## Study for Flood Hazard Review

## According to the Public Works Counter

Base Flood Elevation = 3'

Foundation wall must be 3' above Highest Adjacent Grade (HAG) plus 1' freeboard for a total of 4' HAG for the first floor elevation.

According to Ventura County Public Works: Building Permit – Building Standards for Residential and Non-Residential Development, Form DSF-255

All plans must comply with NIFP regulations as set out in Title 44 code of Federal Regulations, parts 59, 60, 65, and 70.

"Top of lowest floor elevation" must be clearly shown on elevations, sections, and floor framing plans.

The location of all flood vents need to be clearly shown on elevations and foundation plans.

All structural walls below 4' HAG must be made of "Flood Resistant Materials".

All electrical/mechanical/utility fixtures must be installed above 4' HAG.

Flood vent openings need to be installed in foundation walls and meet the minimum standards as set out in FEMA Technical Bulletin 1-93:

- The must be a minimum of two vents located in opposite foundation walls, preferably in the direction perpendicular to the flood flow.
- The total net area of flood openings shall be one square inch for every spare foot of building enclosure.
- The bottom of vent openings shall be no more than 1 foot above adjacent grade.
- Vents must allow free movement of floodwaters without any use of mechanical means or human intervention.
- Vent openings must not lock or latch closed.

For the design of crawlspaces refer to FEMA Technical Bulletin 11-01 standards.

For the anchoring of structure to the foundation refer to FEMA – 85 publication.

Exterior Stairs located below HAG must be constructed of flood-proof materials.

The OSWT system must at minimum have a back-flow valve. (page labeled 5, but page 6 of 47 page doc)

There will be 3 site inspections:

- 1. Verification of total net area and elevation of vent openings
- 2. Verification of elevation of "Top of lowest floor"
- 3. Verification of elevation of all installed electrical/mechanical/utility equipment

A FEMA Elevation Certificate must be completed by a civil engineer or land surveyor. FEMA Form 81-31.

A Floodproofing Certificate must be completed by a civil engineer. FEMA 81-65.