

Substantial Damage Assessments

Why do we do them?



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The Community's floodplain ordinance has general and specific requirements for New construction and substantial improvements



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“Substantial Improvement” means

- "any reconstruction, rehabilitation, addition, alteration or other improvement of a structure in which the cost equals or exceeds fifty percent (50%) of the market value of the structure before the "start of construction" of the initial improvement.
- This term includes structures which have incurred "**substantial damage**", regardless of the actual repair work performed.



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“Substantial Improvement” cont

- The market value of the structure should be
 - ▶ (1) the appraised value of the structure prior to the start of the initial improvement, or
 - ▶ (2) in the case of substantial damage, the value of the structure prior to the damage occurring.



"Substantial Damage" means

- damage of **any origin** sustained by a structure
- whereby the cost of restoring the structure to its before damaged condition
- would equal or exceed fifty percent (50%) of the market value of the structure
- before the damage occurred.



Why Make Substantial Damage (SD) Assessments?

1. Communities that participate in the NFIP are **required** to determine if structures have SD after a damage event.
2. **This applies to all structures within the Special Flood Hazard Area (SFHA) (aka 1% chance floodplain).**



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Purpose of Substantial Damage Assessments/Inspections

1. To **estimate** damages in order for a community to determine if the **overall percent damage** of a structure is above or below the NFIP required 50% threshold for Substantial Damage (SD).
2. The determination must be **reasonable and defensible**.
3. The Substantial Damage Estimator software allows local officials to rapidly collect the data based on visual observations to determine substantial damage in a formal, documented manner.



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Definition of Substantial Damage

Damage of **any origin** sustained by a structure whereby the cost of restoring the structure to its pre-damage condition would **equal or exceed 50%** of the market value of the structure before the damage occurred.

“Any origin” refers to any natural or man-made hazards. (*“Damage is damage”*).



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Damage of Any Origin

Although the primary cause of damage may be flooding or flooding and high winds, the SD inspectors need to evaluate the impact of all damages, including:

- ▶ Fire, tornado, significant lack of maintenance, foundation settlement, trees hitting the roof, and even vandalism
- ▶ Damages that occurred prior to the most recent damage event



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The SD Equation

$$\frac{\text{Cost of Repairs}}{\text{Pre-damage market value}} \geq 50\%$$



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The SD Equation (cont.)

1. The **cost of repairs** are based on the percent damage of individual elements within a structure.
2. The **pre-damage market value** refers to the value of the structure the day before the damage occurred.
3. The structure value **does not include the value of land, contents, personal belongings, or detached structures.**



The Goal

The objective is not to determine if a structure is 55% or 65% damaged.

The goal is to determine whether the overall structure damage is above or below 50% and that the damages are reasonable and that SD determination is supported by the data collected for that inspection.



SD Determinations

*Only the **community** makes substantial damage determinations.*



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Federal, State, and Local Roles

Federal, State, and local levels of government have distinct responsibilities related to Substantial Damage



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Local Role

Communities are responsible for:

- Making timely SD determinations for public and privately owned damaged structures
- Choosing the methods by which SD determinations will be made
- Providing property data for use in making SD assessments



Local Role (cont.)

- **Informing structure owners about the need for SD determinations and post-disaster permit requirements in a timely manner**
- **Enforcing NFIP requirements and their local floodplain management ordinances and building codes, including Substantial Improvement/Damage requirements for improvement and repairs of buildings**



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Local Role (cont.)

- Local officials in communities that participate in the NFIP must determine whether proposed work to structures qualifies as a Substantial Improvement or repair of Substantial Damage.
- If work on a building constitutes either Substantial Improvement or repair of Substantial Damage, *the structures must meet the current local floodplain management regulations, if it doesn't it will have to be brought into compliance.*



State Role

**Enforcing NFIP requirements,
including Substantial
Improvement and Damage
requirements for improvement
and repairs of buildings**

**What does this last responsibility
mean?**



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State Role (cont.)

States are generally responsible for:

Assisting communities with identifying and prioritizing neighborhoods that will require SD determinations after a hazard event



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State Role (cont.)

- If applicable, assisting FEMA in prioritizing communities for assistance
- Substantial Damage determinations on all State-owned facilities
- Helping communities understand requirements



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Federal Role

FEMA, through administration of the NFIP:

- Trains community and state staff on post-disaster SD requirements and how to meet them
- Administers the NFIP programs and requirements



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Federal Role (cont.)

- **Supplements State and local SD capabilities with technical assistance and training following presidential disaster declarations**
- **Communicates with, and provides technical assistance to, tribal governments**
- **Liaisons with State and if requested, communities**



Community Responsibilities

- 1. Identify an agency or department responsible for floodplain management.**
- 2. Determine if proposed structures will be within the SFHA.**
- 3. Review development proposals for compliance with the floodplain management ordinance.**
 - ▶ Issue or deny SFHA development permits**
- 4. Provide technical assistance and data for revising floodplain maps**



Community Responsibilities (cont.)

5. Assist residents in understanding flood hazards, floodplain maps, and SD.
6. Review post-disaster evaluations of damaged structures for SD.
7. Review cost estimates for post-disaster repairs to determine if they are complete and reasonable based on the damages.



Community Challenges

What post-disaster challenges might a community face that would affect their ability to meet the SD requirements in the after-math of a disaster?

- **The next four slides will provide some common challenges.**



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Community Challenges (cont.)

1. **Knowing their community obligations under the NFIP for post-disaster actions.**
2. **Lack of experience with disasters**
3. **Multiple, competing interests**
4. **Limited staff availability**



Community Challenges (cont.)

5. Loss of utilities - electric, gas, water, wastewater, phone, internet
6. Loss of critical services – police, fire, EOCs, medical
7. Damaged city facilities
8. Infrastructure damage



Community Challenges (cont.)

9. Large number of affected structures
10. Large number of applicants for permits
11. Neighboring communities also affected by disaster/size of the disaster
12. Extent of damage in the floodplain



Community Challenges (cont.)

- 13.** Lack of pre-disaster data on building values
- 14.** Inability to locate pre-disaster data on building values or repair costs
- 15.** Lack of access to damaged or restricted areas due to flooding, debris, or downed power lines.



FEMA Technical Assistance

FEMA offers a variety of SD technical assistance to communities after a disaster, depending on State, Tribal, and local needs. This may include:

- 1. Providing current SD guidance and training materials.**
- 2. A refresher course on SD determinations - conducted in person or via a webinar.**
- 3. Training on the SD requirements, data collection, use of the SDE tool and tracking of inspections**



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FEMA Technical Assistance (cont.)

4. Kick-off meetings to implement SD
5. Potential technical assistance via SD data collection when the potential number of SD buildings is high and local resources are limited
6. Assigning FEMA Hazard Mitigation (HM) Floodplain Management Specialists to provide local training and technical assistance



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For more information contact

- **Amy Miller, CFM,**
State NFIP Coordinator
Office: 615-532-6683
Cell: 615-866-8342
Amy.J.Miller@tn.gov
- **Tammy Hansen, CFM,**
FEMA Region IV, Floodplain Management
Office 770-220-5288
Cell 404-307-0242
Tamara.Hansen@fema.dhs.gov



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