

## **SECTION 5: Eligible Mitigation Measures**

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### SECTION 5 Overview

Section 5 will examine the mitigation measures that are eligible for Increased Cost of Compliance (ICC) coverage. After reviewing mitigation planning and selection, the section will conclude with ICC-specific criteria related to each option.

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## Section 5: Eligible Mitigation Measures

### ICC & Mitigation Planning

This part of the text discusses the role of the ICC program in community mitigation planning and specifies the ICC-related criteria when implementing eligible mitigation options.

#### The Value of Planning

Pre-flood mitigation planning prepares the way for community actions taken during post-flood recovery and long-term reconstruction. Planning is one of the most significant factors in achieving long-term flood hazard reduction. Communities and States that have current mitigation plans have set mitigation priorities and are poised to use available mitigation funds most efficiently.

States and communities should consider what other kinds of financial, technical, and personnel resources they may need to undertake post-disaster activities.

### ICC & Community Plans

Communities should consider ICC when planning for floodplain management and post-disaster activities. Ideally, a community will have a comprehensive floodplain management plan that addresses all of the community's flood-related problems.

Even communities without extensive planning capabilities can implement one or two specific activities to reduce the flood risk. ICC can be a potential resource whether a community is implementing a specific, targeted activity or a more comprehensive effort.

Communities that include acquisition or relocation of flood-damaged buildings in their plans may want to consider combining ICC coverage with other mitigation programs. FEMA has three programs—the Hazard Mitigation Grant Program (HMGP), the Flood Mitigation Assistance (FMA) program, and the Pre-Disaster Mitigation (PDM) program—that can use ICC claim payments toward the required local match.



**Tip:** The use of ICC funds in combination with the HMGP, the PDM program, and the FMA program is covered later in this section. Detailed program information is provided in Appendix E.

### ICC & Mitigation Outreach

All National Flood Insurance Program (NFIP) participating communities should educate citizens about flood hazards, the actions that can reduce or prevent flooding, and the community's overall planning efforts. Eligible property owners who purchase flood insurance will have the funds, through ICC coverage, to help meet substantial damage or repetitive loss ordinance requirements and support the community's plan. ICC coverage provides a significant opportunity to reduce future flood losses, including the incidence of:

- Loss of life.
- Structural and personal property damage.
- Costly outlays for flood fighting, response, and recovery.
- Taxpayer-funded disaster assistance costs.



A sample brochure, public service announcement, background sheet, flyer, and news release are included in Appendix C, Community Tool Kit.

### Choosing Mitigation Measures

For an eligible structure, ICC will pay the increased cost to elevate, floodproof (non-residential only), demolish, or relocate the building up to a maximum benefit of \$30,000 effective May 1, 2003.

#### Types of Mitigation Methods

- **Elevation:** Elevation is a common technique for protecting an existing building in the Special Flood Hazard Area (SFHA). Various techniques are used to raise the existing building to or above the base flood elevation (BFE).
- **Floodproofing:** Floodproofing is a combination of adjustments and/or additions of features to non-residential buildings that eliminate or reduce the potential for flood damage by keeping floodwaters out of the building. (**Note:** Under the NFIP Floodplain Management Regulations at 44 CFR 60.3, only non-residential buildings in A Zones can be floodproofed.)
- **Demolition:** There will be situations in which a building is so severely damaged that it cannot be elevated, floodproofed, or relocated. For these buildings, demolition may be the only feasible alternative. It may not be technically feasible or cost effective to elevate or relocate some types of buildings, such as certain slab-on-grade buildings or masonry-type buildings. In these cases, demolition may also be the only option.
- **Relocation:** Relocation is a mitigation measure that can offer the greatest protection from future flooding. It involves moving an entire building to another location on the same lot or to another lot, usually outside the floodplain.



**Tip:** More detailed information on each mitigation method is presented later in this section.

### Use a Collaboration Process

The local floodplain administrator and/or State should work closely with the property owner to discuss:

- Any floodplain management requirements or other factors that might impact the selection of a mitigation measure.
- Local and State mitigation priorities that should be considered in the selection of a mitigation solution. The goal is to encourage the property owner to select an option that is in the best interest of both the individual and community as a whole.

### Meet NFIP Minimum Standards

Regardless of the mitigation solution, an ICC claim will only be paid if the building meets the NFIP minimum requirements after reconstruction. This requirement is designed to reduce further losses and protect structures over the long-term.

An insured building that received a variance in the past from the State or community that allowed the building to be rebuilt at an elevation below the BFE now must meet minimum NFIP standards to receive ICC coverage.



**Tip:** For NFIP requirements in A and V Zones, see pages 4-16 and 4-17 in Section 4, The Community's Role.

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### Consider All the Factors

Selecting a mitigation measure should be an informed choice. The following factors should be considered when making the decision:

- **Laws and Ordinances:**
  - Community and/or State floodplain management laws or ordinances, including flood-related standards in building codes, may specify rebuilding procedures (e.g., the floodplain management ordinance may restrict flood-damaged buildings from being rebuilt in the floodway).
  - Other community and/or State land-use laws (e.g., zoning ordinances) and building codes may impact rebuilding.
- **Community Plans:** A comprehensive floodplain management plan or reconstruction plan for guiding post-disaster reconstruction may specify how or whether flood-damaged areas can be rebuilt.
- **Hazard Vulnerability and Other Site/Building Factors:** The selection of mitigation strategies can be impacted by:
  - Flood hazard and risk characteristics (e.g., depth of flooding, flood velocity, flash flooding, ice and debris flow, alluvial fans, etc.).
  - Other hazards at the site (e.g., erosion, subsidence, landslides, and seismically induced hazards such as ground motion, liquefaction, and fault rupture).
  - Other site characteristics (e.g., lot size, condition of the infrastructure, etc.).
  - Building condition (e.g., severity of damage, weight and height of building, and complexity of building's design or shape).
  - Accessibility for the disabled (e.g., reconstruction of public accommodations or commercial facilities must meet requirements of the American with Disabilities Act) and similar requirements.
- **Personal and Financial Considerations:** The property owner's personal and financial considerations often influence the mitigation strategy selected.
- **Resources:** Availability of other mitigation resources can influence which option is selected.

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### Get Mitigation Advice

Property owners eligible for receiving an ICC claim payment may want to contact a building professional, such as an architect, an engineer, or an appropriately licensed building contractor, to discuss various mitigation options. Together with the local building department, these professionals will identify any constraints associated with the ICC mitigation measures and help the owner to comply with all applicable laws, ordinances, and permitting requirements.

Additional information on selecting mitigation measures and the ICC program is available from the following sources:

- **The State:** The State may offer information or assistance concerning NFIP program requirements and the coordination of local and statewide mitigation planning.
- **FEMA Regional Office:** The FEMA Regional Office can assist with mitigation activities, including:
  - Floodplain management.
  - Mitigation project guidance.
  - Identification of mitigation funding.
  - Cost-benefit project analysis.
  - Environmental issues and requirements.

### Project Funding

ICC funds can be combined with other mitigation funding sources to fund more extensive efforts. Some mitigation solutions, such as elevating a home or floodproofing a business, are implemented by a single property owner. Other mitigation solutions are larger in scope, and involve other partners and funding sources.

### Funding Individual Mitigation Actions

In the case of an individual mitigation solution, the policyholder's ICC claim payment may or may not cover the full cost of the work that is required.

If the amount of the ICC claim payment is less than the cost of the hazard mitigation measure, the policyholder may combine the ICC payment with the following other sources of funds:

- Personal funds from Small Business Administration loans.
- Personal funds from NFIP direct damage payments.
- Federal disaster assistance funds.
- Any other source.

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### Other Funding Sources

Other mitigation solutions, such as acquisition and relocation projects, are community-sponsored through grant programs such as the HMGP, the PDM program, and the FMA program.

#### **Hazard Mitigation Grant Program**

FEMA's HMGP (authorized by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act) is available after a Presidential disaster declaration. Funds are provided through the State to local communities to purchase and demolish or physically relocate buildings to new sites outside the floodplain. HMGP funds may also be used for other mitigation measures, such as elevation or floodproofing.

#### **Pre-Disaster Mitigation Program**

FEMA's PDM program (authorized by Section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act) provides grants to States which, in turn, provide sub-grants to local governments for mitigation activities such as planning and the implementation of projects identified through the evaluation of natural hazards.

#### **Flood Mitigation Assistance Program**

FEMA's FMA program (authorized under the National Flood Insurance Reform Act of 1994) provides non-disaster funding to assist States and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings insured under the NFIP. FMA funding can be used to help fund mitigation activities such as acquisition, elevation, relocation, demolition, and floodproofing projects.

### ICC & FEMA-Funded Mitigation Projects

FEMA allows NFIP policyholders to assign their ICC claim benefits to the community when they are participating in a FEMA-funded mitigation program. The community official or floodplain administrator should coordinate closely with property owners participating in a mitigation project to determine if the property owner is eligible for an ICC claim payment. ICC is a direct contract between the policyholder and the insurer.

If the community plans to pursue a mitigation grant project, they need to coordinate closely with property owners who may be eligible for ICC benefits throughout the process. If the ICC claim payment does not cover the full cost of elevating, floodproofing (non-residential buildings), demolishing, or relocating the building, the ICC claim can be used to match a FEMA mitigation grant to cover the remaining costs. Mitigation grant funds may be used to pay that portion of the cost of elevation, floodproofing, demolition, or relocation above the \$30,000 (effective May 1, 2003) ICC coverage limit. FEMA will accept the work paid for by property owners using the ICC claim payment as a non-Federal match to the mitigation grant program. The community must provide mitigation grant funds to any property owner whose ICC payment will count towards the community match. The ICC claim can only be used for NFIP-approved costs; these can then be applied to the mitigation grant match. For example, the ICC benefits cannot pay for property acquisition, but can pay for demolition or structure relocation.

When ICC claims are used to help fund FEMA-funded mitigation projects, the following procedures apply:

- **Voluntary Participation:** Individual participation in an HMGP, PDM, or FMA project is voluntary. If an NFIP policyholder chooses to be a part of an acquisition and/or relocation project sponsored by the community, ICC payments may be used in funding the mitigation measure.
- **Assignment of Benefits:** Individual policyholders may assign their benefits to the community and enable the community to file a single claim on behalf of the full mitigation project.
- **Matching Funds:** The community may use the ICC claim payments as matching funds when applying for HMGP, PDM, or FMA. The community must then provide HMGP, PDM, or FMA grant funds to any property owner whose ICC payment will count towards the community match. FEMA will count the work paid for by property owners using the ICC claim payment as a non-Federal cash match to the HMGP, PDM, or FMA program.

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| <b>Considerations When Using ICC in FEMA-Funded Projects</b> | <p>Several issues and points of coordination should be considered and addressed in order to take advantage of ICC as a financial resource in a larger mitigation project.</p>  |
|  | <ul style="list-style-type: none"><li><b>Acquiring Funding for Buildings Not Covered:</b> A proposed project area may include both flood-insured and non-flood-insured substantially damaged buildings. Only buildings insured under a Standard Flood Insurance Policy (SFIP) have ICC coverage. The community should consider how the combination of financial resources could be applied to these two types of buildings in cases where insured and non-insured buildings are part of the same acquisition/relocation project. There may also be buildings in a proposed acquisition/relocation project area that are not substantially damaged. Buildings are not eligible for an ICC claim payment unless the community designates them as substantially damaged or repetitively damaged. Communities will need to seek other funding resources if they wish to acquire these properties that are not covered by ICC.</li><li><b>Planning the Timing of Funding:</b> Community-based mitigation projects are lengthy. Claim payments for direct physical damages under an SFIP, as well as ICC claim payments, may precede the community's application for programs such as HMGP, PDM, and FMA. If the community proposes acquisition, individuals should be advised not to begin other mitigation projects prematurely.</li><li><b>Preventing New Building:</b> Communities will need to consider a strategy to ensure that flood-damaged buildings are not rebuilt in an area proposed for an acquisition or relocation project. Some communities have successfully established building moratoriums or have established a policy of not issuing permits for flood-damaged buildings.</li><li><b>Funding Land Acquisition:</b> ICC coverage is only available on buildings and does not cover the land or the lot on which a building is located. Communities considering the removal of flood-damaged buildings from the floodplain should consider how HMGP or other funds could be used to acquire this land.</li></ul> |
| <b>When ICC Does Not Cover Total Cost</b>                    | <p>Property owners are not able to apply for mitigation grant funds directly; a community must sponsor an application on their behalf. The mitigation grant funds may be used to pay that portion of the cost of demolition, elevation, relocation, or floodproofing (non-residential only) above the \$30,000 (effective May 1, 2003) ICC coverage limit. FEMA will accept the work paid for by property owners using the ICC claim payment as a non-Federal cash match to the grant program. The community must include in the mitigation grant project any property owner whose ICC payment will count towards the non-Federal match.</p>   |
| <b>Assignment of ICC Claims</b>                              | <p>When a policyholder is eligible for an ICC claim payment and decides to participate in a mitigation grant project, the policyholder and community officials should discuss how the ICC payment will be included in the mitigation project so that it may count towards the non-Federal match. If the community and policyholder agree, the policyholder may assign the eligible portion of the claim amount to the community. By doing so, the community becomes responsible for completing and submitting the necessary ICC claim documentation to the insurer. The ICC claim is paid directly to the community and should be used towards the non-Federal match for the project. The assignment of ICC claims requires close coordination with the NFIP Bureau and Statistical Agent and the insurance companies. If a community would like to pursue claim assignments, community officials should coordinate with their NFIP State Coordinating Office and FEMA Regional Office for more specific guidance.</p>   |

### Claims Assignment Process

It is important to understand that assignment by the policyholder to the community is completely voluntary. It is possible for a community to benefit from the ICC funds as a non-Federal match even if the ICC claim benefits are not assigned to the community. In general, there are several ways that the ICC payment can be coordinated with a community's mitigation project:

- The policyholder can assign the eligible portion of the ICC claim to the community. By doing so, the community becomes responsible for completing and submitting the necessary ICC claim documentation to the insurer. The ICC claim is paid directly to the community and is counted towards the non-Federal match for the project. Communities should note that they cannot receive one lump payment for multiple policyholders with ICC claims. Flood insurance claims are paid independently by the company that writes the policy. Each property owner may have a flood insurance policy written by a different "Write Your Own" company. Therefore, each company may adjust and pay each claim separately.
- The policyholder can handle the ICC claim himself or herself and coordinate with the community to have the part of the project covered by ICC included in the mitigation grant project. The policyholder contributes the ICC money as part of the non-Federal match.
- The policyholder may plan to participate in a mitigation project but may not think it is necessary to pursue his or her ICC claim. When making the substantial damage determination for the property, the floodplain administrator should encourage the property owner to submit an ICC claim.

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### Elevation Projects

Elevation, a common technique for protecting an existing building in an SFHA, consists of raising the building to or above the BFE.

### Elevation Requirements

Under the NFIP, in A Zones buildings must be elevated so that the lowest floor is at or above the BFE (44 CFR 60.3(c)). An elevation certification is required. In A Zones elevations can be accomplished in three ways: elevation on fill; elevation on piles, posts, piers, or columns; and elevation on walls or crawl spaces. In V Zones buildings must be elevated on piles or columns so that the bottom of the lowest horizontal structural member supporting the lowest floor is at or above the BFE (44 CFR 60.3(e)) and must meet other floodplain management requirements.

Many States and communities have “freeboard” requirements. Freeboard is the additional elevation above the BFE that the building must be constructed to in order to comply with State or community laws or ordinances. A claim payment under ICC will help cover (up to \$30,000 effective May 1, 2003) the cost of elevating the building to:

- The BFE; or
- The community's flood protection level, if it enforces a “freeboard” requirement.

### Elevation Process

The steps involved in elevating most buildings are essentially the same:

1. A cradle of steel beams is inserted under (or through) the structure.
2. Jacks are used to raise both the beams and the structure to the desired height.
3. A new, elevated foundation for the building is constructed and utility systems are extended and modified.
4. Finally, the structure is lowered back onto the new foundation and reconnected.

While the same basic elevation techniques are used in almost all situations, the final siting and appearance of the building will vary depending on the final elevation and the type of foundation used.

The actual elevation process is only part of the whole operation in terms of planning, time, and expense. The most critical step involves the preparation of the building for elevation and the construction of a new, adequately elevated foundation. The elevation process becomes even more complicated when the building has added weight or height, or a complex design or shape. Brick or stucco veneers may have to be removed prior to elevation. Building additions may need to be elevated independently from the main structure. Because of the complexity of elevating a building, professionals should be used who have experience in structure elevation.



**Tip:** There may be other elevation techniques that meet the requirements of the NFIP and will be covered by ICC. Communities may contact their NFIP State Coordinating Office or FEMA Regional Office for assistance. Contact information is provided in Appendix F.



**References:** See *Homeowners Guide to Retrofitting – Six Ways To Protect Your House From Flooding*, FEMA 312.

For A Zones, see Technical Bulletin 1-93, “Openings in Foundation Walls,” and Technical Bulletin 10-0, “Ensuring That Structures Built on Fill In or Near SFHAs Are Reasonably Safe From Flooding.”

For V Zones, see Technical Bulletin 5-93, “Free-of-Obstruction Requirements.”

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### Floodproofing Projects

Floodproofing is a combination of adjustments and/or additions of features to buildings that eliminate or reduce the potential for flood damage by keeping floodwater out of the building.

### Types of Buildings Allowed

Under the NFIP Floodplain Management Regulations at 44 CFR 60.3:

- Only non-residential buildings in A Zones can be floodproofed.
- Non-residential structures in V Zones must be elevated on pilings or columns.

### Floodproofing of Residential Basements

ICC claims can be used to floodproof a residential basement only if the building is located in a community that has obtained an exception to the NFIP's standard disallowance of floodproofed residential basements.

Under the NFIP Floodplain Management Regulations at 44 CFR 60.6(b) or (c), communities that have been approved for residential basement exceptions by FEMA may adopt standards for floodproofed residential basements.

### Floodproofing of Non-Residential Buildings

Floodproofed non-residential buildings must be designed so that the building, together with attendant utility and sanitary facilities, is watertight below the BFE. The walls must be:

- Substantially impermeable to water.
- Designed with structural components that resist hydrostatic and hydrodynamic loads and the effects of buoyancy.

A floodproofing certification is required for all non-residential buildings to be floodproofed and is to be completed by a design professional.

### Floodproofing Techniques

Floodproofing adjustments and additions include:

- Installation of watertight shields for doors and windows.
- Reinforcement of walls to withstand floodwater pressures and impact forces generated by floating debris.
- Use of membranes and other sealants to reduce seepage of floodwater through walls and wall penetrations.
- Installation of drainage collection systems and sump pumps to control interior water levels, collect seepage, and reduce hydrostatic pressures on the slab and walls.
- Installation of check valves to prevent the entrance of floodwater or sewage flows through utilities.
- Anchoring the building to resist flotation, collapse, and lateral movement.

#### Technical Note on Floodproofing

Buildings that are dry-floodproofed may be subject to hydrostatic pressures and other forces against the foundation and other exterior walls and surfaces. Hydrostatic and soil pressures increase with depth of flooding. For that reason, foundation walls have severe limitations with regard to the use of dry-floodproofing measures. One critical design consideration is a comparison of the ability of the existing foundation walls to withstand the expected flood-related and non-flood-related forces with and without additional strengthening measures.

### Floodproofing Must Be Professionally Designed

A registered professional engineer or architect must develop and/or review the structural design, specifications, and plans for the construction of a floodproofed non-residential building. The professional must certify that the design and methods of construction are in accordance with the accepted standards of practice for meeting the applicable provisions for floodproofed non-residential buildings in accordance with the NFIP at 44 CFR 60.3(c)(3).



**Reference:** See Technical Bulletin 3-93, "Non-Residential Floodproofing – Requirements and Certification."

### Record Keeping

The community must maintain a record of professional certifications that includes the specific elevation (in relation to mean sea level) to which a non-residential building is floodproofed.

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| <b>Height of Floodproofing Protection</b> | A claim payment under ICC will cover the cost of floodproofing the building to 1 foot above the BFE or to the community's flood protection level if the community enforces a "freeboard" requirement. |
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**Tip:** A common way in which a community may exceed the minimum NFIP requirements is to enforce a "freeboard" requirement. **This requires new or substantially improved buildings to be elevated or floodproofed to 1 or more feet above the BFE.** This more restrictive requirement provides an extra measure of flood protection above the design flood elevation to account for waves, debris impacts, hydraulic surge, or insufficient data.

While non-elevated buildings need only be protected to the BFE for floodplain management purposes, the building should be floodproofed to 1 foot above the BFE in order to receive a flood insurance rate equivalent to a building with its lowest floor elevated to the BFE.

Therefore, to receive an insurance rate based on 100-year flood protection, the building must be floodproofed to an elevation at least 1 foot above the BFE. Insurance premiums will be lower if floodproofing exceeds this requirement.

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### Ineligible Measures

Measures such as floodwalls independent from the building, berms, and levees around buildings are not allowable floodproofing measures under the NFIP. An ICC claim will not be paid on a building that has been floodproofed using measures that do not comply with the NFIP definition.

#### NFIP Requirement (44 CFR 60.3(c)(3))

Under the NFIP floodplain management requirements, a floodproofed non-residential building must be watertight, with walls substantially impermeable to the passage of water.

### Demolition Projects

There will be situations in which a building is so severely damaged that it cannot be elevated, floodproofed, or relocated, or the building is in such poor condition and not worth the additional investment required to elevate, floodproof, or relocate. It is not technically feasible or cost effective to elevate or relocate some types of buildings, such as certain slab-on-grade buildings or masonry-type buildings. In these cases, demolition may be the only option.

### Demolition Process

All applicable permits must be obtained to demolish the building. After the building is removed from the site, steps should be taken to:

- Clear the site of any remaining materials, such as the foundation.
- Remove any utility systems.
- Grade and stabilize the site in accordance with any State or local regulations.

A site on which a building has been demolished using an ICC claim payment may be redeveloped, subject to all applicable Federal, State, and community laws and requirements.

### Relocation Projects

As a mitigation measure, relocation can offer the greatest protection from future flooding. Relocation involves moving an entire building to another location on the same lot or to another lot, usually outside the floodplain.

A site from which a building has been relocated using an ICC claim payment may be redeveloped, subject to all applicable Federal, State, and community laws and requirements.

### Steps Required To Relocate a Building

The steps required to relocate most buildings include the following:

- Obtain all applicable permits needed to relocate the building.
- Prepare the new site (e.g., provide utilities, construct foundation, etc.).
- Prepare the existing site (e.g., clear vegetation, prepare path to insert beams for lifting supports, etc.).
- Prepare the moving route (e.g., obtain approvals, raise or relocate utilities, etc.).
- Prepare the existing building (e.g., disconnect utilities; install beams, jacks, and bracing; separate building from foundation, etc.).
- Move the building on a trailer.
- Lower the structure onto the foundation at the new site and attach utilities. Landscape the new site.
- Restore the old site (e.g., demolish and remove foundation and pavement, disconnect and remove utilities, grade and stabilize site).

The relocation process is complex and can be further complicated when the building has added weight or height, or a complex design or shape. It is important to use only professionals who have experience in relocating a building.

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### Allowable Relocation Sites

An ICC claim payment can be used toward the relocation of a building to:

- Another location on the same site where the risk of flooding is less;
- Another site in the SFHA where the risk of flooding is less; or
- A site outside of the SFHA.

The purpose of ICC coverage is to significantly reduce the potential for future flood damages to buildings. Therefore, the community should give careful consideration to allowing the building to be relocated to a site in the SFHA. New structures within the SFHA must comply with minimum NFIP requirements.

### Site Selection

The property owner typically chooses the new site, often in consultation with the community and the property owner's architect, engineer, or other building professional. Critical site selection factors include:

- Accessibility.
- Utility service and condition of infrastructure.
- Cost.
- Property owner preference.
- Esthetic considerations.
- Engineering concerns.
- Local regulatory requirements (e.g., if the new site is in the floodplain).

### Relocated Structure Must Be NFIP Compliant

Relocation can eliminate or greatly reduce the risk of flooding, and it can also eliminate the need to purchase flood insurance if the building is relocated to outside the SFHA. However, if the building is relocated either on the same lot or to a different lot and the new location of the building is in an SFHA, the building must meet all of the elevation or floodproofing (if non-residential) requirements of the NFIP.

### Frequently Asked Questions

#### Elevation Projects: Other NFIP Requirements

This topic presents answers to frequently asked questions related to eligible mitigation measures and ICC coverage.

##### **What other NFIP requirements apply for buildings that are to be elevated?**

Under the NFIP, all new and substantially improved buildings (including manufactured homes) must be adequately anchored, constructed with flood resistant materials, constructed with mechanical and electrical and other service utilities that are designed or located so as to prevent flood damage, and constructed using methods and practices that minimize flood damage [44 CFR 60.3(a)].

In A Zones, fully enclosed areas below the lowest floor that are usable solely for parking, access, or storage must have openings in accordance with the requirements at 44 CFR 60.3(c)(5).

There are additional requirements in V Zones. Buildings in V Zones must be:

- Elevated on piles and columns so that the bottom of the lowest horizontal structural member of the lowest floor is elevated to or above the BFE. No fill can be used for structural support.
- Adequately anchored to resist the effects of wind and water acting simultaneously on building components [44 CFR 60.3(e)(4)].
- Certified by a registered engineer or architect that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions in 44 CFR 60.3(e)(4)(i) and (ii).
- Have the space below the lowest floor be either free of obstruction or constructed with non-supporting breakaway walls, open wood latticework, or insect screening in accordance with the standards in 44 CFR 60.3(e)(5).

There is also a prohibition on fill for structural support and a prohibition on altering sand dunes and mangrove stands [44 CFR 60.3(e)(6) and (7)].

#### Relocation in the SFHA

##### **If relocation is the chosen mitigation measure, must the building be relocated to a site outside the Special Flood Hazard Area?**

A building may be relocated to another location on the same site or to another site in the SFHA. However, the purpose of ICC coverage and the mitigation measures provided for under this coverage is to significantly reduce the potential for future flood damages to buildings. Therefore, the community should be careful when deciding whether to allow a building to be relocated to a site within the SFHA. Buildings should only be relocated to sites in the floodplain if sites outside the floodplain are not available or if the site in the floodplain has less flood risk than the old site.

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| <b>ICC Cost Coverage</b>       | <b>Will an ICC claim be paid when a building is demolished or relocated and the property owner chooses to build a replacement building at the same or another site in the Special Flood Hazard Area?</b>  |
|                                | <p>In this situation, the ICC coverage allows for a claim payment for the cost of demolition or relocation, as well as the incremental costs to elevate or floodproof the replacement building at the same or another location in an SFHA. The elevation or floodproofing must comply with State or community floodplain management laws or ordinances.</p>   |
|                                | <p>ICC will also cover the cost to clear the site of the building. Eligible activities for the cost of clearing the site will include those necessary to discontinue utility service to the site and ensure proper abandonment of on-site utilities.</p> <p>The ICC claim payment is limited to the combined costs of demolition or relocation and the costs associated with the elevation or floodproofing of the building at the same or another site in the SFHA, not to exceed \$30,000 effective May 1, 2003).</p>   |
| <b>Floodproofing Basements</b> | <b>Can ICC claim payments be used to floodproof residential buildings in those communities that are permitted by FEMA to adopt standards for residential floodproofed basements?</b>  |
|                                | <p>Under 44 CFR 60.6(b) or (c) of the NFIP Floodplain Management Regulations, communities that have been approved for residential basement exceptions by FEMA may adopt standards for floodproofed residential basements. An ICC payment can be used to floodproof a residential basement only if the building is located in one of these communities approved for residential basement exceptions by FEMA. Under the NFIP Floodplain Management Regulations, the floodproofed design level must be an elevation of 1 or 2 feet above the BFE. However, it may not be technically or economically feasible to retrofit an existing basement so that it meets the requirements of the community's floodplain management ordinance.</p> |