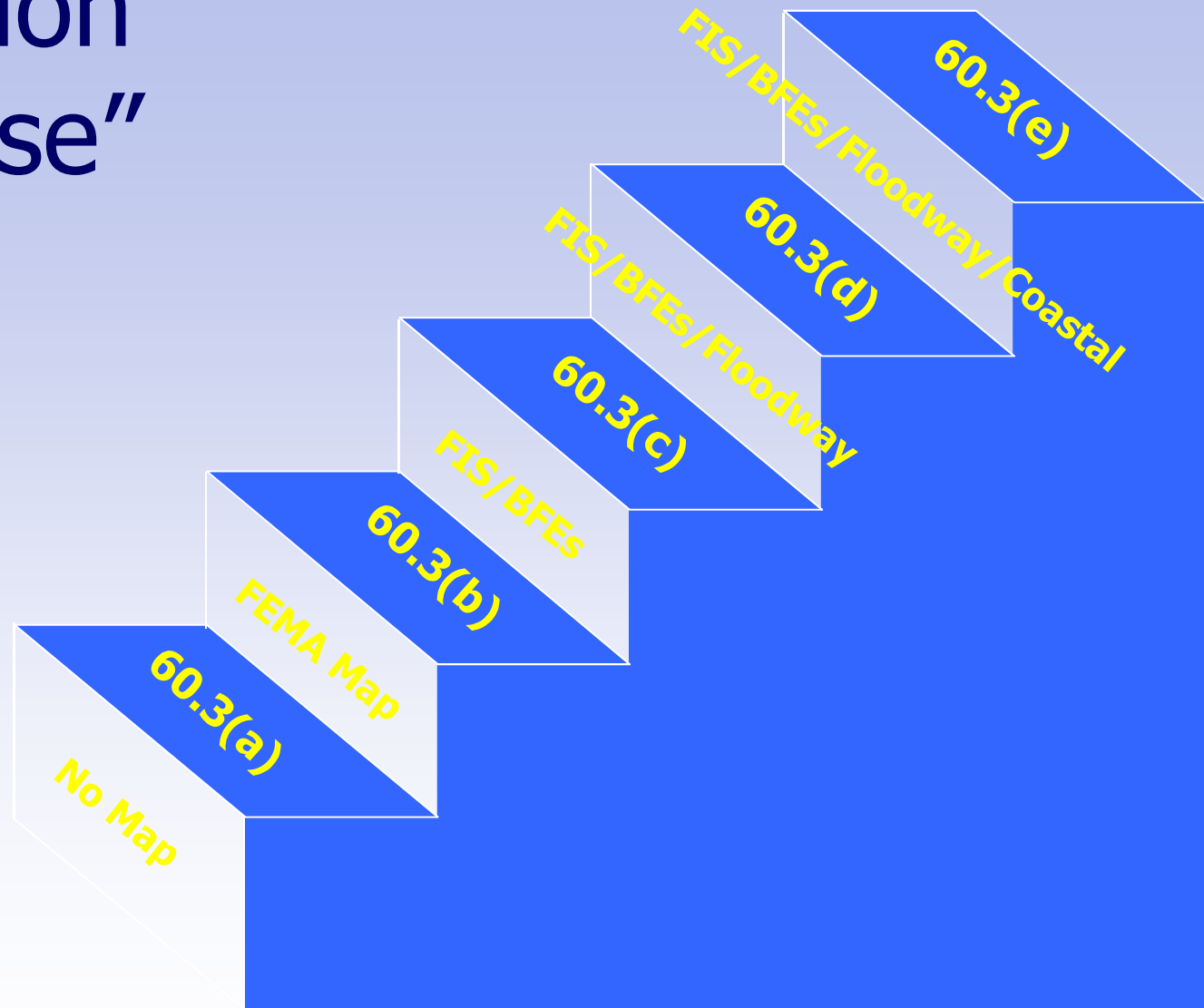
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Section 60.3 – Floodplain Management Criteria for Floodprone Areas

- Contains minimum floodplain management criteria communities must adopt and enforce to participate in NFIP
- Requirements are “layered” so that as detail of study or severity of flood hazard increases, so does restrictiveness of criteria (i.e., criteria in coastal high hazard areas are more stringent than in A Zones)

Regulation "Staircase"



Accredited
ACCREDITATION PROGRAM

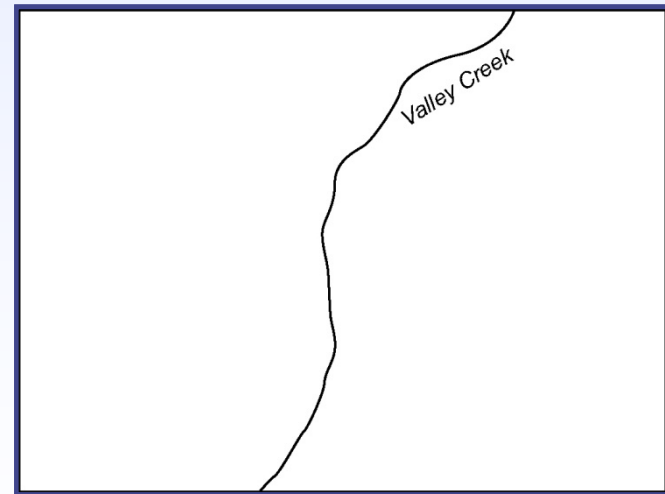
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44 CFR §60.3(a): No Flood Map

Applies to communities for which
FEMA:

- Identified no Special Flood Hazard Areas.
- Prepared no flood map.



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60.3(a) Floodplain Management Criteria

The community shall:

1) Require permits for all proposed development.

2) Ensure all necessary permits are received.

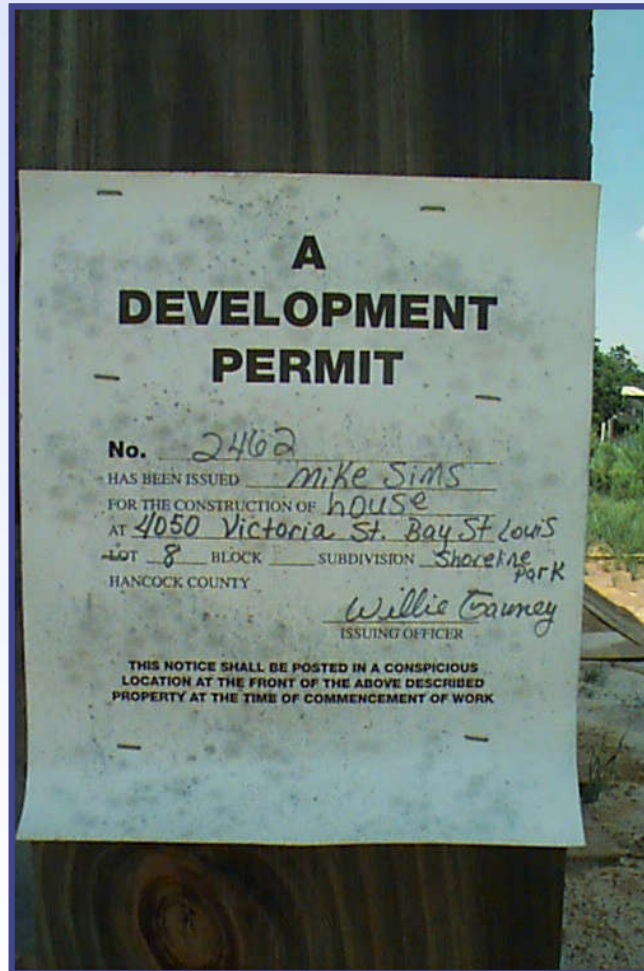
- COE
- DWQ
- CAMA



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Sample Development Permit



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60.3(a) Floodplain Management Criteria

The community shall:

3) Review permit applications for building sites to be reasonably safe from flooding.

Flotation, collapse, movement, buoyancy

Flood-resistant materials

Construction methods

Building utilities protected



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What also floats in water?



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What also floats in water?



Building Utilities



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60.3(a) Floodplain Management Criteria

The community shall:

4) New subdivisions and development

Minimize flood damage

Protect utilities

Provide adequate drainage



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60.3(a) Floodplain Management Criteria

The community shall:

5 & 6) Water & Sewer

Minimize or eliminate infiltration

Minimize or eliminate exfiltration

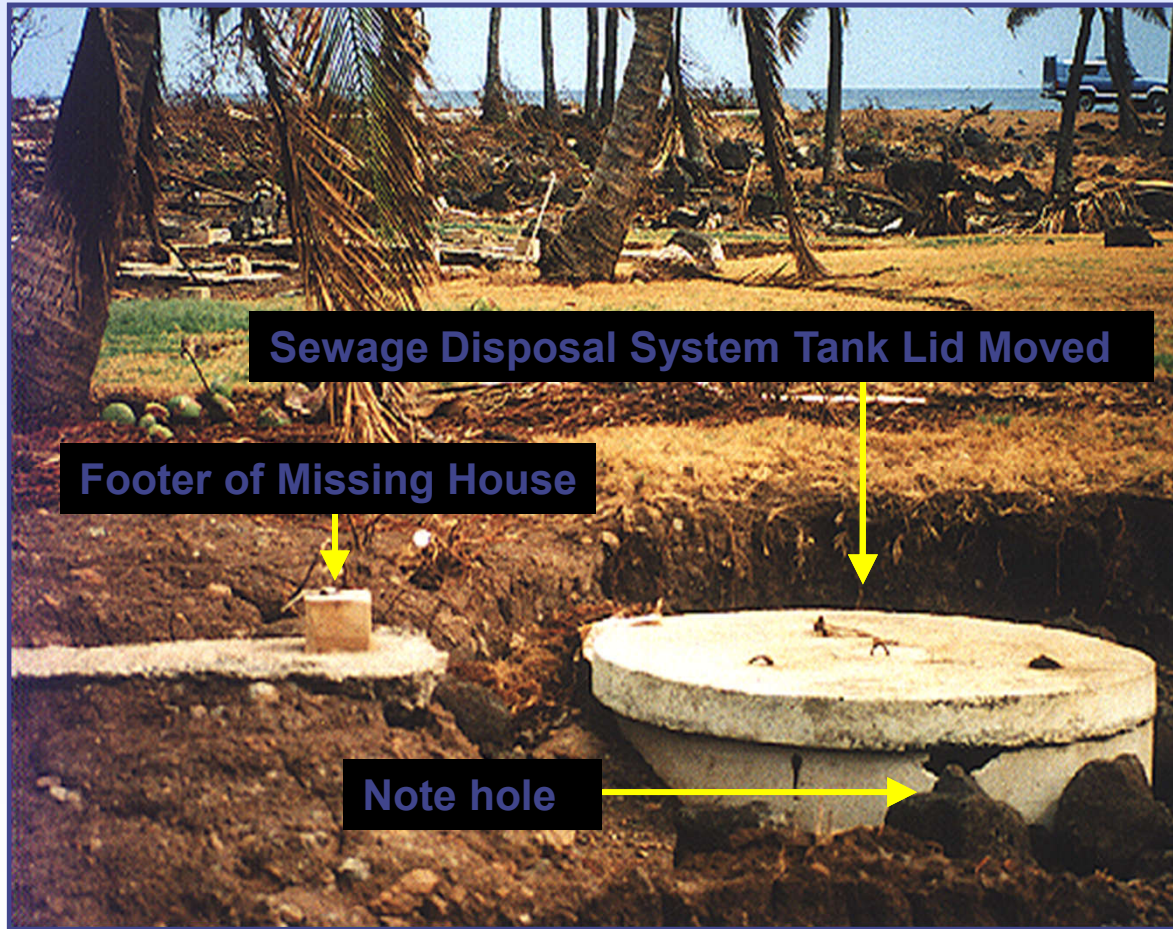
Avoid impairment or contamination



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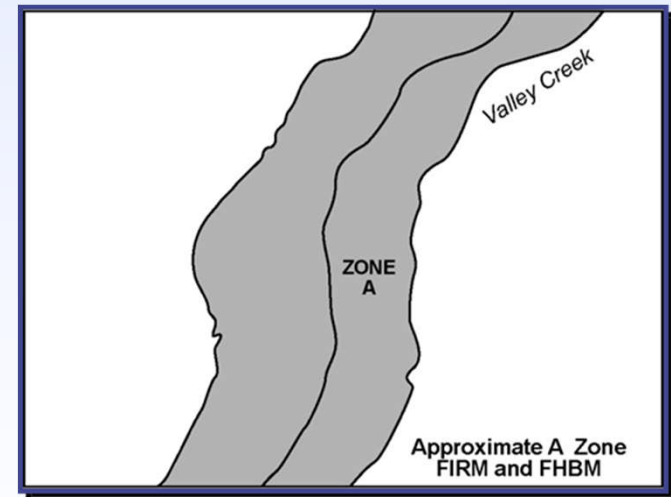


Septic System, Post-Flood



60.3(b) Approximate A-Zones

Flood hazard area shown
No Base Flood Elevations
No Floodways
No Coastal Hazards



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60.3(b) Approximate A-Zones

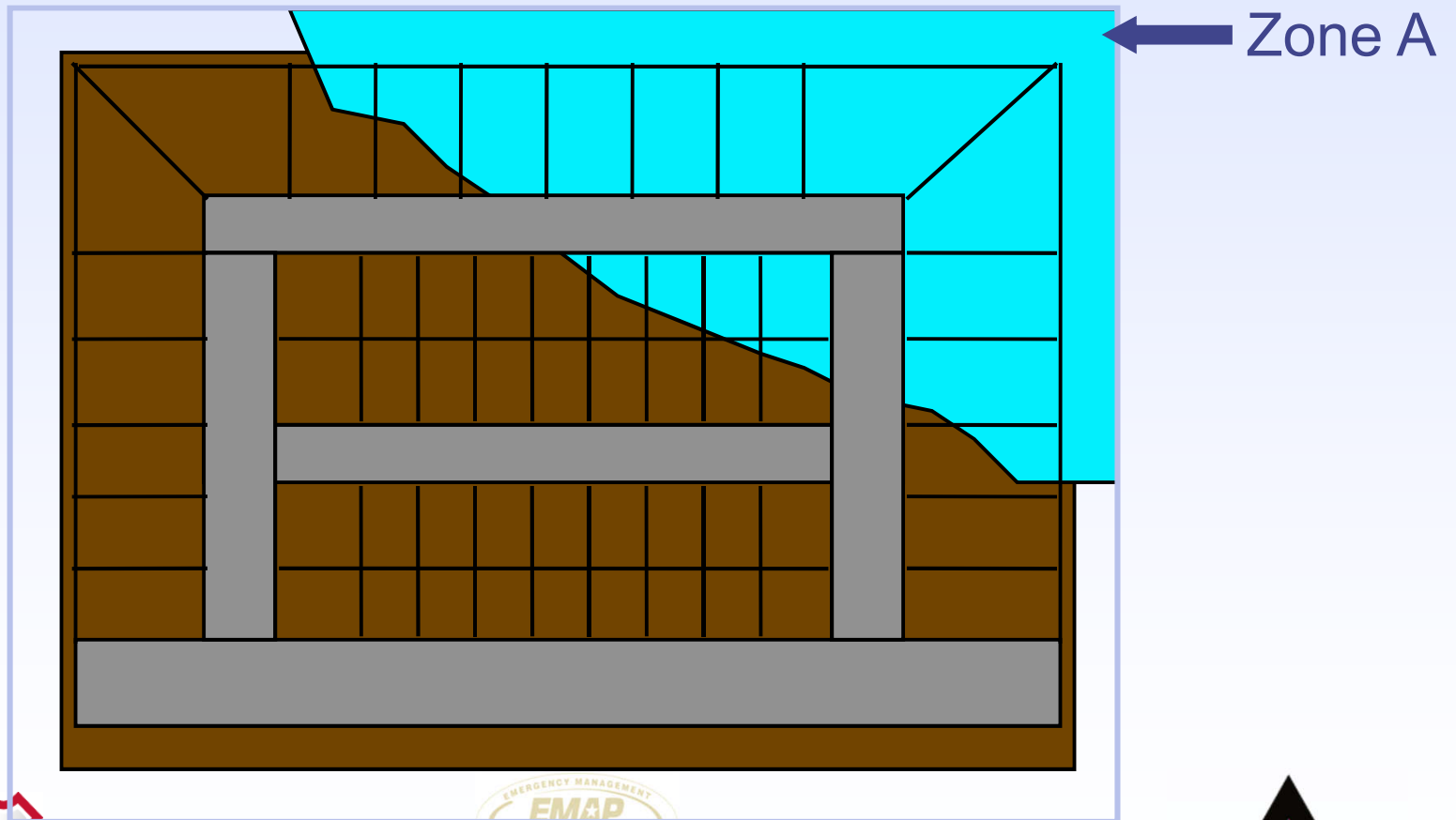
- 1) Require Floodplain Development Permit
- 2) Apply 60.3(a)
- 3) New subdivisions develop base flood data
Greater than 5 acres or 50 lots
- 4) Use base flood data from other sources
Preliminary data
Federal, State, Local or Private Detailed Data
Approximate methods



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Review Subdivision Proposals: 60.3(b)(3)



60.3(b) Approximate A-Zones

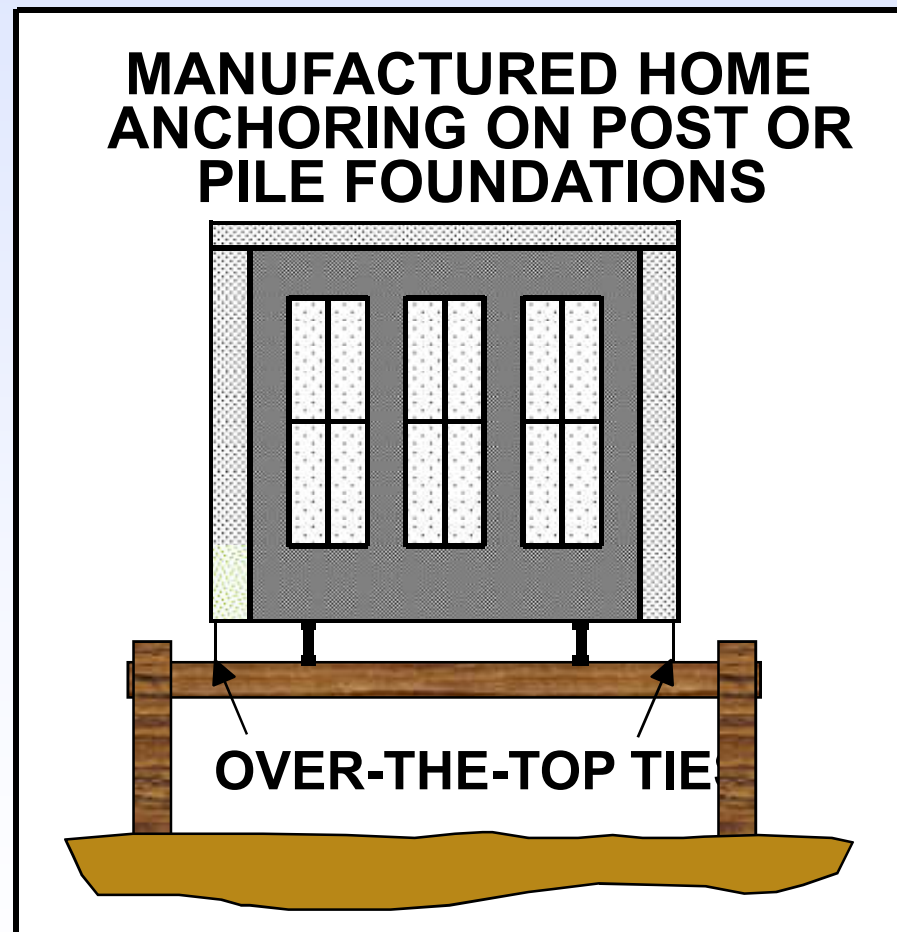
- 5) Acquire Elevation Data (Elevation Certificate)
- 6) Prior to any watercourse alteration, notify:
 - Adjacent Communities
 - State Coordinator
 - Federal insurance Administrator
- 7) Assure flood-carrying capacity is maintained
- 8) Elevate and anchor manufactured homes



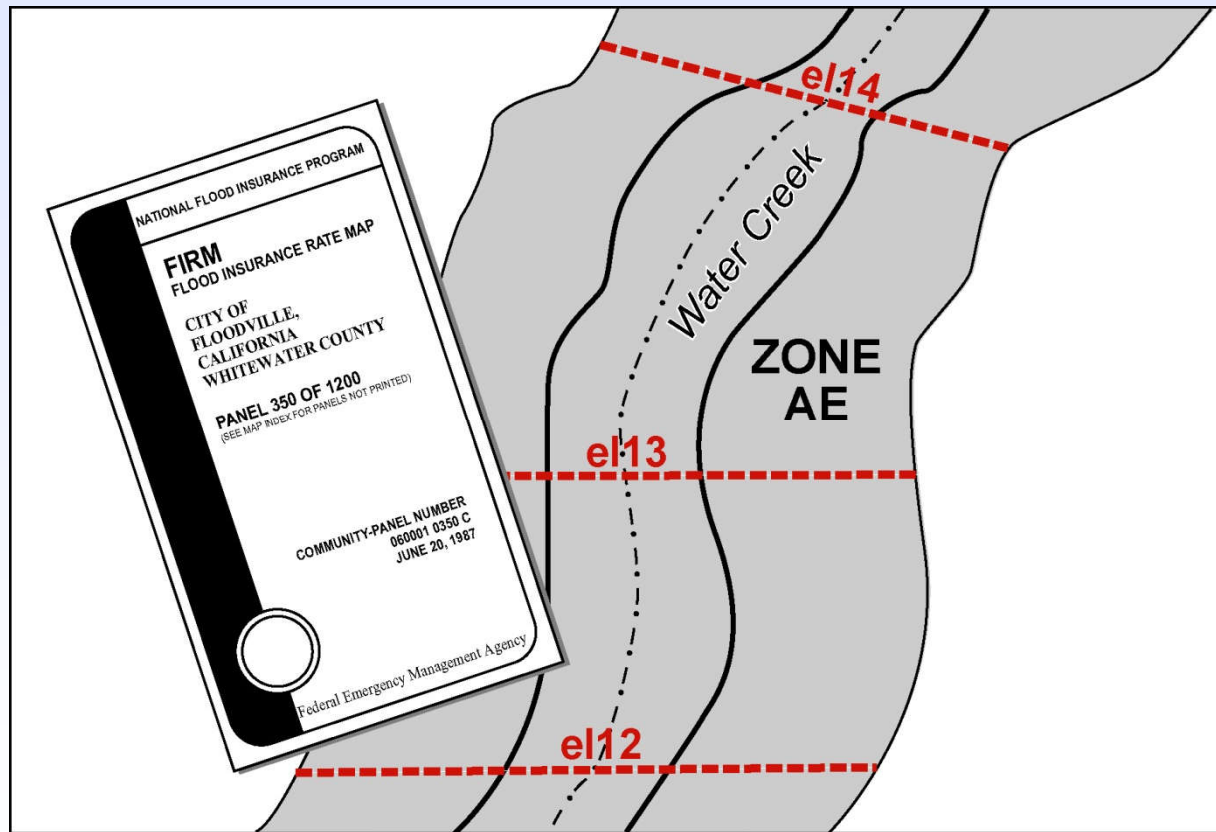
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Anchoring a Manufactured Home: 60.3(b)(8)



FIRM With Elevations



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60.3(c) Zones with Base Flood Elevations

- 1) Apply 60.3(a) and (b)
- 2) Residential lowest floor elevated above BFE
- 3) Non-Residential: Elevated or Floodproofed
- 4) Floodproofing shall be certified
- 5) Area below lowest floor shall be
Only used for parking, access, or storage
Vented



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60.3(c) Zones with Base Flood Elevations

6) Manufactured homes elevated above BFE

Outside a park or subdivision

In a new park or subdivision

In an expansion to an existing park or subdivision

In a park or subdivision that has incurred
substantial damage from flooding

7) In AO Zone, elevate residential structures as noted above HAG (or 2')



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60.3(c) Zones with Base Flood Elevations

- 8) In AO Zone, elevate or floodproof non-residential structures as noted above HAG (or 2')
- 9) Apply standards to A99 (levee) zones
- 10) One-foot rise allowed for encroachments
- 11) AO and AH: Allow adequate drainage



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60.3(c) Zones with Base Flood Elevations

12) Manufactured homes not included in
60.3(c)(6) shall be anchored and elevated:

Above the BFE, or
36" above grade

13) CLOMR required for increases > one foot

14) Recreational Vehicles

Compliant, or

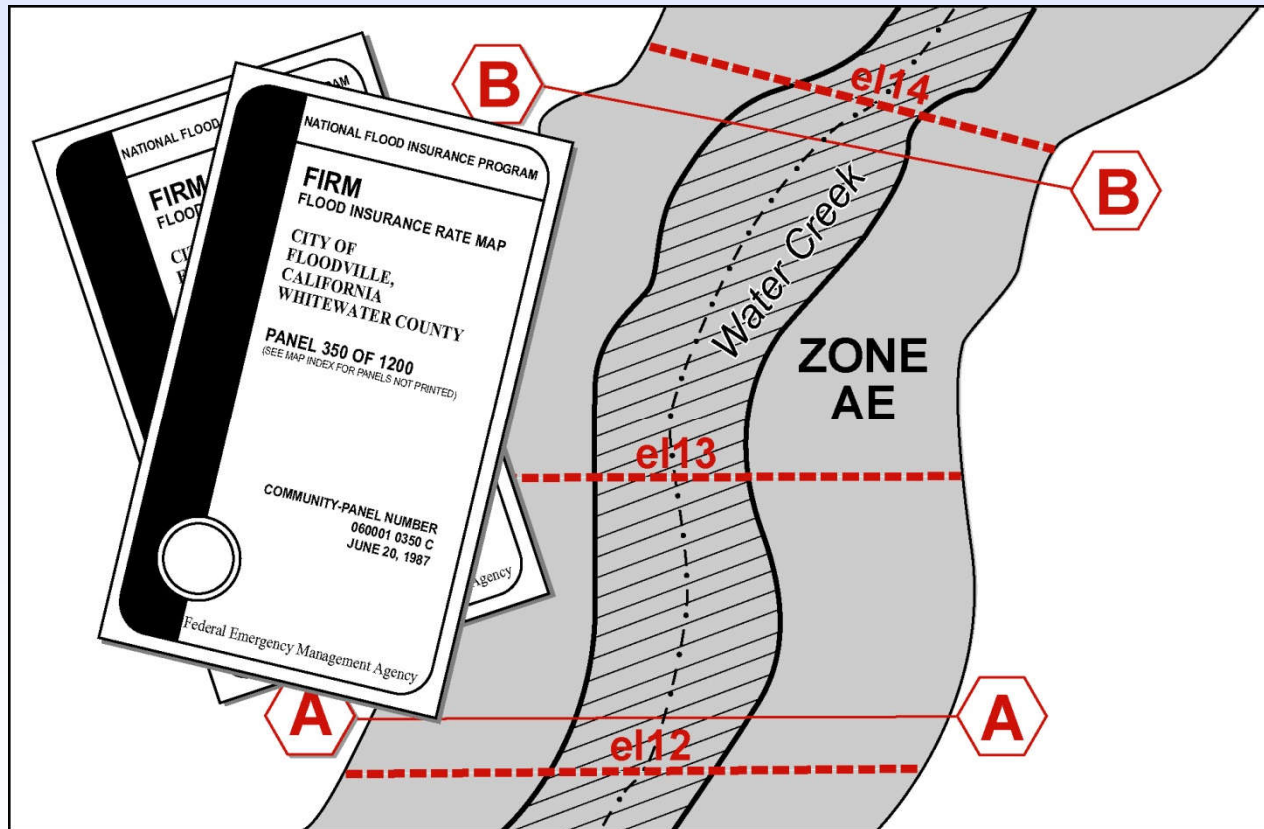
On-site <180 days or licensed & road-ready



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FIRM With Floodway Data



60.3(c) Zones with BFE & Floodway

- 1) Meet previous criteria
- 2) Maximum 1' surcharge for the floodway
- 3) No encroachments without a No-Rise
- 4) CLOMR is allowed

Meet the requirements of 65.12

No impacted structures



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NFIP Requirements for V-Zone

Found in 44 CFR 60.3(e)

1: Comply with all other NFIP regulations

44 CFR 60.3 Parts (a) – (d)



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NFIP Requirements for V-Zone

Found in 44 CFR 60.3(e)

1: Comply with all other NFIP regulations

2: **Maintain elevation records**

Use the Elevation Certificate to maintain records at the time of permitting

Effective Base Flood Zone and Elevation

Lowest Horizontal Structural Member

Finished Floor, Utilities, HAG, LAG

Photos at the time of permitting



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NFIP Requirements for V-Zone

Found in 44 CFR 60.3(e)

1: Comply with all other NFIP regulations

2: Maintain elevation records

3: Landward of mean high tide



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NFIP Requirements for V-Zone

Found in 44 CFR 60.3(e)

1: Comply with all other NFIP regulations

2: Maintain elevation records

3: Landward of mean high tide

4 i: Lowest horizontal structural member must be above BFE/RFPE



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C2c

NFIP Requirements for V-Zone

Found in 44 CFR 60.3(e)

1: Comply with all other NFIP regulations

2: Maintain elevation records

3: Landward of mean high tide

4 i: Lowest horizontal structural member must be above BFE

4 ii: Designed to resist flotation, collapse, and movement due to wind & wave forces



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NFIP Requirements for V-Zone

5: Free of obstructions



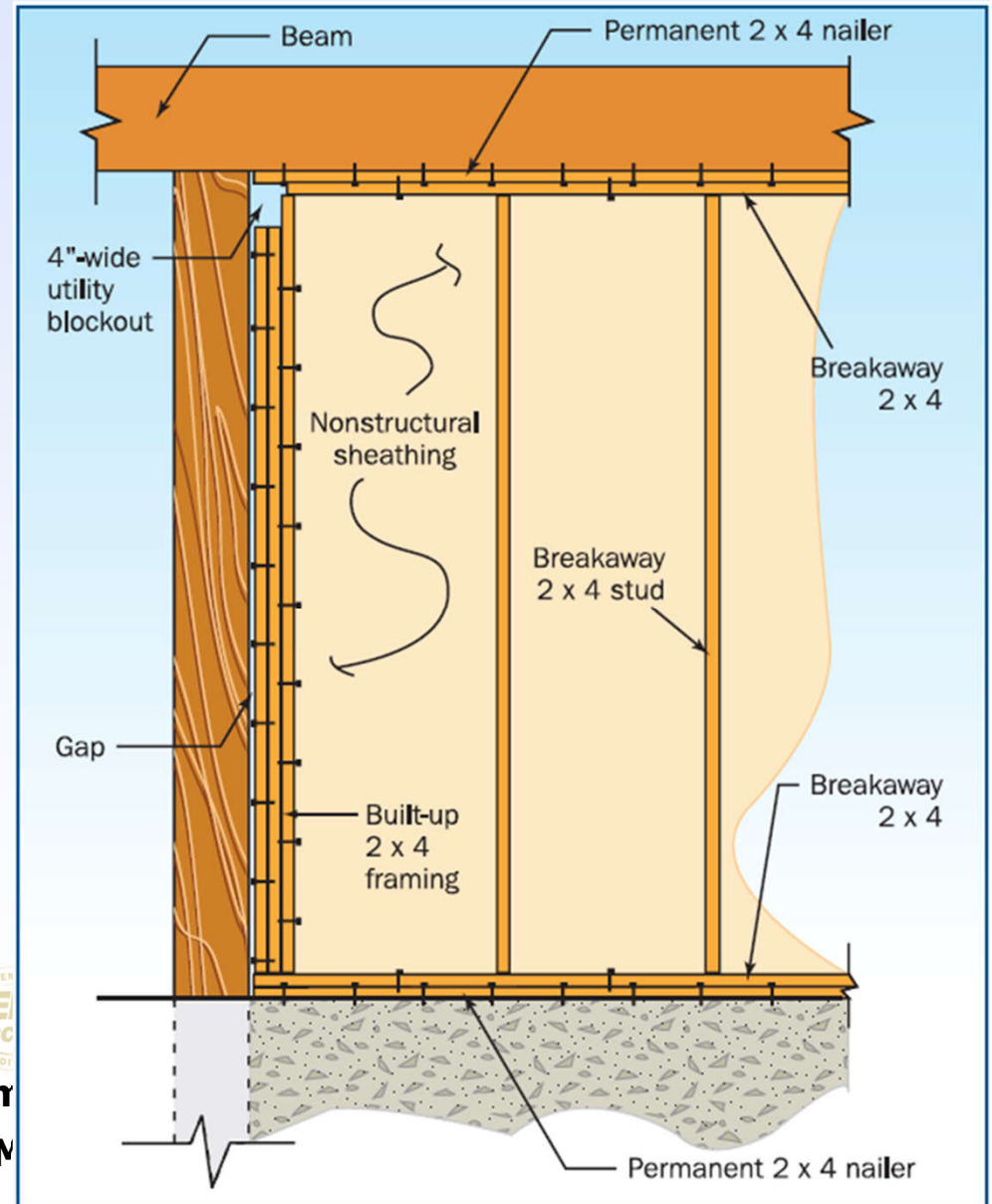
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Breakaway Walls in V-Zones

10-20 psf loading,
Must not jeopardize
the building,
Siding should be
used with caution.





NFIP Requirements for V-Zone

5: Free of obstructions

6: Prohibit structural fill



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NFIP Requirements for V-Zone

5: Free of obstructions

6: Prohibit structural fill

7: Prohibit alteration of sand dunes and mangrove stands



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NFIP Requirements for V-Zone

5: Free of obstructions

6: Prohibit structural fill

7: Prohibit alteration of sand dunes and mangrove stands

8: Manufactured Home Regulations



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Manufactured Homes

Must meet V-Zone standards IF:

- i. Outside of a manufactured home park or subdivision (MHP/S),
- ii. In a new MHP/S,
- iii. In an expansion to an existing MHP/S, or
- iv. In an existing MHP/S on which a manufactured home has incurred substantial damage as a result of a flood.

Otherwise, it must meet (c)(12) criteria.



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NFIP Requirements for V-Zone

5: Free of obstructions

6: Prohibit structural fill

7: Prohibit alteration of sand dunes and mangrove stands

8: Manufactured Home Regulations

9: Recreational Vehicle Regulations



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Recreational Vehicles

Be on-site for fewer than 180 days, or

Be fully licensed and ready for highway use.

- i. On its wheels or jacking system,
- ii. Attached only by quick-disconnect type utilities and security devices,
- iii. No permanent attached additions.

Otherwise, it must meet V-Zone criteria.



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65.10 Levee Design Criteria

Dry Floodproofing

Only for non-residential A-Zone structures

Does not remove structure from SFHA

Requires certification

Levee

Removes an area from the SFHA

Flood insurance not required

Requires certification



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65.10 Levee Design Criteria

1) Freeboard

Riverine: 3' plus 1' within 100' of a bridge and 0.5' at the upstream end

Coastal: 1' above wave runup or 2' above Stillwater (whichever is higher)

2) Closures on all openings

3) Embankment protection from scour, wind, waves, ice, impact, duration



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65.10 Levee Design Criteria

- 4) Embankment stability due to seepage & duration of flooding
- 5) Settlement (geotechnical analysis)
- 6) Interior drainage
- 7) Other criteria as required
- 8) Operational plans and inspections



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Updated and Current NFIP Regulations are Available Online at:

<https://www.fema.gov/national-flood-insurance-program-laws-regulations>



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Thank you



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