

The background image shows an aerial view of a residential neighborhood severely affected by flooding. Many houses are completely submerged in dark, muddy water, with only their roofs and upper stories visible. The surrounding landscape is a mix of water and debris. A large, irregular orange shape covers the central portion of the slide, containing the title text.

Substantial Damage & Post-Disaster Training for Floodplain Administrators

FL Office of Floodplain Management and VT
Department of Environmental Conservation

Today's Agenda

- Overview of Responsibility
 - What is SD (SDE and SDD)
 - Community Responsibility vs State/FEMA Responsibility
 - Neighbor Conflicts (repairs & permitting)
- Communicating Before the Flood
 - Consistency
 - Resources
- Assessing Structures
 - Preparing for Assessments (logistics/planning)
 - What Data Needs Collecting
- Special Situations
 - Historic Structures
 - Strip Malls & Townhomes
 - “Original Use/Design” of the Building

Emergency Management Assistance Compact (EMAC)

Managed by the
National Emergency
Management
Association (NEMA)

Member states
provide assistance
to requesting States

Larger pool of
resources than
SMAA



The Community's Role: Requirements for NFIP- Participating Communities

What is Substantial Damage?

- Substantial damage, as defined in 44 CFR § 59.1, 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 50 percent of the market value of the structure before the damage occurred



Inspections in a Post-Disaster Environment

- PDAs/IDAs
- JPDAs
- SDEs
- SDDs

What is a Preliminary Damage Assessment (PDA)?



Quick ‘windshield review’ by local community to assess the extent of damage



Yields a broad characterization of the # of buildings affected and the level of anticipated damage



Specific process used to gather supporting information for a Presidential Disaster Declaration



Split into IA (residential) and PA (public facilities)



Data can be used for Substantial Damage evaluations



The PDA Process

Conduct Initial Damage Assessment

Local or tribal government collects data to estimate extent of damage



Send IDA Data

Local and tribal governments send data to state/territory – or, the tribe chooses not to participate in the state declaration and sends IDA data directly to FEMA



IDA Verification

State, territory, or tribe verifies IDA data



Request Joint PDA

State, territory, or tribe requests joint PDA with FEMA



Conduct Joint PDA

FEMA and SLTT Partner(s) conduct joint PDA to assess and validate damage



PDA Pocket Guide

August 2021

What is a Substantial Damage Estimate (SDE)?

The cost of repairing a structure to its **pre-damaged condition** compared to the market value of the structure prior to the damage

If the cost of the repairs **meets or exceeds 50% of the market value** of the structure, the structure is considered **substantially damaged**

Substantially damaged buildings must be mitigated & brought up to **current ordinance standards**



Who makes Substantial Damage determinations?

- While help may be offered to perform inspections and gather data, the final SI/SD determinations and permit decisions remain the responsibility of the local official in the affected community.





Plan Ahead to Communicate to Elected Officials, Community Managers, & Emergency Managers

Pre-Disaster Questions- Be prepared to do your job!

- Have you explained to your Community Manager/Elected Officials about your post-disaster NFIP activities? Are they aware of the requirements?
- Have you informed your Elected Officials & Community Managers about the roles you must serve?
- Do you coordinate with your Emergency Manager before, during, and after an event? Do they understand the difference between PDAs and SDEs?
- Have you gone over ‘what if’ scenarios with your permitting staff regarding SDEs and property owner challenges?



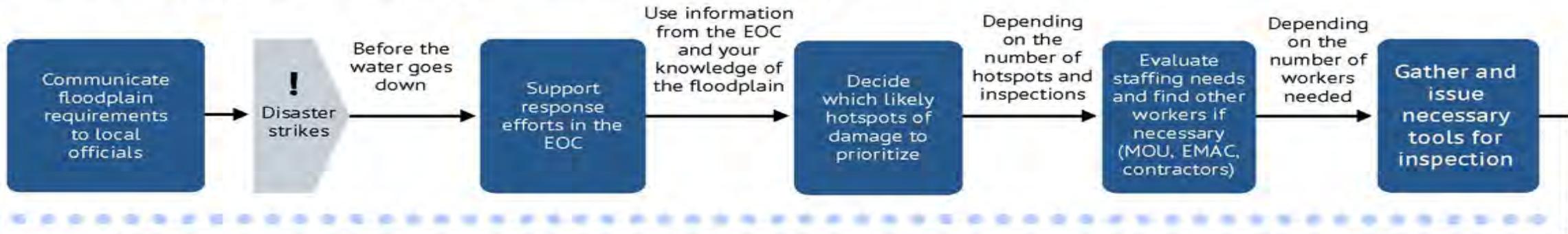
Property owners must be...

- Advised of the need to conduct inspections
- Reminded that permits are still required
(fees can be waived, expedited permit process initiated)
- Informed when a preliminary determination of substantial damage is made and what it may mean

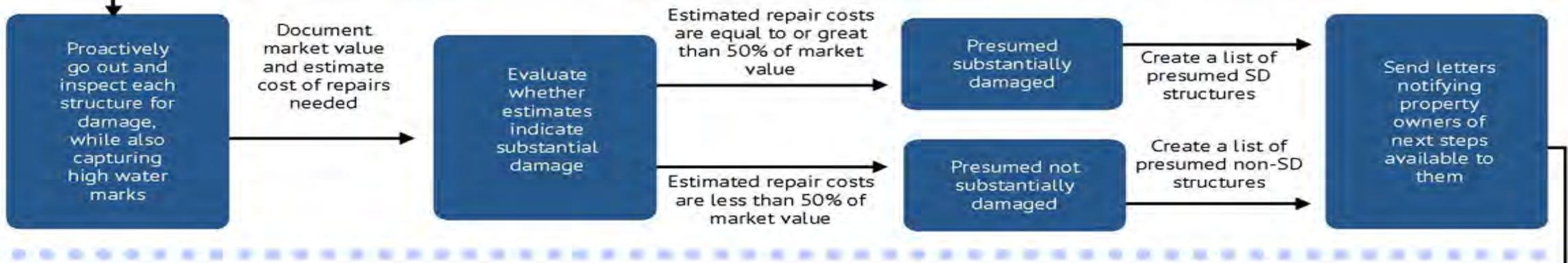
Communicating
with Citizens

Substantial Damage Process Chart

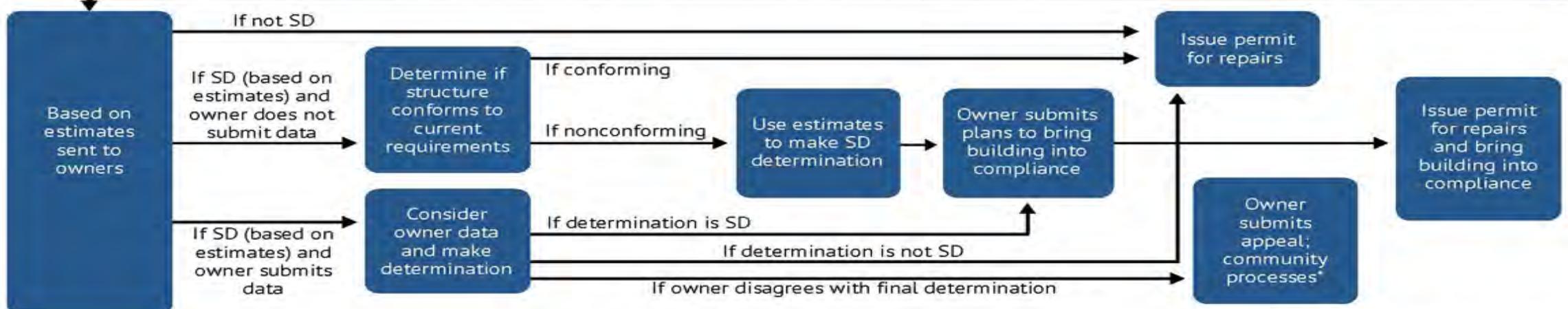
Preparation



Data Gathering



Administration



*Process chart does not show the steps taken to process appeals. Results could be to sustain or revise the Substantial Damage Determination.

Preparing Your Community for Assessments



Who's Knocking at Your Door?

After a flood disaster, expect multiple visitors who will want to help you recover. It's common for multiple visitors to perform damage assessments on your home. No matter who's knocking, always ask for identification and the purpose of the visit. Never give out personal information such as your Social Security or bank account number. Government officials will never ask for money and you should never pay for their service.



INSURANCE



Flood Insurance Adjuster

If you file an NFIP policy claim, you will receive a call and a visit from a flood insurance adjuster. They will collect information, take photos, and help fill out claims paperwork. They will have a Flood Adjuster Certification Card and picture ID.



Homeowners Insurance Adjuster

If you file a claim with your homeowners insurance, a homeowners insurance adjuster will call and visit to assess non-flood damage. They should have a state-issued agency license or ID.



Auto Insurance Adjuster

Adjusters will call or visit to assess vehicle damage.



GOVERNMENT



FEMA Inspector

If you apply for federal disaster assistance, a FEMA inspector may call and visit to assess your property damage. They will have a FEMA ID badge.



Local Building, Permitting, & Government Officials

Officials inspect damaged buildings to determine if they can be occupied. If they have damage, officials (state/county/local) may visit to gather damage data in the weeks and months after an event to inspect and collect information. They should have an ID badge from their agency.



SBA Loss Verifier

If you apply for a Small Business Administration (SBA) disaster loan, an SBA loss verifier may call to discuss your property damage or schedule a visit. They will have an SBA ID badge.



Local Floodplain Manager

If you live in a Special Flood Hazard Area (SFHA), a local floodplain manager may call or visit to determine if a structure is "substantially damaged" and to explain how to comply with current floodplain regulations. They should have their agency's ID badge.



OTHER

Nonprofits, Charitable, Religious, and Volunteer Organizations

A group of highly-competent organizations with service-oriented missions and ministries that leverage skilled and passionate volunteers. They can be connected to the National Voluntary Organizations Active in Disasters (National VOAD) forum by government partners and should be easily identifiable with signage.

Community Associations

A Homeowner's (HOA) or Condo Association (CA) representative may inspect damaged homes to make sure they are compliant with HOA and CA regulations. Some HOA's or CA's carry flood insurance policies for condo or townhouse communities and may need to inspect damaged homes in order to file a claim.

Public Adjusters

Third-party certified public adjusters may offer help to inspect damaged homes and help you file claims for insurance, grants, and loans, but be cautious. There is usually a fee of 10% to 30% of your total settlement. Be sure to ask for credentials. One organization, the National Association of Public Insurance Adjusters, certifies members who must agree to a Code of Ethics and other requirements.



FEMA



How to Begin Building Rapport with Citizens?

Understanding and Managing Flood Risk: A Guide for Elected Officials

Flood management protects people and property. ASFPM's three-part guide breaks down the key information you need to fulfill your responsibility as an elected official.

Wise flood management provides the means to address your flood problems before, during, and after an event, as well as create sustainable development for future generations.



Volume I: The Essentials

Learn the essentials that elected officials need to know about flood risk in their communities.

Volume II: Moving Beyond the Essentials

Take a deeper dive into property protection, flood insurance, managing and strengthening local floodplain management programs, and more.

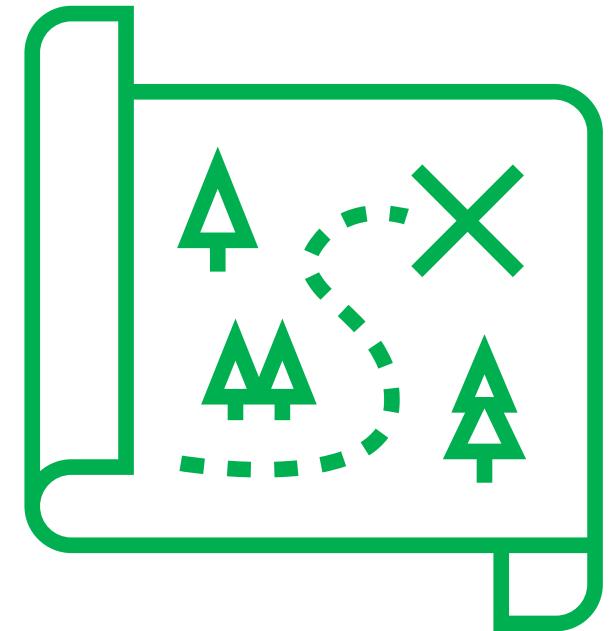
Volume III: Success Stories

Explore case studies and interviews from a variety of communities nationwide that successfully tackled flood mitigation.

- Local and elected officials should let citizens know who is coming!
 - Transparency builds trust
 - Citizens can make informed decisions
 - Decrease the spread of misinformation
- Association of State Floodplain Managers' "*Understanding and Managing Flood Risk: A Guide for Elected Officials*"

Preparation is Key!

- What level of damage is the community facing?
 - Record flood?
 - Community's capabilities?
 - High watermarks?
- Will the assessments be done proactively?
 - Benefits: SDD needed for ICC claim
- What equipment is needed?
 - Technology/chargers
 - Personal Protective Equipment (PPE)
 - Clip boards, tape measurers





Managing SI/SD Teams



- How many people on a team? Who will lead?
- Establish timeframes:



x



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Number of Homes

Number of Minutes
Inspection Team(s)
Need per Home

Number of Teams

Number of Hours



- How will information be recorded in the field?
- What system will be used?
- Be prepared to listen, answer questions, and help if possible!





Be Consistent!



- How does your community define market value? Will you accept private appraisals, adjusted assessed values, qualified estimates, or actual cash value?
- How is your community estimating cost to repair?
- Forms and checklists for SD





Substantial Improvement/ Substantial Damage Desk Reference

FEMA P-758 / May 2010



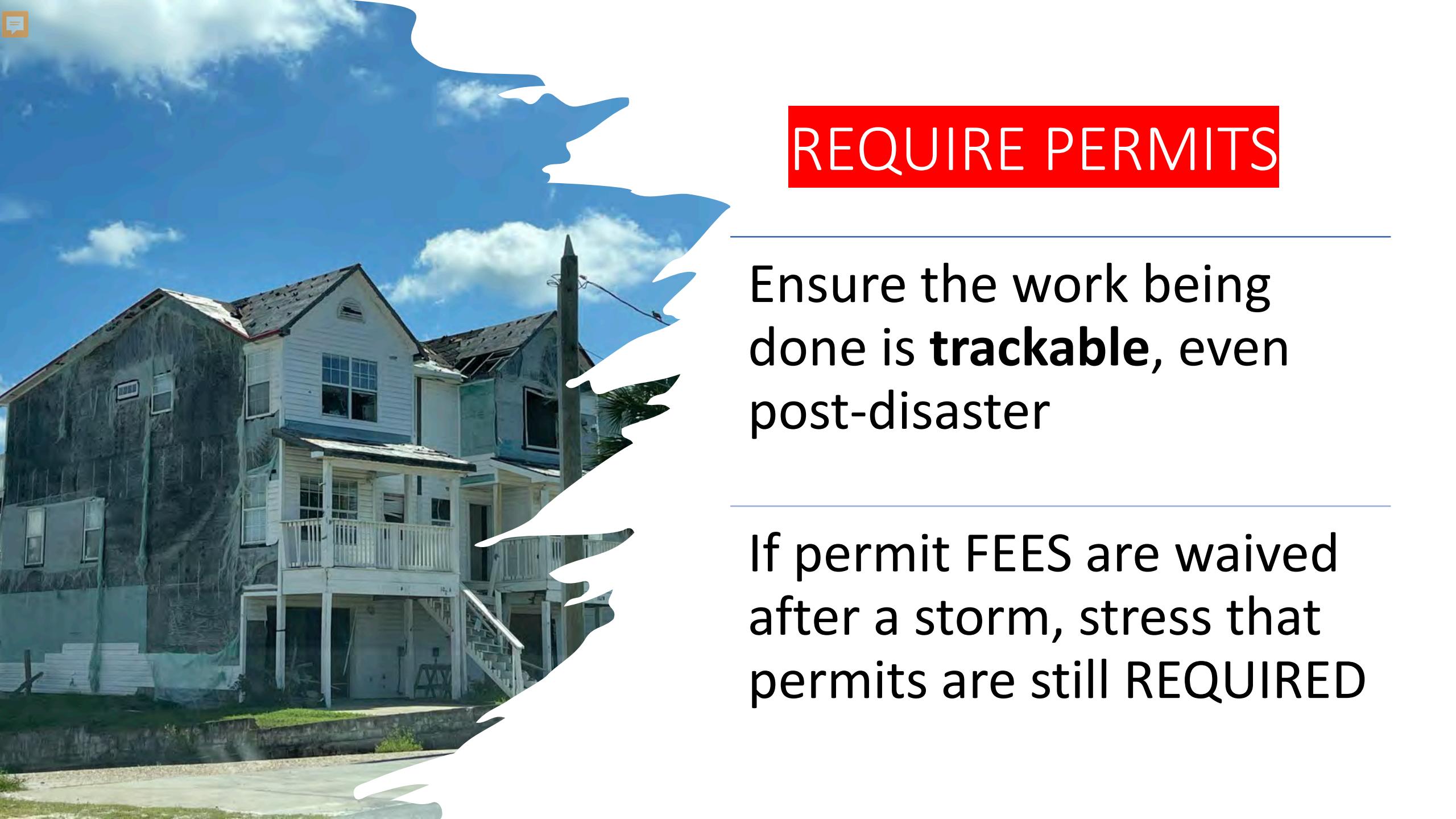
FEMA



Post-Disaster Permitting & Staff Engagement



MitiGator



REQUIRE PERMITS

Ensure the work being done is **trackable**, even post-disaster

If permit FEES are waived after a storm, stress that permits are still REQUIRED



Activities in SFHAs that Require Local Permits and Approvals

- Construction of new buildings
- Additions to buildings
- Substantial improvements of buildings
- Renovation of building interiors
- Repair of substantially damaged buildings
- Placement of manufactured (mobile) homes
- Subdivision of land
- Construction or placement of temporary buildings and accessory structures
- Construction of agricultural buildings
- Construction of roads, bridges, and culverts
- Placement of fill, grading, excavation, mining, and dredging
- Alteration of stream channels



Floodplain development or building permits must be obtained before these and **ANY** land-disturbing activities occur in flood zones.

Revisiting “Substantial Damage”



- Damage of **any origin** sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred
- Work on structures that are determined to be substantially damaged is considered to be substantial improvement, regardless of the actual repair work performed

$$\frac{\text{Cost of Improvement or Cost to Repair to Pre-Damage Condition}}{\text{Market Value of Building}} \geq 50\%$$



Included vs. Excluded Costs

- **INCLUDED**
 - Materials and labor, inc. estimated value of donated/discounted materials
 - Demolition and construction debris disposal
 - Contractor's overhead and profit
 - Structural elements (foundations, walls, windows, subflooring, roofs, attached decks, etc.)
 - Interior finish elements (floor finishes, wall finishes, built-in cabinets, doors, hardware, etc.)
 - Utility and service equipment
- **EXCLUDED**
 - Clean-up/trash removal
 - Permit and inspection fees
 - Outside improvements (landscaping, sidewalks, fences, pool enclosures, detached structures)
 - Costs to temporarily stabilize a building so it is safe to enter and identify required permits
- Refer to **Section 4.4** in the *P-758: Substantial Improvement/Substantial Damage Desk Reference* for a full list

Establish Protocols for Tracking SDD

- Will your community be **active** or **passive** in making SDDs?
 - Consider the pros and cons of each relating to reporting and compliance
 - Set expectations for SD calculations



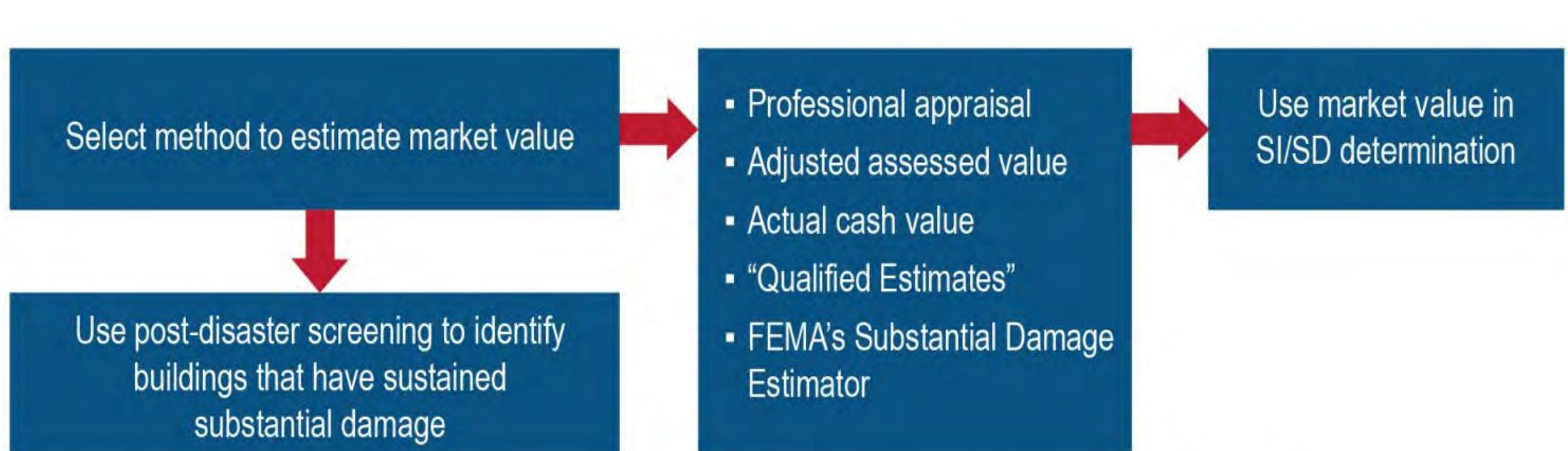


Figure 3. Determining the market value (from FEMA P-758, Figure 4-3)

Determine Market Value

- NFIP regulations do not define “market value”
- Pre-improvement or Pre-damage building value
- Less **land value** and site improvements



Determine Construction Costs

- Includes materials, labor, overhead, and more!
- Acceptable sources:
 - **Itemized costs by licensed contractors or cost estimators**
 - Building valuation tables by building code orgs
 - Qualified estimates by local official, usually only post-disaster
 - Building owners' cost estimates

The costs of **all** work necessary to **restore** a damaged building to its **pre-damage condition**

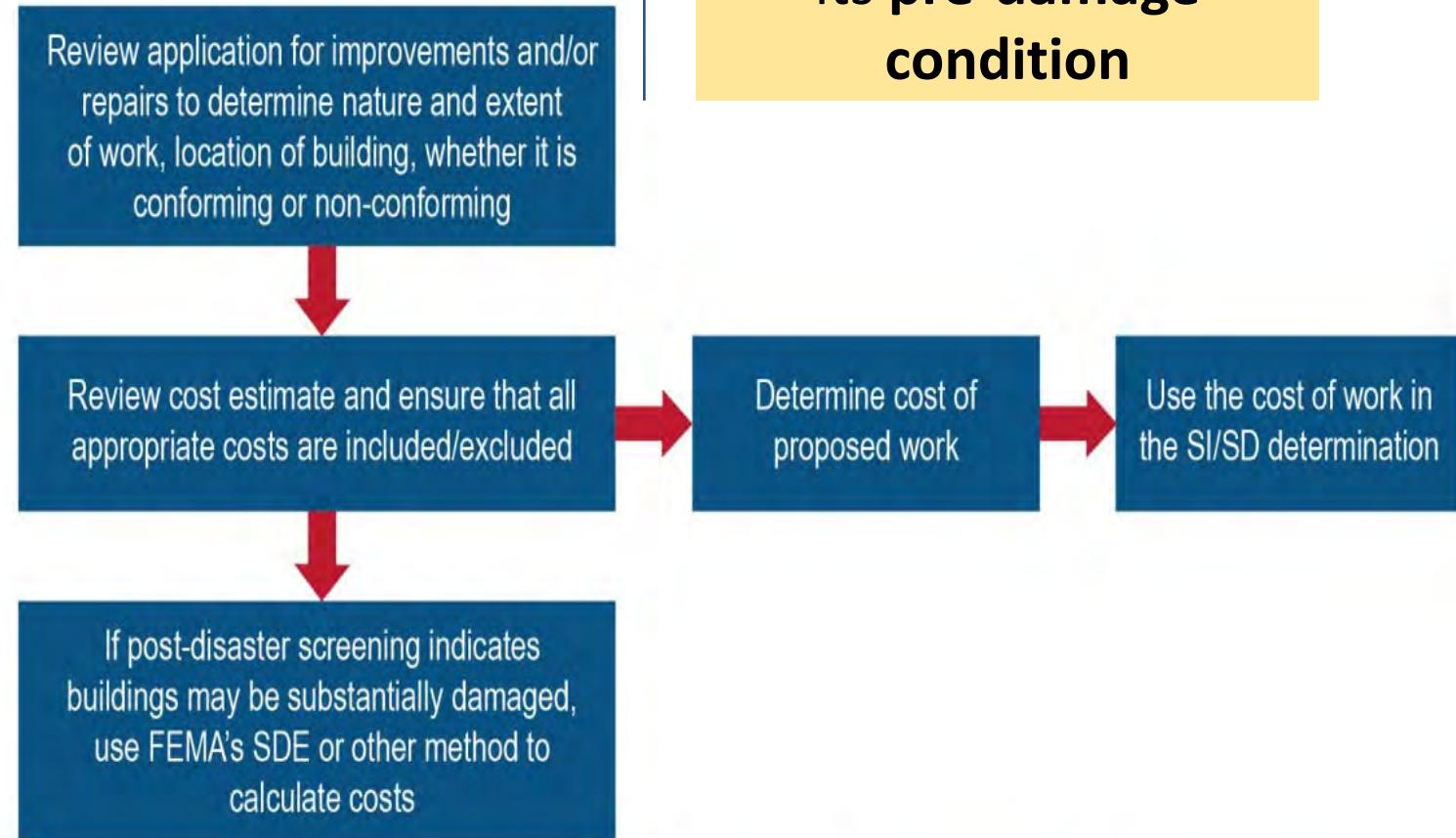


Figure 2. Determining the cost of the work (from FEMA P-758, Figure 4-2)



Finalizing Substantial Damage Determinations

- Made by local FPM official
- Do **NOT** use adjuster's estimates
- Permit applicants can appeal your determination—make sure your ordinance and procedures are clear!
- **KEEP YOUR RECORDS!**
- SDE tool can be used for determinations, focuses mainly on floods
 - SDE Field Workbook can be used separately
- Do not allow inspectors to **speculate** in the field

FEMA & the State
recommend

Communities Distribute Guidance

to Citizens, Property
Owners,
Contractors, and
Design Professionals
on:



Having damaged structures
inspected before repairs start



Activities that require a permit



Activities that do not require a permit



The floodplain management
requirements for SD buildings



Hiring **licensed contractors** & cautions
about fraudulent and unlicensed entities



Ways to mitigate moving forward

Communicating SDE's with your Citizens

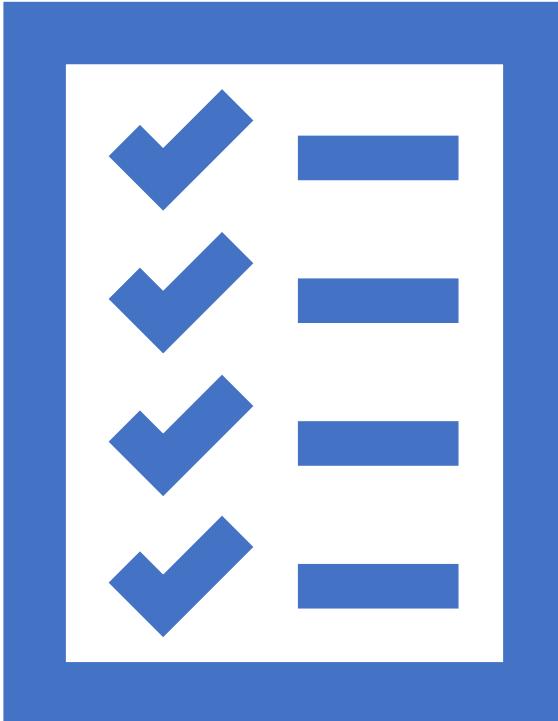


Developing letters and
guidance



What materials are
already available to you?

Accuracy & Verification



- Local officials are responsible for verifying that the data are **complete and reasonable**
- The local official is responsible for **reviewing the validity** of all cost estimates provided- no matter who provides it
- Make **inspections**
- **Documentation** is key

COST ESTIMATE OF RECONSTRUCTION / IMPROVEMENT

Application Number: _____ Date: _____

Address:

This cost estimate of reconstruction/improvement must be prepared by and signed by the contractor or by the owner if the owner acts as the contractor. Owners who act as their own contractors must estimate their labor cost at the current market value for any work they intend to perform.

	Sub-Contractor Bids Bid Amounts (see note "D")	Contractor or Owner Estimates	
		Material Costs	Labor Costs
1. Masonry			
2. Carpentry Material (rough)			
3. Carpentry Labor (rough)			
4. Roofing			
5. Insulation and Weatherstrip			
6. Exterior Finish (Stucco)			
7. Doors, Windows & Shutters			
8. Lumber Finish			
9. Hardware			
10. Drywall			
11. Cabinets (Built-in)			
12. Floor Covering			
13. Plumbing			
14. Shower / Tub / Toilet			
15. Electrical & Light Fixtures			
16. Concrete			
17. Built-in Appliances			
18. HVAC			
19. Paint			
20. Demolition & Removal			
21. Overhead & Profit			
Subtotals			
Total Estimate Cost (all three subtotals added together)			

- 1) A copy of the signed construction contract must accompany this estimate.
- 2) Subcontractor bids may be used for any item of material and/or labor cost breakdown.
- 3) If any amounts appear in the "Sub-contractor" column, a copy of each signed and dated bid must accompany this form.
- 4) Cost backup must be provided for every line item entry. If any amounts appear in the "Sub-contractor" column, a copy of each signed and dated bid must accompany this form. For all other costs, you must list the quantity of materials to be installed and their unit cost on a separate sheet that references the line number. For example, the backup document may contain a section called "Drywall to be installed (line 10)".

This Sheet (line 10) Separate Sheet

Materials: \$2,000.00 1,000 sq ft $\frac{1}{2}$ " Drywall @ \$2.00/sq ft = \$2,000.00

Labor: \$320.00 16 Man Hours to Hang Drywall @ \$20.00/MH = \$320.00

Cabinets - \$100. - 4 hrs

Insulation - \$400. - 8 hrs

Sheet Rock \$500. - 12 hrs

24

x 10.50

\$257.00

TOTAL \$1,252.

Underground Feed
+ 30% + 25%

Electrical - \$500. - 8 hrs

plumbing - \$200. - 2 hrs

see pipe

New TOTAL \$1,952.

$$\begin{array}{r} 150. \\ \hline 2,102. \end{array}$$



FEMA

Fact Sheet

Federal Insurance and Mitigation Administration

Temporary Occupancy of Substantially Damaged Structures after a Disaster

This fact sheet is designed to help Floodplain Administrators and Building Code Officials understand whether communities may allow displaced property owners to occupy potential or declared Substantially Damaged (SD) residential structures until the structure can be brought into compliance with local floodplain management ordinances or building codes.

Occupancy Before a Substantial Damage (SD) Inspection

There is no National Flood Insurance Program (NFIP) requirement that SD determination inspections must be performed prior to a property owner moving back into their damaged home. If a community has determined that a structure is safe to occupy, the NFIP has no restrictions on the issuance of temporary occupancy certificates for homeowners after a catastrophic event. Property owners are encouraged to contact their community. Communities participating in the NFIP are responsible for making determinations as to whether the costs to improve or repair a damaged building have exceeded the 50 percent threshold of the building's market value.

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 50 percent of the market value of the structure before the damage occurred.

Note: Some communities enforce a more restrictive definition of substantial damage, such as 40 percent instead of 50 percent.

Temporary Occupancy After a Substantial Damage Determination

Following a disaster, there may not be sufficient alternative housing available and residents may want the option to live in their SD home in the Special Flood Hazard Area until the residence can be elevated. The NFIP does not prohibit communities from issuing temporary occupancy certificates for SD homes while homeowners are waiting to obtain the resources or the funding to complete repairs and reconstruct the structure according to the communities ordinances and codes. Communities should establish their own policies and procedures for issuing temporary occupancy certificates. However, any permits for minimal repairs (i.e., electrical, mechanical, plumbing and structural) granted for temporary occupancy must be included in the calculation for substantial damage determination. Therefore, a community may allow displaced residents to occupy their damaged homes on a temporary basis as long as the community has determined the structure is safe for habitation; only minimal repairs are made so the residence is safe to live in; and no other improvements are made until the structure meet the SD requirements of the local ordinance.

Below outlines a process when a community allows temporary occupancy of SD structures until the structure can be brought into compliance.

1. Determine whether the home is safe to live in. Before temporary occupancy, the community should assess the

- Property owners can move back into their damaged home prior to the SD inspection
 - Only if deemed safe to reoccupy
- Communities can issue temporary occupancy certificates for SD homes
- Still keep track of permits for all repairs and improvements!

The Permit

Consider:

- Sending permitting staff out with field teams assessing damage to write “handbill” permits
 - Entered into the system later
- Using a separate, distinct template for your permit, which includes warnings about scope changes
- Adding stamps to include
 - Flood Zone
 - Proposed and required elevations
 - Other warnings necessary

SPECIAL FLOOD HAZARD AREA

BUILDING PERMIT APPLICATION SUPPLEMENT

Building Permit Number:

Property Address: _____
Owner Name: _____
Agent Name: _____

FIRM Panel Number: _____ FIRM Panel Date: _____

Flood Zone Designation: _____
 In Floodway? Yes No
If yes, encroachment analysis required.
 In CAZ/seaward of LIMWA? Yes No
If yes, determine if regulated as Zone V.
 Seaward of CCCL? Yes No
If yes, more restrictive requirements prevail.
 In CoBRA or QPA? Yes No
If yes, Federal flood insurance is not available.
Base Flood Elevation: _____ feet _____ datum
How determined? FIRM FIS Water Surface Elevations
Unnumbered A Zone* (BFE = 2 ft above grade unless evidence indicates deeper)
Applicant Prepared Flood Study (attached)
FEMA Letter of Map Change (attached)
Additional Community Flood Hazard Data? Yes No

Community Higher Standards: (refer to local regulations and FBC amendments)

Freeboard? Yes _____ feet
Enclosure? Yes _____ (describe)
CAZ? Yes _____ (describe)
Other? Yes _____ (describe)

New Building Use and Occupancy: _____ Risk Category: _____ (see ASCE 24)

Existing Building. Use Substantial Improvement / Substantial Damage Worksheet

DESIGN FLOOD ELEVATION:[*] _____ FEET ____ DATUM**	Proposed lowest floor elevation (A, AE, AH Zones): _____ feet above datum* FEMA Form 086-0-33 Elevation Certificate required upon placement of lowest floor (prior to further vertical construction) and at final inspection. See FBC, B Sec. 107.3.5, Sec. 110.3 and Sec. 1612.5, and FBC, R322.1.10. Proposed lowest horizontal structural member (V, VE Zones, Coastal A. Zones): _____ feet above datum* Florida Zone V Design Certificate required with plans. FEMA Form 086-0-33 Elevation Certificate required upon placement of lowest floor (prior to further vertical construction) and at final inspection. See FBC, B Sec. 107.3.5, Sec. 110.3 and Sec. 1612.5, and FBC, R322.3.6. Proposed dry floodproofed elevation: _____ feet above datum* FEMA Form 086-0-34 Floodproofing Certificate required with plans. See. FBC, B Sec. 107.3.5 and Sec. 1612.5.
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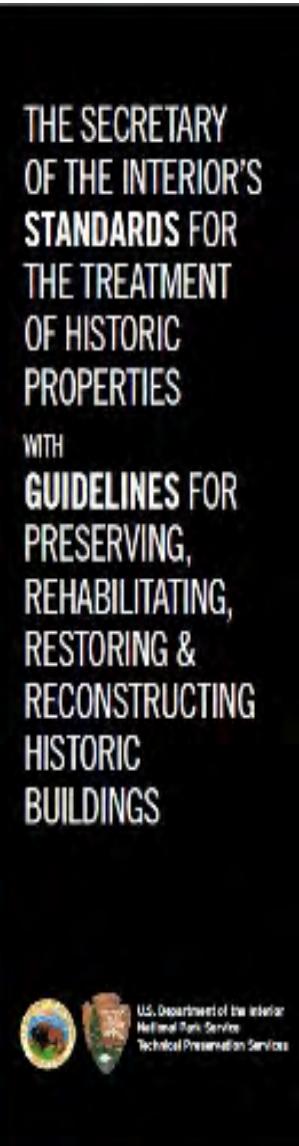
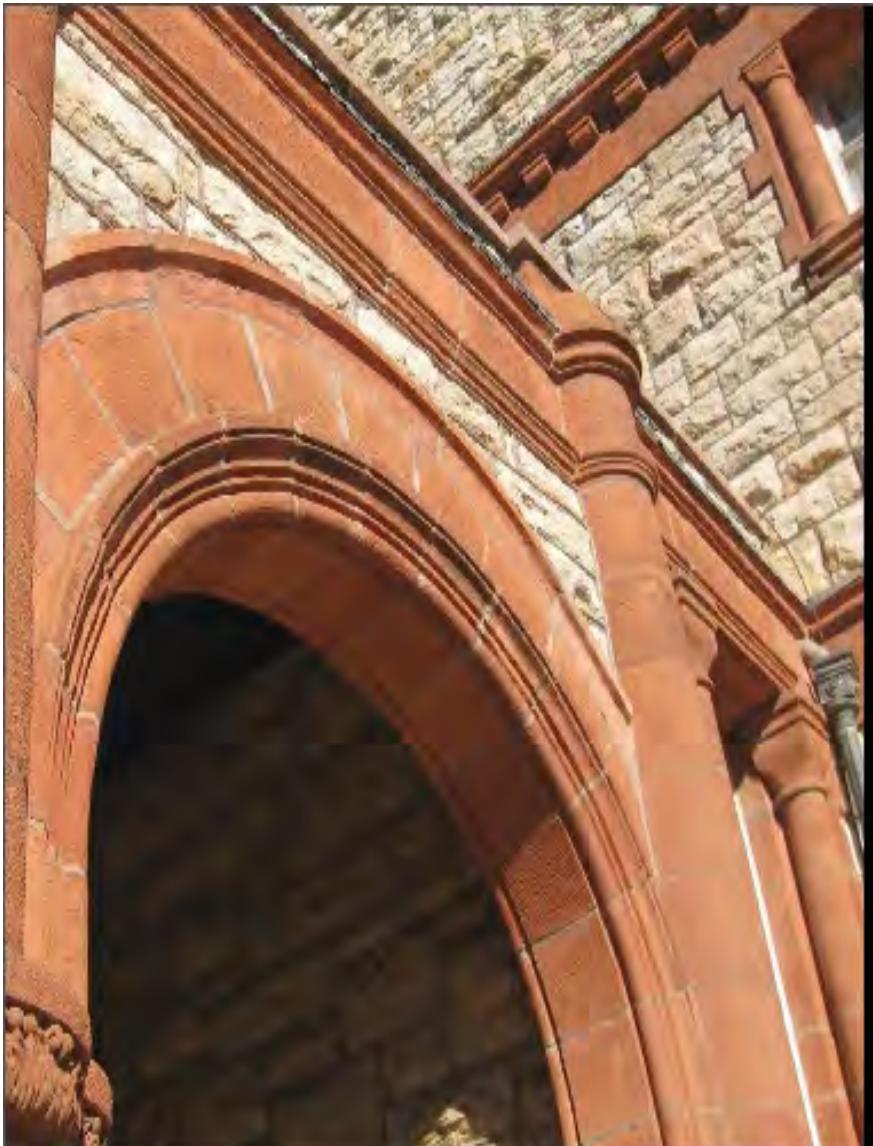
Agreement by Property Owner or by Owner's Agent:

I agree to correct any construction deficiencies identified by inspection that are determined to be necessary to assure compliance with the applicable building permit, including elevation of the lowest floor, elevation of machinery and equipment servicing the building, and provisions applicable to any enclosures below the elevated building, including crawl/underfloor spaces. I agree to have the NFIP Elevation Certificate (FEMA Form 086-0-33) completed and signed by a Florida licensed professional surveyor and to submit it as required by the Florida Building Code. I agree to have any deficiencies in the Elevation Certificate corrected.

Date: _____ Signature: _____

Owner/Owner's Agent

Historic Structures & Permitting



What are historic structures? How are they determined?

“National Register Criteria for Evaluation” – Criterion A, B, C, D

Ordinance provisions (Exceptions VS. Variances)

Historic structure & SI definitions, variances/ variance criteria



DRRA 2018

Disaster Reform and Recovery Act

Multi-part act passed by Congress pertaining to a variety of disasters

Applies to every **Presidentially-declared** disaster post August 1, 2017

Sec. 1206(a): (5) provide assistance to State and local governments for [...] inspections for substantial damage compliance

FEMA Policy #204-079-01



Speaker/Contact Information

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Floodplain Manager

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