

Can we afford to rebuild higher? Can we afford *not* to?



Tom and Mary Smith lived in their home for 15 years. Then in one day, it was destroyed by a flood. They considered relocating, but in the end, they decided to take out a new mortgage and rebuild. Now, they are determined to do everything they can to protect their investment and avoid another devastating flood.

When they applied for a building permit, local officials told them to build at least 5 feet above grade to meet the current building code that accounts for potential flood levels.¹ Their insurance agent told them that both their premiums and flood risk would be lower if they built higher than required.

¹ Communities that participate in the National Flood Insurance Program (NFIP) are required to have all buildings constructed in high-risk areas to be built to at least the elevation shown on the flood maps. This is known as the Base Flood Elevation (BFE) and represents the height floodwaters from a one-percent chance flood will reach or exceed in any given year. To help ensure a safer community, many communities require construction to be a foot or two higher than the BFE.



The Smiths realized that weather is unpredictable and that flood risk can change. Another big flood could happen at any time. But could they really afford to build higher? It was time to break out the calculator and do the math.

Option 1: Building to the current requirements

- Estimated construction costs: **\$400,000**
- Estimated monthly mortgage payment: **\$1,796**
- Flood insurance premium: **\$878 per month or \$10,536 per year**
- Total monthly costs: **\$2,674**

Option 2: Building 3 feet above the current requirements

- Estimated construction costs: **\$403,600**
- Estimated monthly mortgage payment: **\$1,812**
- Flood insurance premium: **\$315 per month or \$3,780 per year**
- Total monthly costs: **\$2,127**

Note: This comparison is based on a 1-story home in a VE Flood Zone built on wood pilings at BFE and 3 feet above BFE with the NFIP maximum coverage of \$250,000 building coverage and \$100,000 contents coverage with a \$1,000 deductible. Elevation costs are estimated at roughly 0.3 percent of total construction costs per additional foot of elevation. Insurance premiums are based on rates published in the Jan. 2013 NFIP Manual. Mortgage payments are based on a 30-year fixed-rate mortgage at 3.5 percent APR for the full construction amount and exclude all insurance costs. Flood insurance must be paid in full at the beginning of the coverage year.

Good news!

The Smiths will save more than \$500 every month by building 3 feet higher. In about 7 months, they will have saved more on flood insurance than they paid to build higher. Spending a little extra on construction reduced the Smiths' flood risk, cut their flood insurance premium, and increased their peace of mind.

The Smiths saved money by building higher.



Not every case is the same. Consider your situation.

The Smiths' story is only one example. There are many variables that will impact your decision about how you rebuild.

Talk to your community officials, insurance agent, builders, and other experts to answer the following questions:

1. What is my current flood zone?

Different flood zones require different kinds of construction. How you rebuild will depend in part on your zone and local building requirements.

2. How high does my community require me to build?

If the building is in a high-risk zone (beginning with the letter "A" or "V"), there is a required minimum elevation for construction. Many communities have a requirement to build even higher. This is called a "freeboard requirement."

3. What are Advisory Base Flood Elevations (ABFEs), and how will they affect me?

ABFEs sometimes are issued after a major flooding event when FEMA has more current flood hazard data available than exists in the current effective Flood Insurance Rate Maps in a given area. ABFEs are provided to communities as a tool to support them in recovering in ways that will make them more resilient to future storms.

4. Is there a chance I could be mapped into a new flood zone or have a higher Base Flood Elevation (BFE) in the future?

FEMA is working to update Flood Insurance Rate Maps nationwide. If your community has outdated maps, the new ones could show your home in a higher risk area or with a higher BFE.

5. How close am I to a high-risk flood area?

Flood risk changes over time. If you are near a high-risk zone, you might want to rebuild in a way that would comply with that zone in case maps change in the future.

6. How might my flood risks change in the future?

Physical changes can affect how much water reaches flooding sources, how far the water spreads when floods occur, and the manner in which buildings are exposed to a flood. In addition, new data gathering and modeling technology allows FEMA to identify and map flood hazard areas more accurately now than in the past.

7. How much will flood insurance cost?

National Flood Insurance Program premiums reflect flood risk. In general, if your building is in a high-risk area, the higher you build above the BFE, the lower your premium and potential for flood damage. In high-risk VE zones, any enclosed structure below the first floor of the building typically will double insurance premiums. Certain types of enclosures will further increase those premiums.

Additional Resources

- For information about post-Sandy ABFEs in New York and New Jersey: www.Region2Coastal.com
- To ask questions and get information about flood insurance, call the National Flood Insurance Program Help Center at **1-800-427-4661**
- To see if your community is eligible for Hazard Mitigation Grants: www.fema.gov/hazard-mitigation-assistance
- To learn how to build safer and stronger and potentially decrease your flood insurance premiums: www.fema.gov/building-science
- To find your current effective Flood Insurance Rate Map: msc.fema.gov
- To learn more about the National Flood Insurance Program or find an insurance agent: FloodSmart.gov or **1-888-229-0437**
- For information about local building code and permit requirements, contact your community officials



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