

Dangers of Extreme Windstorms

Extreme windstorms such as tornadoes, hurricanes and other high wind events pose a serious threat to buildings and their occupants. By damaging and/or destroying structures and turning debris into dangerous missiles, these natural disasters are capable of causing serious casualties and potentially the devastation of an entire community in a matter of seconds.

With whirling winds that can reach 300 miles per hour and damage paths in excess of one mile wide and 50 miles long, tornadoes are nature's most violent storms. Common in coastal areas of the U.S., hurricanes have resulted in severe building damage and human casualties as well. Areas in the Pacific Northwest, typically near mountain ranges, are also threatened by dangerous high wind events.



Image is courtesy of Gary Cosby, Jr. / Decatur Daily



Since the United States has more tornadoes than any other country and every state is at some risk from extreme wind events, it is essential for residents and businesses to be prepared. Building a “Safe Room” is a ideal way for individuals, families and businesses, especially in high-risk areas, to assure their safety in the event of a disaster. Although your residence or business may be built “to code,” that does not mean it can withstand extreme winds from tornadoes, hurricanes or other events. A SafeRoom provides a protective refuge during a severe storm that is built to withstand high winds and flying debris, even if the rest of the building is severely damaged or destroyed. A Safe Room can be built in several places inside your home or business such as the basement, an interior room on the first floor or on a concrete slab-on-grade foundation or garage floor.

Safe Room Resources

[FEMA 320 - Taking Shelter From the Storm: Building a Safe Room For Your Home or Small Business](http://www.fema.gov/plan/prevent/saferoom/fema320.shtm) helps you decide how best to provide near-absolute protection for yourself, your family or employees. Including results of research underway for more than 30 years on the effects of extreme winds on buildings, FEMA 320 also provides safe room information and designs that will show you and your builder/contractor how to construct a safe room for your home or small business. <http://www.fema.gov/plan/prevent/saferoom/fema320.shtm>

[FEMA 361 - Design and Construction Guidance for Community Safe Rooms](http://www.fema.gov/plan/prevent/saferoom/fema361.shtm) presents design, construction, and operation criteria for community safe rooms. It provides guidance for architects, engineers, building officials, local officials and emergency managers, and prospective safe room owners and operators about the design, construction, and operation of community safe rooms. <http://www.fema.gov/plan/prevent/saferoom/fema361.shtm>

Safe Room Financing:

The Department of Housing and Urban Development (HUD) and the Federal Housing Authority (FHA) encourage and facilitate the purchase of in-home storm safe rooms by permitting builders, homeowners and persons borrowing to build, remodel or purchase homes to obtain FHA-guaranteed loans (FHA 203(b) insured loans) for that purpose. Construction of the storm safe room may be the sole improvement. These loans are available from local lenders as mortgage loans for home purchase or improvement. To be eligible for FHA loans, safe rooms must meet the requirements of FEMA Publication 320, Performance Criteria for Tornado Shelters, or the National Storm Shelter Association Standard for the Design, Construction, and Performance of Storm Shelters: <http://www.nssa.cc>.

Additional resources:

<http://www.fema.gov/plan/prevent/saferoom/funding.shtm>

<http://www.disasterassistance.gov/>