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Floodplain Crawlspaces, Garages and Agricultural Buildings

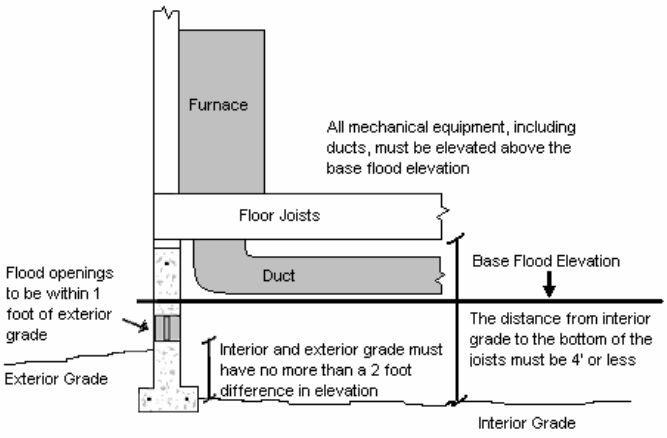
Overview

The National Flood Insurance Program (NFIP), administered by the Federal Emergency Management Agency (FEMA) requires the City of Richland to regulate construction in flood hazard areas. A mission of the NFIP is to reduce claims by using proper construction techniques and materials. The City of Richland's flood damage prevention code specifies the methods required to protect your buildings and their contents from losses due to flooding.[1]

Elevation

Elevating your building and its contents above the floodwater height is the preferred method of preventing damage and loss. If you elevate the building floor to one foot or more above the base flood elevation (BFE) shown on the NFIP maps and provide a copy of the elevation certificate to your insurance company, your flood insurance may be reduced as well

Crawlspaces



The finished floor and any heating ducts must be located a minimum of 1 foot above base flood elevation.

Wet Floodproofing

Residential garages and some limited-use storage/ agricultural buildings either may be elevated above the base flood elevation or may be wet floodproofed. If the floor or slab of the building is not elevated, all building materials below the base flood elevation must be water-resistant and flood openings in the exterior walls are required.

Openings

Crawlspaces and all buildings that are wet-floodproofed must have openings to allow the free passage of floodwater. The openings must meet the following:

- There must be a minimum of two openings having an area of not less than 1 square inch per square foot of enclosed area.
- The bottom of all openings must be within one foot of grade.
- The openings may have screens, louvers, or other coverings provided that they permit the automatic entry and exit of water.

Building Materials

All building materials that are below the base flood elevation, including posts, beams, pony walls, insulation, wall finishes, and siding, must be made of flood-resistant materials:

- Concrete or masonry
- Wood of natural resistance to decay (cedar, redwood)
- Standard dimensional lumber (e.g., 2x4, 2x6)
- Exterior-grade plywood
- Metal
- Cement board
- Exterior rated gypsum board
- Closed-cell rigid foam insulation

Electrical, Mechanical, and Plumbing

- All electrical and mechanical equipment, including ductwork must be elevated a minimum of 1 foot above base flood elevation or be made waterproof.
- If any plumbing drain piping or fixtures have openings below the base flood elevation, the building drain must have a check valve or other approved method of preventing the backflow of sewage from entering the building.

Technical References

- FEMA Technical Bulletin 2
- Richland Municipal Code, RMC Ch 22.16

[1] RMC Chapter 22.16