



Substantial Damage (SD)

When structures in a floodplain undergo repair after being damaged from any source (flood, fire, etc.), it is an opportunity for floodplain management programs to mitigate future flood damages. Local floodplain coordinators must determine whether proposed work qualifies as a repair of substantial damage.

Substantial Damage and the NFIP

After a flood, buildings are often repaired or rebuilt, and then flood again. This cycle of flood-fix-flood is costly in terms of flood insurance & out-of-pocket expenses on the owner, and also affects the community by forcing it to respond to the flooding & disrupting its tax base.

Structures built to NFIP requirements experience, on average, 80% less damage through reduced frequency of flooding & severity of losses. Existing buildings can be mitigated so that little or no flood damage may occur.

Community Roles & Responsibilities

Communities are responsible for regulating all development in SFHAs by issuing permits, and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. During Substantial Damage determinations, communities should:

- Determine where the damage occurred within the community
- Determine if the damaged structures are in a SFHA;
- Determine if repairing the damaged structure equals or exceeds 50% of the structures pre-damage value;
- Require permits for floodplain development

There are five key tasks that will help you make Substantial Damage determinations:

- 1) Identify the staff tasked with doing the assessments;
- 2) Define the assessment area (i.e. structures damaged in mapped floodplains);
- 3) Conduct a rapid safety evaluation of the area;
- 4) Perform the assessment(s) and record the data; and
- 5) Notify the property owners, in writing, of the determination, as well as next steps.

What is substantial damage?

A building is considered to be Substantially Damaged when *“damage of any origin is sustained by a structure, whereby the cost of restoring the structure to its pre-damage condition would equal or exceed 50 percent of the market value of the structure before the damage occurred”*

If a structure is substantially damaged, what happens next?

If the cost necessary to fully repair the structure to its pre-damage condition is equal to, or greater than, 50 percent of that structure's market value before damages, then the structure must be elevated or floodproofed to or above the level of the base flood, and meet any additional requirements of the local floodplain ordinance.

All structures that are determined by the local community to be substantially damaged are automatically considered to be substantial improvements, regardless of the actual repair work performed.

Talk to your community's floodplain coordinator to learn more.

Administering Substantial Damage Requirements

Administering the Substantial Damage requirements listed in the Community's ordinances requires local officials to perform four major actions: 1) determine the cost of repairs, 2) determine the structure's market value, 3) make the substantial damage calculation, and 4) inform & educate the property owner of the determination results, as well as the required actions to bring the structure into compliance.

Cost of Repair is generally either provided by the property owner in the form of an estimate of costs, or they can be estimated by the local officials using FEMA's Substantial Damage Estimator Tool. Insurance adjuster estimates should not be used as it estimates damage only, not the cost to repair the building.

FACTORS TO CONSIDER: COST OF REPAIR

Consistency is important. It is easier to defend substantial damage determinations if all applicants are treated the same, especially when many buildings have been damaged. Communities should decide in advance how they will handle significant events and develop procedures to respond.

A variety of factors must be included in the Cost of Repair calculations, including:

- Materials and Labor cost, including donated or discounted materials and owner or volunteer completed labor
- Demolition and debris disposal
- Structural elements
- Elevation or Floodproofing
- Utility and Service Equipment
- Finishes (Interior and Exterior)
- Site Preparations
- Contractor overhead or profit
- Costs associated with complying with regulation or code requirements

Determining market value is determined using data from each counties' PVA (<http://www.kypvas.com/>). If the property owner disagrees with the PVA assessment, Fair Market Value can also be determined using a professional appraisal, an adjusted assessed value, actual cash value, or a qualified estimate.

Once the cost of repair & the market value are determined, divide the cost of repair by the market value as shown in Figure 1. If the result is greater than or equal to 50 percent, then the damage is considered substantial and the structure must be brought into compliance with the community's ordinance. Officials should issue the property owner a determination letter informing them of the determination, as well as next steps.

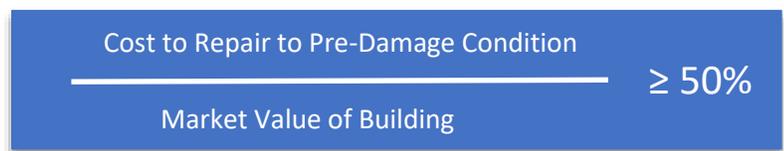


Figure 1. Formula used to calculate Substantial Damage.

Mitigation Projects and Funding

Disasters create a window of opportunity to increase risk awareness and reduce risk from future flooding events. Understandably, property owners may be concerned about the costs of mitigating and meeting state & local floodplain requirements. However, there are several funding sources available to help property owners comply. Hazard Mitigation Assistance (HMA) grants fund mitigation pre-disaster, and Hazard Mitigation Grant Program (HMGP) & SBA Loans may be available post-disaster to mitigate Substantially Damaged structures. Owners with flood insurance may also have access to Increased Cost of Compliance (ICC) funding, which can provide up to \$30,000 to mitigate Substantially Damaged structures. [Contact your local floodplain coordinator](#) to learn more.

Resources:

Substantial Damage/Substantial Improvement Desk Reference: tinyurl.com/y9c9x64c

Answers to Questions About Substantially Damaged Buildings: tinyurl.com/ycpf36f8

Contact the Division of Water: water@ky.gov or (502) 564-3410