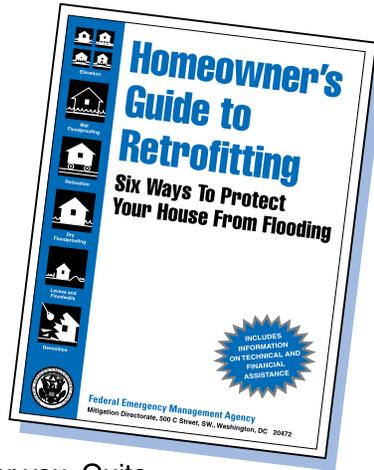


# Who The Guide Is For

As a homeowner, you need clear information about the options that are available to reduce flood damage to your home – and straightforward guidance on selecting the option that is best for you. Quite often this is a difficult task. The publication described here is for readers who have little or no knowledge of flood protection methods or building construction techniques.



You should take action to avoid repetitive flood damage to your house. First, you need to know what damage-reduction methods are available, the degree to which they work, how much they cost, and whether they meet your needs. All of these questions are answered by the guide. In addition, the guide explains how the degree of flood risk varies from one location to another. By knowing the basic questions to ask, you are guided towards the investment in retrofitting that is appropriate for you.

You can download FEMA 312, or parts of it, from FEMA's web site – <http://www.fema.gov/mit/rfit/>



Some retrofitting techniques may not be used in certain circumstances under state or local laws, ordinances, or regulations.

# Want To Learn More?

**Homeowner's Guide to Retrofitting: Six Ways To Protect Your House From Flooding** is FEMA publication 312.

Call 1-800-737-8669 to get a copy of this important guide. For copies of other FEMA publications, including those listed below, call 1-800-480-2520.

## Related Publications

- **FEMA 55**  
Coastal Construction Manual
- **FEMA 257**  
Mitigation of Flood and Erosion Damage
- **FEMA 102**  
Floodproofing Non-Residential Structures

## Recommended for Architects and Engineers —

- **FEMA 259**  
Engineering Principles and Practices for Retrofitting Flood Prone Residential Buildings

State and local representatives of emergency management, emergency services, floodplain management, building code, and planning and zoning agencies may have copies of FEMA 312 for immediate distribution.



Elevation



Wet Floodproofing



Relocation



Dry Floodproofing



Levees and Floodwalls



Demolition

# Homeowner's Guide to Retrofitting

## Six Ways To Protect Your House From Flooding



**Federal Emergency Management Agency**

**Mitigation Directorate**  
Washington, DC 20472  
[www.fema.gov](http://www.fema.gov)



# What Is "Retrofitting"?

**Retrofitting** means making changes to an existing building to protect it from flooding or other hazards such as high winds and earthquakes. FEMA publication 312, *Homeowner's Guide to Retrofitting: Six Ways To Protect Your House From Flooding*, provides information that will help you decide whether your house is a candidate for retrofitting.

The guide helps by describing six retrofitting methods that protect your house from flooding.



**Elevation** is raising your house so that the lowest floor is above the flood level. This is the most common way to avoid flood damage.



**Wet floodproofing** makes uninhabited parts of your house resistant to flood damage when water is allowed to enter during flooding.



**Relocation** means moving your house to higher ground where the exposure to flooding is eliminated altogether.



**Dry floodproofing** is sealing your house to prevent flood waters from entering.

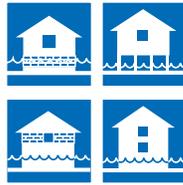


**Levee and floodwall** protection means constructing barriers to prevent flood waters from entering your house.

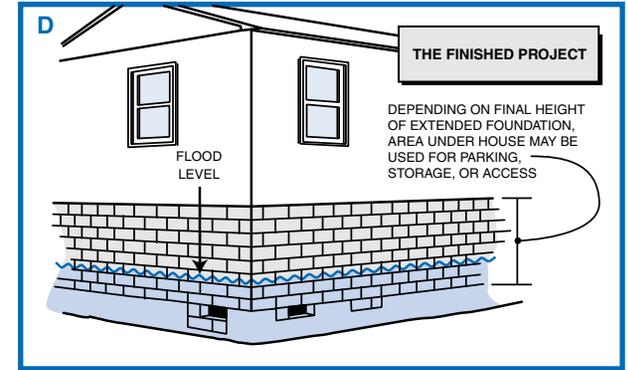
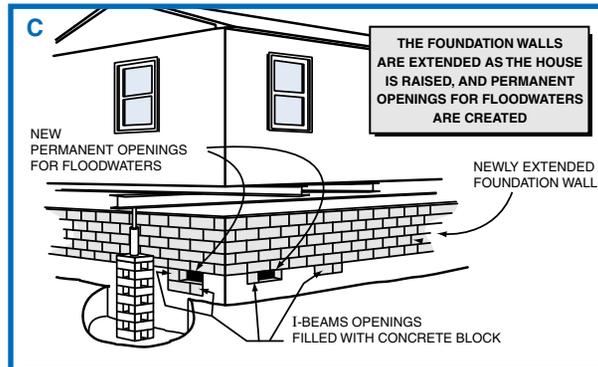
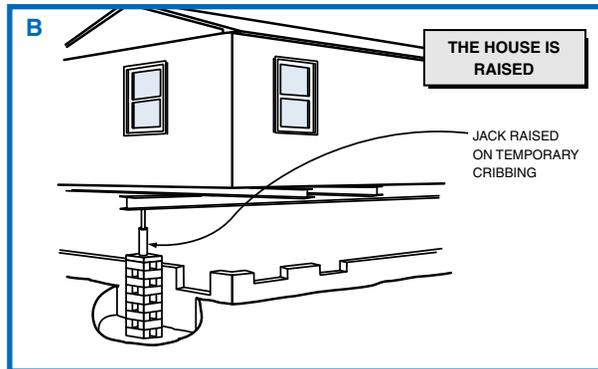
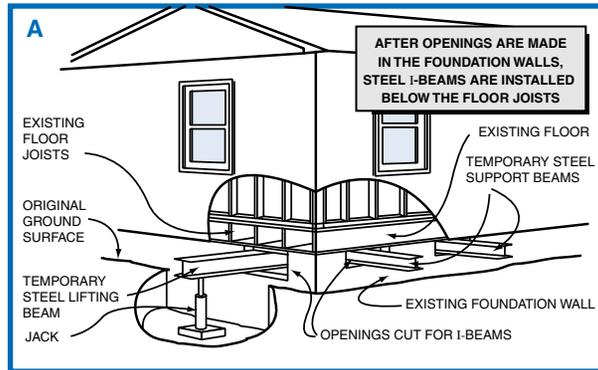


**Demolition** means razing your house and rebuilding properly on the same property or buying a house elsewhere.

The guide uses photographs and illustrations to help explain how each of the six retrofitting methods works.



For example, this series of figures from the guide shows how a house on a basement or crawlspace foundation can be elevated above the flood level on extended foundation walls.



## The Next Step

Whether or not your house has been damaged by flooding, contact your local floodplain administrator or building official before retrofitting. This contact is the critical next step in reducing your potential flood losses. Local officials know the retrofitting methods that meet state and local government requirements.

## Financial Assistance

The guide provides information on government and non-government financial assistance that can help homeowners with retrofitting projects. Financial assistance means loans, grants, and insurance payments. The assistance goes to individual property owners, communities, and states.

For example, under FEMA's National Flood Insurance Program, a policy holder may qualify for Increased Cost of Compliance (ICC) coverage. If your house is substantially damaged by flooding, ICC coverage may help pay for some types of retrofitting. Other programs, such as the Hazard Mitigation Grant Program and the Flood Mitigation Assistance Program are designed to help financially. The guide describes many government and non-government programs, and it explains how you might qualify for assistance.