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Considerations

- Minimum Standard
- Big Impact to property owners
- Duty of local FPA
- Consistent, Fair
- Community Appropriate
- Realistic about Resources
- Increased Cost of Compliance Coverage



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What is substantial damage?

Substantial damage applies to a structure in a Special Flood Hazard Area (SFHA) – or a 1-percent-annual-chance floodplain – for which the total cost of repairs is **50 percent or more** of the structure's market value before the disaster occurred, **regardless of the cause of damage.**

FEMA Substantial Damage Fact Sheet

$$\frac{\text{Cost of Repairs}}{\text{Market Value of Structure}} \geq 50\%$$

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What is substantial damage?

$$\frac{\text{Cost of Repairs}}{\text{Market Value of Structure}} \geq 50\%$$


Pre-Damage Building Market Value = \$40,500

Contractor or Donated Materials and Labor

1. \$
2. \$
3. \$
4. \$
5. \$

Repair = 62%

Floodplain Development Permit

- ✓ Substantial Improvement
- ✓ Elevate Above BFE

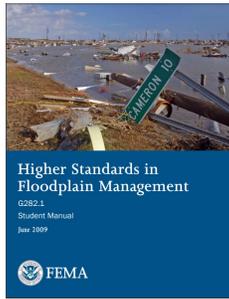
Permit/Elevation Required

Graphic from FEMA Flood Insurance Quick Guide

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Some ifs, ands, or buts

- Higher standard, lower threshold
- Additional Locations – 500-year floodplain, Floodway, Repetitive Loss Areas
- Critical Facilities
- Cumulative or Noncumulative
- Historic Structure Exemption



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Substantially damaged, now what?

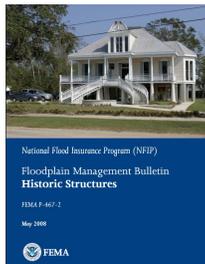
- Demonstrate Compliance
 - Elevation certificate
 - Flood protection certificate (for non-residential only)
 - Historic
- Come into compliance



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Exemption for Historic Structures

- State or Federally Designated
- Compliance impacts historical designation
- Exemption means that substantial damage repair can be permitted without elevation or floodprotection



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What is the cost to repair?



Cost to repair to pre-damage condition



Cost of Labor (even if volunteer or DIY)



Cost of Materials and Supplies (even if discounted, donated or previously purchased)

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Cost to Repair – Included Costs



- Materials and Labor
- Foundation Excavation
- Demolition and construction debris disposal
- Cost of code compliance triggered by this work
- Cost of elevation
- Construction Management
- Contractor's overhead and profit
- Sales tax on materials
- Structural Elements and Exterior Finishes
- Interior Finish Elements
- Utility and Service Equipment

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Cost to Repair – Excluded Costs

- Clean up and trash removal
- Temporary Stabilization for Safety
- Plans and Specs
- Land Survey
- Permit and Inspection fees
- Carpeting over finished floor
- Outside improvements
- Costs to correct existing health, safety and sanitary codes
- Plug in appliances



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How do you document cost of repairs?

- Substantial Damage Estimator
- Detailed Itemized Cost Estimate*
- FEMA Final Proof of Loss **



*considering requiring that it is signed and notarized by contractor and owner
 **If approved by FEMA, may include costs that should be excluded

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What is the market value of a structure?

- Pre-damage/Pre-event Market Value
- Must not include land, site improvements or accessory buildings
- Must be based on pre-damage/pre-event condition (depreciated)

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How do you document market value of structure?

- Appraisal District Records
- Substantial Damage Estimator
- Professional Appraisal (Depreciated Cash Value)
- FEMA Final Proof of Loss



THIS YEAR'S MARKET VALUE FOR ACCOUNT NUMBER [REDACTED]		
Land Market Value	Buildings and Other Improvements	Total Market Value
199,968	287,464	487,432
APPRAISED VALUE		
Last Year's Appraised Value		This Year's Appraised Value
484,359		487,432

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Consider Apples to Apples

Option	Repair Cost	Value of Structure
1* <input type="checkbox"/>	Flood Damage Repair Form (see attached)	Flood Damage Repair Form (see attached) OR HCAD Summary (www.hcad.org) - (FMO can provide this for you)
2 <input type="checkbox"/>	NFIP Proof of Loss or Final Report including attached detailed itemized cost estimate (see attached examples)	NFIP Proof of Loss or Final Report
3* <input type="checkbox"/>	Project Cost Estimate Form (see attached)	HCAD Summary (www.hcad.org) - (FMO can provide this for you) OR Private Appraisal of Pre-Damage Market Value of Structure Only (from an appraiser licensed in the State of Texas)
4 <input type="checkbox"/>	Elevation Certificate (from a Texas Registered Professional Land Surveyor) demonstrating that structure is compliant (meets requirement that lowest floor is 2' above 500 year elevation and all other floodplain requirements). No cost or value information required.	

*FIELD VERIFICATION MAY BE REQUIRED

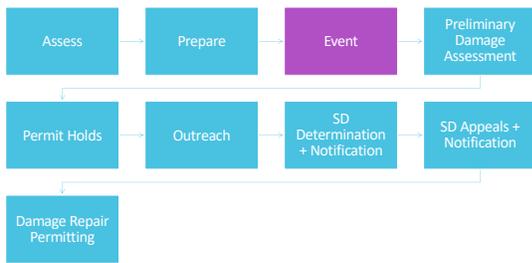
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Substantial Damage Process

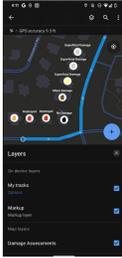
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Substantial Damage Administration



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Do you need to do a Preliminary Damage Assessment?



- Severity of Event
- Count of flood prone properties
- Characteristics of Structures
- Possibility of Permit Holds
- Compliance Orientation of Community
- Other Uses of Data
- Desktop or Field Observations?
- Resources Available?

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Prepare for Substantial Damage Estimates

- Training from FEMA
- Prepare Training for local resources
- Download
- Understand required inputs (cost of construction/SF)
- Develop local guidelines for use
- Consider pre-populating



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Are you ready?

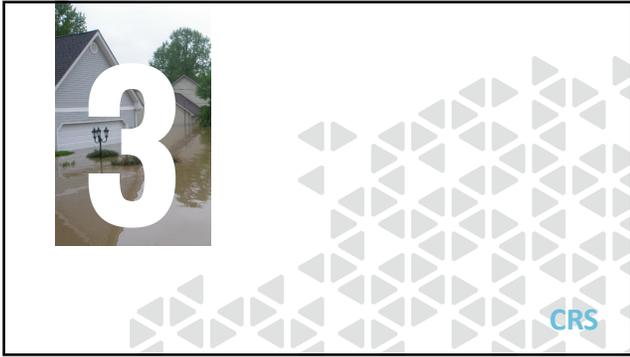
Documents and Forms

- ✓ Flood Damage Repair Form
- ✓ SD Determination Letter
- ✓ SD Determination Request
- ✓ SD Appeal Request
- ✓ SD Release Letter
- ✓ SD Notice
- ✓ Sample Cost Estimate Documentation
- ✓ Sample Market Value Documentation
- ✓ Sample Elevation Certificates

Outreach Materials

- ✓ Door Hangers/Inspection Tags
- ✓ Flood Damage Repair Permit FAQs
- ✓ Substantial Damage FAQs
- ✓ FEMA ICC Brochures
- ✓ Local Mitigation Grant Info
- ✓ Other Print materials
- ✓ Webpage and social media posts
- ✓ Governmental Official Briefing Materials
- ✓ Public Meeting Presentations

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Available Credits

- Maximum credit 140 points
- SDP1 = 40 points for development of substantial damage management plan
- SDP2= 50 points for prepopulating FEMA's substantial damage estimator
- SDP3=50 points for considering pre-event mitigation alternatives

National Flood Insurance Program
Community Rating System
Coordinator's Manual
FIA-15/2017
FEMA

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Developing a Substantial Damage Management Plan

- Use appropriate definition for substantial damage
- Address Higher Standards
- Use 6 step planning process to generate the plan
- Prepare an evaluation report every year
- Inform elected officials
- Revise and update the plan as appropriate and make current versions available
- Make plan available to state and FEMA

	1. Assess Vulnerability <ul style="list-style-type: none"> • Review regulations • Identify risk • List and map structures
	2. Assemble a Team <ul style="list-style-type: none"> • Identify staff & needs • Organize team
	3. Identify Post-flood Actions <ul style="list-style-type: none"> • Plan substantial damage determination process • Communicate with community
	4. Build a Database <ul style="list-style-type: none"> • Collect basic building information • Pre-populate FEMA's SDE (for SDP2 credit)
	5. Identify Pre-Flood Actions <ul style="list-style-type: none"> • Engage the public • Explore mitigation alternatives (for SDP3 credit)
	6. Implement and Update the Plan <ul style="list-style-type: none"> • Annual evaluation reports • Periodic update of the plan

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FEMA Training – Emergency Management Institute

- Preparing for Post-Disaster Responsibilities (G0194.4)
- Advanced Floodplain Management Concepts III (G0284)
- Substantial Improvement/ Substantial Damage (G0284.5)
- Using the Substantial Damage Estimator 2.0 Tool (IS0284)
- Substantial Damage Estimation for Floodplain Administrators (IS0285)



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Helpful links

- https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf
- <https://training.fema.gov/emi.aspx>
- https://www.fema.gov/sites/default/files/documents/fema_community-rating-system_coordinators_manual_2017.pdf
- <https://houstonemergency.org/repairing-flood-damage-in-the-floodplain-frequently-asked-questions-faq/>
- <https://www.fema.gov/fact-sheet/substantial-damage-quick-guide>
- https://www.fema.gov/sites/default/files/documents/fema_nfip_substantial-improvement-substantial-damage-desk-reference.pdf
- <https://www.fema.gov/emergency-managers/risk-management/building-science/substantial-damage-estimator-tool>

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