



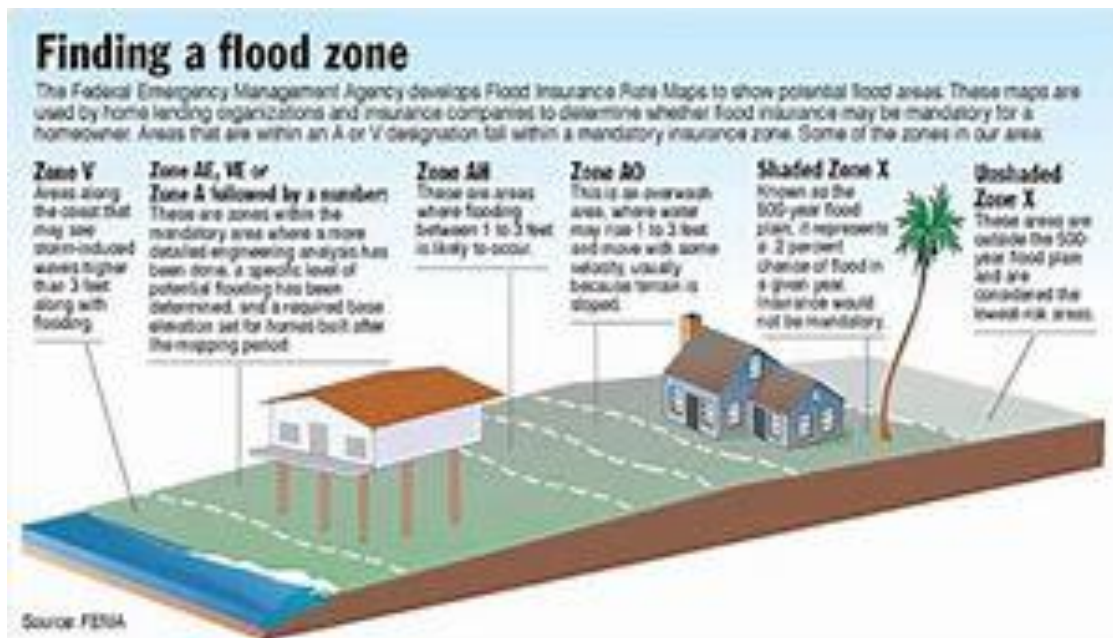
REQUIREMENTS for BUILDINGS in FLOOD ZONES

Always check with the County Planning and Public Works departments before you build, fill, alter or grade on your property. **All new developments, or any alterations, additions, or modifications to your building or land require a permit.** Qualified City staff are available to discuss your options and to help you plan and build a safe project while complying with the City Floodplain Management Ordinance.



In addition to regular building permits, special regulations apply to construction in the floodplain and floodway. No construction, including filling, is allowed in the mapped floodway without an engineering analysis that shows the project will not increase flood damage elsewhere. Any activity outside the floodplain but within a natural or man-made watercourse also requires a permit.

Homeowners who are planning substantial improvements should contact the Permit and Review Division for a residential building permit. Elevation or floodproofing may be required if you plan to substantially improve your existing structure (the cost of the improvement or add-on is 50% of the value of the existing structure). If your property is substantially damaged (50 percent of the value of the building), Federal regulations may also require you to elevate or floodproof before you can rebuild.



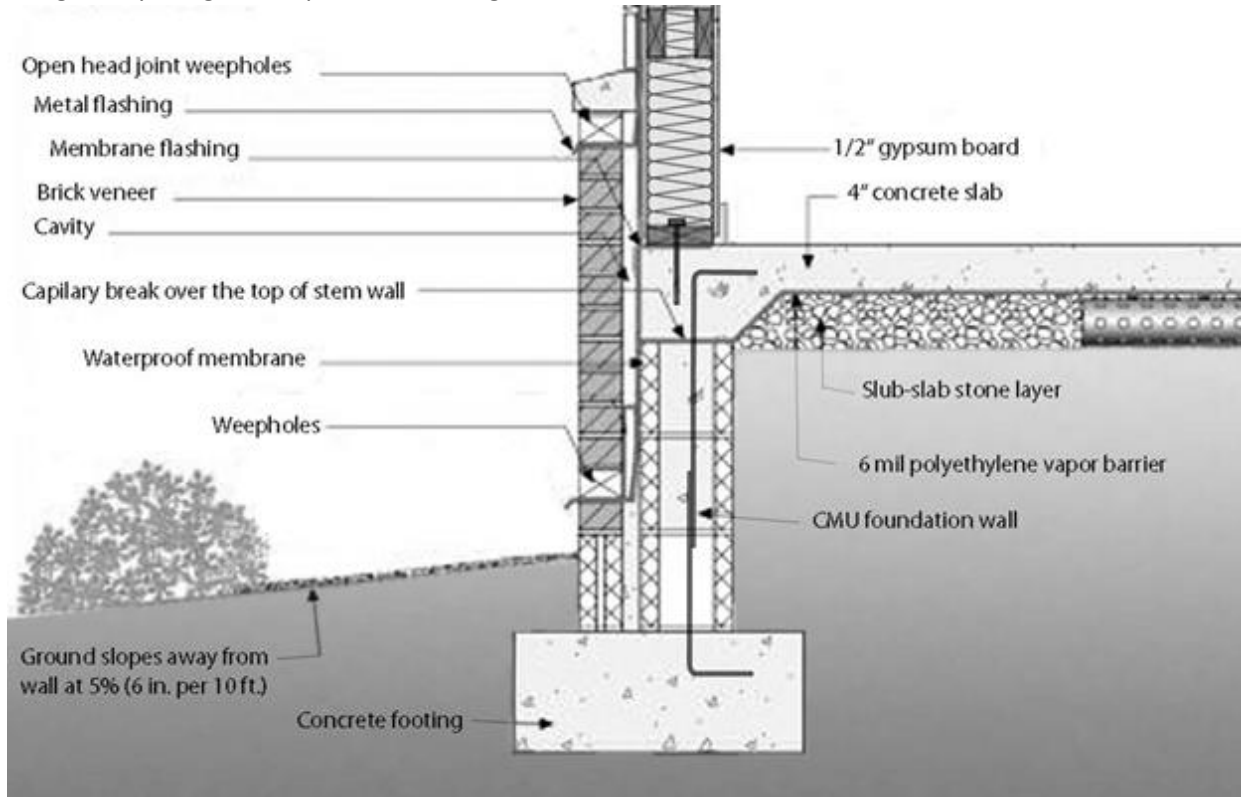
NOTE: BFE = Base Flood

Elevation, in this case _____. The lowest floor of the dwelling must be a minimum of 1'-0" above the BFE with all materials used below the BFE to be "flood resistant" (concrete or PTFD)

UTILITIES: Electrical switch boxes, outlets, heaters, air conditioners, etc. should be elevated to be above the BFE, or be installed in flood resistant enclosures. Propane tanks are to be anchored to prevent floating.

MANUFACTURED HOMES: To be on a permanent foundation such that the lowest floor of the manufactured home is elevated a minimum of 1'-0" above the BFE and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement. All materials used below the BFE to be "flood resistant" (concrete or PTFD).

GUIDANCE FOR NON-ENGINEERED OPENINGS IN FOUNDATIONS: Each of the following four (4) design criteria must be met for new and substantially improved A-zone buildings that have enclosed areas below the BFE with openings not designed by a registered professional engineer or architect.



1. There must be a minimum of two openings on different sides of each enclosed area. If a building has more than one (1) enclosed area, such as an attached garage, each area must have openings on exterior walls to allow floodwater to directly enter and leave.
2. The total area of all openings must be at least one (1) square inch for each one (1) square foot of enclosed area. Each enclosed area shall be calculated separately.
3. The bottom of each opening can be no more than one (1) foot above the exterior or interior grade, whichever is higher.
4. Any louvers, screens, or other opening covers must not block or impede the automatic flow of flood water into and out of the enclosed area.

LINKS:

<https://www.fema.gov/floodplain-management/>

http://www.lakecountycalifornia.gov/Government/Directory/WaterResources/Programs/Flood_Management/Damage_Improvement.htm

<http://buildingincalifornia.com/flood-zones/>

<https://www.codepublishing.com/CA/Lakeport/#!/Lakeport15/Lakeport1516.html#15.16>