



NEW CONSTRUCTION

Lowest Floor Elevation

New construction shall have the lowest floor, including basement, elevated as follows:

1. Structures in zones **A** or **AE** must have the lowest floor elevated at least one foot above the base flood elevation (BFE + 1.0). In flood zone **A**, the BFE must be determined by the applicant if the Floodplain Administrator does not have Best Available Mapping.
2. Structures in zone **AO** must have the lowest floor elevated above the highest adjacent grade by a height of at least one foot greater than the flood depth specified on the FIRM (HAG + Depth + 1.0). The Highest Adjacent Grade is defined as the highest natural grade prior to the start of construction.
3. *Non-residential* structures may be dry floodproofed: The building and attendant utilities are constructed so that the structure is watertight with walls substantially impermeable to the passage of water, with structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy, and the design and construction are certified by a registered civil engineer or architect.

Elevation Certificates

New construction shall have Elevation Certificates submitted three times:

1. With the building permit application,
2. As soon as the lowest floor elevation can be determined based on forms set-up or framing of the subfloor has been constructed, and prior to the framing of walls and/or higher floors of the structure.
3. Prior to final inspection after the structure is completed with all service equipment installed.

Anchoring

New construction shall be adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

See [ASCE 24-14](#)

Materials

New construction shall be constructed with flood damage-resistant materials and utility equipment resistant to flood damage for areas below the base flood elevation. Service facilities (such as electrical, heating, ventilation, plumbing, and air conditioning equipment) shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

See [FEMA Technical Bulletin 2](#) and Yolo County Code [Section 8-4.501](#)

Drainage Paths

In zone AO, new construction shall be constructed so that there are adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.

Vented Crawlspace and Enclosures

Crawlspaces and fully enclosed areas below the lowest floor that are subject to flooding are only to be used for parking of vehicles, building access or storage, and shall be designed to automatically equalize hydrostatic flood forces on exterior

walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement must either be certified by a registered civil engineer or architect, or meet or exceed the following minimum criteria:

- A minimum of two openings on different sides having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding,
- The bottom of all opening shall be no higher than one foot above grade,
- Opening may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwater, and,
- Buildings with more than one enclosed area must have an opening on exterior walls for each area to allow flood water to directly enter.

See [FEMA Technical Bulletin 1](#)

Utilities

Any mechanical or utility equipment in the accessory structure must be elevated or floodproofed to or above the BFE. See [FEMA Publication P-348](#)

Attached Garages

Attached garages must either be elevated or vented. Non-residential garages may be dry floodproofed.

Small Accessory Structures / Detached Garages

The proposed structure is:

- A two-car detached garage or smaller (maximum 600 sf)
- A storage shed or tool shed valued at \$1500 or less

All of the following requirements are met:

- The structure is anchored to resist flotation, collapse, and lateral movement.
- The portions of the structure located below the Base Flood Elevation must be constructed with flood damage-resistant materials.
- Mechanical and utility equipment for the structure must be elevated or dry floodproofed to at least one foot above the Base Flood Elevation.
- The structure is not encroaching into a floodway.
- The structure will be wet floodproofed to protect the structure from hydrostatic pressure. The design must meet the NFIP design and performance standards for openings and must allow for the automatic entry and exit of floodwaters without manual operation or the presence of a person (or persons).
- The structure will not contain materials that are hazardous, highly volatile, toxic, or water reactive.
- The structure will be used exclusively as an accessory structure for parking and storage.

An accessory structure is defined as being on the same parcel of property as a principal structure and the use is incidental to the use of the principal structure; an accessory structure specifically excludes structures used for human habitation and structures used by the public, such as a place of employment or entertainment.