

LARIMER COUNTY
ENGINEERING DEPARTMENT



FLOODPLAIN DEVELOPMENT GUIDE



SECTION 9:
WET FLOODPROOFING



9. WET FLOODPROOFING

Enclosures, additions or attached structures, accessory or detached structures, and agricultural structures in the FPO District which do not meet elevation requirements may be eligible for an administrative variance to be wet floodproofed if the following requirements are met:

- Non-agricultural structures are only eligible if used solely for parking of vehicles, building access, or storage of materials.
- Agricultural structures are only eligible if used solely for the production, harvesting, storage, drying, or raising of agricultural commodities (including livestock).

If an applicant is seeking to wet floodproof a structure, the design details and specifications must be submitted to the County prior to FDP issuance. These must follow FEMA guidelines and LCLUC requirements for approval and will require the certification of a licensed Colorado Professional Engineer (PE) if determined by the County Engineer. Prior to approval, the applicant and/or engineer will need to complete the wet floodproofing section of the FDP Application and meet the requirements listed below. The County's FDP Application can be downloaded from the Larimer County Floodplains website (<https://www.larimer.org/engineering/floodplains>).

Floodproofing Requirements

For buildings or structures which are permitted to be wet floodproofed, floodproofing designs must meet the following requirements:

- FEMA Requirements: Buildings and structures which are wet floodproofed must follow FEMA Guidance (e.g. FEMA Technical Bulletin 7) and other applicable Floodplain Development Standards.
- Flood Forces: Wet floodproofing measures must be designed to withstand the hydrostatic and hydrodynamic flood forces on exterior walls by allowing for the entry and exit of floodwaters.
- Flood-Resistant Materials: Buildings and structures which are wet floodproofed must provide flood-resistant materials to an elevation at or above the flood protection elevation (FPE).
- Flood Venting: A minimum of two flood vents must be installed on at least two separate walls and meet the following requirements:

- Have a combined area of at least one square inch of open area for every square foot of enclosed area. The minimum opening requirement may be reduced if engineered venting is provided and certified by a PE.
 - The bottom of all openings must be no higher than one foot above grade.
 - Openings must permit the automatic entry and exit of floodwaters.
 - Required openings may be installed in garage doors. However, the garage door itself does not qualify as an opening for wet floodproofing purposes.
- No Appliances: The structure must have no permanently affixed appliances including, but not limited to, furnaces, heaters, washers, and dryers.
- PE Certification: The County Engineer may require a wet floodproofing design to be certified by a licensed Colorado Professional Engineer (PE) at his or her discretion.
- Non-Conversion Agreement: The County Engineer may require that the property owner execute and record a Non-Conversion Agreement stating that the use of the structure or applicable portion of the structure will not be modified in the future prior to issuance of the Certificate of Occupancy. The agreement must run with the land and bind successors in perpetuity.