Permit considerations for Substantial Improvements
When is a local floodplain permit required?

“Require permits for all proposed construction and other development including placement of manufactured homes....” - 44 CFR 60.3(b)(1)

Read your ordinance
You are the expert!
What is “development”? 

“Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials” - 44 CFR 59.1
What is the local role in floodplain management?

Designate an agency that is charged with the responsibility to administer floodplain management requirements

Determine whether proposed development activities are located in SFHAs

Review development proposals to ensure compliance with the requirements of applicable floodplain management regulations and building codes

Require that new subdivisions and development proposals with more than 50 lots or larger than five acres include BFEs

Issue or deny permits for floodplain development

Inspect all development in SFHAs to ensure compliance

Maintain records of issued permits, elevation data, inspections, and enforcement actions

Assist in the preparation and revision of floodplain maps

Help residents obtain information on flood hazards, floodplain map data, and compliant construction measures

Determine whether proposed improvements are “substantial improvements;” substantial improvement of buildings triggers requirements for permits and compliance.

Determine whether work necessary to restore a damaged building to its pre-damage condition constitutes repair of “substantial damage;” repair of substantially damage buildings triggers requirements for permits and compliance.
What is Substantial Improvement and Substantial Damage?

- Communities that participate in the National Flood Insurance Program (NFIP) are required to determine whether damage, of any origin, to structures within a mapped Special Flood Hazard Area (SFHA) meets the criteria for Substantial Damage.

- Substantial Damage is defined in the NFIP regulations as “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.”

**Improvement or Repair Cost**

\[
\frac{\text{Improvement or Repair Cost}}{\text{Building Value}} \geq 50\%
\]
Making the call is simple

…..notice I did not say easy!

• Determine costs
• Determine market value
• Make SI/SD determination
• Require permits
• Ensure compliance
Determine Cost of Work (Section 4.4) Determine Market Value (Section 4.5)

Divide: Cost of Work Market Value

Is result ≥50%? YES Issue SI/SD determination letter (Section 5.6.15)

NO Require compliance (Chapter 6)

Is building post-FIRM? (Section 6.2.1) YES Ensure work is compliant and does not cause any aspect originally required for compliance to become non-compliant (Section 6.4.7)

NO Encourage flood resistance for pre-FIRM buildings (Section 5.8)
Determining Costs

- Review estimates of improvement or repairs
  - Itemized cost estimates
  - Building valuation tables
  - “Qualified Estimates” prepared by local official
  - Homeowner estimates?
- Included vs excluded costs
- Historic designations
- Do not use insurance claims
Included Costs
See FEMA P-758 for more

- Material & labor
- Donated or discounted materials
- Site preparation (foundation excavation, etc)
- Demolition, debris, disposal
- Costs associated with complying with other regulations or codes triggered by the work
- Costs associated with elevating to BFE
- Construction management & supervision
- Contractor’s overhead and profit
- Sales tax on materials
- Structural elements and exterior finishes
- Interior finish elements
- Utility and service equipment
Excluded Costs
See FEMA P-758 for more

- Clean-up and trash removal
- Costs to temporarily stabilize a building
- Costs to obtain or prepare plans and specs
- Land surveying costs
- Permit & inspection fees
- Carpeting installed over finished flooring
- Outside improvements – landscaping, irrigation, sidewalks, driveways, fences, decks, pools, detached accessory structures
- Costs required for the minimum necessary to correct violations of health, safety, and sanitary
- Plug-in appliances – washing machines, dryers, stoves
Market value – the amount an owner would be willing but not obliged to accept and the buyer would be willing but not compelled to pay

- Always based on the condition prior to improvement or damage
- Only the structure is pertinent
  - Land, site improvements, value of use, location should not be included
- Appraisal – qualified professional, licensed
- Assessed Value
- Estimate of Actual Cash Value – depreciation
- “Qualified Estimates” – local official
Time to Make the Call

Improvement or Repair Cost

Building Value

>50%
Figure 6-1. Rehabilitation or remodel (no increase in footprint) of residential building in an A zone – the proposed work was determined to be a substantial improvement. The building is brought into compliance by elevating it on an extended perimeter foundation wall, installing flood openings, and raising the HVAC equipment onto a platform.

Notes: Open foundations (pilings/columns) are required under buildings in V zones. Foundation types other than perimeter walls are allowed in A zones.
Figure 6-3. Lateral addition to a pre-FIRM building in an A zone – the proposed work is only the addition (no work was performed on the original building and no structural modification was made to the common wall or roof). The addition constitutes a substantial improvement and it complies with all NFIP requirements.
Figure 6-4. Lateral addition to a pre-FIRM building in an A zone – the proposed work includes an addition and work on the original building, including structural modification of the common wall or roof. The proposed work was determined to be a substantial improvement. The addition complies with all requirements and the building is brought into compliance by elevating it on a compliant foundation.
Figure 6-6. Lateral addition to a pre-FIRM manufactured home in an A zone – the proposed work includes improvements to the existing home. The work constitutes substantial improvement. The addition and the home are elevated to or above the BFE.
Figure 6-12. Vertical addition to a pre-FIRM, non-residential building in an A zone. The work constitutes a substantial improvement. The building is brought into compliance by retrofit dry-floodproofing measures (certification of design by registered design professional is required). Non-residential buildings can also be brought into compliance by elevation (not shown).
Examples
FEMA P-758 Chapter 6

<table>
<thead>
<tr>
<th>Types of Work</th>
<th>Building is Pre-FIRM</th>
<th>Building is Post-FIRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rehabilitation (renovate or remodel), not SI</td>
<td>Compliance not required</td>
<td>Work shall comply and shall not be allowed to make the building non-compliant with any aspect of the building that was required for compliance</td>
</tr>
<tr>
<td>Rehabilitation (renovate or remodel), SI</td>
<td>Building required to comply</td>
<td>Work shall comply and shall not be allowed to make the building non-compliant with any aspect of the building that was required for compliance (see Note below table)</td>
</tr>
<tr>
<td>Lateral addition and Rehabilitation, SI</td>
<td>Addition required to comply; building required to comply</td>
<td>Addition required to comply; building required to comply (see Note below table)</td>
</tr>
<tr>
<td>Lateral addition, not SI</td>
<td>Addition not required to comply</td>
<td>Addition required to be elevated to at least the elevation of the existing lowest floor</td>
</tr>
<tr>
<td>Lateral addition, SI, not structurally connected</td>
<td>Addition required to comply; building not required to comply</td>
<td>Addition required to comply</td>
</tr>
<tr>
<td>Lateral addition, SI, structurally connected</td>
<td>Addition required to comply; building required to comply</td>
<td>Addition required to comply; building required to comply (see Note below table)</td>
</tr>
<tr>
<td>Vertical addition above building, not SI</td>
<td>Compliance not required</td>
<td>Work shall comply and shall not be allowed to make the building non-compliant with any aspect of the building that was required for compliance</td>
</tr>
<tr>
<td>Vertical addition above building, SI</td>
<td>Building required to comply</td>
<td>Work shall comply and shall not be allowed to make the building non-compliant with any aspect of the building that was required for compliance (see Note below table)</td>
</tr>
<tr>
<td>Repair foundation, not SI</td>
<td>Compliance not required</td>
<td>Repairs shall comply and shall not be allowed to make the building non-compliant with any aspect of the building that was required for compliance</td>
</tr>
<tr>
<td>Repair foundation, SI</td>
<td>Building required to comply</td>
<td>Building required to comply (see Note below table)</td>
</tr>
<tr>
<td>Replace/extend foundation, SI (including &quot;elevate-in-place&quot;)</td>
<td>Building required to comply</td>
<td>Building required to comply (see Note below table)</td>
</tr>
<tr>
<td>Repair damage, SI</td>
<td>Building required to comply</td>
<td></td>
</tr>
</tbody>
</table>
Resources

- Sample letters
- Substantial Damage Estimator Tool
- New FEMA IS-0285 Course!!
- FEMA P-758
- FEMA 213
- FEMA P-312
Summary

• Develop a procedure
• Inform public
• Stay consistent
• Allow for appeals – but spell out process
• Conduct inspections
• Phased work
• Floodways
• Increased Cost of Compliance - $30,000
• Keep records!
• Ask for help